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Experiences of Women in Sierra Leone Relating to Accessing Breast Cancer Treatment

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Abstract

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MA, Strayer University, 2015

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Dissertation Submitted Final Study

of the Requirements for the Degree of

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Abstract

There has been a lack of consistent access to breast cancer care and treatment for women in developing countries, especially in Sierra Leone. Limited access to breast cancer care and treatment is a significant problem for women diagnosed in the later stages of the disease. The purpose of this research was to understand the experiences of women diagnosed with different stages of breast cancer, how they went about accessing breast cancer care and treatment, and how those experiences can be used to improve access to breast cancer treatment in Sierra Leone. Andersen and Newman's healthcare utilization model guided the study's conceptual framework. This conceptual framework was appropriate for the research because it explains how three factors of enabling, predisposing, and need are used to determine an individual's ability to utilize health care. A qualitative, descriptive phenomenological research design was used for this study to understand the experiences of women in Sierra Leone with predisposing, enabling, and need factors when accessing breast cancer treatment. Data were analyzed using content analysis with ATLAS. ti software to assist in organizing unstructured information. The key conclusions of this study are that receiving a diagnosis of breast cancer is difficult, there is a lack of access to breast cancer care and treatment, the cost of breast cancer care and treatment is high, and there is varied quality of care in Sierra Leone. A comprehensive plan to promote access to breast cancer care that is affordable and provides high-quality care could positively change these women's lives in Sierra Leone.

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Dedication

This dissertation is dedicated to my mother, Johnetta Howard Kuhl. Your strength and dedication to your children will always be my motivation. I can never imagine what you went through raising four children as a single mother in a country ravaged by civil war. I am still in disbelief at how you were able to accomplish this. I am also dedicating this to my children; thank you for allowing me to grow as a person while being her mother and for putting up with my chaotic lifestyle as a lifetime career student and working professional. To my older brother Mr. Abraham Kuhl, I say thank you for also being my guiding light, you had to step up and become a father to all your siblings at a very young age, and you have done so with strength and grace. And to my sister Ms. Malgalene Kuhl, all I can say is thank you because there are not enough words to express how valuable your support has been to me. Finally, I would like to thank the rest of my family for the straight and support you’ve provided throughout this journey. Thank you.

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Chapter 1: Introduction to the Study

A significant amount of research attention has been given to breast cancer worldwide; however, little attention has been paid to the first-hand experiences of women's access to treatment for breast cancer. In this study, I explored women's experiences of access to treatment for breast cancer in Sierra Leone. The potential social implications of the study results include improved access to breast cancer treatment for women in Sierra Leone (Aunan et al., 2019).

In this chapter, I introduce the research topic of access to treatment for breast cancer in Sierra Leone. The sections included in this chapter are (a) Background; (b) Problem Statement; (c) Purpose; (d) Research Question; (e) Conceptual Framework; (f) Nature of the Study; (g) Operational Definitions; (h) Assumptions; (i) Scope of Delimitations; (j) Limitations, Challenges, and Barriers; and (k) Significance. The chapter concludes with a summary of the main points of the research study.

Background

The need for a comprehensive plan to promote access to care for breast cancer treatment is of the utmost importance in developing countries; limited health resources and poor infrastructure could affect access to health care, like breast cancer treatment. (Silumbwe et al., 2018). Like most women in Africa, women from Sierra Leone have many issues affecting how they function daily, including inequality among genders, diminished social standing relating to education and employment, sexual violence, and female genital mutilation (Denney & Ibrahim, 2012). For these reasons, women in Sierra Leone often rely on health providers in nongovernmental organizations (NGOs) to access alternative health care (Denney & Ibrahim, 2012). Improving access to care in Sierra Leone is critical to ensure that women with breast cancer receive proper treatment.

Problem Statement

Women in Sierra Leone encounter a considerable disparity compared to women in Western countries regarding breast cancer treatment access (Mclnerney & Shepherd, 2006). Since the 1900s, there has been a comprehensive understanding of the difficulties encountered by women with breast cancer, but limited information exists on the experiences of women from Sierra Leone regarding access to treatment for breast cancer (Travers, 2016). A literature gap exists regarding women’s experiences in Sierra Leone with access to breast cancer treatment (Travers, 2016). This study was necessary to identify potential barriers to accessing breast cancer treatment based on women’s experiences in Sierra Leone. The study’s findings could help improve access to treatment for breast cancer in Sierra Leone.

Purpose

In this qualitative study, I explored women’s experiences accessing breast cancer treatment in Sierra Leone. Exploring participants’ experiences of access to breast cancer treatment through a phenomenological approach helps fill the literature gap. This study’s findings helped me understand breast cancer treatment access based on the participants’ experiences, allowing for further professional and academic improvement. Government officials could use the findings of this study to develop health care policies involving these issues.

Research Question

Based on their lived experiences, what are the predisposing, enabling, and need factors of women in Sierra Leone when accessing breast cancer treatment?

Conceptual Framework

Andersen and Newman’s (1973) health care utilization model guided the study’s conceptual framework. The main incentive behind the model’s development was to provide a way to measure access to health services. Although this model has been revised over the years, it remains one of the most widely used health care utilization models for health access research. The model provides an understanding of how different factors are related to why and how health care is utilized.

Andersen and Newman (1973) explained that the three factors of enabling predisposing and need factors are used to determine an individual’s ability to utilize health care. The acceptance of health care speaks to both actual and perceived individual health care needs relating to health services. For example, a person who accepts health services as a viable treatment for an illness is likely to seek treatment (Andersen & Newman, 1973). The conceptual framework is discussed in further detail in Chapter 2.

Nature of the Study

In this study, I used a qualitative research approach. Researchers adopt the qualitative approach when the goal is to understand individuals’ experiences and beliefs using non-numerical data to make sense of a complex phenomenon (Pathak et al., 2013). Because the study was exploratory in nature, the qualitative research approach was the appropriate methodology.

I used a phenomenological design. This design was useful to this study because phenomenology allows for observing a phenomenon based on participants' experiences rather than measuring cause and effect (Lambert & Lambert, 2012). Researchers use the phenomenological design to depict the characteristics, tendencies, connections, and relationships of a social problem using the lived experience of individuals (Lambert & Lambert, 2012). I collected data using a series of open-ended questions to draw out the participants' unique experiences with access to breast cancer treatment services in Sierra Leone.

Operational Definitions

In this section, I provide the exact meanings of fundamental ideas used in this study. Terms having different implications in different circumstances are clarified.

Access to care: Access to care is a person's ability to gain the appropriate resources relating to health care to maintain or improve their health. Access to care is measured by how health care is utilized, using physical accessibility, affordability, and service acceptance (Gulliford et al., 2002).

Breast cancer: Breast cancer is a disease characterized by malignant growth in the tissues of the breast. The most well-known type of breast cancer growth is ductal carcinoma, which starts in the coating of the milk pipes (i.e., dainty cylinders that convey milk from the lobules of the bosom to the areola; National Cancer Institute [NCI] n.d., 2020).

Diagnosis: Diagnosis identifies a disease or disorder based on the analysis of symptoms. Professionals diagnose based on health history and physical and laboratory tests (NCI, 2020).

Prognosis: Prognosis is the possible result or course of sickness, the possibility of recuperation or recurrence of the disease. (NCI n.d., 2020).

Risk factors: These are factors individuals may possess that increase their likelihood of developing a particular illness (NCI n.d., 2020).

Assumptions

The assumptions identified in this section are self-evident truths. The first assumption was that using a phenomenological, subjective approach in this study would successfully allow for the exploration of how women in Sierra Leone experience access to breast cancer treatment. The second assumption was that study participants provided a comprehensive and reflective understanding of their encounters. Additionally, I assumed enough participants would volunteer to be part of this research (Van Manan, 2014).

Scope and Delimitations

This study’s inclusion criterion included 10–15 women from Sierra Leone between the ages of 35 and 50. Participants needed to (a) reside in Freetown, Sierra Leone, (b) have been diagnosed with breast cancer, and (c) need breast cancer treatment. I conducted this study because of limited research findings and published literature demonstrating the need to explore women’s experiences accessing breast cancer treatment in Sierra Leone.

Limitations, Challenges, and Barriers

A potential limitation of this research was poor generalizability because of the small sample size and the use of a single location in Sierra Leone to recruit participants. Face-to-face interviews could also have been challenging because of the COVID-19 pandemic. Potential barriers I could have encountered included a lack of willingness from women in Sierra Leone to participate in the study and limited resources such as transportation to and from interview locations.

Significance

This study’s findings could significantly affect health care policy development in Sierra Leone regarding access to breast cancer treatment. By gathering appropriate data to understand experiences related to breast cancer treatment access in Freetown, current health rules can be reexamined, and new ones could be established to improve health outcomes. The data gathered for this study through the experiences of women with breast cancer in Sierra Leone can be instrumental in removing barriers to greater access to treatment.

This study’s secondary goal was to expand the current literature on access to treatment for breast cancer in Sierra Leone. There is limited research on the topic of interest, particularly concerning how women from Sierra Leone experience access to treatment for breast cancer. The lack of information on this topic demonstrates the need to explore women’s experiences with breast cancer in Sierra Leone.

Summary

In Chapter 1, I provided an introduction to this study. This chapter included a discussion of this study’s nature, the conceptual framework, assumptions, delimitations, and limitations. The chapter also contained the possible data sources, this study’s purpose, and an overview of the research method. Chapter 2 will outline the literature reviewed on breast care diagnosis, prognosis, risk factors, and access to treatment.

Chapter 2: Literature Review

Women in Sierra Leone experience considerable disparity from women in Western countries regarding access to breast cancer treatment (Devries, 2017). Little is known about women’s experiences in Sierra Leone related to their breast cancer treatment access (Mclnerney & Shepherd, 2006). Devries (2017) recognized there had been an increase in breast cancer awareness programs throughout Sierra Leone, resulting in 2,000 women receiving some form of education regarding the disease. Travers (2016) noted that education has been effective in the early detection of breast cancer. The gap in the literature is that it is unknown how women from Sierra Leone experience access to breast cancer treatment. Thus, examining women’s experiences with breast cancer treatment access in Sierra Leone was essential.

This study aimed to explore women’s experiences with access to breast cancer treatment in Sierra Leone. This research is highly important because research or literature is absent regarding how women with breast cancer in Sierra Leone experience breast cancer treatment access. The limited data inhibits proper management of breast cancer and any efforts to improve the effects of breast cancer treatment on West African women.

This chapter provides a comprehensive literature review on the primary subject of breast cancer in Africa. The literature review relied heavily on qualitative and qualitative descriptive research studies to describe breast cancer attitudes, barriers to treatment access, and pertinent information about this life-threatening disease. I also identify the gap in the literature based on the articles reviewed.

Literature Search Strategy

The literature search strategy involved using multiple databases, including ProQuest and MEDLINE, accessed through Walden University Library, to locate current literature on breast cancer in Sierra Leone, West Africa. Keywords used initially in the literature search included *educational programs relating to breast cancer in Sierra Leone and West Africa*, *cost of breast cancer treatment in Sierra Leone, availability and accessibility of breast cancer treatment in Sierra Leone*, and *perception relating the breast cancer and the use of medical services in Sierra Leone*.

Due to the limited number of current articles relating to breast cancer in Sierra Leone, I was prompted to expand my search using keywords including *availability to the treatment of breast cancer in Africa, cost of breast cancer treatment in West Africa*, *health behavior relating to breast cancer in West Africa*, and the *geographical location of the care center*. I then narrowed the search by focusing on predisposing factors, including sociocultural, enabling factors, access to and receiving care, financial ability to pay for care, the need factor, and why a person would require health care services.

Conceptual Framework

Anderson and Newman's health care utilization framework was used to explain the study's conceptual framework. Developed in the 1960s, Andersen and Newman (1973) developed this framework to create a behavioral model explaining how individuals access medical care. Andersen and Newman (1981) focused on conditions in health care, encouraging or discouraging utilization. This study used this framework as a theoretical lens for exploring the women's experiences in Sierra Leone with access to treatment for breast cancer.

Individuals' access to and use of health care services are based on three distinguishing factors. The first characteristic is what Andersen and Newman (1973) referred to as predisposing factors of the sociocultural factors of race, age, education, health belief and attitude, and living conditions a person was exposed to before becoming sick. Second, the enabling factors are also referred to as the logistical parts of receiving care (Andersen & Newman, 1973). The enabling factor looks at a person's financial ability to pay for care, what care is available at a reasonable distance, and the quality of care provided by these facilities (Andersen & Newman, 1973). The third factor is what Andersen and Newman called the need factors, which consist of discerning why a person would require health care services. According to Andersen and Newman (1973), the need factors are used to examine how people perceive their health status and what created a need to seek care (Andersen & Newman, 1973).

The Andersen–Newman health care utilization model was used to understand what led to the use of health care services (Andersen & Newman, 1973) by distinguishing how one, if not all three factors influenced how or why an individual will utilize healthcare.

As exemplified by Gevao's (2017) study, the utilization of health care services for breast cancer is often influenced by various interrelated factors, as evidenced by Andersen and Newman's health care utilization model. Gevao observed the family unit's influential role in individuals' breast cancer health-seeking or health utilization behavior.

African women are likely to fail at accessing the right treatment for breast cancer because possible stigmatization acts as a barrier to satisfying their health care needs. Furthermore, Gevao established that diverse factors such as educational level, cigarette smoking, family history of breast cancer, and physical activity are influential in individuals' capacity to access medical services. Consequently, Gevao pointed to the need for effective intervention strategies to ensure women at risk of having breast cancer can access early diagnosis and treatment.

The utilization of health care among the elderly was a research topic to which Andersen and Newman's health care utilization model has been applied. Kang et al. (2015) conducted a study between 2005 to 2007 to understand the factors influencing how Korean and Chinese elderly immigrants in Arizona utilized health care. Through the application of Andersen and Newman's health care utilization model, the researchers were able to determine predisposing factors, such as the amount of time a person had spent in the United States, the level of proficiency with the English language, and marital status all played a significant role in the volume of health care utilization. Kang et al. additionally showed that the severity of people's medical conditions was the most significant factor in relation to the number of times a person visited the doctor, providing an example of a need factor. This finding points to how Anderson and Newman's model of health care utilization was employed in a study because the researcher established the need factor influencing a person's health care utilization behavior.

Research on the utilization of health care among female adolescents in Nigeria has also been guided by the Anderson and Newman model of health care utilization.

Azfredrick (2016) used the model in a cross-sectional study to explore the influencing factors guiding how female adolescents in Nigeria used reproductive health services. The researcher’s findings showed the two factors that played a significant role in participants’ reproductive health care utilization were the predisposing and enabling factors. Over 43% of the female adolescents who participated in the study had never used reproductive health services due to a lack of knowledge relating to the type of reproductive health services available and the fact they did not have a means of getting to the reproductive health center. This study’s conclusion showed that although all three factors of the Anderson and Newman model can be examined within a study, not all three factors will necessarily influence health care utilization behavior.

Fisher’s (2019) study utilized Anderson and Newman’s model of health care utilization to study the driving force behind how the aging population utilizes health care services. Although age is a major defining factor within the study, it was only used as a descriptive concept of the studied populace and not as a predisposing factor from Anderson and Newman’s model that determined the use of health care services. According to the author, studies across the country have demonstrated that medical service use increases with age, with the highest usage occurring among individuals around 80. Health services usage can likewise escalate at the end of life, with about 13% of the yearly health expenses allocated to adults nearing the end of their lives. According to Fisher (2019), different health care needs grow at the end of life, which means that it influences health utilization. The health vulnerabilities individuals have in life because of different factors, for instance, age, influence health utilization. This study’s findings provided relevant facts addressing the significance of the need factors established by the Andersen and Newman healthcare utilization model.

The health care utilization model has also been applied within the context of prenatal care. Tesfaye et al. (2018) conducted a community-based cross-sectional study in 2017 using the Andersen and Newman health care utilization model to identify aspects that either enabled or hindered prenatal care utilization in Kersa district, Eastern Ethiopia. The researchers included 1,295 women of childbearing ages who had successfully given birth in the 3 years preceding the study's start. Using the three defining factors of the Andersen and Newman model of health care utilization, the researchers determined that education level, prior use of prenatal care, and social relationships with other women within the district were all significant predisposing factors of the utilization of prenatal care in Kersa district. Although this study is not related to breast cancer, it provided an overview of how the Andersen and Newman model of health care utilization can be applied to a study designed to understand how predisposing factors can influence a person's decision to utilize health care services.

Literature Review Related to Key Concepts

Breast Cancer in West Africa

Cancer is an ongoing health problem in Africa, particularly when compared to other countries. With a reported 1.06 million new cancer cases in recent years and an estimated increase of cancer cases of up to 102%, the total number of reported cancer cases is projected to reach about 2.12 million by 2040, as reported by Vanderpuye et al. (2019). Africa's mortality–occurrence proportion of cancer cases is significantly higher than in high-salary nations (i.e., Africa at 0.66 versus Northern Europe at 0.40 versus the United States at 0.29; Vanderpuye et al., 2019). The researchers noted that this finding might be due to the fact that about 80% of all new cancer cases in Africa are discovered in the late stages of the disease resulting in the treatment being palliative rather than curative. When individuals are diagnosed with cancer at late stages, palliative care may be their only option, which results in high mortality rates. According to the researchers, factors contributing to the late diagnosis of cancer in Africa included inadequate health care structure, a lack of health care professionals specializing in cancer treatment (i.e., oncologists), and financial constraints relating to cancer treatment costs. The number of oncologists in Africa ranges from zero in nations like Lesotho, Benin, Gambia, South Sudan, and Sierra Leone; to single digits in Malawi, Burkina Faso, Rwanda, and Togo; and up to 1,500 in Egypt (Vanderpuye et al., 2019). Therefore, the health care needs of cancer patients in Africa are not adequately met due partly to the lack of appropriate early diagnostic facilities leading to high mortality rates.

The increasing prevalence and mortality rate of breast cancer in West African countries could be mitigated through timely diagnosis and appropriate treatment. Kantelhardt et al. (2015) affirmed that breast cancer prevalence and susceptibility among the African female population continue to increase compared to developed countries. The authors argued two key causes of the lack of timely access to breast cancer diagnosis and treatment. One of the key causes, according to the author there was a strong correlation between the underdiagnosis and underutilization of health care services available fo breast cancer treatment. The second key cause was the limited knowledge and awareness of breast cancer exhibited by healthcare professionals. Both Abdulrahman and Rahman (2012) and Kantelhardt et al. highlighted that breast cancer prevalence and susceptibility among the African female population continues to increase compared to developed countries. Abdulrahman and Rahman examined the epidemiology of breast cancer and compared the women’s results in Africa and Europe. The researchers concluded that, although breast cancer’s rate of occurrence was lower in females in Africa than in Europe, the breast cancer mortality rate among females in Africa was much higher. According to the researchers, one contributing factor to the mortality rate differences is the disease stage at the time of discovery or diagnosis because most females in Africa utilize health care only when the cancer is at a later stage. Abdulrahman and Rahman found that seeking health care advice only later, leading to the lack of early diagnosis of breast cancer among females in West Africa, led to an increased prevalence of late-stage breast cancer and high mortality rates among this population.

Research shows that the late diagnosis of women with breast cancer in Africa is a key issue compared to women living in developed countries. A study conducted in East Africa by Daramola et al. (2015) concluded that over 70% of the patients were diagnosed at Stage III or IV because of the late detection of breast cancer. Conversely, the discovery of breast cancer among European women was at an early stage (Cumber et al., 2017). In a Nigerian report conducted by Jedy-Agba et al. (2016), the researchers found that as high as 39% of the patients had carcinogenic tumors, and 13% had clinical proof of first metastasis. These late diagnoses were due to the lack of proper medical services, particularly in far-off provincial areas, and due to destitution as medical services are not free in many nations compared to most European nations due to their universal health insurance infrastructure (Jedy-Agba et al., 2016). This unobstructed accessibility to health services has also produced a high awareness of breast cancer and early breast cancer screening in most European countries (Jedy-Agba et al., 2016). These research studies demonstrate the challenges for African women in obtaining access to breast cancer diagnostic and treatment services compared to their European counterparts.

Contrary to their counterparts in developed countries, West African women tend to search for health care only in advanced breast cancer stages. Ezeome (2010) conducted a meta-analysis to establish the specific stage at which women sought breast cancer treatment. Using a meta-regressive tool, the data collected and analyzed depicted those West African women who sought diagnosis at the late stages of cancer III and IV. The researcher further compared women who have breast cancer in the Sub-Saharan region to those in the United States and found the Sub-Saharan African region reported higher cases, about 20 deaths in every 100,000 women, whereas the United States recorded a low rate of 14.8 for the same population size. The main pitfall of Ezeome’s research was that few literatures work explained the characteristics or symptoms of the cancerous tumors from the data analyzed. According to the author, breast cancer affects young and elderly female populations in West Africa compared to developed nations. However, this researcher concluded that the elderly female population in West Africa showed a higher vulnerability to the diseases (Ezeome, 2010). Africa’s population is comprised of a youthful generation that is highly fertile with a shorter life expectancy (Ezeome, 2010). It is noteworthy that Sub-Saharan Africa is likely to experience a surge in new cases of breast cancer numbers in future years if the issues of accessing appropriate and timely breast cancer treatment are not addressed (Oladimeji et al., 2013). Breast cancer among West African females occurs at a younger age, and because of waiting too long before seeking medical advice, the mortality rate is higher than that of their American and European counterparts.

In summary, Adeloye et al. (2018) found that because breast cancer is the most common cancer among women worldwide, it has continuously drawn enthusiasm among specialists and clinicians to measure its burden and properly recognize risks across African countries. This interest is primarily geared toward addressing various challenges caused by access to breast cancer treatment in African countries (Adeloye et al., 2018).

Diagnosis and Early Detection

The previous studies demonstrated that West African women waited too long before seeking medical advice for breast cancer. When it comes to breast cancer, the survival rate is directly related to diagnosis and early detection (Ogunsiji et al., 2013). Anderson et al. (2015) concluded that although the ability to detect breast cancer early through screening from mammography has added to significant decreases in mortality rate in most first-world countries, most nations in Africa have not had the option to develop mammography screening programs because of financial limitations, strategic, and sociocultural imperatives. However, breast self-examination (BSE) and clinical examination are widely used in Africa (Anderson et al., 2015). Shephard and McInerney (2006) pointed out that BSE is a useful tool implemented to reduce breast cancer symptoms early; however, a substantial population of women in West Africa and the

Sub-Saharan region demonstrated the minimum frequency of BSE-based information and knowledge. On the other hand, according to Azemfac et al. (2019), of the women who understood the importance of BSE, approximately 15 % integrated it into their monthly health practices. It is clear that when BSE is implemented, it improves the chances of early diagnosis and treatment of breast cancer for African women.

This understanding of the importance of BSE made medical professionals understand that it is beneficial to use a clinical approach to detect the disease early, known as clinical downstaging, where the emphasis is on recognizing breast cancer after presenting symptoms (Gutnik et al., 2016). After presenting symptoms, detection of breast cancer using clinical downstaging seems more acceptable to African women because it is less intensive than mammography (Azemfac et al., 2019). Using clinical downstaging is the next best option compared to mammography; however, women need to realize the importance of seeking help upon noting the first signs and symptoms of breast cancer.

Clinical downstaging has been examined regarding its influence on encouraging earlier reporting of breast cancer. Silva-Dos Santos et al. (2017) researched clinical downstaging as an early detection measure for breast cancer to improve the survival rate. A meta-analysis of 17 studies showed a large difference in breast cancer-related mortality amongst Sub-Saharan women than women in Western countries (Silva-Dos Santos et al., 2017). Silva-Dos Santos et al.'s research showed that in 2012 the mortality rate relating to breast cancer was one in every four newly diagnosed patients in Western countries, while the mortality rate of breast cancer amongst Sub-Saharan African women was one in every two newly diagnosed patients. The researchers also pointed out that in 2012 there were 94,000 late diagnoses of breast cancer amongst Sub-Saharan African women, and of these women,48,000 died within two years of being diagnosed, resulting in a 25% mortality rate of breast cancer amongst Sub-Saharan African women (Silva-Dos Santos et al., 2017). The authors also concluded that breast cancer is considered the most common form of cancer worldwide, with about 690,000 newly reported cases yearly and about 92,000 of those originating in Africa (Silva-Dos Santos et al., 2017).

Early detection of breast cancer is important for both treatment and survival. Silva-Dos Santos et al. (2017) argued the stage at which an individual was diagnosed with breast cancer played an instrumental role in predicting their survival and treatment chances (Jedy-Agba et al., 2016). Early diagnosis of cancerous cells in the woman’s breast area resulted in a timely diagnosis; however, breast cancer detection in Sub-Saharan Africa did not occur at the initial stages (Cumber et al., 2017). Silva-Dos Santos et al. stated that knowledge of early detection methods for breast cancer amongst African women s still low. Diagnosis and delay in presenting at medical centers after noting the disease’s symptoms was significant contributing factor to the high mortality rate of breast cancer deaths in Africa (Silva-Dos Santos et al., 2017). Sociocultural factors of traditions and cultural beliefs created a negative perception of the available materials relating to early detection of the disease, causing African women to develop undesirable medical behavior concerning breast cancer (Ntirenganya et al., 2014). Lack of education on breast cancer and the ability to detect it early are significant factors in women’s disposition towards breast cancer screening and treatment.

Given the importance of early detection of breast cancer, low and middle-income nations should prioritize programs with timely access and use of women's health care services. Additionally, programs and facilities that provide timely detection should be integrated into West Africa's health systems (Welcome, 2011). These strategies will reduce the number of women who succumb to death due to breast cancer (Dandena, 2019). According to Shepherd and McInerney (2006), women living in West Africa should be discouraged from seeking treatment when breast cancer has reached the last stages. The authors associated the poor diagnosis of breast cancer with the lack of breast cancer awareness (Shepherd & McInerney, 2006). Hence, effective clinical and histological confirmative measures of breast cancer need to be established in West Africa's health care system.

In conclusion, a strong argument can be made that improving the understanding and awareness of breast cancer amongst women in West Africa could improve practices identified with breast malignancy, encourage early detection and discovery, and improve appropriate management and therapy of breast cancer (Shepherd & McInerney, 2006). Despite early detection methods available to women worldwide, there is still a delay in seeking medical advice amongst women n West Africa, causing a high mortality rate. In-depth research on the sociocultural barriers to BSE and seeking medical advice for breast cancer treatment is needed to address the plight of women in West Africa.

Prognosis, Treatment and Survivor Rates of Breast Cancer in Africa

Countries in the West African region are faced with poor prognostic factors in the treatment process of breast cancer. The paucity of relevant information on women's perceptions and experiences of BSE and early detection of breast cancer in West Africa hinders appropriate clinical diagnosis, treatment, and prognosis (Shepherd & McInerney, 2007). High breast cancer mortality rates arise from the late diagnosis of the disease, with the survival rate in West African countries estimated to range between 2 and 5 years after detecting the tumorous cells (Silva-Dos Santos et al., 2017). Ogunkorode et al. (2017) reviewed integrative literature from Nigeria and Canada relating to breast cancer prognosis and survival rates, which showed the survival rate of breast cancer in Canada was linked to the acceptance and use of ubiquitous breast cancer awareness programs that promoted the importance of early detection, which Nigeria lacked. Prognosis and survival rates between the two countries are directly related to access to breast cancer care, educational program acceptancy, and misconceptions about breast cancer among women in Nigeria (Ogunkorode et al., 2017). Data from the study showed that Nigeria's breast cancer mortality rate was estimated to be 50%–55% higher than in Canada in 2017 (Ogunkorode et al., 2017). Okwor et al. (2018) stated that the misconception about breast cancer treatment and inadequate knowledge of the disease were the leading causes of late diagnosis and high mortality rate. The authors further pointed out that it was estimated that Nigeria had 27,304 newly diagnosed breast cancer cases in 2018, and of those, 27,304, about 51.13 % (13,960) resulted in a fatality in the same year (Okwor et al., 2018). Poor knowledge about breast cancer and its treatment results in unnecessarily high mortality rates in Nigeria and other African countries.

Dissemination of information on breast cancer, early diagnosis, and treatment success is essential to curb the high mortality rates of breast cancer patients in Nigeria and West African countries. There must be an increase in educational programs that are socially sensitive and linguistically appropriate and that promote healthy behaviors that utilize early detection practices amongst Nigerian women (Ogunkorode et al., 2017). It is noteworthy to mention that Nigeria, like most low-income West African countries, is faced with many healthcare challenges, from the lack of accessibility and availability of breast cancer treatment to financial limitations and sociocultural barriers (Ogunkorode et al., 2017). For this reason, low-income countries must employ guidelines to help professionals and patients settle on educated choices and decisions about the most fitting medical care for their clinical circumstances. Furthermore, applying evidence-based guidelines will, in all probability, help to improve care measures, the nature of clinical choices, and patient treatment (Lasebikan et al., 2018). Education programs on breast cancer must consider the target group's sociocultural environment and available treatment options to be successful.

Cultural belief systems about health influence individuals' healthcare-seeking behavior and prognosis. Okwor et al. (2018) reiterated the findings of Ogunkorode et al. (2017) that inadequate knowledge of breast cancer, untrained health care professionals, and an unfavorable perception about treatment relating to breast cancer are inescapable amongst women in Nigeria. Women in Nigeria believe that breast cancer is an illness that ends in death for all but that faith in God would heal them (Ogunkorode et al., 2020). This faith-based belief influenced the women's willingness to seek medical help for their breast cancer (Ogunkorode et al., 2020). Ogunkorode et al. reported that women regard breast cancer as an attack from some evil forces or a spiritual affliction. Females, especially in rural areas, experience the influence of sociocultural beliefs that impact healthcare utilization.

Nurses and health care providers are at the forefront of providing information on early detection, breast cancer management, and treatment outcomes. Okwor et al.’s (2018) research included 519 health care professionals; 92.3% were female, 64.8 % possessed inadequate knowledge of breast cancer related to the importance of early detection and exhibited an unfavorable perception of breast cancer treatment due to traditional beliefs. The researchers recommended increasing focus on health care workers’ acceptance of the importance of early detection and breast cancer awareness to improve prognosis and increase survival rate (Okwor et al., 2018). Ogunkorode et al. (2020) suggested that nurses are best equipped to provide culturally sensitive education on breast cancer to patients and the female public. Sufficient knowledge about breast cancer must be facilitated amongst the nurses and health care providers who advise wome on breast cancer; to this end, ongoing training is needed.

Women affected with breast cancer in Africa are faced with exceptional difficulties that go beyond the pathology of the illness due to the absence of sufficient monetary resources to fund treatment. Furthermore, there is a consistent increase in the price of new and more successful breast cancer treatments (Lukong et al., 2017). Lukong et al. (2017) looked at issues that could explain ethical inequalities in the occurrence and mortality of breast cancer in Sub-Saharan Africa while pointing out difficulties relating to accessing fundamental medication and medical care in some African nations and outlining other options/homegrown therapy techniques that are progressively used in

Africa. Foester et al. (2019) found that even when breast cancer treatment was offered, 48% of women from the three Sub-Saharan African countries refused to initiate clinical treatment due to their traditional medical preferences. Foerster et al. concluded that financial help is needed for breast cancer treatment access and that education on therapy benefits is needed to improve therapy access for breast malignancy patients across Sub-Saharan Africa, particularly in rural locations.

Health care for breast cancer among women in Sub-Saharan Africa is constrained by cost and poor treatment access. Foerster et al. (2019) conducted an observational study across three Sub-Saharan countries, Nigeria, Uganda, and Namibia, to ascertain the number of women with breast cancer who received radiotherapy for malignancy and their sociology-demographic and clinical determinants. Of the 1,325 women who participated in the study, 31% who had been clinically diagnosed with breast cancer did not seek treatment for at least a year because of their inability to pay for care (Foerster et al., 2019). Nigeria had the highest number of untreated breast cancer cases, 38%, primarily due to the lack of accessible treatment and the inability to afford breast cancer treatment (Foerster et al., 2019). Ellen’tHoen, as quoted by Lukong et al. (2017), an activist for global access to essential drugs, emphasized that most breast cancer patients living in African countries that possess the capacity to provide treatment for breast cancer, are faced with the burden of not being able to afford the medication or care due to cost. For example, according to the author, the medication with the greatest cost per treatment is imatinib at a low, medium, and high cost per treatment of $28,295, $37,259, and $46,224, respectively, compared to the least expensive treatment, tamoxifen, which ranges from

$16 to $548 cost per treatment. Cost of treatment and lack of access to treatment prevent many women from Sub-Saharan Africa from obtaining treatment for breast cancer.

Public awareness programs about breast cancer and established referral systems play an integral role in promoting early breast cancer diagnoses. Gakunga et al. (2016) observed that late diagnoses and poor prognoses of breast cancer are prevalent across Africa. This study established the role of poor education and poor prognosis as factors undermining women’s capacity to be proactive in managing breast cancer. Furthermore, Dandena (2019) argued for multiple stakeholders’ involvement to increase community awareness and support for breast cancer patients. The growing prevalence of this condition among young women highlights the necessity for urgent intervention measures. The failure to diagnose breast cancer in its early stages results in adverse outcomes for women in the African region. Ezeome (2010) and Kantelhardt (2014) stated that oncologists demonstrated little knowledge about breast cancer diagnosis and treatment. Researchers have also noted that oncologists did not have a concrete referral system among other oncology professionals (Cumber et al., 2017). Therefore, besides poor education on breast cancer and cultural beliefs, locals may fail to access these services due to the lack of communication between oncologists and breast cancer patients.

Due to the lack of available literature on breast cancer in Sierra Leone, my literature review search was extended to neighboring countries. Accordingly, Bonsu and Ncama (2019) and Brinton et al. (2016) focused on breast cancer in Ghana; however, the latter also sought to evaluate breast cancer prevalence in Africa. Both studies reiterated that late-stage breast cancer diagnosis resulted from a knowledge deficit among at-risk women in Ghana. Bonsu and Ncama advocated for a collaborative interventional approach that brought on board family members, caregivers, health promotion agents, and patients creating an enabling environment for the women diagnosed with breast cancer who were diversely affected to achieve positive treatment outcomes. Brinton observed that late diagnoses and poor prognoses of breast cancer are prevalent across Africa. Their study demonstrated the integral role of public awareness programs in promoting early breast cancer diagnoses. This study established the role of poor education and late diagnoses in undermining women's capacity to be proactive in managing breast cancer. Furthermore, Brinton argued for multiple stakeholders' involvement to increase community awareness and support for breast cancer patients. These studies highlight the necessity for urgent intervention measures based on the growing prevalence of breast cancer among young women, resulting in adverse outcomes.

Research in African regions to address the rising concern of breast cancer diagnosis remains limited. Kantelhardt et al.'s (2015) systematic review using secondary data from 219 different publications relating to breast cancer in West Africa resulted in encapsulation of current breast cancer care publications in the region. Using data from MEDLINE, PubMed, and other smaller databases, Kantelhardt et al. determined that although the epidemiologic information showed a rising frequency of breast cancer diagnosis in Africa, there was a significant gap in the studies in Africa that examined patients' breast cancer treatment. Furthermore, the geographical location, age, and economic status of a country's population influenced data availability to determine the risk factors and presentation of the disease (Kantelhardt et al., 2015); however, the authors were able to reaffirm that breast cancer cases in Africa are diagnosed later than in most western countries. The authors concluded that women's access to breast cancer treatment in African and Western countries varied significantly based on a lack of specialized medical staff, insufficient knowledge of the disease, and limited financial means. This conclusion further emphasizes the need for research to address the rising concern of breast cancer treatment access in Africa.

Women's Awareness and Knowledge of Breast Cancer

African women have little knowledge of breast cancer and experience negative socioeconomic lifestyles that affect the timely detection of breast cancer. Awareness and knowledge of breast cancer are the first defenses against this disease (Nyante et al., 2014: Qian et al., 2014). The absence of a clear understanding of breast cancer's symptoms, progression, and how it is detected could make it difficult to implement efforts geared towards improving the survival rate. Shepherd and McInerney (2006) argued that radio and antenatal forums could be integrated as a primary means of disseminating crucial breast cancer survival data to the female population. Health conferences and talks can serve as effective tools to reach out to a larger population and discuss the effectiveness of diagnosing breast cancer early.

The ability to gauge influencing factors related to health behavior and barriers is essential in initializing and assessing interventions to encourage appropriate cancer diagnosis (Ezeome, 2010). Gevao (2017) was prompted to conduct a study and develop a measuring tool because of the limited resources available to measure how cultural beliefs influence women’s health behaviors relating to breast cancer awareness and how these countering behaviors can be measured to understand their effects on breast cancer awareness. The measurement of breast cancer awareness programs also appears inadequate in capturing sub-Saharan African women’s experiences. The African Women Awareness of Cancer (AWACAN) tool was developed to measure cervical and breast cancer awareness among Sub-Saharan African women (Fregene & Newman, 2005). The test was conducted both online and in-person and included breast cancer patients and health care professionals. The test showed valid cervical and breast cancer risk factors for Sub-Saharan African women (Okobia et al., 2016). However, the study’s core limitation was that it did not account for the educational level of the women who participated in the research and the social limitations of some breast cancer patients, i.e., access to the internet and computers. Consequently, this study provides a strong argument for further developing a reliable way to measure the outcome of breast cancer awareness programs for women with different social standings.

According to Olayide et al. (2017), the number of females in Africa with limited knowledge about breast cancer far outweighs females that processed some form of knowledge. Olayide et al.’s systemic review from 2000 to 2017 investigated the number of women in Nigeria who were aware of breast cancer. The researchers concluded that Nigeria needed to improve breast cancer awareness strategies and programs. According to the authors, after reviewing 51 surveys, three of which were interventional breast cancer and 48 descriptive surveys, the result showed that about 40.5% of Nigerian women and most of the rural settlers were uneducated about breast cancer. Of the entire sample, only 40.1% showed they understood early detection related to breast cancer's signs and symptoms. Inadequate knowledge of the importance of early detection and treatment of breast cancer, especially in rural areas, remains a stumbling block to the timely detection and treatment of breast cancer among Nigerian women.

Education programs to increase women's knowledge of breast cancer are imperative. Breast cancer education must present the risk factors for the disease and the different types of treatment (Olayide et al., 2017). According to Clegg-Lamptey (2017), the issue with the breast cancer education program they studied was that it lacked the desired result of boosting the early detection of breast cancer. Therefore, the researcher recommended educational programs relating to breast cancer in West Africa; in this case, Sierra Leone should be strengthened to address this issue of early detection of breast cancer (Clegg-Lamptey, 2017).Shepherd and McInerney (2006) described Breast Week, where professionals can adopt resources like radio and television shows to disseminate crucial information regarding breast cancer diagnosis to increase women's knowledge of breast cancer signs and symptoms. Nurses and the entire medical community should dispel mythical information as a barrier to increasing knowledge of breast cancer signs and symptoms. The awareness of breast cancer signs and symptoms should also be directed toward impeding the patients' fears of fatalism or death and discomfort (Clegg-Lamptey, 2017; Shepherd & McInerney, 2006). A lack of knowledge of breast cancer as a disease has led to non-acceptance or fear of Western medical treatment. This lack of knowledge resulted in patients showing a preference for natural or herbal treatments rather than conventional breast cancer treatment (Olayide et al., 2017). Emphasis should be placed on the fundamental role of seeking quality detection, breast cancer care, and treatment from healthcare professionals (Clegg-Lamptey, 2017). Addressing African females' inadequate knowledge of breast cancer has been identified by both Clegg-Lamptey (2017) and Shepherd and McInerney as the best avenue toward timely detection of breast cancer and seeking medical attention, but recent researchers have found that insufficient information on breast cancer symptoms and access to care still exists, leading to fear, fatalism, and high mortality rates for breast cancer.

Breast Cancer in Sierra Leone

Breast cancer is the most prevalent cancer in Sierra Leone. According to the World Health Organization (2018), breast cancer accounted for up to 25% of all new cancer cases and accounted for 35% of all cancer-related deaths in Sierra Leone in 2018. According to Globocan (2018), breast cancer is the most prevalent type of tumor in Sierra Leone, followed by liver cancer. In Sierra Leone, the female population with breast cancer succumb to the non-communicable disease accounting for about 40% of mortalities rate amongst women (Globocan, 2018). Additionally, Sierra Leone has a high incidence of breast cancer at 43.6 per 100,000 and a mortality rate of 25.4 per 100,000 (Globocan, 2018). The exceptionally high breast cancer mortality rate in Sierra Leone indicates the need for research to understand access to breast cancer treatment for women living in Sierra Leone.

Sierra Leone is among the lowest income countries on the planet. According to Shepherd and McInerney (2006), about 81% of its populace was living in destitution; however, some women were reasonably informed about breast cancer despite the country’s poor financial status. Shepherd and McInerney used a descriptive and quantitative approach to investigate the level of breast cancer awareness among women living in Sierra Leone. According to the authors, 50% of the female respondents identified cancer as a fatal disease if not detected and treated early, and of the remaining half, approximately 42% outlined key symptoms of breast cancer. Results of the study showed that less than 3% had no knowledge and awareness of breast cancer (Shepherd & McInerney 2006). The authors concluded that despite attending formal education, women participating in the study could not clearly outline the aspects of breast cancer (Shepherd & McInerney 2006).

Although some researchers identified a fair level of breast cancer knowledge and awareness among women in Sierra Leone, myths about the disease still exist. Shepherd and McInerney (2006) investigated risk factors that were likely associated with breast cancer in Sierra Leone. The increasing adoption of a mythical viewpoint of placing metallic substances, mobile phones, and coins illustrated that Sierra Leonean women did not know what the causes of breast cancer were; they assumed that placing metals next to their breast region caused cancer (Shepherd & McInerney, 2006). These myths negatively affect women’s health by decreasing the number of women participating in breast cancer screening (Ntirenganya et al., 2014). Myths in Sierra Leone regarding the causes of breast cancer display misinformation in the traditional setting leading to delayed access to breast cancer treatment.

The fiscal position of Sierra Leone may not favor widespread education on breast cancer amongst females. Poor living standards and literacy levels characterize Sierra

Leone; 52% of the population consists of women, according to the population census taken in 2015 (Bayoh, 2019). Key issues such as the lack of employment and low education level amongst the female population led women in Sierra Leone to become more susceptible to poverty than their male counterparts (Bayoh, 2019). Low educational levels and poor living standards may contribute to establishing existing beliefs about breast cancer through word-of-mouth. Further, being uninformed about breast cancer and insufficient financial means to seek medical attention are barriers to early detection. Consequently, many women cannot afford proper health care and treatment relating to breast cancer (Bayoh, 2019).

In Sierra Leone and West African countries, the utilization and uptake of cancer care services are minimal. African women are less likely to attend breast cancer screening or any other cancer screening (Ogunsiji et al., 2013). A large percentage of the female population living in West African countries are deeply rooted in traditional treatments. These females are likely to seek alternative forms of health care from hospitals. Building on the Anderson behavioral approach of health care utilization, Ward et al. (2010) focused on outlining factors that triggered or inhibited African women from seeking medical attention. Socioeconomic factors affected access to care provisions (Ward et al., 2010). Okobia et al. (2016) established that controlling factors such as social-economic factors affected health care provision. Okobia et al.'s study made a strong contribution to discussions about breast cancer by suggesting that it should address the barriers related to breast cancer in low-income African countries. Women who do not have insurance were more likely to be diagnosed with advanced stages of a disease that resulted in expensive care and delays in initiating treatment (Hsu, 2017). A lack of health care coverage, in addition to deep-rooted beliefs of traditional medicine's value, has a detrimental effect on managing breast cancer patients' care.

Accessibility and Availability of Breast Cancer Diagnostic Services

There is limited literature surrounding the availability and accessibility of breast cancer diagnostic services in Sierra Leone. Witter et al. (2020) conducted a cross-sectional study of opportunities and challenges relating to non-communicable illnesses such as cancer in Sierra Leone. The study aimed to develop a structure for evaluating health care system opportunities and constraints regarding non-communicable diseases such as breast cancer or cancer in Sierra Leone. This study's outcome emphasized that there has been very little attention given to non-communicable disease management in Sierra Leone and other African countries. The authors established a lack of qualified health care personnel specializing in treating and managing non-communicable diseases such as breast cancer or cancer, and a lack of available medication to treat these diseases were present in Sierra Leone (Witter et al., 2020). The scarcity of screening amenities like a mammogram has dire consequences on women's health. There is a significant need for improvement in the health care infrastructure in Sierra Leone, particularly regarding non-communicable diseases such as breast cancer or cancer in general in Sierra Leone.

Availability and Accessibility of Breast Cancer Treatment

Different factors limit treatment for breast cancer in Sierra Leone. Shephard and McInerney (2006) argued the absence of a health policy that prioritizes cancer puts the lives of women at risk: specifically, Sierra Leone fails to recognize breast cancer as a menace. Thus, no institutions or centers offer either research or treatment of breast cancer in Sierra Leone. The availability of breast cancer treatment in Sierra Leone is limited, making it difficult to mitigate the lethal effects. The primary reason is the absence of human resources and clinical hardware. Shepherd and McInerney (2006) and Daramola et al. (2015) indicated that Sierra Leone lacked appropriate radiotherapy care centers. Lack of access to breast cancer treatment centers, shortage of qualified healthcare staff, and the lack of education and advocacy to mitigate harmful beliefs contribute to the cascading effects of social determinants of health and show that patients face challenging odds if diagnosed with breast cancer.

The cost of breast cancer treatment in Sierra Leone and other West African countries is relatively high. Bayoh (2019) estimated that a mammogram’s cost ranged from 50 to 70 dollars, which most women could not afford. According to Shepherd and McInerney (2006), these high expenses and a lack of finances contribute to not seeking treatment and advice. Shepherd and McInerney pinpointed that the region’s conflicts and wars have greatly affected the health sector. Women are unable to access quality health care and vital information regarding their overall health (Shepherd & McInerney, 2006). The medical expenses associated with breast cancer diagnosis and treatment discourage locals from accessing quality care.

There are challenges with access to breast cancer treatment in Sub-Saharan Africa. Pace and Shulman (2016) explained that the shortage of healthcare workers trained in cancer diagnosis and care, along with the shortage of high-quality and reliable pathology laboratories, resulted in challenges with accessing breast cancer treatment in

Sub-Saharan Africa, especially in poorer countries such as Sierra Leone. Data from Pace and Shulman showed that by 2015, over 15 million cancer cases had occurred in Sub-Saharan Africa. Of those 15 million, 75% would have occurred in low-income African countries such as Sierra Leone, and 80% would have required surgical services (Pace & Shulman, 2016). Based on these findings, the authors noted that a partnership with well-trained surgical oncologists and specialized cancer services was important in treating breast cancer. Pace and Shulman concluded that data on the incidence and treatment of breast cancer is very limited in Sub-Saharan Africa, but the demand for appropriate access to breast cancer treatment is growing in these countries.

Ssentongo et al. (2020) conducted a study that examined clinical and pathological factors influencing the mortality rate of breast cancer in a rural community setting in Ghana, West Africa. Using data collected from patients who underwent either surgery or chemotherapy treatment for breast cancer at a regional hospital in Ghana from January 2014 through January 2017, the findings revealed a significant difference between the overall survival rate of patients from rural areas and those from urban communities within Ghana. The author presented findings that concluded that 60.0% of patients from rural communities were diagnosed with the disease at a very late stage. Of the total number of participants, there was a 52% difference in survival rate between patients from urban communities and those from rural communities (Ssentongo et al., 2020). It should be mentioned that the author of this study did not provide a reason for these discrepancies in survival rate or barriers that resulted in the late-stage diagnosis. Regardless of these gaps in the study, the author presented a strong case that suggested further study to identify barriers to care and opportunities for cost-effective and sustainable improvements in the diagnosis and treatment of breast cancer in low-income African countries.

Similarly, a doctoral dissertation by Okifo (2020) discussed breast cancer treatment and outcomes in Cape Coast Teaching Hospital in Ghana from 2011 to 2019. This research provided great insight into breast cancer incidence and outcomes in Ghana and West Africa. According to the study's findings, the rising incidence of breast cancer in Ghana demonstrated that it is a major health concern. The study findings showed that Ghanaian women frequently presented with advanced-stage breast cancer and experienced poor outcomes, specifically due to harmful beliefs that delayed women's seeking of care. The author recommended expanding the national health care system that focuses on breast cancer education, screening, and resource improvement to support breast cancer management and improve breast cancer survival rates in low and middle-income countries (Okifo, 2020).

According to the study done by Joko-Fru et al. (2018), there is a significant need to improve patient utilization of tolerable and affordable endocrine therapy amongst patients diagnosed with breast cancer in Sub-Saharan Africa. Using a population-based registry research method, the author collected data from 834 patients selected from 10 Sub-Saharan African countries diagnosed with breast cancer from 2009 to 2015. The study's findings showed that over 52% of patients had no record of ever receiving treatment, regardless of diagnosis. Of those that received some form of breast cancer treatment, the overall survival rate was 51.1%. Based on the survival rate results, Joko-

Fru et al. concluded that creating resource-stratified guidelines could help improve access to breast cancer care. This study provided important insight into the issues of accessibility and utilization of breast cancer treatment. The study's findings on the survival rate suggested that proper utilization of breast cancer treatment and improvement in the accessibility of those treatments could significantly increase breast cancer survival rates for Sub-Saharan African women.

Risk Factors of Breast Cancer

Breast cancer among females is rather common but does not need to be lethal. Studies show that breast cancer is the second leading cause of cancerous death among women worldwide (Sun et al., 2017). It is estimated that 1 in 9 women who live to 85 years of age will be diagnosed with breast cancer (Sun et al., 2017). A woman's susceptibility to developing breast cancer is not limited to genetics alone; several other factors contribute to developing and increasing breast cancer risk within a woman's lifetime. These include but are not limited to a person's age, gender, family history, health behavior, reproductive and menstrual history, certain types of genome changes within a person's body ,breast cancer susceptibility gene 1 and breast cancer susceptibility gene2 (*BRCA1* and *BRCA2*), as well as the density of a person's breast tissue all been recorded risk factors related to breast cancer. (Sun et al., 2017). Several factors play a role in developing breast cancer; researchers have made significant progress in determining the risk factors for developing breast cancer.

Worldwide, many women survive breast cancer; however, West Africa's mortality rate is high. Breast cancer accounts for about 14.3% of 324,000 deaths associated with malignant tumors (Gevao, 2017). This malignancy is responsible for more deaths than other types of cancer, like cervical and lung (Gevao, 2017). Breast cancer in developing countries leads to high mortality rates, which may rise due to the link to carcinogenic risk factors (Gevao, 2017).Developing countries like Sierra Leone are prone to suffer the consequences of this rise in mortality. This is because there is a deficiency of understanding how some behaviors or habits, i.e., early screening or identifying signs and symptoms of breast cancer, can contribute to the risk factors of breast cancer (Ezeome, 2010; Kohler et al., 2017). Second, aspects of reproduction, such as the number of pregnancies a woman has, the person’s age at the time of pregnancy, and family medical such as patterns of breast cancer occurrence in a family ,are highly associated with women’s prevalence of the same disease history are also perceived as predominant risk factors (Ricks-Santi et al., 2016). Findings from Ricks-Santi (2016) also showed women who consume large amounts of alcohol and cigarettes are more likely to develop breast cancer than those who do not (Ricks-Santi et al., 2016). (Ricks-Santi et al., 2016).

Age

Older women are more likely to develop breast cancer than younger woman, this is because as a woman age, her cells have undergone changes. Kamińska et al.’s (2015) study on the risk factors associated with breast cancer suggested that age is the main factor of patients diagnosed with breast cancer at the time of diagnosis. Breast cancer is most often diagnosed in women of menopause age and less frequently diagnosed in women aged 45 and below (Kamińska et al., 2015). An intriguing connection can be seen between the age when the neoplastic illness is identified, and the estrogen receptors found in the inspected tumor tissue. Neoplasms indicating estrogen receptor overexpression ER (+) are revealed by a recurrence increasing with age rather than ER (–) tumors, which happen all more often in females that are 50 years or older (Kamińska et al.'s., 2015). In summary, the occurrence of the estrogen receptor describes a rise in the percentage of ER (+) breast cancer tumors identified in females after menopause.

Gender

Although men can also develop breast cancer, it is more common among women. Jenlmat (2018) noted that gender presents a significant risk factor for breast cancer. Although breast cancer can be diagnosed in both males and females, it is more often diagnosed in females because they have more breast cells than males (Jenlmet, 2018). Furthermore, the estrogen and progesterone hormones' growth effect are much higher in females than males, resulting in women being diagnosed with breast cancer at a much higher rate (Jenlmet, 2018). The anatomy of female breasts and associated physiology makes women more susceptible to developing breast cancer than men.

Family History

The family history of breast cancer may be less prominent than commonly believed. Brewer et al.'s (2017) cohort generation study of family history as a contributing risk factor for breast cancer suggested that although a family history of breast cancer can increase a person's chances of developing breast cancer, it cannot be a stand-alone consideration of determining a person's susceptibility of developing breast cancer. The researchers studied breast cancer malignant growth risk by comparing first-degree family ancestry with a family history score (FHS) of 113,000 women in the UK, ranging from 16 to above. By accessing the average number of family cases dependent on the family's age structure and national disease rate occurrences, the study determined the more presentation of breast cancer within a person's family history, the more likely they were to be at risk for developing breast cancer (Brewer et al., 2017). Using a likelihood ratio test, the researchers concluded a 3.5-fold (95% CI [2.56, 4.79]) variety of risk amongst women with lower family history than those with a higher family history (Brewer et al., 2017). Brewer's findings reemphasized that family ancestry score on observed and expected breast cancer could result in a biased conclusion of a person's susceptibility to developing breast cancer. This finding suggests the most effective way of determining risk factor vulnerability relating to breast cancer is by accessing both the individual's family history and other factors such as age and health condition.

Social Determinants of Health

Social determinants of health drive another predominant risk factor for developing breast cancer. Okobia et al. (2016) established that controlling factors such as social-economic status affected health care provision. Women who did not have insurance were more likely to be diagnosed with advanced stages of a disease that resulted in expensive care and delays in initiating treatment (Jemal et al., 2012; Kohler et al., 2017; Ward et al., 2010). Other researchers also found socioeconomic status and education were isk factors for breast cancer. Lundqvist et al. (2016) used a systematic literature review and a meta-analysis of 113 different studies that explored how socioeconomic status and education level could contribute to an increase in the risk factor of breast cancer in Europe. The researchers determined that women with higher financial status showed a fundamentally higher breast malignant growth rate, which might be explained by those individuals' access to contraceptives, mammography screening, hormone substitution treatment, and way of life factors. Lower case casualty for women with higher financial status could be justified by contrasts in tumor types, treatment variables, comorbidity, and way of life factors (Lundqvist et al., 2016). Women with lower economic means demonstrated lower breast cancer screening participation, lack of access to treatment, resulting in late diagnosis of the disease, lack of knowledge of the disease, and unhealthy lifestyle due to inability to afford health nourishment (Lundqvist et al., 2016). Lundqvist et al. suggested that although women of higher socioeconomic status are diagnosed with breast cancer at a higher rate than women of lower socioeconomic status, the mortality rate relating to breast cancer is much higher amongst women with lower socioeconomic status than those with higher socioeconomic status.

Race/Ethnicity

Race and ethnicity have always been strong determining risk factors for identifying an individual's vulnerability to being diagnosed with a disease. Iqbal et al. (2015) conducted an observational study of 373,563 women diagnosed with invasive breast cancer from 2004 until 2011 to determine whether breast cancer was discovered at an early phase (Stage I) in various racial/ethnic groups. This study showed that in one in every eight racial/ethnic groups that presented with aggressive genetic traits, i.e., lymph node metastases or triple-negative cancer, a tumor measuring at least 2.0cm was detected, resulting in a slimmer survival rate (Iqbal et al., 2015). These findings suggested that the probability of survival rate amongst women diagnosed with intrusive breast malignant growth at an early stage differs based on biological race or cultural ethnicity. (Iqbal et al., 2015). These differences in survival rates could be attributed to inherent biological traits. This finding is significant to my current research because it confirms that individuals from different biological races or cultural ethnicity have a higher chance of developing cancer cells than others.

Increased Exposure to Estrogen

Increased exposure to estrogen has also been found to be a risk factor for breast cancer. Koron (2018) conducted a study that could help determine if it would be possible to use a person's DNA signature to predict their susceptibility to developing breast cancer. Using a genotype analysis, the researcher examined the ESRRGAAAG and MIR137, two variable numbers jointly repeated (VNTR)germline DNA in both BRCA1/2 negative and BRCA1/2 positive breast cancer patients (Koron, 2018). The researcher examined whether VNTRs may assist with altering the estimate of breast malignant growth chance in patients with pathogenic germline variations in the BRCA1 and BRCA2 tumor suppressor genes. Koron concluded striking contrasts in MIR137VNTR length were found somewhere in the range of BRACA1 and BRACA2 germline change carriers and wild-sort controls. Second, The ESRRGAAAG VNTR showed significant distribution differences between the BRCA1/2 positive and control groups (Koron, 2018). Third, a rise in ESRRG on introducing estrogen in the incidence of nine replicas of the VNTR might contribute to a higher risk of cancer (Koron, 2018). These results suggest that the presence of the three above mentions conditions can make an individual more susceptible to developing breast cancer.

Drawing the assumption that the function of the ESRRGAAAG VNTRs as a potential biomarker in the expectation of breast malignant growth risk in BRCA1/2pathogenic germline variation carries and may also add data to hereditary risk factors, which can additionally delineate treatment and observation in an individual with higher risk for the development of breast cancer (Koron, 2018). These findings are significant because they show that variations in certain genetic traits can increase a person's risk factor for developing breast cancer (Koron, 2018). The author further concluded that by testing for the BRCA1/2pathogenic germline variation gene traits, doctors could increase the likelihood of early detection and survival.

Breast Density

Breast density is another risk factor for breast cancer. Lo, et al. (2020) conducted a prospective study that targeted females that presented with symptoms related to breast cancer; the participants' symptoms were investigated based on the characteristics presented, samples tissues were obtained using biopsy procedures, and the breast density was obtained through mammogram result of the selected participants. The aim of this study was to determine whether the density of a female breast would present as a stand-alone risk factor for breast cancer (Lo et al., 2020). The study's conclusion illustrated that participants with thicker breast tissue presented a 29% higher risk of breast malignancy than those with softer breast tissues (odds ratio [OR] 1.29, 95% CI [0.38, 4.44], p = .683 (Lo et al., 2020). Duffy et al. (2018) concluded that breast tissue density provided a more concentrated imaging. In summary, the result of a positive mammographic relating to the thickness of a women’s breast tissue should be recognized as at risk for developing breast cancer.

Pregnancy History

Breastfeeding has been linked to progesterone receptor (PR)-negative (ER-PR) and Estrogen receptor (ER) breast cancer. Work (2018) found that lack of breastfeeding might increase the risk of a female developing ER-PR- breast cancers, suggesting the source that creates a risk of ER-PR- breast cancers come primarily from the estrogen hormones and not the progesterone hormones. Similarly, Abedalrahman et al. (2020) conducted a cross-control study on how reproductive patterns amongst Iranian women, such as parity, breastfeeding choice, and the age of participants at the time of first successful childbirth, could increase a female’s susceptibility to developing breast cancer. Participants under the age of 30 who successfully gave birth to a child for the first time exhibited an increased risk of developing breast cancer OR 2.7 (Work, 2018). Women over 30 who had successfully given birth three or more times showed far less association with breast cancer risk than their childless counterparts (Work, 2018). This result determined the risk factor chances ratio was fundamentally connected with breast malignancy regarding the age at first conveyance ≥30 years (OR 2.7) (Work, 2018). The number of full-term pregnancies was inconsequential compared to the nulliparous with females who had 1-2 full-term pregnancies (1.28) and (1.97) and for those who had ≥ three full-term pregnancies (Work, 2018). From the results of this study, it is essential to consider the variation in reproductive behavior and how it relates to an increase in breast cancer risk and the hereditary subtypes of breast disease.

Breast malignancy has been recognized as a communal malignancy that affects women and men globally. The risk factors associated with this form of cancer are family history, personal health choices, age, gender, age at menarche and menopause, utilization of hormonal treatment, financial status, consumption of alcohol, smoking, and breast density and their various forms of breast cancer risk (Anjum et al., 2017). Each form of breast cancer risk is not unique to a specific geographical location, race, gender, or to genetics. Some of the above studies confirmed that breastfeeding, a healthy lifestyle and diet, and participating in early detection habits might decrease a person's chances of developing breast cancer and increase the survival rate (Anjum et al., 2017); however, to understand a person's susceptibility to developing breast cancer, it is important to factor in all a combination of risk factors.

Summary

The literature reviewed covered the need to improve breast cancer awareness and treatment in Sub-Saharan countries. More studies could be a powerful instrument to boost the prevention, awareness, early detection, and perception of African women of breast cancer. A large percentage of women from low to middle-income countries still do not possess a proper understanding of breast cancer and its signs and symptoms. The combination of lack of understanding combined with maladaptive convictions, culture, emotional, and psycho-social factors adversely impact health-seeking practices, resulting in a delay in diagnosis and treatment. The findings of various studies within the literature review indicated the utilization of early detection, awareness, and improvement of the perception of breast cancer care within low to middle-income countries could be achieved (Bemah Bonsu & Ncama, 2018). The study findings can be further developed if breast cancer, early prevention, and early detection programs are improved and incorporated into standard health programs nationally. Furthermore, the literature review in this chapter showed that predisposing, enabling, and need factors relating to health utilization are the most vital driving forces determining a person’s health behavior, reaffirming that future study is needed to understand how women in Sub-Saharan countries perceive breast cancer.

Chapter 3 addresses the literature gap demonstrated in Chapter 2 relating to breast cancer treatment, access to care in Sierra Leone, and the perception that Sierra Leonean women have of these factors. Chapter 3 also provides details relating to the research design and rationale, the researcher’s role, the methodology for data gathering and analysis, and the trustworthiness of this study.

Chapter 3: Research Method

This study explored women’s experiences in Sierra Leone with access to breast cancer treatment. This study consisted of understanding the factors affecting the participants’ experiences when accessing breast cancer treatment based on Andersen and Newman’s model of health care utilization. This chapter provides a comprehensive overview of the research design, the rationale for choosing the research design, and my intended data collection method. I also explain my role as a researcher and addresses the trustworthiness related to this study.

Research Design and Rationale

The research question for this study was as follows: What are women’s lived experiences in Sierra Leone with predisposing, enabling, and need factors when accessing breast cancer treatment?

Qualitative data were gathered from women in Sierra Leone diagnosed with breast cancer regarding their experiences with access to breast cancer treatment. The phenomenon the study addressed was Sierra Leonean women’s experiences concerning breast cancer treatment access based on Andersen and Newman’s model of health care utilization. Furthermore, the study’s intended purpose was to understand women diagnosed with different stages of breast cancer, how they went about accessing breast cancer treatment, and how those experiences could be used to improve access to breast cancer treatment in Sierra Leone.

A qualitative research design was used for this study. Qualitative research is used to understand a target population’s beliefs, experiences, attitudes, interactions, and behavior towards a subject (Pathak et al., 2013). Qualitative research can play a vital role in ensuring that stakeholders provide insights into breast cancer treatment access based on their lived experience and knowledge (Pathak et al., 2013). I explored individuals' lived experiences in this study; thus, the qualitative approach was the appropriate methodology.

A descriptive phenomenological tradition was used in this study to answer the research question. Developed by Husserl, descriptive phenomenology focuses on connecting the thought of one's experience (the "what") to the perception of one's experience (Sloan & Bowe, 2014). A descriptive research tradition, as opposed to other qualitative research approaches (i.e., case study, narrative, ethnography, or grounded theory), was appropriate for the study because it allowed me to understand individuals' lived experiences with accessing treatment for breast cancer (Patton, 2015). Furthermore, because the descriptive phenomenological tradition is more precise and detail-oriented, I could understand the women's experiences in seeking breast cancer treatment in Sierra Leone, generating transferable insights essential in building evidence-based practice on the subject (Miksza & Elpus, 2018). Because the current research described individuals' lived experiences, a descriptive phenomenological approach was an appropriate research design.

The descriptive phenomenological approach also employed a unique procedure that no other qualitative research approach has, known as *bracketing*, which requires a researcher to forego their personal experience or any predisposition about the phenomena under study to understand how the phenomenon emulates participants rather than how a researcher would comprehend the phenomenon (Elkatawneh, 2016). I could set aside personal biases and rely on the raw data to describe the participants’ experiences through bracketing.

Role of the Researcher

My role as a researcher in this study was as an observer and interviewer. My purpose was to collect and interpret data through a face-to-face interview of participants to understand women’s lived experiences with their access to treatment in Sierra Leone. The participants in this study had no personal or professional relationship with me. As the researcher, my participation in this research was as an interviewer, meaning I relied only on the participant’s personal experiences as a source for answering my research question (Sutton & Austin, 2015). To fully understand the phenomena being researched, it was imperative that I did not exercise any form of influence over the participants and how they responded to the interview questions (Sutton & Austin, 2015). As the study’s main instrument, I had to ensure the entire research was competently conducted.

My goal as the researcher was to carry out a true unobstructed, uninfluencing, and nonbiased dialogue with the participants in an interview. It was imperative that participants feel safe, secure, and comfortable during the interview process (Sutton & Austin, 2015). For this reason, my responsibility was to safeguard the participant’s information by using aliases to classify them (Sutton & Austin, 2015). Moreover, I ensured I followed the ethical guideline set by Institutional Review Board (IRB) and ensured the study was conducted as morally as possible under the circumstances (Sutton

& Austin, 2015). As the primary investigator, I ensure that the research process is accurate and ethical.

I used several strategies to minimize bias and preserve the objectivity of the data. I practiced bracketing, which is a process that adds information by expanding objectivity and enhancing my reflexive limit (Patton, 2015). Bracketing allowed me to stay within the research guidelines' confines during the interaction process of exploring the substance of the participants' experience (Elkatawneh, 2016). I used journaling and field notes to ensure data collection integrity further to capture the participant's emotional response to the interview questions (Patton, 2015). To ensure that no other ethical issues arose, I followed all research guidelines by obtaining informed consent and providing a privacy notice explaining how I planned to provide privacy to participants' information before the interview.

Furthermore, I followed all research rules set by Walden university IRB. Beyond this fact, I did not encounter any further ethical issues. All of these strategies enhanced the ethical appropriateness of the current study.

Methodology

Participant Selection Logic

The logic for participant selection is generally informed by the research design. Generally, in a qualitative study, there is no set rule for sample size (Patton, 2015). Moreover, sampling in a qualitative study is goal-oriented (purposive); this means that samples are selected based on their ability to provide richly textured data pertinent to the studied phenomenon (Vasileiou et al., 2018). Given the need to collect relevant data, participant selection was based on individuals’ ability to provide rich and in-depth information about their experiences.

I recruited 10–15 Sierra Leonean women between the ages of 35 and 50 who reside in Freetown and the surrounding rural areas and who have been diagnosed with breast cancer. Although breast cancer diagnoses in women under 40 represent only about 7% of cases worldwide (Anders et al., 2009), I chose to expand the sampling age group to 35 years of age because statistics show that most women in West Africa will have their first child by 18 (Avogo & Somefun, 2019). Because progesterone receptor (PR)-negative (ER-PR-) and estrogen receptor (ER) of breast cancer shows a connection to poorer prognosis and higher grade compared with other breast cancer subtypes, this shows a considerable increase in the risk of developing breast cancer, so I considered the younger age group necessary for my study (Work, 2018).

Because of the possibility of the stigma associated with breast cancer, the lack of a cancer registry, the lack of central cancer medical centers within Sierra Leone, and the logistical difficulties of reaching some rural areas outside of Freetown, I employed a snowball sampling strategy. Snowball sampling is used when there are difficulties in locating the intended research population (Naderifar et al., 2017). Snowball sampling methods allowed me to use current participants to recruit other participants (Naderifar et al., 2017). Doing this ensured that future and current participants experienced the same phenomenon. This selection continued until the data saturation was reached.

Additionally, I used criterion sampling for participant selection. Criterion sampling requires that every participant in the study share a common experience of the phenomenon being studied (Palinkas et al., 2013). The two primary criteria for inclusion in this study were that each participant must (a) fall within the preset age group of 35–50 years of age and (b) have a diagnosis with Stage I, II, III or IV of breast cancer. I sought at least two participants from each breast cancer diagnosis stage or upon recurrence for inclusion in this study.

Once the above criteria were finalized, I visited The Aberdeen Women’s (AWC) Centre and The Thinking Pink breast cancer foundation for participant recruitment. These visits were to place flyers requesting volunteers and speak to these facilities’ directors to obtain permission to post recruitment flyers and ascertain the appropriate recruitment method. Prospective participants contacted me and were evaluated with the inclusion criteria to determine their eligibility.

Instrumentation

Several different forms of data collection instruments can be used in a qualitative study. For this study, I used virtual, semistructured, in-depth interview questions about the participants’ experiences relating to breast cancer treatment, including access and utilization. Semistructured interviews are the most common form of data collection in qualitative studies and are appropriate for this study because it requires participants to answer predetermined open-ended questions (Jamshed, 2014). These interviews are created using a guide that is a schematic introduction of inquiries or points the interviewer wishes to explore (Jamshed, 2014). The semistructured interview guide served the valuable purpose of investigating numerous respondents more methodically and comprehensively and allowed me to interview while keeping the interview focused on the topic. It is recommended that when using an interview as an instrument of data collection, each interview will last for about an hour or more, depending on the participants’ response to follow-up questions (Jamshed, 2014). The information collected from the participants through individual semistructured interviews served as the data for this study.

My interview approach centered on the participants’ experiences with breast cancer treatment access in Sierra Leone. The interviews were recorded using audio instruments to avoid missing or misinterpreting participants’ responses and providing reliability to the data (Patton, 2015). Additionally, to ensure data collection integrity and capture data from the interview effectively, additionally, I used journaling and field notes to capture the participant’s emotional response to the interview question and verbal prompts, enabling me to record a verbatim transcript of the interview (Jamshed, 2014; Patton, 2015). The field notes and the journals informed the main data from the interviews, particularly in the research analysis phase.

Researcher-Developed Instruments

Instrumentation refers to how a researcher obtains the data for the research. Because I was responsible for conducting the semistructured interviews, I was the study’s primary instrument (Pezalla et al., 2012). I developed the interview question protocol (see Appendix A) using current literature, such as Rubin and Rubin (2016), DeCarlo (2018), and Weller et al. (2018), and by ensuring the primary interview questions align with the research question and my research design. My research question and study design acted as a reference point in developing the interview questions that consisted of a primary open-ended question centered around the research topic (Rubin & Rubin, 2016). The primary or opening question led to following up on probing subquestions and transitioning into closing questions (Rubin & Rubin, 2016). The validation of the interview guide was based on the pilot study's findings.

Pilot Study

I conducted a pilot study using a small number of individuals who fit the eligibility criteria. The purpose of a pilot study is to conduct a smaller study that mirrors a large study to help the researcher identify areas of concern and develop the best method for addressing these concerns before initiating the large study (Malmqvist et al., 2019). The pilot study was important because it helped me address participant recruitment problems, problems with data collection procedures, and sampling strategy (Malmqvist et al., 2019). The pilot study also helped me understand the time and financial requirements to conduct a larger study.

The pilot study procedures for recruitment, participation, and data collection followed the same procedures outlined below for the main study. For the pilot study, I recruited participants through flyers. The number of participants depended on the response I received from participants (Patton 2015); however, the goal was to recruit at least three pilot study participants. This small number allowed me to assess the interview protocol's acceptability and provide data on the main study's improvisation (Majid et al., 2017). The flyer included an overview of the research; it informed the participant that this was a pilot study and provided a brief description of what would be expected from these participants (Patton, 2015). The flyer also provided the interview's expected duration, the interview method, and my contact information.

Recruitment, Participation, and Data Collection

Once a willing participant contacted me, I screened each candidate by asking a series of questions using a screening form (see Appendix B) to determine the candidates' eligibility. Once eligibility was established, I went go over what the participant can expect on the day of the interview, including the precautions procedures of COVID-19 and the duration of the interview, at least one hour; this provided me with enough time to go over the necessary documentation and explanation before starting the interview (Creswell & Creswell, 2018). Participants were provided with the meeting location and scheduled a date and time of the meeting (Creswell & Creswell, 2018). On the day of the interview, I provided the candidate with an overview of the study, the participant's contribution to the study, the intended data collection procedure, the precautions for COVID-19, and written consent to participate in the study (Creswell & Creswell, 2018). Participants signed the informed consent form before the interview could commence. Once the candidate signed the written consent, I inquired whether they would like to retain a copy of the consent form for their record (Creswell & Creswell, 2018). The participants' privacy was assured on the interview day by interviewing in a rented space with a private entrance. Access was restricted to me and a single participant at a time.

Because of the COVID-19 pandemic, several protocols were followed to protect the participants during the interview. The interviewer and participant wore face masks (CDC, 2020). After each interview, all hard surfaces were disinfected using a 60%

alcohol-based product (CDC, 2020). There were always at least 6 feet between the interviewer and the participant during the interview (CDC, 2020). These procedures were followed to ensure the safety of the participants was prioritized.

Data were generated using in-person, semistructured, in-depth interview questions about the participants' experiences relating to accessing breast cancer treatment. I informed each participant there would always be six feet between the interviewer and the participant during the interview (CDC, 2020). Next, I reviewed the informed consent and participants' rights and privacy and provided the participant with the opportunity to address any concerns they might have (Patton, 2015). The interview was recorded using audio equipment and journals as secondary data for data triangulation (Noble & Heale, 2019). Data from the semistructured, in-depth interviews served as the primary data source for the study.

At the end of each interview, I thanked the participant for their time and reminded them of the importance of their contribution to the study. I asked if they had any questions, provided them with my contact information should they have any follow-up questions or future participants' recommendations, and gifted them a thank-you prepaid cellphone recharge (Creswell & Creswell, 2018). For my follow-up plan, if recruitment resulted in too few participants, I intended to utilize the snowball sampling methods; this allowed me to use current participants to recruit other participants (Naderifar et al., 2017). They ensured that future and current participants had all experienced the same phenomenon. This selection was continued until I reached data saturation.

Data Analysis Plan

A data analysis plan guides how the information will be arranged and broken down. According to Bhatia et al. (2020), the data analysis plan should enable the researcher to accomplish three goals that identify with the researcher's objective before starting their information collection. These goals include gathering the information that helps the researcher answer their research question, using an appropriate approach to help understand participants' responses, and connecting themes and patterns within the data to validate the research (Busetto et al., 2020). I used these goals to inform my data analysis plan.

I used a content analysis approach for my study. Content analysis is a research technique used to categorize recorded communication patterns (Renz et al., 2018). Using content analysis allowed me to gather data from various forms of data sources analytically (i.e., written, oral, and visual). In a qualitative study, the content analysis focuses on understanding and deciphering participants' responses. This process allows a researcher to classify or "code" themes, concepts, and words within the data and analyze them (Renz et al., 2018). Because my goal was to explore women's experiences in Sierra Leone when accessing breast cancer treatment, the individual interview allowed the analysis of the audio data from the interviews and assisted me in finding emerging themes and patterns within the data.

Qualitative data analysis (QDA) software was also used for data analysis, specifically ATLAS.ti. ATLAS.ti provides various tools for completing the tasks related to any systematic method to unstructured information, e.g., information that cannot be comprehensively analyzed by formal, statistical methodologies (Friese, 2011). I used ATLAS.ti to keep the information, codes, reminders, and discoveries from the study in one location. Subsequently, the software allowed me to investigate the study's information and to construct relationships and connections within the study's data to create a graphical perspective on the information collected. The use of qualitative software enhanced the quality of the data analysis procedure.

Data were generated using virtual, semistructured, in-depth interview questions and reflective journals. Reflective journals were used to compare and evaluate the participant's experiences' accuracy and the research findings' content validity (Rettke et al., 2018). The research question I aimed to answer was women's lived experiences in Sierra Leone with predisposing, enabling, and need factors when accessing breast cancer care.

Once the interviews were concluded, I began my transcription by listening to the interview's audio recording a few times to understand the participants' responses. Next, the transcribed audio information was classified and organized to find different themes and relationships. For instance, in connection to my research question, I coded social influence, subject matter experience, source of information and ideas, and the positive or negative reaction to an inquiry (Bhatia & Bhatia, 2020). The information was then uploaded onto the computer so that I could input it into the ATLAS.ti software for the organization. (Bhatia et al., 2020). Discrepant case sampling refers to the sampling technique that aims to intricate, change, or improve a theory (Creswell & Creswell, 2018). I was responsible for addressing the discrepant cases in the data analysis (Creswell

& Creswell, 2018). I used a more restrictive technique for categorizing cases to address discrepant cases. All these steps served as the foundation of the data analysis procedure for the study.

Issues of Trustworthiness

The phenomenon I studied in this qualitative research focused on the experiences of women from Sierra Leon diagnosed with breast cancer and their access to treatment. Credibility speaks to the confidence associated with the research (Korstjens & Moser, 2017). Credibility was established by ensuring the research findings exemplified believable information from the participant's actual responses (verbatim), and the interpretation of the data is of the participant's original view (Korstjens & Moser, 2017). Additional themes from each interviewee were used to assess the level of data saturation.

Another dimension of trustworthiness is transferability. Transferability refers to the degree of possibility the study's findings can be transferred to different settings with different respondents (Korstjens & Moser, 2017). Transferability was established through thick descriptions (Korstjens & Moser, 2017). I provided an in-depth description of the participants, the research context, and the procedure to establish the study's transferability.

Dependability is another criterion of trustworthiness. Dependability is established by ensuring the constancy of conclusions over time (Korstjens & Moser, 2017). Reliability in the research was addressed to make the results dependable and accurate in the participants' responses. All edits in this research are visible to show how the data was collected and analyzed. The interviews and discussions were recorded using an audio recorder. They were transcribed verbatim, with each one being presented separately. I used these strategies to establish the dependability of the study.

Another dimension of trustworthiness is confirmability. Confirmability relates to the degree other researchers could affirm the study results and requires reflexivity in the research study (Korstjens & Moser, 2017). Reflexivity is the process of basic self-reflection around oneself as a researcher (own predispositions, inclinations, biases), how the study relates to the respondent, and how the relationship influences participants' responses to questions (Korstjens & Moser, 2017). I utilized journaling to capture my perceptions and bracketing to remove personal biases, ideas, or influences (Elkatawneh, 2016). I also used these strategies to establish the confirmability of the study.

Ethical Procedures

Because of a qualitative study's nature, it is important to develop a clear ethical guideline that addresses participants' privacy, avoids misrepresenting participant meaning, and creates honest interaction with participants. This study's ethical procedure included the explanation of the study's data collection method; each participant was required to sign a voluntary consent form before participating in the study to ensure the recruitment was done in a non-coercive manner (Sanjari et al., 2014). Because all interviews were recorded using digital equipment, all digital files were password protected and stored for 5 years following the study's conclusion (Sanjari et al., 2014). Upon each interview's conclusion, information on the participants' responses was shared with the participant to ensure they elucidated what they meant, corrected errors, and offered additional material if required (Korstjens & Moser, 2017). No participant in this study had any professional or personal connection with me (Korstjens & Moser, 2017). These procedures helped protect the participants from ethical violations in human research studies.

IRB approval (08-11-21-0761511) was also secured to enhance the ethical soundness of the study. IRB approval was obtained to ensure all ethical considerations have been met within the study, guarantee participants' legal protection, and ensure that no psychological, physical, or risk is present due to participating in the study (Sanjari et al., 2014). The participant's consent form explained the participant's rights and contact information should a participant want to contact the IRB. I documented all agreements and addressed any concern expressed by a participant relating to the study before they can participate in the study. All these measures helped enhance the overall quality of my study.

Summary

In this chapter, I explained the study's intended methodology; I also explained my role as a researcher and discussed the process for participant recruitment, data collection, and data analysis. Furthermore, I addressed the study's intended trustworthiness and ethical procedures. The information provided in Chapter 3 was all factual. Chapter 4 will provide actual findings and results and any validity and trustworthiness issues that arise while conducting the study.

Chapter 4: Results

Breast cancer has received attention from researchers worldwide; however, little attention has been paid to the first-hand experiences of women’s access to treatment for breast cancer in Sub-Saharan Africa. This qualitative study aimed to explore women’s experiences accessing breast cancer treatment in Sierra Leone. Exploring participants’ experiences of access to breast cancer treatment through a phenomenological approach helps fill the literature gap. To address the study purpose, I identified the following research question: Based on their lived experiences, what are the predisposing, enabling, and need factors of women in Sierra Leone when accessing breast cancer treatment?

In this chapter, I describe the thematic analysis approach as guided by Braun and Clark (2006). The following section describes the study setting’s trustworthiness of the data. Next, descriptive data for each study participant is presented, and a description of the study findings.

Pilot Study

The pilot study was conducted using a small number of individuals who fit the eligibility criteria. The purpose of a pilot study is to conduct a smaller study that mirrors a large study to help a researcher identify areas of concern and develop the best method for addressing these concerns before initiating the large study (Malmqvist et al., 2019). A pilot study was important because it helped me address participant recruitment problems, problems with data collection procedures, and sampling strategy (Malmqvist et al., 2019). The pilot study also helped me understand the time and financial requirements to conduct a larger study.

The pilot study procedures for recruitment, participation, and data collection followed the same procedures outlined below for the main study. For the pilot study, I recruited participants through flyers, there were 3 total participants of my pilot study (Patton 2015); This small number allows me to assess the interview protocol's acceptability and provide data on the main study's improvisation (Majid et al., 2017). The flyers included an overview of the research; it informed the participant that this was a pilot study and provided a brief description of what would be expected from these participants (Patton, 2015). The flyers also provided the interview's expected duration, the interview method, and my contact information.

Setting

The study targeted women living in Freetown, Sierra Leone, diagnosed with breast cancer. I recruited women through flyers at the Aberdeen Woman's Center and the Thinking Pink foundation, where women with cancer were likely to seek breast cancer treatment in Freetown. Women aged 35 to 50 years, willing and able to provide rich and in-depth information about their experiences with access to breast cancer treatment in Sierra Leone, were included in the study.

Demographics

I used purposive sampling to select 10 women to participate in the semistructured in-depth interviews. The sample size was guided by the requirements of data saturation, according to Faulkner and Trotter (2017). Data saturation occurred by the 10th interview when no new information was uncovered. Six participants (60%) were single, two (20%) were married, and two (20%) were widowed. The level of education ranged from never having attended school to having completed secondary school. The time taken by participants to initiate breast cancer treatment ranged from 2 weeks to 4 months, with an average of 4 weeks. Participants' length of cancer treatment ranged from 3 to 12 months, with an average of 4 months. Table 1 provides the characteristics of the study participants.

Table 1

Descriptive Data

Participant	Marital status	Level of education	Time taken to start treatment in months	Length of cancer treatment in months
Participant 1	Single	Primary	1	12
Participant 2	Single	Secondary	3	12
Participant 3	Single	None	5	> 12
Participant 4	Single	Primary	1	3
Participant 5	Single	None	4	3
Participant 6	Married	Secondary	1	5
Participant 7	Single	Primary	0.5	10
Participant 8	Married	No education	0.75	4
Participant 9	Widow	Primary	0.75	12
Participant 10	Widow	Secondary	1	12

Data Collection

Ten women participated in one semistructured in-depth interview each between March and April 2022. Each participant was required to sign a consent form before any interview took place. Interviews were conducted by me and recorded via WhatsApp (https://www.whatsapp.com). The interviews lasted from 30 to 60 minutes, with an average duration of 42 minutes. I saved the interview files were save to my laptop and secured them with a password to ensure data confidentiality. I transcribed the interview verbatim in Microsoft Word.

Data Analysis

I conducted a thematic data analysis guided by the Braun and Clarke’s (2006) six steps of inductive thematic analysis:

1. Data familiarization
2. Initial coding
3. Searching for themes
4. Reviewing the themes
5. Naming the themes
6. Presenting the findings

The first step of the data analysis process was data familiarization, which provided an overview of the entire interview data set (Braun & Clark, 2006). Data familiarization is aimed at finding patterns of meaning across participant responses and interview transcripts (Braun & Clarke, 2006).

In Step 2, I identified initial codes that supported the research questions and the conceptual framework (see Appendix C). Coding refers to grouping excerpts from the transcripts with similar meanings (Braun & Clarke, 2006). I assigned the same code to various excerpts that had a similar meaning. As an example of the inductive, initial coding process, consider the following response from Participant 2:

> After I got to the non-profit organization Thinking Pink, the nurse at the organization council me and told me, it was better for me to get a check because

> not all lumps are breast cancer, but if I do not get screened and it is cancer, the longer, I wait for the more likely it will kill me.

The excerpt above was allocated the code “advice from health care workers,” which was defined as a code that indicated the importance of health care advice encouraging women to seek breast cancer treatment. I identified a total of 50 initial codes.

Step 3 was searching for themes, where I reviewed the initial codes to identify related ones (Braun & Clarke, 2006). Related codes were identified when the meaning of the data assigned to them converged by displaying different aspects of the same overarching idea (Braun & Clarke, 2006). I then identified themes from the converging codes; a total of 6 major themes and seven subthemes were identified. Table 2 indicates how initial themes were clustered to form themes.

Table 2

Codes, Categories, and Themes

Code	Categories	Theme
Choosing a screening and treatment center	Choice of treatment facility	Access to health services
Mode of transportation	Transportation to a health facility	Access to health services
Referral me to Thinking Pink	Referral for treatment services	Access to health services
Travel time to the treatment center	Time traveled to the health facility.	Access to health services
Cost of screening	Financial burden	Affordability of treatment
Cost of transportation to the treatment center	Financial burden	Affordability of treatment
Cost of treatment	Financial burden	Affordability of treatment
The factor that led to the reaction	Financial burden	Affordability of treatment
Financial help from family	Financial support	Affordability of treatment
Financial help from a neighbor	Financial support	Affordability of treatment
Financial hardship caused by having breast cancer	Financial burden	Affordability of treatment
Financial help organization	Financial support	Affordability of treatment
Financial Worries	Financial burden	Affordability of treatment
Funding for screening	Financial burden	Affordability of treatment
Funding for treatment	Financial burden	Affordability of treatment
Money to live	Financial burden	Affordability of treatment
Screening cost	Financial burden	Affordability of treatment
Understanding of breast cancer	Breast cancer knowledge	Attitudes and knowledge of breast cancer
Understanding the effect of delaying treatment	Risk factors associated with delayed care	Attitudes and knowledge of breast cancer
Need for care	Symptoms of breast cancer	Experience of breast cancer symptoms
Signs of breast cancer	Symptom discovery and nature	Experience of breast cancer symptoms

Code	Categories	Theme
Financial reasons cause a delay in starting treatment	Lack of finances	Delay in breast cancer treatment
Time before starting treatment after diagnosis	Delayed treatment	Delay in breast cancer treatment
Sick from treatment	Sickness from treatment	Side effects of breast cancer treatment
Hair lost	Hair loss	Side effects of breast cancer treatment
Giving advice to other	Offering others support	Community education
Denial of diagnosis	Denial	Coping with breast cancer symptoms and diagnosis
Unsure of the outcome of treatment	Uncertainty	Coping with breast cancer symptoms and diagnosis
Feeling scared	Fear and anxiety	Coping with breast cancer symptoms and diagnosis
Reaction to breast cancer diagnosis	Fear and anxiety	Coping with breast cancer symptoms and diagnosis
Fear of breast cancer diagnosis	Fear and anxiety	Coping with breast cancer symptoms and diagnosis
Fear of death	Fear and anxiety	Coping with breast cancer symptoms and diagnosis
God was punishing me	Attitude to breast cancer diagnosis	Copying with breast cancer symptoms and diagnosis
Knew someone who survived breast cancer	Others lived experiences	Coping with breast cancer symptoms and diagnosis
Grateful for treatment	Gratitude	Coping with breast cancer symptoms and diagnosis
The decision to get screened	Prompts to seek help	Intent to seek treatment
The decision to get treatment	Prompts to seek help	Intent to seek treatment
Length to time for treatment	Period of treatment	Length of breast cancer treatment (Descriptive data)
Advice from healthcare workers to get treatment	Healthcare worker-patient relationship	Quality of Health Care
Bad experience with breast cancer care	Inadequate communication	Quality of Health Care
Good experience with breast cancer care	Healthcare worker-patient relationship	Quality of Health Care
Education of treatment	Patient education	Quality of Health Care

Code	Categories	Theme
Education on the effect of breast cancer	Patient education	Quality of Health Care
Explanation of Type of treatment	Adequate communication	Quality of Health Care
Lack of options for breast cancer treatment	Inadequate communication	Quality of Health Care
Type of treatment	Treatment received	Quality of Health Care
Church members encouragement to receive breast cancer care	Spiritual support	Social life and networks
Culture played a role in health decision	Family and friends influence	Social life and networks
Dealing with stigmatism	Experienced stigma	Social life and networks
I survived	Spiritual support	Social life and networks
Neutral experience with breast cancer care	Family and friends influence	Social life and networks
Encouragement family to get screen/treatment.	Family and friends influence	Social life and networks
Encouragement from friends to get treatment	Family and friends influence	Social life and networks
Faith in God’s healing power (prayer)	Faith in God	Social life and networks
Religion played a role in health decisions.	Belief in God’s healing	Social life and networks
Geographical location	Location	Sociodemographic characteristics
Marital status	Marital status	Sociodemographic characteristics
Level of Education	Education	Sociodemographic characteristics
Source of income	Income	Sociodemographic characteristics

The fourth step in Braun and Clarke’s (2006) thematic analysis process entailed reviewing identified themes by appraising them against the original data. This step aimed to ascertain that the themes were accurate, complete, and cohesive. The themes on sociodemographic characteristics and length of breast cancer treatment were omitted and included in the section on descriptive data. I also integrated the theme of social life and networks into the theme coping with breast cancer symptoms and diagnosis.

The fifth step was the definition of themes by assigning names to clarify the importance of each theme in addressing the research question (Braun & Clarke, 2006). I allocated names to themes that clarified the significance of each theme in addressing the research question. The final step was the presentation of findings (Braun & Clarke, 2006). In the Results section, findings are organized by theme. Direct quotes from the data are provided to enable the reader to independently assess the findings’ confirmability.

Evidence of Trustworthiness

In qualitative research, evidence of trustworthiness is defined by four fidelity components: credibility, dependability, confirmability, and transferability (Braun & Clark, 2019). In the section below, I describe the concepts to indicate how they were attained in this study.

Credibility

Tracy (2019) defined credibility as the researcher’s ability to confirm that the methodology and analysis process accurately interpret and represent the data. This study employed consistency checks by using a comprehensive review of the literature to develop the foundation of this study. Also, I integrated consistency checks into developing the semistructured interview guide and theoretical applications of the study's aim. For example, I invested sufficient time to familiarize themselves with the study setting and participants to ascertain credibility. An in-depth literature review identified the most relevant characteristics to address the research question. In addition, I encouraged voluntary participants; informants were urged to be honest during interviews. I also informed informants that they could choose not to participate or answer any questions that made them feel uncomfortable.

Transferability

Tracy (2019) stated that transferability is operationalized by the ability of others to interpret and apply the findings of a study to populations beyond the study's sample. Qualitative studies are inherently limited in transferability, given the small sample sizes. To guarantee transferability, I included a description of participants' experiences and their context to help others identify the sample to which this study may be relevant. In addition, I included an adequate account of the phenomenon under investigation in the background for the readers' clarity. Also, in the Methods section, I included the following information: number of study participants, data collection methods employed, length of interviews, and data collection period. In providing this clarity, I facilitated readers' ability to evaluate the study findings with what they have seen emerge in their settings and employ similar modalities and recommendations from this study.

Dependability

Tracy (2019) indicated that dependability is conceptualized by the degree to which other researchers can apply the same methodological plan and obtain similar findings to the original project. The analysis procedures helped to construct a rich picture of the perceptions and experiences of study participants that could be replicated by other researchers. I included a detailed record of the research processes to aid future researchers in reproducing the work or gaining similar results.

Confirmability

According to Tracy (2019), the notion of confirmability is about the neutrality of the study findings. Neutrality is measured by limitations inherent to the study's methodology, such as researcher biases, data analysis tools, and procedural errors in the analysis phase. In this study, I adhered strictly to Braun and Clarke's six-step thematic analysis approach (2006). Details of the methodology were provided in Chapter 3 to enable the reader to determine how far the data and constructs emerging from the analysis procedures may be accepted. I also described the codes and themes that emerged from the analysis. The codes were presented for readers to determine whether the description of the findings aligns with the data obtained. In this way, I utilized a data-oriented approach to explain how the data was gathered, processed, and ultimately led to the formation of recommendations.

Results

In this section, findings are presented to respond to the study research question, which explored predisposing, enabling, and need factors of women accessing breast cancer treatment in Sierra Leone. The following five data themes were found to respond to the research question and are explained and illustrated by quotes in the sections below:

- Theme 1: Attitudes and knowledge of breast cancer.
- Theme 2: Access to health services.
- Theme 3: Affordability of treatment.
- Theme 4: Coping with breast cancer symptoms, diagnosis, and treatment.
- Theme 5: Quality of healthcare

Theme 1: Attitudes and Knowledge of Breast Cancer

Theme 1 discussed participants' attitudes and knowledge of breast cancer. The first aspect explored was what participants knew about breast cancer. Two participants discussed risk factors associated with breast cancer; one was unaware, whereas the other named three risk factors. Participant 1 indicated that they were unaware of the risk factors for breast cancer: "I do not know the reason why people get breast cancer." Participant 2 reported that breast cancer was caused by smoking, excessive alcohol consumption, and failure to breastfeed children. Participant 2 stated,

> I understand that breast cancer occurs when the cells inside the breast grow past the normal cells. Well, from what I have been told, breast cancer can be caused by smoking, consuming alcohol excessively, or they did not breastfeed their kids.

Four participants described breast cancer as a disease that kills. For instance, Participant 9 described breast cancer: "Breast cancer is a sickness that kills people." In addition, Participant 3 described it as a disease that makes it hard for those affected to eat or sleep. Participant 3 stated, "It (breast cancer) is something that happens to people that is not good because when you have it, you are unable to eat, you are unable to get the courage, and it even makes it difficult to sleep."

The participants' second aspect was the effects of delayed breast cancer treatment. Many (*n* = 5) participants knew that delayed breast cancer treatment increases a woman's chance of cancer death. For instance, Participant 10 indicated that she had understood the importance of early treatment as soon as an individual discovers an issue with the breast during self-exam. Participant 10 stated,

> I have learned about breast cancer, and when you do your self-exam, if you feel anything on your breast, you must come to the hospital quickly. However, if you leave it untreated, it will spread in your body, and you will die.

In summary, this theme indicates that participants knew about breast cancer. They discussed factors predisposing a woman to cancer, including smoking, excessive drinking, and failure to breastfeed. Also, participants were aware of the risk of death from delayed breast cancer treatment.

Theme 2: Access to Health Services

Theme 2 discussed participants' experiences accessing health services for breast cancer screening and treatment. The first step for some participants was disclosing symptoms of breast cancer to social structures. Four participants disclosed their symptoms of breast cancer to friends, neighbors, and family members. These initial conversations encouraged them to seek screening for breast cancer. For example, Participant 8 reported that: they told a neighbor and their mother about a lump in their breast and were encouraged to seek breast cancer screening. Participant 8 stated,

> It started as a lump. At first, I thought it was just the seed inside my breast, but it kept growing, and the more it grew, the more the pain increased. I started to feel pain from one side of my breast to the other side. That was when I showed my neighbor and I told her my boobs had a seed that was growing, but I did not think it was cancer. Then she told me to go and get checked, and that was when they told me I had breast cancer. Also, my mother told me to go and get screened. She told me not to be afraid and that whatever the result was, God was in control, and everything would be ok.

Participant 4 indicated that: a friend encouraged them to seek cancer screening. Participant 4 stated: that her friend shared that her mother had cancer, sought help at a health facility, and accompanied her to the same hospital for breast cancer screening. Participant 4 stated: “My friend explained that her mother had the same sickness before, so she accompanied my brother and me to the hospital because that was where her mother went to get (cancer) screening.”

However, there were participants (*n* = 3) who decided to seek the advice of a health care provider without consulting their social structures. Those participants indicated that they presented themselves to a health care worker with symptoms indicative of breast cancer. The health care workers’ advice facilitated the uptake of breast cancer screening and subsequent treatment. For example, Participant 2 indicated that: they sought health services with a lump in the breast and were counseled to get cancer screening immediately. Participant 2 stated,

> After I got to the non-profit organization (Name Withheld), the worker counseled me and told me it was better for me to get a check-up because not all lumps are breast cancer, but if I do not get screened and it is cancer, the longer, I wait for the more likely it will kill me.

The second step after breast cancer diagnosis was choosing a treatment health facility. Participants indicated that their choice of health facility was influenced by advice from the non-profit organization they initially sought help from (*n* = 4), family (*n* = 4), friends (*n* = 2), religious leaders (*n* = 2), and community members (*n* = 1) and social media adverts (*n* = 1).

The non-profit organization referred participants to health facilities with whom they had existing collaborations. Participants chose health facilities where they knew a staff member and were reputed for good breast cancer treatment services. For example, Participant 1 indicated: that they were referred to a health facility by a non-profit organization and their aunt knew a staff member there. Participant 1 stated,

> The non-profit organization told me that this was the best clinic to go to because they work with them all the time. Because it was a government hospital, and the cost was cheaper there. Also, my auntie knew a nurse who worked at that hospital and told me that I had to go to that hospital.

The second example is from Participant 8, who indicated that they chose a health facility because it had reputable services. They reported that they had received media reports that women received breast cancer treatment at that facility. Participant 8 stated:

"I chose that clinic because it is well known that this clinic is good at dealing with breast cancer. I always hear the adverts on the radio where enough women are going there."

Participants sometimes considered health facilities where an acquaintance had previously received treatment. For example, Participant 6 reported that a friend had recommended a health facility where they once accessed breast cancer treatment. Participant 6 stated: "After my friend explained all of this information, she advised and directed me to (Name withheld) hospital because this was where she went to get the screening and to receive the treatment."

Support structures were vital in encouraging participants to take up breast cancer treatment. For some respondents, religious leaders and individuals of similar faith were instrumental in encouraging them to seek treatment. For instance, Participants 3 and 6 reported that they disclosed their symptoms to their religious leaders and were encouraged to seek health care. Participant 6 reported their Islamic faith leader's advice: "My Imam talked to me and advised me to go to the treatment." On the other hand, Participant 3 sought counsel from a Christian religious leader:

> For example, when I first noticed the growth, I told my pastor and his wife about my problem. (They said) that I should have faith that God is in control. This faith gave me the courage to go and get checked.

The following support structure was family members, including parents and siblings. Participants 1, 5, 7, and 8 indicated that: they sought counsel from family members and were encouraged to seek treatment. Participants also indicated that culture influenced their decision to accept the advice of older family members. For example, Participant 5, in the quote below, reported that she took her older sister’s advice for health care seeking because individuals must respect their elders’ opinions. Participant 5 stated: “I decided (to seek treatment) because my sister advised me about this sickness. Moreover, in my culture, you must listen to your elders.”

Additionally, others received support from their children: “My children were the ones that encouraged me to go for breast cancer treatment.” (Participant 10) Others, like Participant 4, indicated that a relative in their extended family helped them. She reported that an aunt with whom she lived at the time encouraged her to seek treatment. In the quote below, she narrated the support received from the aunt:

> My aunt, with whom I was living at her house, and I used to help her with housework, so when I told her about my symptoms, she encouraged me to go and get checked, and she told me she would help me pay for it… My aunty encouraged me to be brave, have faith, and believe in God that if I got the treatment, God would help me get through it and get well.

Friends were also an important support structure for treatment access. For example, Participant 2 reported that friends linked them with a health provider. In the quote below, she narrated that her friend noticed that she was afraid to seek treatment, and she called a health provider who came to offer her counseling at home. Participant 2 stated:

> I told a friend of mine, and she convinced me to go and get screened, but I was afraid. So, my friend called a nurse that worked at the non-profit organization, and

> that nurse called and explained to me that I did not have any reason to be afraid and explained the whole process to me.

Knowing a breast cancer survivor was the next factor that encouraged participants to access treatment. Three of the participants indicated that they knew a breast cancer survivor and derived strength and hope from talking to such individuals. The first example was from Participant 2, who suggested that a health provider had shared her cancer treatment experience, which encouraged her. Participant 2 stated:

> The same nurse from the non-profit organization called me. She told me about a similar experience (with breast cancer/. She said at least I already had kids. She had no kids. However, she was lucky to take the treatment because it saved her life.

The second example was from Participant 6, who reported that she disclosed her growth in the breast to a friend who was a breast cancer survivor. The friend educated her about breast cancer and its effect on women. Participant 6 stated:

> Well, I started having pain and growth in my breast, so I spoke with one of my friends, a breast cancer survivor, and she educated me on what breast cancer is and how it can affect women because she had experienced it.

The third example was from Participant 8, who reported that her cousin was a breast cancer survivor. She stated that her knowledge of breast cancer was from her cousin's experience of delaying treatment and dying of cancer. Participant 8 stated: "I learned about breast cancer because one of my cousins had the same sickness, and because she delayed getting treated, she ended up dying."

The next aspect related to access to health services was transportation to the health facility for treatment. All the participants indicated that they used public transport from their residences to the health facility. The cost of transportation ranged from three to nine USD per trip. The time taken to travel from home to the health facility explains the wide gap in the price of transportation. Participants reported that it took them between 20 minutes and two hours from home to the health facility. The average time taken by car or bus was one hour 10 minutes whereas the average cost by bus was 6.54USD.

In summary, participants discussed various aspects that influenced their access to health services. The first aspect was the influence of social structures in accessing breast cancer screening following disclosure of breast cancer symptoms. Then participants chose the health facility for treatment, which was influenced by recommendations from non-profit organizations, family members, doctors, friends, social media, and community members. The decision on which health facility to visit was also influenced by perceptions of affordability, quality of services, and recommendation by previous clients. The next aspect that influenced the uptake of breast cancer treatment services was strength and hope inspired by knowing a breast cancer survivor.

Additionally, transportation to the health facility was discussed as a service access component. All participants used public transport to travel from their residences to the health facility. Time taken to the health facility was an average of 1 hour and 10 minutes, and the average transport cost was $6.54 per trip.

Theme 3: Affordability of Treatment

Participants indicated they had to bear the following costs associated with breast cancer, including screening, treatment, and transport costs to the treatment center. Breast cancer screening costs were at an average of 16 USD. Participants 7 and 8 reported getting help from family members to pay for breast cancer treatment. Cancer treatment was indicated as high and not affordable to most participants. It included the cost of chemotherapy and surgery to remove the affected breast. The cost of treatment varied between $117.05 and $1447.74USD.

The high cost of breast cancer treatment was a concern to Participants 6, 7, 8, and 9. They indicated that they were worried after the breast cancer diagnosis and did not know how they would afford the treatment. There were delays of more than a month before the start of cancer treatment for many (*n* = 7) participants ranging from one to four months. Six participants reported the delay in treatment was due to a lack of funds to cover treatment costs. They relied on financial support from friends, family, and sponsors (non-profit organizations). For instance, Participant 3 reported that it took three months for the non-profit organization to secure a financial sponsor: “For three months, I had to wait until the non-profit organization found a sponsor to help pay for the treatment.”

In addition, participants reported that they also required financial support to cover living expenses during the time of illness and treatment. Participants 2, 5, 6, and 7 stated that they had no income source since they could not work during their illness. For example, Participant 5 indicated that she had no income since she had no energy to work: “Right now, I am not working, and I do not have a business. My family helps me with money to live because I am not well right now, so I do not have the energy to work." Participant 2 also reported that they were worried they would be unable to work and feed their family during their illness. Participant 2 stated: "I know when you do this operation, you have to stay in the hospital for some time, and I would not be able to sell my market and feed my family."

In summary, participants were concerned about the high cost of breast cancer treatment, and many required financial supports to afford it. Participants received financial support from non-profit organizations, family members, friends, and neighbors. The illness and treatment also interrupted the livelihoods of participants, and therefore participants required financial support to cater to their living expenses.

Theme 4: Coping With Breast Cancer Symptoms, Diagnosis, and Treatment

Theme 4 described participants' experiences with a breast cancer diagnosis, treatment, and coping mechanisms. Participants described how hard it was to receive a breast diagnosis using the following phrases: Participants 1, 4, 5, 6, and 7 'I was scared'; Participant 2 'stressful'; Participant 3 'It (diagnosis) is not true,' Participants 5, 7, and 8 'discouraging'; and Participant 8 'disappointed.' Additionally, Participant 2 thought that the breast cancer diagnosis was a punishment from God. They stated: "I felt like I had done something wrong, and God was punishing me." Other participants were in denial when they received the diagnosis. For example, Participant 2 struggled to understand why she was at risk of cancer, yet her lifestyle showed no predisposing factors. She argued that she did not drink or smoke and found it difficult to understand her breast cancer risk. Participant 2 stated:

> Honestly, I did not want to accept that I was at risk for breast cancer because I do not smoke and drink, so I thought, why would I get breast cancer? I thought maybe these people just wanted to make me spend money.

Secondly, respondents reported harrowing experiences and fears during breast cancer treatment. Most participants (*n* = 7) were afraid that cancer would lead to death. For instance, Participant 4 stated: “The doctor told me breast cancer is a sickness that kills people, and my kids are very young. I did not want to die and leave them.” Additionally, Participant 1 indicated that they experienced uncertainty about the outcome of breast cancer treatment. In the quote below, they indicated that they were not sure whether the treatment was effective. Participant 1 stated:

> I did not know if the treatment was working or if I would die. But the doctors were very patient with me and tried their best. I feel much better, mainly because I have undergone an operation to remove the lump from my body.

After breast cancer treatment, participants reported experiences of enacted and internalized stigma. Participants reported that they experienced stigma from community members following breast cancer treatment. Participants 1, 2, 5, and 8 said that community members would laugh or treat them differently because the cancer treatment had altered their bodies. For example, Participant2 reported that people laughed at her because of the changes to her body after treatment, including changes in breast shape, hair loss, and weight loss. In the quote below, they narrated their experiences of stigma: “At first, some people used to laugh at me because my breast shape was done, the chemo treatment made all my hair fall off my head, and I lost so must weight, I had rashes all over my body." (Participant 2) In addition, Participants 1 and 8 indicated that the loss of part of the breast was linked to loss of womanhood. Participant 1 indicated that friends left her after removing part of her breast: "Well, for one, I have lost some friends because they believe as a woman removing part of my boobs means I am no longer a woman."

Participants also reported instances where they experienced internalized stigma and adopted a negative self-image after breast cancer treatment. For example, Participant 1 indicated that she found it hard to find a husband because she believed breast removal altered her womanhood. Participant 1 stated: "This thinking also made it difficult to find a husband. Because people believe that since I cut out some part of my boobs, I will not be able to care for a baby since I cannot breastfeed."

Several factors enabled the participants to cope despite the difficult experiences during diagnosis and treatment. The first enabling factor reported by Participants (*n* = 8) was religion. Religion was a source of hope and strength during breast cancer treatment. The common idea among the participants was that God had the power to heal, giving them hope to endure the treatment. For instance, Participant 1 stated that her faith in God had helped her through chemotherapy and the side effects:

> Honestly, I have prayed a lot about this sickness, and I pray to God to give me the strength to survive because chemotherapy makes me very sick. All my hair fell from my head, making me weak I did not feel like eating, and it made me skinny. So, my faith that God will heal me has helped me a lot.

The next enabling factor was support from family and friends. Participants 3 and 6 indicated that the support of family and friends helped them get through the treatment.

Participant 1 noted that when they lost their hair due to treatment and their family encouraged them that the situation was temporary: “I lost my hair, my family counseled me and said this is a sickness for some time. It will not be like this forever.” In addition, Participant 6 reported that family and friends encouraged her through chemotherapy and her operation:

> Well, it is (referring to breast cancer treatment) not good, but it is not bad either. I am lucky to go through my chemotherapy and my operation and did not die. The encouragement I get from my family and friends helps me so I do not have to think about how bad this sickness is.

However, few cases were reported where family members were devastated by the breast cancer diagnosis. For instance, Participant 4 indicated that her husband abandoned her when her two breasts were removed: “When I look at myself, I see that I do not look like other women because both of my breasts are gone, and because of this, my children’s father left me.” In addition, Participant 2 reported that her children were devastated when she told them about the diagnosis because they were afraid that she would die. Participant 2 stated: “Even when I went home and told my kids, they all cried because, in Sierra Leone, many women die from breast cancer, so my kids thought I was going to die as well.”

Health care workers were also reported as an essential support structure during breast cancer diagnosis and treatment. Their counsel and encouragement persuaded participants to endure the treatment. For example, Participants 2, 3, 4, 7, and 8 applauded health care providers for the support they received from them before and during breast cancer treatment. Participants indicated that they had received counseling about cancer treatment and the importance of early treatment, as well as the side effects of the treatment. For instance, in the quote below, Participant 5 reported that their health care provider encouraged them to finish treatment:

> The care has been good, they treated me well, and the worker's counsel encouraged me to finish my treatment. I would say my experience with the care has been good. I thank God for them because I am alive today.

Participant 5 also indicated that health care workers at a Non-Profit Organization had counseled her that although chemotherapy had side effects, there were advantages to seeking treatment. She noted that the health care provider's advice encouraged her to start treatment. Participant 5 stated:

> My experience with the non-profit organization was not bad. At first, I was scared, especially after they told me about the side effect of the Chemo, but they explained that taking the treatment was the best thing for me, and I was able to work up the courage to take the first treatment.

In summary, theme 4 indicated that dealing with breast cancer diagnosis and treatment was very difficult. During the treatment, participants reported that they faced a fear of death. The situation was also not easy post-treatment due to enacted and internalized stigma. Coping mechanisms included encouragement from social structures and religious beliefs that imparted hope and encouraged health care workers.

Theme 5: Quality of Healthcare

Theme 5 discussed the quality of health care according to participants. The first aspect was the breast cancer treatment plans. Participants reported that their treatment plans were at different levels. Some underwent chemotherapy in preparation for a surgical procedure to remove the affected breast, while others were on medication after breast removal surgery. Participants indicated that their relationship with health care providers was crucial in encouraging them to take up breast cancer screening and treatment. Three participants reported that they sought screening or treatment following the advice of a health care worker. For example, Participant 2 reported that the health care worker encouraged them to get screened to determine whether the lump in their breast was cancerous or not. Participant 2 stated:

> After I got to the non-profit organization Thinking Pink, the worker council me and told me it was better for me to get a check because not all lumps are breast cancer, but if I do not get screened and it is cancer, the longer, I wait for the more likely it will kill me.

Positive experiences with health care providers while seeking treatment contributed to a good experience with care. Five participants rated their overall experience during treatment as good because health care workers explained or advised them on treatment (Participants 2 & 3), encouraged them (Participants 4 & 5), checked on them, and made sure they got proper treatment (Participant 8).

Participants reported that communication from health care providers about treatment options was essential. Five participants indicated that they received details about the treatment option that was available to them. However, four participants stated that they were not offered treatment options. For example, Participant 2 reported that the health care providers explained the treatments plan as follows:

> They (health care workers) told me I would have to do chemotherapy the first three-round, then I would have to do a breast operation, and after that, another four rounds of chemotherapy, offering I would have to take pills for five years.

Participant 3, on the other hand, reported that although the treatment plan was explained to her, she was not offered options. Participant 3 stated: “They told me to take Chemo, but they did not give me options. They told me if I took the treatment, I would start feeling better because it was good for me.”

Patient education by health care providers about the treatment plan was not always adequate. Participant 3 indicated that they did not understand the sickness or the treatment. They argued that the doctor was learned and therefore trusted to make the right decision. Participant 3 stated: “Honestly, I did not understand all about the sickness or the treatment, but the doctors went to school, and they knew when they told me to take the treatment I did.”

In summary, perceptions of quality services were influenced by participants’ relationships with health care providers. Most participants knew about their treatment plans. However, some felt that they were not offered treatment options. One of the participants reported that they did not have adequate information about their illness or treatment plan.

Summary

Much research has focused on breast cancer. However, little attention has been paid to the first-hand experiences of women's access to treatment for breast cancer. This qualitative study aimed to explore women's experiences accessing breast cancer treatment in Sierra Leone. To address the study's purpose, I identified one research question. The research question explored the lived experiences of 10 women diagnosed with breast cancer in Sierra Leone to identify their predisposing, enabling, and need factors when accessing breast cancer treatment.

Five primary data themes were identified to address the research question. The first theme indicated that participants knew about breast cancer. They discussed factors predisposing a woman to cancer, including smoking, excessive drinking, and failure to breastfeed. Also, participants were aware of the risk of death from delayed breast cancer treatment.

The second theme discussed various aspects influencing participants' access to health services. The first aspect was the influence of social structures in accessing breast cancer screening following disclosure of breast cancer symptoms. Then participants chose the health facility for treatment and were influenced by recommendations from non-profit organizations, family members, doctors, friends, social media, and community members. The decision on which health facility to visit was also influenced by perceptions of affordability, quality of services, and recommendation by previous clients. The next aspect that influenced the uptake of breast cancer treatment services was strength and hope inspired by knowing a breast cancer survivor.

Additionally, transportation to the health facility was discussed as a service access component. All participants used public transport to travel from their residences to the health facility. Time taken to the health facility was an average of 1 hour and 10 minutes, and the average transport cost was $6.54 per trip.

The third theme discussed participants were concerned about the high cost of breast cancer treatment, and many required financial support to afford it. Participants received financial support from non-profit organizations, family members, friends, and neighbors. The illness and treatment also interrupted the participants' livelihoods; therefore, participants needed financial support to cater to their living expenses; this theme addresses the need factor of the participants.

The fourth theme discussed participants' difficult experiences with breast cancer diagnosis and treatment. During the treatment, participants reported that they faced a fear of death. The situation was also not easy post-treatment due to enacted and internalized stigma. Coping mechanisms included encouragement from social structures and religious beliefs that imparted hope and encouraged health care workers.

The fifth theme discussed participants' perceptions of quality services influenced by their relationships with health care providers. Most participants knew about their treatment plans. However, some felt that they were not offered treatment options. One of the participants reported that they did not have adequate information about their illness or treatment plan. In Chapter 5, I will present an interpretation of the findings and the study's limitations and offer recommendations. The chapter will conclude with a section on study implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Whereas a majority of research focuses on breast cancer from a medical perspective, little attention has been directed towards first-hand experiences of women's access to treatment for breast cancer. This study aimed to understand women diagnosed with different stages of breast cancer, how they went about accessing breast cancer treatment, and how those experiences could be used to improve access to breast cancer treatment in Sierra Leone.

The findings may assist in how health systems can address providing access to breast cancer care and treatment for women in Sierra Leone. Government officials may utilize the findings from this study to develop health care policies regarding access to breast cancer treatment. Current health rules may also be reexamined, and new ones established to improve health outcomes. And an expansion of contemporary literature on access to treatment for breast cancer in Sierra Leone may also be affected. The research question explored the lived experiences of 10 women diagnosed with breast cancer in Sierra Leone to identify their predisposing, enabling, and need factors when accessing breast cancer treatment.

Ten women between the ages of 35 and 50 were interviewed using the same protocol. A descriptive phenomenological approach was selected as an appropriate research design due to the study's focus on participants' lived experiences. Specific questions relating to predisposing, enabling, and need factors of women accessing breast cancer treatment in Sierra Leone were evaluated. Emphasis was centered on attitudes and knowledge of breast cancer services accessibility; affordability in terms of treatment; coping with breast cancer symptoms, diagnosis, and treatment; and quality of healthcare.

According to the findings, participants were aware of breast cancer and the risks associated with delayed cancer treatment. Social structures were identified as the main contributors to accessing breast cancer screening and selecting a health facility for treatment. The selection of a health facility was simultaneously influenced by perceptions of affordability, quality of services, and recommendation by previous clients. Transportation to the health facility was found to be a key component, as all participants used public transport to travel to the health facility. The average transport cost was approximately $6.54 per trip. The high cost of breast cancer treatment was found to affect treatment access as participants required financial support. Finally, the illness and treatment were found to interrupt the livelihoods of participants, and breed stigmatization and fear of death observed post-treatment.

This chapter gives an overview of the findings and limitations of the study, in addition to offering recommendations for improving women’s experiences in accessing breast cancer treatment in Sierra Leone. I also examine the advantages of conducting a qualitative study while adopting a phenomenological approach and how the study goals were met. Finally, future research topics and questions have been proposed.

Interpretation of Findings

Thematic analysis was utilized to examine the five primary data themes identified to address the research question, whose main purpose was to understand women who had been diagnosed with different stages of breast cancer, how they went about accessing breast cancer treatment, and how those experiences could be used to improve access to breast cancer treatment in Sierra Leone.

Attitudes and Knowledge of Breast Cancer

The first theme reflects participants' attitudes and knowledge of breast cancer. Two participants discussed risk factors associated with breast cancer; one was unaware, "I do not know the reason why people get breast cancer," whereas the other named three risk factors: "breast cancer occurs when the cells inside the breast grow past the normal cells. From what I have been told, breast cancer can be caused by smoking, consuming alcohol excessively, or not breastfeeding their kids." However, four participants described breast cancer as a disease that kills, while one described it as a disease that makes it hard for those affected to eat or sleep. According to Olayide et al. (2017), the number of females in Africa with limited knowledge about breast cancer far outweighs the number of those who possess some form of knowledge. Furthermore, a study done by Opoku and Benwell (2018) in Ghana concluded that there was a high level of discrepancy when it came to the knowledge of breast cancer amongst participants within their study; this result was largely due to the limited educational level of the participants. Breast cancer awareness and knowledge are considered the first defenses against the disease (Nyante et al., 2019; Qian et al., 2014). The absence of a clear understanding of breast cancer's symptoms, progression, and detection significantly affects the survival rate of the disease, so the participants' knowledge and attitude about breast cancer was a key finding. Devries (2017) noted that an increase in breast cancer awareness programs in Sierra Leone saw 2,000 women receive some form of education regarding breast cancer.

Based on this information, the results showed that women receiving education on breast cancer can extend the positive outcome in regard to detection and treatment of breast cancer.

The second aspect of this theme was the effects of delayed breast cancer treatment. One participant elaborated that she understood the importance of early treatment as soon as an individual discovered an issue with the breast during self-examination, “when you do your self-exam, if you feel anything on your breast, you have to come to the hospital quickly. However, if you leave it untreated, it will spread in your body, and you will die.” According to Andersen and Newman (1973), conditions in health care either encourage or discourage its utilization. This affects individuals’ access and use of health care services. As echoed by Brinton et al. (2016), efforts must be made to emphasize the significance of early diagnosis, given the documented rise in breast cancer cases in Africa and the limited treatment options available for tumors in their advanced stages. However, the social issues that underlie education and encourage prompt medical attention are complex and intertwined with long-held beliefs regarding the disease’s origins and the most efficient treatment strategies. Given the financial constraints associated with diagnosis and treatment, changing these beliefs and involving the patient and her immediate family will be challenging. According to Brinton et al. (2016), in Africa, the lack of screening facilities has been a major obstacle to the early detection of breast cancer. However, at least one study found that addressing the causes of delayed presentation is more important than screening for breast cancer because patients identified through community screening continue to present later (Brinton et al., 2016). My study has identified some factors contributing to the late presentation of disease, for example, lack of knowledge on the importance of self-breast exam as a tool for early detection of breast cancer, also the lack of preventive breast cancer screen, as well as the stigmatism associated with breast cancer. Addressing these issues may be useful in addressing obstacles to early disease detection—essential for providing effective treatments—even though future translational efforts will be challenging.

Predisposing sociocultural factors of race, age, education, health belief, and attitude, and living conditions a person was exposed to before becoming sick influenced promptness in seeking treatment (Andersen & Newman, 1973). Based on the study, the majority (*n* = 5) of the participants knew that delayed breast cancer treatment increased a woman's chance of dying from cancer. Therefore, this suggests that the participants were knowledgeable about breast cancer as they discussed factors predisposing a woman to cancer, including smoking, excessive drinking, and failure to breastfeed.

Access to Health Services

The second theme, access to health services, reflects the participants' experiences accessing health services for breast cancer screening and treatment. The first step for some participants was disclosing symptoms of breast cancer to others. Participants (*n* = 4) disclosed their symptoms of breast cancer to friends, neighbors, and family members. These initial conversations encouraged them to seek screening for breast cancer. Though not centered on breast cancer alone, sections of Tesfaye et al.'s (2018) community-based cross-sectional study identified aspects that enabled or hindered health care utilization where social relationships, especially with other women, were a significant predisposing factors in accessing health care in the case of breast cancer. For instance, one participant stated that her friend shared that her mother had cancer, sought help at a health facility, and accompanied her to the same hospital for breast cancer screening: “My friend explained that her mother had the same sickness before, so she accompanied my brother and me to the hospital because that was where her mother went to get (cancer) screening.”

However, there were participants (*n* = 3) who decided to seek the advice of a health care provider without consulting their social structures. One participant stated that they sought health services with a lump in the breast and were counseled to get cancer screening immediately:

> the worker counseled me and told me it was better for me to get a check-up because not all lumps are breast cancer, but if I do not get screened and it is cancer, the longer I wait for, the more likely it will kill me.

According to Travers (2016), education has been effective in the early detection of breast cancer. This can be supported by the participants who opted to present themselves to a health care worker with symptoms indicative of breast cancer. As a result, the health care workers’ advice facilitated the uptake of breast cancer screening and subsequent treatment.

Various interrelated factors often influence the utilization of health care services for breast cancer. Gevao observed the family unit’s influential role in individuals’ breast cancer health-seeking or health utilization behavior (2017). According to the study, the second step after breast cancer diagnosis was choosing a treatment health facility.

Participants indicated that their choice of health facility was influenced by advice from the non-profit organization they initially sought help from (*n* = 4), family (*n* = 4), friends (*n* = 2), religious leaders (*n* = 2), and community members (*n* = 1) and social media advertisements (*n* = 1). Participants chose health facilities where they knew a staff member and were reputed for good breast cancer treatment services. Factors categorized as need factors look at how people perceived their health status and what created a need to seek care (Andersen & Newman, 1973). Participants sometimes settled for health facilities where an acquaintance had previously received treatment.

Additionally, others received support from their children or a relative in their extended family. Friends were also an important support structure for treatment access. Knowing a breast cancer survivor was the next factor that encouraged participants to access treatment. Three of the participants indicated that they knew a breast cancer survivor and derived strength and hope from talking to such individuals.

Socioeconomic factors affected access to care provisions (Ward et al., 2004), as illustrated by the transportation (i.e., public transport) all participants used from their residence to the health facility. The enabling factors/logistical parts of receiving care looks at a person’s financial ability to pay for care, what type of care was available at a reasonable distance, and the quality of care provided by these facilities (Andersen & Newman, 1973). The cost of transportation ranged from $3 to $9 per trip, and the time taken to travel from home to the health facility explained the wide gap in the price of transportation. Participants reported that it took them between 20 minutes and 2 hours to travel from home to the health facility. The average time taken by car or bus was one hour 10 minutes, and the average cost by bus was $6.54.

Affordability of Treatment

The third theme, affordability of treatment, can be viewed as an enabling factor, as echoed by Andersen and Newman (1973), as it influences and individual's treatment due to the financial element, which cannot be overlooked. Participants indicated they had to bear costs associated with breast cancer, such as screening, treatment, and transportation costs to the treatment center. Breast cancer screening costs were at an average of $16. Cancer treatment was indicated as high and not affordable to most participants. It included the cost of chemotherapy and surgery to remove the affected breast. The cost of treatment varied between $117.05 and $1447.74. Women affected with breast cancer in Africa are faced with exceptional difficulties that go beyond the pathology of the illness due to the absence of sufficient monetary resources to fund treatment.

Furthermore, there is a consistent increase in the price of new and more successful breast cancer treatments (Lukong et al., 2017). Participants were therefore concerned about the high cost of breast cancer treatment, and many required financial support to afford it. The cost of breast cancer treatment in Sierra Leone and other West African countries is relatively high. Bayoh (2019) estimated that a mammogram's cost ranged from $50 to $70, which most women could not afford. According to Shepherd and McInerney (2006), these high expenses and a lack of finances contribute to not seeking treatment and advice. Participants noted that they received financial support from non-profit organizations, family members, friends, and neighbors.

The illness and treatment also interrupted their livelihoods, so they needed financial support to cater to their living expenses. According to Foerster et al. (2019), financial help is needed for breast cancer treatment. In addition, participants reported that they also required financial support to cover living expenses during the time of illness and treatment. Participants stated that they had no income source since they could not work during their illness, and the high cost of breast cancer treatment was equally a concern. They indicated that they were worried after the breast cancer diagnosis and did not know how they would afford the treatment. There were delays of more than a month before the start of cancer treatment for many (*n* = 7) participants ranging from one to four months. According to six participants, the delay in treatment was due to a lack of funds to cover treatment costs, “For three months, I had to wait until the non-profit organization found a sponsor to help pay for the treatment.”

Coping with Breast Cancer Symptoms, Diagnosis, and Treatment

The fourth theme described participants was coping with breast cancer symptoms, diagnosis, and treatment. Participants expressed how hard it was to receive a breast diagnosis and considered the experience scary, stressful, untrue, discouraging and disappointing.

Some participants were in denial when they received the diagnosis, and others reported a fear of death. For instance, a participant struggled to understand why she was at risk of cancer, yet her lifestyle showed no predisposing factors. She argued that she did not drink or smoke and found it difficult to understand her breast cancer risk. Dos Santos et al. (2017) stated that knowledge of early detection methods for breast cancer amongst African women is still low. Diagnosis and delay in presenting one at medical centers after noting the disease's symptoms is a significant contributing factor to the high mortality rate of breast cancer deaths in Africa (Silva-Dos- Santos et al., 2017). According to Kantelhardt et al. (2015), there are two key causes of the lack of timely access to breast cancer diagnosis and treatment. Both Abdulrahman and Rahman (2012) and Kantelhardt et al. (2015) highlighted that breast cancer prevalence and susceptibility among the African female population continues to increase compared to developed countries. My study indicated that dealing with breast cancer diagnosis and treatment was very difficult. Participants reported that during treatment, they faced a fear of death. Most participants (*n* = 7) were afraid that cancer would lead to death. Respondents equally reported harrowing experiences and fears during breast cancer treatment.

Sociocultural factors of traditions and cultural beliefs cause some women to choose alternative therapies in addition to standard treatment for breast cancer. These beliefs created a negative perception of the available materials relating to early detection of the disease, causing African women to develop undesirable medical behavior concerning breast cancer (Ntirenganya et al., 2014). Ogunkorode et al. (2021) reported that women regard breast cancer as an attack from some evil forces or a spiritual affliction. Women, especially in rural areas, experience the influence of sociocultural beliefs that impact healthcare utilization for breast cancer treatment.

The situation was also not easy post-treatment due to enacted and internalized stigma. After breast cancer treatment, participants reported experiences of enacted and internalized stigma. Participants reported that they experienced stigma from community members following breast cancer treatment. According to one participant, the friends left her after removing part of her breast. Some participants said that community members would laugh or treat them differently because the cancer treatment had altered their bodies. Additionally, the loss of part of the breast was linked to loss of womanhood, as echoed by some participants who found it hard to find a husband because they believed breast removal altered womanhood. Participants also reported instances where they experienced internalized stigma and adopted a negative self-image after breast cancer treatment.

Health care workers were also reported as an essential support structure during breast cancer diagnosis and treatment. Their counsel and encouragement persuaded participants to endure the treatment. However, there was a strong correlation between the underdiagnosis and underutilization of health care related to breast cancer and limited knowledge and awareness of breast cancer exhibited by healthcare professionals (Kantelhardt et al., 2015). Participants indicated that they had received counseling about cancer treatment and the importance of early treatment, as well as the side effects of the treatment. One participant indicated that health care workers at a nonprofit organization had counseled her that although chemotherapy had side effects, there were advantages to seeking treatment, and as a result, the advice encouraged her to start treatment. This finding is similar to that of the previous literature. The literature review in Chapter 2 showed that addressing African women's inadequate knowledge of breast cancer has been identified by both Clegg-Lamptey (2017) and Shepherd and McInerney (2006) as the best avenue toward timely detection of breast cancer and seeking medical attention, but recent researchers have found that insufficient information on breast cancer symptoms and access to care still exists, leading to fear, fatalism, and high mortality rates for breast cancer.

Coping mechanisms included encouragement from social structures and religious beliefs that fostered hope and encouraged health care workers. Several factors enabled the participants to cope despite the difficult experiences during diagnosis and treatment. The first enabling factor reported by participants (*n* = 8) was religion. Religion was a source of hope and strength during breast cancer treatment. The common idea among the participants was that God had the power to heal, giving them hope to endure the treatment. Mehrabi et al.'s (2016) study came to the same conclusion religious and spiritual beliefs were a strong coping strategy used to deal with their diagnosis of breast cancer. According to Mehrabi et al., it is important for healthcare workers to acknowledge and take into consideration a patient's religious and spiritual beliefs when providing care or advice on breast cancer treatment decisions.

Quality of Healthcare

Theme 5 showed participants' lived experiences with the quality of health care in Sierra Leone. One aspect related to the quality of healthcare was the breast cancer treatment plan, which participants reported were at different types of treatment. Participants (*n* = 5) indicated that they received details about the treatment options that were available to them. Some underwent chemotherapy in preparation for a surgical procedure to remove the affected breast, while others were on medication after breast removal surgery. Participants indicated that their relationship with health care providers was crucial in encouraging them to take up breast cancer screening and treatment. Positive experiences with health care providers while seeking treatment contributed to a good experience with breast cancer care and treatment in this study. This finding compared to literature in chapter two that addresses breast cancer awareness, showed that nurses and the entire medical community should dispel mythical information as a barrier to increasing knowledge of breast cancer signs and symptoms. Emphasis should therefore be placed on the fundamental role of seeking quality detection, breast cancer care, and treatment from healthcare professionals (Clegg-Lamptey, 2017). Participants reported that communication from health care providers about treatment options was essential.

Patient education by health care providers about the treatment plan was not always adequate, according to participants. Literature showed there was a strong correlation between the under-diagnosis and under-utilization of health care related to breast cancer and limited knowledge and awareness of breast cancer exhibited by healthcare professionals (Kantelhardt et al., 2015). Additionally, women were unable to access quality health care and vital information regarding their overall health in Africa (Shepherd & McInerney, 2006). One participant indicated that they did not understand the sickness or the treatment; however, she felt that the doctor was learned, and therefore she trusted them to make the right decision about her treatment. Gakunga and Parkin (2015) observed that late diagnoses and poor prognoses of breast cancer were prevalent across Africa. My study established the role of poor education and poor prognosis as factors undermining women’s capacity to be proactive in managing breast cancer.

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Limitations of the Study

The study’s limitations hinged on the trustworthiness issues and are discussed based on credibility, transferability, and dependability.

Credibility

The study employed consistency checks by using a comprehensive review of the literature to develop the foundation of this study. Limited literature in the case of Sierra Leone acted as a setback, and I was forced to enlarge the scope of the literature review. Little is known about women’s experiences in Sierra Leone related to their access to breast cancer treatment (Shepherd & McInerney, 2006). Thus, limited literature on breast cancer in Sierra Leone forced me to expand the scope of study to West Africa, and to Africa, thereby examining the situation in neighboring countries instead of emphasizing Sierra Leone.

Although I invested sufficient time to familiarize myself with the study setting and participants to ascertain credibility, virtual interviews acted as a barrier to observing and interpreting participants’ body language, which would have conveyed hidden information. Through body language, I would have observed the participant’s willingness to share personal information and determine whether there was more to what was being shared. Therefore, I solely relied on the participants’ responses since all interviewers were conducted virtually, as conducting face-to-face interviews was a challenge due to the COVID-19 pandemic.

Transferability

Qualitative studies are inherently limited in transferability given the use of small sample sizes, as in my study ,where a small sample size (10 participants) was used. To guarantee transferability, I included a description of participants' experiences and their context to help others identify the sample to which the study may be relevant. Nonetheless, the small sample size and the use of a single location in Sierra Leone to recruit participants was a limitation. My study was limited to 10 women living in Freetown, Sierra Leone, who had been diagnosed with breast cancer. Their experiences and their level of access to treatment may not have necessarily reflected the situation in the whole country.

Dependability

While the analysis procedures helped construct a rich picture of the perceptions and experiences of study participants, they failed to incorporate a broad audience due to age limitations. This would have unveiled new information due to the different experiences encountered by the audience. I included a detailed record of the research processes to aid future researchers in reproducing the work or gaining similar results. However, a comparative analysis would have been feasible as it would generate a unique set of findings that would have been equally beneficial to future researchers.

Implications

Positive Social Change

Positive social change can be ensured through education, promotion of social structures, and the support and encouragement from health care workers. The presence of social structures makes it possible for individuals to disclose any symptoms or anomalies they might observe or discover during a self-examination. The disclosure can prompt individuals to seek treatment or undergo screening, thereby potentially minimizing the effects of breast cancer. Social relationships, especially with other women, were a significant predisposing factor in accessing health care for women with breast cancer (Tesfaye et al., 2018). The findings of my study showed that information and advice about breast cancer treatment can be shared through personal relationships when healthcare needs arise. This setup for information sharing can facilitate accessing breast cancer treatment by allowing a friend or family member to be accompanied to the same hospital for breast cancer screening.

Education plays a key role in the early detection of breast cancer. Therefore, women should be educated on performing monthly breast self-examination to identify anomalies and seek the necessary treatment as early as possible. They should also be encouraged to make annual visits to a health facility for a clinical breast examination for purposes of early detection (Shepherd & McInerney., 2006).

Due to strong religious affiliations for women in Sierra Leone, religion can be used to establish support systems or networks. For women living with breast cancer, being in the presence of a survivor can offer hope and strength to the victims

(Ogunkorode et al., 2020). Religious institutions can allocate space for people with cancer to meet regularly and support them through fellowship and counseling.

Advice from health care workers can facilitate the uptake of breast cancer screening and subsequent treatment. They create an essential support structure since their counsel and encouragement persuade victims to endure or commence treatment. Receiving counseling about cancer treatment, the importance of early treatment, and the side effects of the treatment equally influence positive social change (Okwor et al., 2018).

Theoretical Implications

Andersen and Newman's (1973) healthcare utilization model guided the study's conceptual framework. The main incentive behind the model's development was to provide a way to measure access to health services. It provides an understanding of how predisposing, enabling, and need factors are related to why and how health care is utilized. Andersen and Newman explained that the three factors of enabling predisposing and need factors are used to determine an individual's ability to utilize health care. Based on this study, respondents knew that delayed breast cancer treatment increased a woman's chance of dying. This suggested that the participants were knowledgeable on breast cancer as they discussed factors predisposing a woman to cancer, including smoking, excessive drinking, and failure to breastfeed.

Factors categorized as need factors look at how people perceived their health status and what created a need to seek care (Andersen & Newman, 1973). Some participants sought health care after detecting an anomaly (lump) during a breast self-examination. This demonstrated that they understood the importance of early treatment when an individual discovered an issue with the breast during a self-examination. Support received was from their children, relatives, and friends, who were equally an important support structure for treatment access. Additionally, knowing a breast cancer survivor was an encouragement to access treatment as they derived strength and hope from talking to such individuals.

According to Andersen and Newman (1973), conditions in health care either encouraged or discouraged its utilization. This affected individuals' access and use of health care services. Through this, we can see participants being influenced and settling for health facilities where an acquaintance had previously received treatment. Additionally, participants often chose health facilities where they were familiar with a staff member, and which were reputed for good breast cancer treatment services.

The enabling factors/ logistical parts of the Andersen and Newman model (1973) looks at a person's financial ability to pay for care, what type of care is available at a reasonable distance, and the quality of care provided by these facilities. The cost of transportation and treatment influenced the outcome. Participants took between 20 minutes and two hours, where an average time taken by car or bus was one hour and 10 minutes, to get to the health facility from home. Thus, distance was a contributing factor in seeking medical treatment: the further the distance, the more hesitation due to the costs expected to be incurred. While the cost of transportation ranged from three to nine USD per trip, with an average cost of 6.54 USD by bus, participants were forced to dig into their pockets to facilitate the transportation cost to and from the health facility, irrespective of the amount and distance. This cause additionally hardship on participants, especially when several trips are required.

As stated by Andersen and Newman (1973), the affordability of treatment as an enabling factor influences individual decision to seek treatment due to the fact financial element that cannot be overlooked. Participants had to bear the cost of screening, treatment, and transportation costs to the treatment center, all of which were associated with breast cancer. For instance, breast cancer screening costs stood at an average of 16 USD, whereas cancer treatment was high and unaffordable to most participants. This included the cost of chemotherapy and surgery to remove the affected breast as the treatment ranged between 117.05 USD and 1447.74 USD, an amount that had to come by and one that required financial assistance.

When comparing this study to other studies that have utilized Andersen and Newman Health Services Utilization Framework, I found that there were not a lot of studies focused on breast cancer specifically. However, this framework has been used in other studies. For example (Tesfaye et al., 2018) conducted a study about utilizing maternal care services in eastern Ethiopia using the Andersen and Newman Health Services Utilization Framework. (Widaningsih & Achmad, 2021)) utilized Andersen and Newman Health Services Utilization Framework to conduct a study on Factors Influencing the Uptake of Institutional Delivery Service by Skilled Birth Attendants in Ghana. There were also other studies about cancer treatment, health services utilization among homeless adults, health services for drug-abusing, and studies surrounding other types of cancer and how healthcare was utilized in these conditions. The results showed that it is evident that this framework's purpose is to study conditions that either facilitate or hinder the use of healthcare services by creating a model that indicates how accessible medical care is.

Methodological Implications

The descriptive phenomenological approach facilitated the examination/ inquiry of the experiences of women diagnosed with breast cancer in Sierra Leone, identifying predisposing, enabling, and need factors that influence access to breast cancer treatment. Data collected was unique in the setup of Sierra Leone due to the limited studies on the topic. The primary data gave a clearer insight into women's experiences in Freetown in their quest for treatment for breast cancer. The data revealed the major challenges that the women encountered during their diagnosis and treatment, including financial constraints, stigmatization, isolation, and psychological issues. Since the challenges affect the treatment and recovery process of people living with cancer, a need to bring more stakeholders on board and search for more donors who can assist in facilitating breast cancer treatment in Sierra Leone was identified.

The study made it possible to determine emerging issues as they unfolded, which could be addressed as early as possible. Issues such as the preference for herbal/ traditional medicine as opposed to modern medicine and myths associated with breast cancer could be addressed sooner than later to promote treatment by minimizing some of the fears associated with breast cancer treatment, which are centered on the social setup.

The study also pointed out key areas of focus that could be improved or worked on by the government and other relevant stakeholders. The areas could also be used to generate new policies or call for the adjustments of existing policies, hence shifting attention to more pressing issues that affect a wider population in Freetown and the entire country.

Recommendations

This study has contributed to understanding women's experiences regarding access to breast cancer treatment in Sierra Leone. During the study, a few areas were identified for future studies. Identified future studies include:

Development of New Strategies

Implementation strategies that address sociocultural, psychological, and structural barriers in breast cancer screening and treatment in Sierra Leone should be developed. In this case, a comparative analysis between another African country would generate new findings and identify what can be borrowed or adopted. Due to the high level of illiteracy in Sierra Leone, educational interventions are needed to create awareness of breast cancer, encouraging individuals to seek medical treatment.

Assessment of Cancer Screening Communication

The impact of cancer screening communication ought to be examined to determine the level of awareness, understanding, and how empowered the community is in Sierra Leone. The research should focus on several regions in the country to identify disparities and come up with feasible solutions to bridge the gaps.

Adoption of a Stakeholder Analysis

An assessment of how the government, healthcare providers, and policymakers impact diagnostic and treatment processes in Sierra Leone needs to be examined. For this case, a stakeholder analysis ought to be carried out. The stakeholder analysis would be used to identify stakeholder groups, their interests, importance, and influence in breast cancer treatment and eventually lead to formulating a participation strategy.

Conclusion

This study aimed to understand women who had been diagnosed with different stages of breast cancer, how they went about accessing breast cancer treatment, and how those experiences could be used to improve access to breast cancer treatment in Sierra Leone. A five-step thematic approach was used to analyze the attitudes and knowledge of breast cancer, health services accessibility, affordability in terms of treatment, coping with breast cancer symptoms, diagnosis and treatment, and quality of healthcare. Through the analysis, it was found that women’s accessibility to breast cancer treatment is influenced by various factors such as socioeconomic, sociocultural, and psychological issues affecting health outcomes in Sierra Leone. Social structures are not only instrumental in accessing breast cancer screening and treatment but also act as coping mechanisms.

The establishment of early detection systems should thus be implemented for better delivery of breast cancer treatment and to advance women’s empowerment in accessing quality care. Whereas the burden of cancer grows exponentially, mortality rates also rise. There is a clarion call to facilitate effective treatment that is accessible and affordable for all women.

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Appendix A: Interview Protocol

Greeting the participant

At the beginning of the interview: Hello, and thank you for taking the time to participate in this interview. My name is Anne Murray. I am currently a doctoral student at Walden University. The area of Study in Health Services with a specialization in Health Care Administration. As stated in the recruitment flyer, the purpose of this pilot study is to explore the women's experiences with access to breast cancer treatment in Sierra Leone. Your participation in the study would benefit society by improving access to breast cancer treatment in Sierra Leone.

Review participant rights, informed consent

The nature of interview Participation in this study is completely voluntary. You have the right to stop the interview at anything or withdraw from the study should you wish to. This interview will be recorded using audio equipment and will last for an hour, and The researcher will be taking journal notes. You will be asked a series of open-ended questions and follow-up questions as well.

Participant's privacy Your identity will be kept confidential within the limits of the law. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. If I were to share this dataset with another researcher in the future, I remove all names and identifying details before sharing; this would not involve another round of obtaining informed consent. Data will be kept secure by protecting each with a password and securing handwritten notes under lock and key. Data will be kept for at least five years, as required by the university.

Closing statement and transitioning into the interview

Again, I want to thank you for taking the time to participate in this study. The researcher will also like to remind you that your participation is voluntary, and you have the right to stop this interview anytime. The researcher will also like to take this opportunity to address any questions or concerns you may have at this time. Should you need a break during the interview, let me know and pause the interview. Suppose you don’t have any questions or concerns at this time. I could begin the interview.

Interview

What are women’s lived experiences in Sierra Leone with predisposing, enabling, and need factors when accessing breast cancer care?

Predisposing factors (P): race, age, education, health beliefs and attitudes, living conditions

Enabling factors (E) finances, distance to care and type of care, quality of care

Need factors (N): perceived health status, what created the need to seek care, symptoms

My first questions are to understand some basic background information.

What is your marital status? M___ S____W____D____(P)

What is your level of education? None_____ Primary school_____ Secondary school_____ College/University_____(P)

Do you work outside the home? Y_____ N_____ if yes, what is your occupation? _____ if no, what is your source of income? ______ (P and E)

Where did you grow up?__________________Where do you currently live? _____________(P and E)

1. Describe your understanding of breast cancer as a disease.

2. Describe your experience with being screened for breast cancer.

Probing questions:

a. How did you decide to go for breast cancer screening?
b. Did you have symptoms? What were they? (N)
c. Did your family or friends encourage you to seek breast cancer screening? If so, how? If not, why? Please be specific
d. How did cultural, ethnic, or religious beliefs play a role in your health care decisions? (P)
e. Can you please explain in more detail about your culture, religion, and ethnic beliefs? (P)
f. How far away was the clinic you were screened at, and how did you get there? (E)
g. Can you tell me about the cost of the breast cancer screening and how it was paid for? (E)

3. Tell me about your experience of learning you had breast cancer.

Probing questions:

a. What factors led to your reaction to your experience of learning you had breast cancer? (for example, did age, education, finances, health beliefs play a role in your experience?) (P, E, N)

4. Please describe what you were told about your breast cancer treatment options.
5. How long after being diagnosis with breast cancer did you start to received treatment, and if you did not receive treatment why not?
6. Please describe what form of treatment/treatments you received and if it is still ongoing?
7. Can you explain the length of time you underwent treatment or how long you have been receiving treatment? (N)

Probing questions:

a. How did you decide to go for your treatment (for example, did age, education, finances, health beliefs play a role in your decision?) (P, E, N)?
b. Did your family or friends encourage you to go for treatment?
c. How did cultural, ethnic, or religious beliefs play a role in your treatment decisions? (P)
d. Did you or do you have a person who served or serves as your advocate? (this can be a family member, friend, or person in the healthcare organization, or community)
e. How far away was the clinic you were treated at, and how did you get there? (E)

d. Can you tell me about how the cost of the treatment for your breast cancer and how it was paid for? (E)

Ending the interview

Thank you again for taking the time to consider participating in my research. To further iterate that all information gathered during the interview is confidential. If you have any questions about the interview process and procedure, please do not hesitate to contact me. I can be reached at XXX-XXX-XXXX or by email at XXXX@XXXX.

Appendix B: Participant Screening Form

Name ____

Address ____

City _____________________State _______ Zip ____________

Phone (H/C) ____________________

Age______________________________

Sex: __________________________________

Have you been diagnosed with breast cancer? Y__N___

Are you now or have you never received treatment for your disease? Y___N___

Date of contact_____________________________

Did the caller agree to participate? Y___ N__

Appendix C: Coding of Participant Interview Responses

Code	Supporting quotes
Advice from healthcare workers to get treatment	NIT#2 After I got to Thinking pink, the worker council me and told me it was better for me to get a check because not all lumps are breast cancer, but if I do not get screened and it is cancer the longer, I wait for the more likely it will kill me. NIT#4 I decide to go for treatment because the doctor explain to me that if I did not take the treatment I would die. NIT#9 Well, it was simply because of the pain I experience, and the doctor advise me that this sickness would kill me.
Church members encouragement to receive breast cancer care	NIT#2 Yes, people from the church that I attend, help pray for me to ask God to help me make the right decision about this sickness and they help me pray and ask God to help heal me. NIT#3 For example, when I first notice the growth, I went to my pastor and his wife and told him about my problem, that I should have faith that God is in control, this faith gives me the courage to go and get checked. NIT#3 and the members of my church all these people advise me and give me encouragement to go and take the treatment. NIT#5 praying with my people from my church I would not be here today, I could have lost my life. NIT#6 my Imam talks to me and advise me to go to the treatment.
Choosing a screening and treatment center	NIT#1 Thinking PinkThinking Pinktold me that this was the best clinic to go to because they work with them all the time. Because it was the government hospital and the cost is cheaper there. Also, my auntie knew a nurse that works at that hospital and she me that I had to go to that hospital. NIT#2 It was Thinking Pinkthat chose the clinic for me, they advise me that this was the best clinic to go to. NIT#3 People in my community directed me to Thinking Pinkbecause they said they heard the ab over the radio. NIT#4 My friend explains to me that her mother had the same sickness before. NIT#5 I decided to go to Connaught Hospital because I was told by Thinking Pinkthat this is the cheapest hospital and they know how to do the operation. NIT#6 After my friend explain all of this information she advised and directed me to Connaught hospital because this was where she went to get the screen and to receive the treatment. NIT#7 I went to Connaught Hospital because it is the cheapest hospital, all the other ones are private and are very expensive. NIT#8 I chose that clinic because it is well known that this clinic is good at dealing with breast cancer, I always hear the ad on the radio where they enough women to go there. NIT#9 Yes, after I heard the radio, I spoke to one of my friends and she told me also about Connaught hospital and encourage me to go there.

Code	Supporting quotes
Cost of screening	NIT# 1 my aunty took me to Thinking Pinkto get the screen. It cost 150 thousand leones. NIT#2 It cost me 170 thousand leones for the screening, NIT#3 the screening cost about 120 thousand leones. NIT#4 the screen cost 150,000 leones. NIT#5 cost 129 Thousand leones. NIT#6: It cost 500 thousand leones. NIT#7 it cost two hundred and fifty thousand leones to do the ANHC test and my aunty helps me. NIT#8 it cost 8 thousand leones and my mother help me pay for the screening and the transport fare. NIT#9 five hundred thousand leones. NIT#10 the cost of the breast screening for 50,000 leones
Cost of transportation to the treatment center	NIT#1, cost 50 thousand leones NIT#2 cost 80 thousand leones. NIT#3 The bus ride is about 100 thousand leones, but sometimes if I am lucky the driver will agree to allow me to pay 90 thousand. NIT#5 transport cost 90,000 leones. NIT#6 and it cost 40 thousand leones. NIT#7 it cost 60 thousand leones. NIT#8 it cost 120 thousand leones.
Cost of treatment	NIT#1 So far, I have paid 6 million leones for the chemotherapy and the operation. NIT#2 So far it has cost 17 million leones and it was all paid for by my sponsor that thought pink found for me. NIT#3 it cost 6 million leones so far. NIT#4 Each round of chemo is 1 million five hundred thousand. And I took three around rounds of Chemo. Then I did the breast removal operation. NIT#5 so far it has cost 9 million leones and Thinking Pinkfound me a sponsor to help me pay for it. NIT#6 my total treatment so far has cost 8 million 7 hundred thousand leones. NIT#7 9 million leones and my friends and aunty help and people from my Mosques help me pay for it. NIT#8 so far, treatment has cost 18 million 500 thousand leones. NIT#9 so far it cost me 13 million leones. NIT#10 the cost of the treatment was over 7 million leones.
Culture played a role in health decision	NIT#1 Well, my culture also played a role, because when my aunt told me she was taking me to get my breast checked have to listen to my elder. NIT#5: Cultural, I decided because my sister advised me about this sickness. And in my culture, you have to listen to your elders. NIT#7 My culture did because after my Aunty advise me to do the treatment, I had to listen to her and respect her work because she was older and she has more experience in life than me. NIT#8 I would say culture played a role because I listen to my mother's advice and in my culture, you always listen to your elders.

Code	Supporting quotes
Dealing with stigmatism	NIT#1 Well, for one I have lost some friends because they believe as a woman removing part of my boobs means I am no longer a woman. This thinking also made it difficult to find a husband. Because people believe that since I cut out some part of my boobs, I will not be able to care for a baby since I am not able to breastfeed. NIT#2 For the community. At first, some people used to laugh at me because my breast shape was done, the chemo treatment made all my hair fall off my head and I lost so must weight, I had rashes all over my body. But now things are a lot better, we are all fine. NIT#5 It has been worse than good because the reaction from the people in my community has been very bad, people provoke me and say my boob is rotten and I am a half-woman. Some people don't even talk to me. NIT#8 When someone is affected with breast cancer the result is bad, even to the point where people in your community start to look at you differently, they start to consider you as half a human being because they know you have this sickness.
The decision to get screened	NIT#3 My neighbor encouraged me to check my breast checked because of the boil(growth) I had on my breast. NIT#4 My friend explains to me that her mother had the same sickness before, so she accompanied me along with my brother to Connaught hospital because that was where her mother went to come and get a screen. NIT#5 I decided to go and get a screen because my breast hurt, and it was leaking and it hurt a very bad smell. NIT#6 After my friend explain all of this information she advised and directed me to Connaught hospital because this was where she went to get the screen and to receive the treatment. NIT#7 I wanted to know what was wrong with my breast because it was hard and kept hurting. NIT#8 It started as a lump, at first I thought it was just the seed inside my breast, but it kept growing and the more it grow the more the pain increased. I started to feel pain from one side of my breast to the other side. That was when I showed my neighbor and I told her my boobs to have a seed that is growing but I do not think it is cancer. Then she told me to go and get checked and that was when they told me I have breast cancer. Also Yes, my mother also told me to go and get a screen. She told me to not be afraid and that whatever the result was God is in control and everything would be ok. NIT#9 Well, I started experiencing, all these symptoms and I heard on the radio that Connaught hospital they are the one that deals with this type of sickness. SO, I decided to go there and get checked. NIT#10 I decided to go for screening because I felt a lump in my breast.
The decision to get treatment	NIT#1 At first, I was very scared every time I had to go for treatment because I did not know if the treatment was working or if I would die. But the doctors were very patient with me and try their best, I feel much better.

Code	Supporting quotes
	NIT#2 but after the same nurse from Thinking Pinkcall me, she told me that she too had the same experience, she said at least I already had kids, for her, she had no kids yet. But that she was lucky to take the treatment because it saved her life. NIT#3 The way they explain the benefit of the treatment made me feel ok to take it, but when I started starting it, my hair started falling out, and it was hard for me to sleep. NIT#4 I decide to go for treatment because the doctor explain to me that if I did not take the treatment I would die. NIT#5 because I knew if I did not take the treatment I would die. NIT#6 After my friend explain all of this information she advised and directed me to Connaught hospital because this was where she went to get the screen and to receive the treatment. NIT#7 I decided to go for my treatment because I wanted to get well, and the doctor told me if I did not do the treatment I would die. NIT#10 I decided to go for treatment, because of the education I receive about breast cancer and they also council me about the importance of getting treatment**,** I was the reasoning for getting the operation
Denial of diagnosis	NIT#2 Honestly, I did not want to accept that I was at risk for breast cancer, because I don’t smoke and I don’t drink, so I thought to myself why would I get breast cancer. I thought maybe these people just want to make me spend money. NIT#3 even to the point that when you are told you have cancer, your first reaction is to say that it is not true, I do not have this sickness.
Experience with breast cancer care	NIT#1 At first, I was very scared every time I had to go for treatment because I did not know if the treatment was working or if I would die. But the doctors were very patient with me and try their best, I feel much better, especially because I have undergone the operation to remove the lump from my body, and that makes me feel like I have survived breast cancer. NIT#2 Experience with Breast cancer care has been good; it was because of the way the doctors and nurses explain the treatment to me that made me agree to take the treatment. NIT#3 Honestly, it has not been too bad the doctor advises me, my kids help me when I feel sick after taking the chemo, my church members help me pray and keep the faith, even when other people were laughing at me when I lost my hair, my family council me and said this is a sickness for some time it will not be like this forever. It this is my time to die I. NIT#4 The care has been good; all the doctors have been so encouraging because for me I had to remove both of my breasts so it was very hard. But the doctors and nurses talk to me and council me not to be depressed and sad. NIT#5 the care has been really good, they treated me well and the worker’s council and encourage me to finish my treatment. I would say my experience with the care has been good. I thank God for them because I am alive today.

Code	Supporting quotes
	NIT#6 Well, it’s not good, but it’s not bad either, I am lucky that I am going through my chemo and my operation and I did not die and the encouragement that I get from my family and friends helps me so I don’t have to think about how bad this sickness is. NIT#7 my experience through Thinking Pinkwas not bad. At first, I was scared especially after they told me about the side effect of the Chemo, but they explain to me that taking the treatment was the best thing for me and I was able to work up the courage to first the treatment. NIT#8 The care was very good, especially because the representative from Thinking Pinkwent to the hospital daily to check on me and make sure I was being taken care of properly. NIT#9 my experience has been bad because, for one they don’t allow you to take treatment if you don’t have all the money, they tell you it will kill you, but then they to give you any other option of treatment and there is only one hospital you can go to for this treatment. NIT#10 my experience was bad and scary, no one want to get this sickness.
Experience when diagnosed	NIT#1 I was very scared and did not want to go. NIT#2 My experience was very stressful, I felt like someone just told me I was going to die. NIT#3 I did not feel good at all, because it is a very serious illness, even to the point that when you are told you have cancer, your first reaction is to say that it is not true, I do not have this sickness. NIT#3 my experience was heartbreaking, especially when they told me the boil was cancer, it started as a small boil on my breast, so I told my neighbor and they advise me to go to the hospital and get checked. NIT#4 it was very scary, I cried so much. Well, when they told me I had breast cancer I feel so bad because the doctor told me that breast cancer is a sickness that kills people, and my kids a very young I did not want to die and leave them. NIT#5 it was very scary because based on what my sister explained to me, I was afraid that if I had this disease I would die. NIT#5 Bad, very discouraging, because I knew I did not have money to pay for the hospital for this sickness. So, I felt like I was going too bad I could not even eat. NIT#6 Well, the experience was scary, Well, I did not take the news well. NIT#7 the experience was scary because I did not know what the doctor was going to tell me. I was very discouraged, because of the result plus now I was worried about how I would come up with the money to pay for treatment. I was thinking this is going to kill. NIT#8 I felt discouraged and disappointed. It made me feel so bad, I went home and could not eat for three days because I kept thinking about what happened to my cousin, my mother was the one talking to me she told me to be strong and that this was not the end of my life.

Code	Supporting quotes
	NIT#9 I went to the hospital not knowing what to expect, so when I got there the doctor did a mammogram and they told me it was breast cancer, it made it feel very bad. That was a very bad news. NIT#10 My experience with screening is what help me know I had breast cancer.
Education of treatment	NIT#1 explain that I had to wait until after I completed the treatment before I could get checked again. NIT#3 Honestly, I did not understand all about the sickness or the treatment, but the doctors went to school and they know so when they told me to take the treatment I did. NIT#3 told me to take chemo, but they did not give me options. They told me if I took the treatment, I will start to find better because the treatment was good for me. NIT#6 the doctor told me I would have to take chemotherapy first and then the operation to remove my breast.
Education on the effect of breast cancer	NIT#2 They told me I would have to do chemotherapy first three-round, then I would have to do the breast operation and after that, another 4 rounds of chemotherapy and then I would have to take pills for 5 years. NIT#4 Well, it was one of my friends, when I started noticing my breast swelling and I was in a lot of pain I explained the problem to my friend and she told me about breast cancer. NIT#5 Well, my sister is the one that first told me about breast cancer is a disease. She told me that she learns about this disease from another friend of hers who had it. NIT#6 Well, I started having pain and growth in my breast so I spoke with one of my friends who is a breast cancer survivor and she educated me on what breast cancer is and how it can affect women. NIT#7 the doctor, told me about this disease. I started feeling something hard in my boob and it wasn’t going away so I went to the doctor at Connaught Hospital and that was when he told me about the disease. NIT#7 the doctor told me if I did not do the treatment I would die. NIT#8 I felt discouraged and disappointed. It made me feel so bad, I went home and could not eat for three days because I kept thinking about what happened to my cousin, my mother was the one talking to me she told me to be strong and that this was not the end of my life.
Encouragement family to get screen/treatment	NIT#1 my Auntie. She advises me to go to the clinic and get a check. NIT#2 Yes, I spoke to my children, at first all they did was cry but I explain to them what the treatment was just like a nurse explained it to me and then after that they told me to try and take the treatment. NIT#3 Yes, my children and neighbor encourage me to go and get checked because the growth kept getting bigger. I feel very lucky because, of my siblings, my children. NIT#4 Yes, my brother told me to listen to my friend’s advice and encourage me to get a screen.

Code	Supporting quotes
	NIT#4 Yes, another woman from the Mosque, my brother and my friend. NIT#5 my sister, after I spoke to her about it that when explained to me what breast cancer was and she encourage me to go to the hospital. NIT#7 my friend told me to go to the hospital. And also, my aunt, at the time I was living at her house and I use to help her with housework, so when I told her about my symptoms, she encourages me to go and get checked and she told me she would help me pay for it. NIT#7 my aunty encourages me to be brave and to have faith and believe in God that if I do the treatment God would help me get through it and get well. NIT#8 Well, because of the encouragement from the mother and knowing what I know I decided to work up the courage to go and get treatment because I did not want to wait and then something worst happen to me. NIT#9 Yes, my younger sister, encourages me not to be afraid. NIT#10 Yes, my children were the ones that encourage me to go from breast cancer.
Encouragement from friends to get treatment	NIT#2 I told a friend of mine and she convinced me to go and get a screen but I was afraid, so my friend called a nurse that worked at Thinking Pinkand that nurse called and explain to me that I did not have any reason to be afraid and she explains the whole process to me. The next morning the nurse came to my house and told me she was taking me to get screened. NIT#4 Yes, another woman from the Mosque, my brother and my friend. NIT#6 After my friend explain all of this information she advised and directed me to Connaught hospital because this was where she went to get the screen and to receive the treatment.
Explanation of Type of treatment	NIT#2 My experience has been good; it was because of the way the doctors and nurse explain the treatment to me that made me agree to take the treatment. NIT#3 they told me to take chemo, but they did not give me options. They told me if I took the treatment, I will start to find better because the treatment was good for me. NIT#4 Well, because they told me that this is the only treatment that would make me well and if I did not take it, I would die. NIT#6 the doctor told me I would have to take chemotherapy first and then the operation to remove my breast. NIT#7 I did not have the option, the doctor only told me I needed to take chemo treatment to make my boob soft and then I have to do a breast removal operation after. NIT#8 Yes, they explain to me that I would have to do chemo through an IV first then I would have to do the breast operation.
The factor that led to the reaction	NIT#5 the reaction I had was because of all that my sister and Thinking Pinkeducated me on about this sickness. NIT#6 Honestly, finances were the main reason I reacted in the way I did after learning I had breast cancer, because like I said I knew I did

Code	Supporting quotes
	not have any way of paying for my treatment and without the treatment, I would die. NIT#7 I was worried because I did not know how I was going to pay for my treatment. NIT#8 Education and Finances, it was because of the experience I had with my cousin, and also, I was worried that I would have the money needed to pay for my treatment. NIT#9 Anyway, I was scared because I did not know what was going to happen to me, plus I knew I had no way of paying for the type of treatment I needed.
Faith in God's healing power (prayer) religion played a role in health decision	NIT#1 Honestly, I have prayed a lot about this sickness and I pray to God to give me the strength to survive because the chemotherapy makes me very sick. All of my hair fell from my head and it makes me weak I don't feel like eating and it made me skinny. So my faith in God that he will heal me has helped me a lot. NIT#2 My faith in God and I believe that if I pray and keep the faith, I would have the operation and nothing would happen to me, because I believe with God all things are possible. NIT#3 Always, because I believe that with praying and faith God and help and heal you. NIT#4 My faith in God is Allah is one of the main reasons I have been able to go through this sickness when I look at myself, I see that I do not look like other women because both of my breasts are gone and because of this my children father left me and I start to think maybe no other man with want me, but my faith in Allah help me to know that if I believe in him, he will make everything ok. NIT#5 I am a Christian and I believe in God and I have faith that prayers to God and fix any problem. NIT#6 Yes, like I said before my religion teaches me that with prayer God can heal any sickness and also my Imam talks to me and advise me to go to the treatment because he said God will help me go through the treatment and heal. NIT#7 Religious belief tells me that I should have faith in God and his healing power, so any decision I make I make it knowing that I have faith in God. NIT#10 Religion played a role because of my believe in God healing power.
Fear of breast cancer diagnosis	NIT#1 I did not want to know if I had breast cancer. NIT#2 And I was afraid to get a screen because no one wants to hear they have cancer. Even when I went home and told my kids they all cried because in Sierra Leone a lot of women die from breast cancer, so my kids thought I was going to die as well. NIT#4 the doctor told me that breast cancer is a sickness that kills people, and my kids a very young I did not want to die and leave them. NIT#6 Well, the experience was scary, because I was already told that breast cancer can kill so I did not want to have this disease, but I had hope that whatever the result was God would take control and help heal me.

Code	Supporting quotes
	NIT#7 the experience was scary because I did not know what the doctor was going to tell me.
Fear of death	NIT#1 I fear I would die because I have heard of other people dying from breast cancer. NIT#2 The first thing to come to mind was that they would have to cut off my breast and that I would end up dying from the operation. This is the scariest part of it all. NIT#4 the doctor told me that breast cancer is a sickness that kills people, and my kids a very young I did not want to die and leave them. NIT#4 Knowing that breast cancer would kill me was the main reason I had this horrible reaction. NIT#5 it was very scary because based on what my sister explained to me, I was afraid that if I had this disease I would die. NIT#6 Well, the experience was scary, because I was already told that breast cancer can kill so I did not want to have this disease, but I had hope that whatever the result was God would take control and help heal me. NIT#7 I was very discouraged, because of the result plus now I was worried about how I would come up with the money to pay for treatment. I was thinking this is going to kill. NIT#8 my kids a very young I did not want to die and leave them.
Financial help from family	NIT#1 No Ma'am I do not, I get financial support for my family, my brother, and sisters but mostly My Auntie. NIT#3 the screening cost about 120 thousand leones, and the family and neighbor helped me pay for it. NIT#4 screening 500 thousand leones, My brother helped me pay for it. NIT#5 Right now, I am not working and I don't have a business, my family helps me with money to live because I am not well right now so I don't have the energy to work. NIT#6 I do not work, I ask for help from my family members and my husband. NIT#7 My Aunt help me pay for screening. NIT#8 Thinking Pinkhelp me pay for most of it and my family also help me financially as well. NIT#9 my younger sister use the money she made from her small market to help me pay for my screening.
Financial Help from a neighbor	NIT#3 the screening cost about 120 thousand leones, and the family and neighbor helped me pay for it.
Financial hardship caused by having breast cancer	NIT#2 Honestly, after learning I had breast cancer, I was very worried about how I was going to pay for the breast operation. Because I know when you do this operation you have to stay in the hospital for some time and I would not be able to sell my market and feed my family. NIT#5 Right now, I am not working and I don't have a business, my family helps me with money to live because I am not well right now so I don't have the energy to work.

Code	Supporting quotes
	NIT#7 but right now I am not able to work because of my illness so my family helps me with money to live
Financial help organization	NIT#1 Thinking Pinkhelped me pay. NIT#2 Only Thinking Pinkhas helped me, they were able to find me a sponsor to help pay for my treatment and the operation and even help me with money for my family. NIT#3 three months, I had to wait until Thinking Pinkfound a sponsor to help pay for the treatment. NIT#5 we came back to Thinking Pinkand they help me pay to start my Chemo Treatment. NIT#8 Thinking Pinkhelp me pay for most of it and my family also help me financially as well. NIT#10 it was the Thinking Pinkcancer organization that help me raise money to pay for my treatment.
Financial reasons cause a delay in starting treatment	NIT#1 Because I did not have the money to pay for the treatment, I had to wait until my family could put together money for me to be able to pay for the treatment. NIT#2 Well for one thing I did not want to admit to myself that I had breast cancer, but also because I know if I took the treatment I would be in the hospital for some time and I would not be able to sell my market. NIT#4 Because I did not have the money, So I had to wait until Thinking Pinkwas able to help me pay for my treatment. NIT#6 Because I did not have the money right away, I had to wait until my family, my husband and Thinking Pinkraised money for me to get the operation and treatment. NIT#7 I was waiting to raise the money to pay for the treatment. NIT#9 because I did not have the money to pay for it.
Financial worries	NIT#2 I know when you do this operation you have to stay in the hospital for some time and I would not be able to sell my market and feed my family. NIT#6 I was worried because I knew I had no way to get the money to pay for my treatment. NIT#8 I was very discouraged, because of the result plus now I was worried about how I would come up with the money to pay for treatment. I was thinking this is going to kill. NIT#8 Education and Finances, it was because of the experience I had with my cousin, and also, I was worried that I would have the money needed to pay for my treatment. NIT#9 I knew I had no way of paying for the type of treatment I needed.
Funding for screening	NIT#1 My aunt helped me pay. NIT#2 I had money from the market I had sold the day before. But once I got here the nurse and I tried to pay the nurse that brought me returned the money to me and said that Thinking Pinkwould pay for me. NIT#3 family and neighbor helped me pay for it.

Code	Supporting quotes
	NIT#4 My brother helped me pay for it. NIT#5 my sister and her friend help me pay for it. NIT#6 I begged mine family members for money, to help me pay for it and they did. NIT#7 My aunt helps me pay. NIT#8 my mother helps me pay. NIT#9 my younger sister uses the money she made from her small market to help me pay for my screening. NIT#10 I used money from my market to pay for it.
Funding for treatment	NIT#1 Thinking Pinkhelped me pay. NIT#2 Only Thinking Pinkhas helped me, they were able to find me a sponsor to help pay for my treatment and the operation and even help me with money for my family. NIT#3 Thinking Pinkand my family member helped me pay for the treatment. NIT# 4 Thinking Pinkhelped me pay for my treatment. NIT#5 Thinking PinkHelp me. NIT#6 mostly it was the sponsors from Thinking Pinkthat helped me pay for it, my husband also helped a little as well. NIT#7 people from my Mosques help me pay for it. NIT#8 Thinking Pinkhelp me pay for most of it and my family also help me financially as well. NIT#9 my sister helped me pay and Yes, recently Thinking Pinkhas been helping me raise money for the rest of my treatment. NIT#10 it was the Thinking Pinkcancer organization that help me raise money to pay for my treatment.
Geographical location	NIT#1 I am currently living at willbyforce, Freetown, but I was born on Abba street downtown, Freetown. NIT#2 I grew up in the western area of Freetown and that is where I currently reside. NIT#3 Bo, Sierra Leone, but I live in Freetown on the No education western side street. NIT#4 I was born in Bo and I live in waterloo Freetown. NIT#5 Freetown, Western area, and I live in Freetown carby town. NIT#6 Kington, Freetown and I live in Western end Freetown. NIT#7 Bo, Sierra Leone, right now I am at shell in Freetown. NIT#8 Freetown, Eastern area, I lived in the same place. NIT#9 Connaught Freetown, I live in Waterloo, Freetown. NIT#10: I grew up in Freetown, the western area. But I am currently living in Kington town Freetown.
Giving advice to other	NIT#2 now I am the one most women in the community come to when they have pain or feel something in their boobs to ask my questions. And I have even directed a few of the women from my community to Thinking Pink. NIT#2 I would advise them to go through the treatment, don’t let fear stop them, because if you don’t take the treatment on time things can get very bad you can even die.

Code	Supporting quotes
	NIT#7 I would like to have more information about this disease beforehand, I would have like to know about early detection and how it can help save lives.
God was punishing me	NIT#2 felt like I had done something wrong and God was punishing me.
Knew someone who survived breast cancer	NIT#2 but after the same nurse from Thinking Pinkcall me, she told me that she too had the same experience, she said at least I already had kids, for her, she had no kids yet. But that she was lucky to take the treatment because it saved her life. NIT#5 Well, my sister is the one that first told me about breast cancer is a disease. She told me that she learns about this disease from another friend of hers who had it. NIT#6 Well, I started having pain and growth in my breast so I spoke with one of my friends who is a breast cancer survivor and she educated me on what breast cancer is and how it can affect women. Because she herself had experienced it. NIT#8 I learn about breast cancer because one of my cousins had the same sickness and because she delays getting treated, she ended up dying.
Lack to option for breast cancer treatment	NIT#1: they did not give me different options they just told me I had to take chemotherapy. NIT#3 they told me to take chemo, but they did not give me options. They told me if I took the treatment, I will start to find better because the treatment was good for me. NIT# 4 told me I had to take chemo treatment; they did not tell any anything else about my options. NIT#5 the reaction I had was because of all that my sister and Thinking Pinkeducated me on about this sickness. NIT#6 They did not give me any option they just what me this is what you have to do. They did tell me that the chemotherapy would make me sick, I would lose my hair and my hands and skin would change color. NIT#7 I did not have the option, the doctor only told me I needed to take chemo treatment to make my boob soft and then I have to do a breast removal operation after. NIT#9 They did not give me any options, They just told me I needed to take three circles of chemo and then a breast removal operation.
Length to time for treatment	NIT#1I has been taking chemotherapy for over a year now. NIT#2 It had been almost 1 year since I started my first treatment. NIT#4 I have received chemotherapy and breast removal operation, three rounds of chemo each last about 2 week and then it did the operation and now I am still taking chemo I have nine more weeks to go. it has been over a year. we took public transportation. NIT#5 I have been taking my treatment for three months now, I have two more months to go. NIT#6 It has been about five months. NIT#7 it has been about 10 months.

Code	Supporting quotes
	NIT#8 It has been about 4 months since I started my treatment. NIT#9 for about one year now, I have to wait for my sister to sell her market and then when she makes the money, she gives me to go. NIT#10 I am taking the tamoxifen for the next 5 years.
Marital status	NIT#1 no ma'am I am single. NIT#2 I am Single. NIT#3 No I am single. NIT#4 Single. NIT#5 Single. NIT#6 I am married. NIT#7 I am Single. NIT#8 Married. NIT#9 Window. NIT#10 I am a widow; my husband was killed during the war.
Mode of transportation	NIT#2 I took public transportation. NIT#2 I took public transportation. NIT#3 I took the public bus. NIT#4, and I took public transportation. NIT#5 I took public transportation and sometimes if I do not have enough money I walk halfway and then take public transport the rest of the way. NIT#6 I took public transportation. NIT#7 public transport. NIT#8 I took public transportation. NIT#9 I took public transport. NIT#10 I took public transportation.
Money to live	NIT#1 I get financial support for my family, my brother, and sisters but mostly My Auntie. NIT#4 No I do not work, my big brother supports me financially. NIT#5 Right now, I am not working and I don't have a business, my family helps me with money to live because I am not well right now so I don't have the energy to work. NIT#8 No I do not work, my big brother supports me financially. NIT#9 I am not working right now because of my illness, my younger sister is the one that helps me financially.
Need for care	NIT#4 none of if I am sick, I go to the hospital. NIT#6 I go to the hospital when I am sick and I know that's the only place I can go to get well. NIT#7 I wanted to know what was wrong with my breast because it was hard and kept hurting. NIT#8 It did not, the main reason behind my health care decision was the fact that I was told that if breast cancer goes untreated it and cost you your life. That prompted me to take it seriously and go and get checked. NIT#9 none of these things played a role. I was in pain and wanted to know what was wrong.

Code	Supporting quotes
	NIT#10 I decided to go for screening because I felt a lump in my breast.
Referral me to Thinking Pink	NIT#1 My aunt referred me to thinking pink. NIT#2 friend of mine advised me to come to Thinking Pinkto get screened. NIT#3 People in my community directed me to Thinking Pink because they said they heard the ab over the radio. NIT#4 Well after the doctor told me I had breast cancer, I started crying and I told him I did not have money for treatment and I did not want to die, that was when he sent me to Thinking Pinkand he said they would help me pay for my treatment. NIT#5 I told her I did not have any money to go and get a screen that was when a friend of hers directed us to Thinking Pink. NIT#6 Well after the test result came back and they said I had breast cancer, I went back to my friend and she referred me to Thinking Pinkand told me they would help me find a sponsor that would help me pay for the treatment. NIT#7 I heard an ad on the radio about Thinking Pink. NIT#8 I found out through my neighbor and the radio, I hear an ad that said if you had any problems with your breast or can't afford treatment for breast cancer Thinking Pinkwas a foundation that would help. NIT #9 There was a lady at the hospital where I go to take my chemo, she was there doing the same thing, she was the one that told me about Thinking Pink.
Religion played a role in health decision	NIT#2 Yes, people from the church that I attend, help pray for me to ask God to help me make the right decision about this sickness and they help me pray and ask God to help heal me. NIT#3 Always, because I believe that with praying and faith God and help and heal you. NIT#4 I am a muslin and I believe in Allah. And Allah teaches us to have faith.
Screening cost	NIT#1 It cost me 120,000 Leones for mine breast screening. NIT#3 the screening cost about 120 thousand leonesNIT#4 It cost 500 thousand leones, My brother helped me pay for it.
Signs of breast cancer	NIT#1 Because I kept feeling something inside my boobs when touch it, it was in my left breast. NIT#2: I experience a lump in my breast, so a friend of mine advised me to come to Thinking Pinkto get screened, that was when they tested the lump and then I was told it was breast cancer. NIT#3 Yes, I had a boil on my breast, at first, I thought it was something else. NIT#4 Yes, my breast saw swollen and I was in a lot of pain. NIT#5 my breast hurt, and it was leaking and it hurt a very bad smell. NIT#6 Yes, my breast boobs started hurting, so since I knew my friend had experienced something similar, I went and asked her about what type of symptoms did breast cancer have. NIT#7 I started feeling something hard in my boob.

Code	Supporting quotes
	NIT#8 Yes, Lump and pain. NIT#9: My breast had swelling and a boil in the breast that burst and I felt a lot of pain. NIT#10 Other than the lump in my breast I did not have any other symptoms. I wasn’t in pain but I did feel a lump. When I examine myself
Time before starting treatment after diagnosis	NIT#1 It took me about a month. NIT#2 It took about three months, for me to agree to start treatment. NIT#3 three months, I had to wait until Thinking Pinkfound a sponsor to help pay for the treatment. NIT#4 One month. NIT#5 took about four months. NIT#6 it took about a month. NIT#7 two weeks. NIT#8 it took three weeks. NIT#9 it took three weeks. NIT#10 it took me about 1 week to start taking treatment.
Travel time to the treatment center	NIT#1 It was an hour drive, NIT#2 It was about 20 minutes car ride. NIT#3 was about a 2-hour bus ride. NIT#4 was about an hour’s drive. NIT#5 It is 1 hour and 30 minutes by car. It so it a 15 to 20 minutes’ drive. NIT#7 it is about a 1-hour drive by public transport. 30-minute drive by car, NIT#8 It was very far almost 2 hours drive. NIT#9 it was about a 1-hour drive. NIT#10 1-hour drive.
Type of treatment	NIT#1 They said I had to do Chemotherapy treatment. I had to take three rounds of chemo first then they did the operation to remove the lump and then I had to do another six rounds of chemotherapy. NIT#2 They told me I would have to do chemotherapy first three-round, then I would have to do the breast operation and after that, another 4 rounds of chemotherapy and then I would have to take pills for 5 years. NIT#3 I have completed four rounds of chemo and I have been taking this treatment for five-month now. Now I am preparing for my surgery. NIT#4 I took three around rounds of Chemo. Then I did the breast removal operation. NIT#5 I am doing my chemotherapy; I have completed three rounds I need to do another two rounds of chemotherapy. NIT#6 I have completed my chemotherapy and the breast operation. NIT#7 I have done chemo and operation. Yes, I am taking pills and I have to take them for 5 years. NIT#8 I have completed three rounds of Chemo and also completed the operation and now I just finished my second round of chemo.

Code	Supporting quotes
	NIT#10 Well, after they did a lump operation and found out that I had breast cancer they told me I had to have my boobs cut, after that, I will have to take chemotherapy and now I have to take Tamoxifen which I have to take for the next 5 years.
Understanding of breast cancer	NIT#1 It is a sickness that kills, it’s a very bad sickness that kills, No ma’am I do not know what is the reason that people get breast cancer. NIT#2 What I understand about breast cancer is when the cells inside the breast grow to pass the normal cells. Well from what I have been told, breast cancer can be caused by smoking, consuming alcohol excessively, or they did not breastfeed their kids. NIT#3 It is something that happens to people that is not good because when you have it you are unable to eat, you are unable to get the courage and it even makes it difficult to sleep. NIT#4 It is a sickness that affects a women’s breast, when your breast is affected by this sickness it causes a lot of pain. NIT#5 Breast cancer is something that is not good because it has already affected me, as we speak, I am dealing with breast cancer. It kills. NIT#6 Breast cancer is a disease that affects women in the breast area and it is very deadly and a very bad disease. NIT#7 Breast cancer is a sickness that is bad it affects women’s boobs. NIT#8 My understanding of breast cancer is that it is a very bad sickness. NIT#9 Breast cancer is a sickness that kills people. NIT# 10 I understand that breast cancer is a disease that affects the way the normal veins in a woman’s breast grows.
Understanding the effect to delay treatment	NIT#2 but if I do not get screened and it is cancer the longer, I wait the more likely it will kill me. NIT#5 because I knew if I did not take the treatment I would die. NIT#6 I understand this sickness leads to death if I did not get the treatment. NIT#8 one of my cousins had the same sickness and because she delays getting treated, she ended up dying. NIT#10 What I have learned about breast cancer is that when you do your self-exam, if you feel anything on your breast, you have to come to the hospital quickly. However, if you leave it untreated it will spread in your body and you will die.
Level of education	NIT#1 I only attended primary school, class B. NIT#2 I completed Secondary school. NIT#3 No Education. NIT#4. Primary school. NIT#5 No school. NIT#6 secondary school. NIT#7 primary School. NIT#8 No school. NIT#9 Primary school. NIT#10 I started secondary school, but did not finish.

Code	Supporting quotes
Grateful for treatment	NIT#1 Honestly, I was just happy and Thinking Pinkwas able to help me get treatment. NIT#2 At first, I was scared, but since. taking my chemo treatment and the operation and I see that it’s working and I did not die. I have accepted my condition, and I am grateful that I was able to get the treatment. NIT#5 But it has also been good because my sister and Thinking Pink have been there encouraging me. And I have been lucky enough to get treatment.
Source of income	NIT#2 I am a businesswoman, I sell onions and other food items. NIT#3 I sell fried fish out of my house. NIT#6 I do not work, I ask for help from my family members and my husband and I make ginger beers and sell them out of my house. NIT#7 I am hairdressing, NIT#8 I am a small treader businesswoman. NIT#10: I do not have a job; I do a small business selling things like cooked food.