AFRICAN JOURNAL OF SOCIAL SCIENCES (AJSS)

Volume 14 Number 2 (2024) 22 – 47

ISSN 2045-8452 (Print) Publishers: Top-Journals, London, England, United Kingdom Website: www.topjournals.co.uk AJSS is licensed to publish and promote all areas of Law & Social Sciences

An Assessment of Breast Cancer Therapeutics and Spousal Relationships in Ibadan Metropolis, Nigeria

> Morounfoluwa O. Oyebola Dept. of Sociology, University of Ibadan, Nigeria & Ayodele S. Jegede Dept. of Sociology, University of Ibadan, Nigeria

> > &

Temitayo Ogundiran Dept. of Surgery, University College Hospital, Ibadan, Nigeria Corresponding author: oyebolafolu@gmail.com

Abstract

Abstract

Breast cancer poses a significant health challenge across women worldwide. Its incidence continues to rise most especially in sub-Saharan Africa. Particularly, Nigeria has the highest number of deaths from breast cancer in Africa. However, this study explored a dyadic approach to understanding breast cancer therapeutics and how it impacts upon spousal relationship. Hence, this study described how breast cancer diagnosis and treatment affects various characteristics of a typical spousal relationship; document the perceived risk factors and causes of BC of community members about breast cancer; and identify the sick-role of women living with BC and how it affects spousal relationship. Hinged on Triangular Theory of Love, the study was conducted through mixed method approach, 660 respondents were recruited using multi-stage sampling techniques. Diagnostic report of disease resulted in instability in spousal relationship. They also perceived BC as non-communicable (20.8%), inherited (30.9%) and enemy at work (11.7%), and could be treated through traditional medicine (32%), radiotherapy (38.2%) and chemotherapy (48.5%). Sick-roles displayed by WLBC included inability to work, staying in bed for long, inability to attend to family and social responsibilities, and seeking for medical help (alternative or orthodox). This study highlights the challenges of BC diagnosis, treatment and management that may impact upon spousal relationship due to their sick role. Thus, the need for spousal and family support systems in the management process in ensuring better outcomes for BC patients.

Keywords: Breast Cancer, Therapeutics, Spousal Relationship, Ibadan

1. Introduction

One of the most prevalent health issues affecting women globally is breast cancer. It is a widespread illness with a heavy cost and an increasing frequency particularly in sub-Saharan Africa. However, there were approximately 168,690 instances of breast cancer with 74,072 deaths from the disease occurred in Africa in 2018, (Sharma, 2021). According to projections from the World Health Organization, Nigeria has about 250,000 instances of breast cancer (Kuteyi, 2021) and a yearly mortality close to 10,000. More so, Nigeria has

AJSS 14(2) 2024

22-47

the highest rate of breast cancer-related mortality in Africa Adewale Adeoye (2023). Women who are diagnosed with breast cancer (BC) have a terrible disease that may affect their ability to perform. According to the International Agency for Research on Cancer (2020), it is the most common cancer diagnosed worldwide and accounts for one in four cancer cases among women. Both the disease and its treatment may be very physically and psychologically tasking. In addition to experiencing pain, worry, and financial hardships, patients live in continual fear of dying. While, social assistance is therefore essential for coping with a diagnosis and preserving general quality of life (Adam and Koranteng, 2020). Disfigurement, discomfort, scarring, and alopecia during breast cancer treatment can cause a person to lose their femininity, which might affect their closeness and sexuality (Benson et al. 2020; Lambert et al. 2020).

Nonetheless, an increasing amount of research indicates that post-traumatic growth brought on by breast cancer treatment can result in a favorable transformation (Michalczyk et al. 2022). Relatively few published research use a transformational approach to understanding mastectomy experiences (Ristevski et al. 2020). Research has indicated that women's sexual capacities may be adversely affected by breast cancer treatment, such as surgery, radiation, and chemotherapy (Lambert et al. 2020). Many women experience a loss of fertility and the chance to have future romantic and sexual connections as a result of losing their reproductive organs to breast cancer. Even fewer research indicate that losing a loved one to breast cancer might present chances for personal growth (De Souza et al. 2021; Knaul et al. 2020).

There are also few studies looking at how breast cancer patients' experiences affect their companions, spouses, and family (Ristevski et al. 2020). BC accounted for thirty percent of cancer-related fatalities among women of reproductive age in 2021 with cancer coming in second (MoH, 2022). Furthermore, Global cancer data from 2020 shows that, the malignant tumor with the greatest rates of female morbidity and death is breast cancer, surpassing lung cancer (Vagia et al., 2020). Young breast cancer patients had more life-stage-related problems than older patients, including unmet psychosocial requirements, a lack of social experience, and low psychological tolerance (Borstelmann et al., 2022). Despite the rate of diagnosis for breast cancer in young women under 45, only 10% (Lei et al., 2021). In addition, there are challenges and disappointments in carrying out their roles as parents, which significantly lowers the individual and their families' quality of life (Al-Kaylanietal., 2022).

While previous studies have focused mainly on biomedical aspect, etiology, prevention and management of BC. However, little attention has been given to the social aspect of BC, as it affects spousal relationship in Ibadan. Indeed, sociological explanations of the consequences of the health condition on spousal relationship is lacking among couples whose spouses are affected. In fact, among couples whose spouses are impacted by their physical condition, sociological explanations of the effects on the marital connection are weak. As a result, this study looked at how couples whose spouses have been diagnosed of breast cancer perceive the disease and spousal relationships. It also took into account the societal toll that the partner's health issue had on their marriage as a whole in the Ibadan Metropolis.

2. Theoretical Foundation

The investigation's analytical basis was the triangle theory of love. This idea holds that three things influence how close or bonded a couple is: intimacy, passion, and decision/commitment. Moreover, love may also be thought of as having three vertices:

AJSS 14(2) 2024

proximity, passion, and choice or commitment. Passion in a marriage produces love, physical attraction, and sexual consummations, but intimacy, defined by the triangle theory as affective, or emotional consists of feelings of warmth, closeness, connection, and bondedness. As Sternberg (1986) points out, it's really more of an investment that inspires. However, according to Sternberg (1986), the third element decision/commitment a relationship is viewed as a temporary proclamation of love and a long-term commitment to sustaining that love. As Sternberg (1986) noted, decision and commitment may not always go hand in hand in a relationship because it is possible to love someone (the spouse) without making a long-term commitment to the relationship or to be committed without acknowledging that one loves the other person in a marital relationship.

3. Materials and Method

Descriptive cross-sectional survey design was adopted for this study. The study was conducted in the Ibadan Metropolis, in Oyo State, Nigeria. The Ibadan metropolis was purposively selected as the study area because it houses the first cancer registry in Nigeria which was established in 1962, and is located within the Department of Pathology, University College Hospital (UCH) Ibadan. Thirty in-depth interviews and four case-studies were conducted on life experiences of (WLBC). These are individuals who are formally in a relationship, or living with a partner, and have the health challenge of breast cancer. Qualitative data was obtained through In-Depth Interviews (IDIs) and Case-Studies. For the interviews, fifteen (15) IDIs were conducted with women living with breast cancer, and fifteen (15) IDIs with their spouses.

The participants were purposively selected from the women who were attending clinics at the Breast Cancer Unit, University College Hospital, Ibadan. The decision to purposively select women from this unit was based on the fact that the WLBC usually attended the clinic for diagnosis, treatment and follow-up checks. For the quantitative survey, involved the use of Semi-structured questionnaire through multi-stage sampling technique in selecting respondents at the community level. Purposive sampling was used to select five urban Local Government Areas (LGAs) in Ibadan. Twenty-four wards were randomly selected out of 59 wards in the selected LGAs. Kish's (1965) formula was used to determine the sample size, and systematic sampling was used to proportionately administer semi-structured questionnaire on 660 community members comprising Ibadan North (167), Ibadan North-East (148), Ibadan North-West (75), Ibadan South-East (134) and Ibadan South-West (136). University College Hospital (UCH) Ibadan, which has a high referral population-based cancer registry. The data was analysed with Nvivo Software, Version 8, and content analysis guided the interpretation of the data. The retrieved administered questionnaires were analysed using the Statistical Package for Social Sciences (SPSS) Version 23. Quantitative data were analyzed using descriptive and inferential statistics at $p \le 0.05$. Ethical approval was sought and obtained from the UI/UCH Ethical Review Board College of Medicine, University of Ibadan, with approval number UI/EC/17/0120. Furthermore, permission was obtained from the Chairman, Medical Advisory Board (CMAC) to have access to patients in the hospital. Consent of all the people involved in the study was sought at different levels. Individual consent was sought at the household level and during interviews.

4. Results

4.1 Background Characteristics of the IDI Participants

Appendix 1. Gives a background characteristics of the IDI participants who were 15 WLBC and 15 spouses who were interviewed. The age distribution ranged between 30 and a little above 50 years. This implies that they are adults, who were probably sexually active, and were still within the child bearing and rearing age, which was of major interest to this study. More than half of the participants, (80%) male and (67%) female practiced Christianity as their religion. The participants were economically active, wherein (40%) male and (46%) female were employed in the public/private sector, also, (47%) male and (47%) female were self-employed. Furthermore, they appeared to be a literate population, as majority of them possessed tertiary education, out of which 67% were male and 60% female. The Appendix further revealed that majority of the partners had spent more than ten (10) years together in the relationship. Thus, they were able to provide detailed information on the dynamics in their relationship as a result of the emergence of breast cancer.

Appendix 2. Shows the breakdown of the background characteristics of the respondents from the quantitative study. The Appendix reveals that there were a little more female (50.6%) than male (49.4%) in the sampled population. The mean age of the respondents was 36 years. A very few proportion of the sampled population were younger than 19 years (3.5%) and older than 50 years (11.2%). Christianity (66.5%) was the dominant religion in the study location, as about two out of three of the respondents indicated that they were Christians, while others were practicing Islam (32.6%) and Traditional religion (0.9%).

The major ethnic group in the study location was Yoruba (85.0%), which was a true reflection of the Ibadan metropolis being the emphasis of this study, and which reflected that they were mainly from the South-Western states of Nigeria. The other ethnic groups were in the minority in this particularly study location. In the same vein, most of the respondents were employed, either in the public or private sector (42.2%), followed by a significant number of them (36.4%) who were self-employed, which showed that the Ibadan metropolis is economically active and buoyant. There were records of individuals who were unemployed (13.8%), who were dependent on others for their needs. Some of these dependents estimated the cash received from their benefactors to be about N10, 000 per month. Nevertheless, majority of the respondents (69.7%) earned less than N20,000 per month followed by those who indicated that they received between N20,000 and N49,999 (21.8%) per month. A few number of respondents (3.9%) earned above N80, 000 per month

The Appendix also revealed that the study location appeared to be a literate community, wherein majority (65.6%) had acquired education up to the tertiary level. About one out of six respondents (5.5%) had secondary education, while 6.1% of the respondents had no formal education. By implication, there was the possibility that majority of the respondents might have heard about breast cancer, perhaps about its etiology, prevention and treatment regimen.

On the marital status of the respondents, more than half of the sampled populations (54.7%) were married, while (42.4%) were single at the time of the survey. This suggests that a higher proportion of the respondents would have been able to assess how breast cancer affects spousal relationship.

AJSS 14(2) 2024

22-47

Square independence test, the sources of knowledge about BC, perceived severity of BC and the awareness of the causes including the relationship of the respondents and the affected person are critical in determining the level of knowledge about BC symptoms. Appendix 4.5 indicates that there was no significant relationship between the sources of knowledge of BC and the level of knowledge about BC symptoms (X^2 = 5.998, DF = 6, p > 0.05). This is by implication suggesting that the sources of knowledge of BC symptoms do not determine the level of knowledge about BC symptoms among the study population. However, significant relationship was observed between perceived severity of the health condition and level of knowledge about BC symptoms (X^2 = 98.908, DF = 4, p < 0.05). This means that the more respondents perceive the health condition to be serious, the more they have the knowledge about its symptoms.

Meanwhile, awareness of the causes of BC (X^2 = 63.107, DF = 2, p < 0.05), whether respondents had seen an affected person with BC (X^2 = 15.450, DF = 2, p < 0.05) and the relationship they had with the affected person (X^2 = 19.150, DF = 10, p < 0.05) were found significantly related to the level of knowledge of BC symptoms. These imply that the more respondents were aware of the causes of BC, seen the affected person, or the degree of closeness and relationship with the affected person with BC, the higher their level of knowledge about BC symptoms.

While the level of knowledge about the perceived symptoms of BC is essential in determining the extent to which community members were aware of the health condition, the perceived knowledge about the cause of BC is equally important for the purpose of policy intervention and prevention.



Figure 1. Percentage distribution of perceived causes of BC

Figure 1. Revealed that, more than half of the respondents (68.0%) perceived the causes of BC to be social factors which ranged from spiritual attacks, devil works and all the likes, while only a few respondents perceived the causes of BC to be related to biological causes (19.0%) and environmental causes (13.0%). This suggests that many community members believed that the causes of BC were more associated with social causes than biological and environmental causes.

Appendix 4.6 presents the distribution of risk factors, mode of contacting BC and its methods of diagnosis. It was shown that majority of the respondents indicated that any woman (69.8%) can be at risk of developing BC, which was closely followed by 51.8% of the respondents who signified that women with family history of BC stand a risk of

AJSS 14(2) 2024

developing breast cancer. The mode of contacting BC shows that it is an inherited health condition -30.9% (being the highest percentage), individual body development (26.2%), and non-communicable disease (20.8%), and unknown (20.2%), work of the enemy (11.7%) among others. This implies that majority of the community members knew at least one way through which BC can be contacted.

4.2 Knowledge of Spouses about Breast Cancer

The general knowledge about the disease from the qualitative findings seemed to be, that, the spouses were relatively knowledgeable about the disease. Hitherto, their level of knowledge affected the time of diagnosis and by whom; their reaction to the diagnosis; the choice of treatment; involvement in the diagnosis and treatment; and the support provided following the diagnosis and treatment

From the interviews, it was observed that most of them had heard about the diseases, and they perceived it as a deadly disease. As it was reported by the spouse of one of the WLBC that it has no cure, but could be managed over time and it is a terminal disease. As he narrated, as this reflected the level of knowledge he had before the diagnosis of his wife:

What I heard about breast cancer before the diagnosis of my wife was that, it has no cure. The patient would be managing it depending on how rich the person is. It is terminal (IDI, Spouse of WLBC, Age 33, Post Diagnosis).

As another spouse added, BC is referred to as a killer disease with the exception of his wife as he stated affirmatively that the case of his wife would be different with the help of God. He said:

I have heard that it is a killer disease, and a terminal disease, the only way out of it is not to have it at all. If anyone has it, it will be the one that will put an end to the woman's life; but with the help of God, there is an end to our own case (IDI, Spouse of WLBC, Age 44, Post-Treatment).

From the perspective of a WLBC who also attributed the cause of the disease to spiritual cause (Satan), said, she had no knowledge about the disease before she became a victim, if not she would have gone for screening before the case became worse. As she explained:

I do not even know anything about it and because I never thought I could be affected; I would have gone for screening. I don't even know at all, may be it is part of the problems Satan had sent into the world to afflict women and men at large (IDI, WLBC, Age 49, Post Treatment).

Apparently, from the above narrations, there seemed to be more knowledge about breast cancer after the diagnosis of the disease compared to the pre-diagnosis phase.

The percentage distribution of the mode of BC diagnosis revealed that self-breast examination (49.8%) has the highest percentage, which was closely followed by mammography (28.2%), and ultrasound (28.0%). This is indicative that majority of the respondents were aware that BC can be medically diagnosed which would inform its cure and treatment in a population.

The treatment options were however ascertained, in the order of highest percentages of options indicated by the respondents, it was reported that chemotherapy (48.5%), radiotherapy (38.2%), mastectomy (35.6%), traditional medicine (32.0%), lumpectomy (31.8%) and hormone therapy (22.0%) were the options available for the affected persons.

AJSS 14(2) 2024

22-47

This meant that respondents knew at least one of the treatment options, with chemotherapy as the most recognized options.

The perceived knowledge of treatment showed that body pain (46.1%), body disfigurement (40.2%), psychological trauma (32.1%) and social stigma (20.5%) were the perceived effects with body pain being the highest. The report also revealed that modern medicine (66.5%) had the highest percentage of respondents who described it as the best mode of curing BC. This was suggestive that, although the modern treatment options may attract body pains, it is still the best mode of curing the health condition when compared to traditional medicine.

The relationship between risk factors, diagnosis and perceived knowledge of the causes of BC was examined in this study. Appendix 5 presents the results of the analysis using chi square test of independence. It was found that all those who were at risk of developing BC which ranged from any woman (X2 = 154.902; 0.000), women with family history of BC (X2 = 94.151, p < 0.05), promiscuous women (X2 = 58.552, p < 0.05), elites/educated women (X2 = 58.720, p < 0.05), uneducated women (X2 = 86.044, p < 0.05), high socio-economic class women (X2 = 82.267, p < 0.05) to low socio-economic women (X2 = 72.138, p < 0.05) are related to perceived knowledge of the causes of BC. These are indicative that those who were at risk of developing BC were significantly related to the perceived knowledge of the causes of BC.

The source of risk factor and perceived knowledge about the causes of BC were explored. It was found that all sources of knowledge about the risk factor are significantly related to perceive knowledge of the causes of BC (X2 = 20.433, DF = 6, p < 0.05).

4.3 Mode of Diagnosis by the Spouses

The level of knowledge affected the mode of diagnosis of the disease.

a) Diagnosis by a doctor at late presentation

Interactions with the women living with breast cancer (WLBC) and their spouses, showed that they were unable to appropriate the knowledge about breast cancer's signs to their real life experience. This made some WLBC to have late presentation at the hospital and consequently the late diagnosis. One of the participants narrated her experience:

It was documented inside the letter given to me for referral by both doctors here in University College Hospital and the private hospital. They said it is too late before coming to hospital for treatment because it has grown up to armpit level (IDI, WLBC, Age51, Healthy, Post-Diagnosis).

(b) Diagnosis by the Spouse (Husband)

In a related manner, though there seemed to be a significant record of publicity in the mass media about breast cancer. It seemed people did not pay attention to precautions, symptoms and the immediate necessary steps in taking care of breast cancer. However, some still jokingly paid attention to some media presentations. To corroborate this, a spouse of a WLBC recorded that it was during a radio programme, that he was able to relate with the signs observed on his wife's breast. He had this to say, that:

I was listening to a radio programme, the presenter was talking about breast cancer, it causes, together with the symptoms. Some of the symptoms and danger signs she mentioned were among the signs I observed on my wife's breast, including series of miscarriages, which my wife had had. So, I quickly telephoned

the presenters in the studio to discuss with the guest health worker. After the discussion on phone, she advised us to quickly go to a standard hospital for checkup and diagnosis. We then went to Jericho Nursing Home hospital. My wife could not say that she detected herself, if not for me that called her attention to it (IDI, Spouse of WLBC, Age47, Post-treatment).

(c) Diagnosis by Self-Prompting

A patient observed an unusual thing on her breast, and took it upon herself to find out what it was, as narrated below:

I went to Jericho Specialist Hospital by myself, It was there I was directed for mammogram test which I did immediately. The result read negative to cancer, likewise x-ray that I did. The doctor said I should leave it because it was too small but I said "no". I insisted that they should remove it, and it was removed through surgery, and tested in laboratory. It was the laboratory result that showed that it was cancer. After showing the result to the doctors, they quickly referred me to the University College Hospital. So, thank God that I went ahead myself for the test (IDI, WLBC, Age 48, Post-treatment).

The above narration showed that the results from the mammogram and x-ray gave a wrong representation of the ailment. However, the woman insisted on following through with the necessary course of diagnosis and treatment.

This is suggestive that the source of the knowledge of the causes of BC matter most in determining the perceived knowledge of the causes of BC be it social causes, biological causes or environmental causes. In a similar vein, there was a significant relationship between the mode of contacting BC and perceived knowledge of the causes of BC. Those who perceived it as non-communicable disease, communicable disease, individual body develops it, an inheriAppendix disease, work of the enemy, and those who indicated unknown are significantly related to perceived knowledge of the causes of BC.

The mode of its diagnosis and perceived knowledge of its causes was determined using cross tabulation. All modes of diagnosis except those who signified that it could not be diagnosed were found significantly related to the perceived knowledge of the causes of BC. This means that self-breast examination, mammography, ultrasound, and other ways of diagnosing BC go a long way to determine the perceived knowledge of its etiology. As a matter of fact, all treatment options known to respondents were significantly related to the perceived knowledge of its etiology. It then means that any method perceived to be useful for the treatment of BC would determine its perceived knowledge of the causes among the study population.

In an attempt to examine the relationship between perceived effects of treatment and perceived knowledge of the causes of BC, findings indicated that there was a significant relationship between body disfigurement, body pain, psychological trauma, social stigma and perceived knowledge of its etiology. This is therefore suggestive that all kind of perceived effects of treatment are related to perceived causes such that it could either be related to social, biological and environmental causes of BC. While treatment options and perceived effects of treatment were significantly related to perceived knowledge of the causes of BC. The best option of curing BC had no significant relationship with perceived knowledge of the respondents had ever experienced BC, thus, they were unable to determine the best treatment option based on the knowledge of the causes of the disease.

AJSS 14(2) 2024

Further examination of the relationship between socio-demographic variables and perceived knowledge of the causes of BC on Appendix 4.8 shows that gender and perceived knowledge of the causes of BC were related (X2 = 7.910, DF = 2, p < 0.05). This also means that while more male respondents (53.0%) perceived that BC was associated with social causes, more female respondents (60.5%) perceived BC to be associated with biological causes as well as environmental causes when compared to their male counterparts (55.2%).

In the quantitative study, though it was multiple response questions that was put across, respondents were asked the type of sick roles that would be assumed by the WLBC following the diagnosis of breast cancer. Figure 4.4 indicated that nearly all the respondents reported that the WLBC would seek medical help (84.5%), followed by those who said they would stop going to work (56.1) and lying on bed (54.4%). Other sick roles they assumed the WLBC would display included not attending to the husband's needs (47.0%), not attending to the family's needs (46.7%), not taking care of children (46.7%) among others. This result indicates that on the assumption of sick roles by the affected women with breast cancer, there is possibilities that the relationship between significant others would be strained.



Figure 4.4. Distribution of respondents by the Sick Roles Assumed by WLBC

5. Discussion

This section synergized the results of the study in line with the previous findings in the literature. In a related manner, the narrated experience of the outcome of breast cancer diagnosis revealed that both WLBC and their spouses shared roles and responsibilities in the relationship before the diagnosis. The study revealed a change in the roles performed by the WLBC, such as child bearing, child rearing, doing chores, financial obligation, marital obligations; and that there was a role-shift after the diagnosis and even after treatment as

AJSS 14(2) 2024

22-47

this is in line the previous findings According to Yan et al. (2021), family caregivers are those who are friends or relatives with patients and offer them unpaid care at home. Parents, spouses, kids, siblings, friends, and even neighbors can be considered examples of caretakers. Male spouses are typically the primary carers for young to middle-aged breast cancer survivors. Families are the primary source of spiritual, material, and emotional support for cancer survivors and can also offer them internal support. The use of internal resources from in-home support (family resilience and individual resilience) will be taken into consideration by caregivers, according to Uzar-Ozceti and Dursun (2020). Chen et al. (2021) also found a favorable correlation between individual resilience and social support and family resilience. The more social support breast cancer survivors receive and are able to utilize, the more it enhances their capacity for self-management and fosters personal adaptability. The Luo group, 2020. It is believed that important factors influencing the caregiver burden include the traits of survivors, caregivers, and families. Consequently, with the diagnosis of the disease and incidence of the disease, the psychological balance of relationship was disturbed. Findings showed that the way the partners absorbed and handled the disclosure depended on the health of the existing spousal relationship pre-diagnosis.

For instance, research by Wu et al. (2020) demonstrates that the length of care is a predictor of caregiver burden, with longer care duration associated with higher caregiver stress. In their 2019 survey of patients with breast cancer receiving chemotherapy and radiation in the same region of China, Tao et al. (2020). The spouses (husband) reported that they were trying their best to fill up the gap by adjusting and assuming the role and responsibilities that the woman relinquished as a result of the diagnosis and treatment of the ailment. Perhaps as a result of receiving greater attention throughout therapy, breast cancer patients have different outcomes. Relatives, friends, or social groups may provide less financial and emotional support when the patient's therapy concludes and they start the recuperation phase. This study demonstrated the twin effects of social support through individual resilience and direct effects on the stress of spouse caregivers. This outcome aligns with the findings of Jabłoński and colleagues (2020). According to Irani et al. (2021), offering patients emotional support is one of the caring responsibilities that is being given more frequently than normal. Because of the stigma associated with breast cancer, Chinese men are typically reluctant to disclose or discuss family pressures, and they are even more reluctant to inform others that their wives have the disease. This makes it difficult to find some emotional relief and can have detrimental effects on both mental and physical health. Kuang & colleagues (2020). Further findings from this study revealed the aspect of sick role, which is a sociological term coined by Talcott Parson (1951), being a normative expectation of a sick person. The sick person (WLBC) experiences a breakdown in the effective performance of some her specific task and commitment at the workplace and the family. The sick role, being a transitional role, wherein the individual (WLBC) has the right to be exempted from duties by an obligation to refrain from normal day activities. On the other hand, the WLBC also has the obligation to seek medical attention and to recover in order to resume the roles (Parson, 1951).

According to a research by Agha, and Rind, (2021), on beliefs and attitudes regarding breast cancer among residents of rural and underprivileged parts of Sindh, Pakistan, the disease was thought to be infectious and spread by physical contact with a patient. This idea led to several wives being dumped by their husbands. In poor socioeconomic groups, there was a prevalent belief in fatalism and the notion that breast cancer is an incurable illness. This may have an impact on BC prevention and early identification. In addition to this, findings from this study revealed that non-adherence to medical advice by the affected women for the

purpose optimal health and perhaps complete recovery, resulted into conflict between the couples. Ultimately, all these conflicts were usually resolved by identifying the cause of the problem, and seeking solution to them.

In communities in and surrounding Bangalore, India, Maggi, Johnson, & Agrawal, (2022) investigated community perceptions and individual experiences of breast cancer. Their findings showed that breast cancer awareness was typically gained through interpersonal relationships or self-experiencing breast cancer, mass media, and medical professionals. The expense of care, the dearth of female physicians, diagnostic anxiety, and fear of mortality were the most obstacles to getting breast cancer treatment. Breast cancer stigma has been linked to potential social exclusion by the community and the false belief that the disease is contagious, which postpones obtaining medical attention. The factors influencing the health-seeking behaviors of women with advanced stages of breast cancer in southwestern Nigeria were studied by Ogunkorode, Holtslander, Ferguson, Maree, Anonson, & Ramsden, (2021). The study identified both motivating and enabling factors as well as barriers to engaging in health-seeking behaviors. Participants' health-seeking habits were impacted by sociocultural variables, breast alterations, interpretation of symptoms, financial constraints associated with breast cancer treatments, and a desire to survive.

Using a mixed method analysis, Edet, Ekundina, Bolarinwa, Babajide, & Nwafor, (2020), investigated rural women's knowledge of breast cancer and screening techniques in Southwest Nigeria. According to research, some people thought that breast cancer was a kind of spiritual attack on women, intended to punish them. The pathogenesis of breast cancer was likewise poorly understood. Over 50% of the participants held unfavorable opinions on breast cancer. Busari, & Akinboye, (2021) investigated women working in agrochemical companies' knowledge, perceptions, and strategies for preventing breast cancer. According to the survey, the majority of respondents in Lagos State, Nigeria, had poor preventative measures against breast cancer, accounting for 115 (54.2%) of the respondents, while 45.8% of the respondents reported having good preventive measures against the disease. Most often than not, the reasons from the WLBC were that there should be no sex because the woman would be in pain, the woman is feeling she is not attractive, as such a man is expected to stay off from having sex with the affected. These and other reasons provided by the WLBC, usually caused friction among the partners, as the men were denied easy access to sex. This eventually affects the spousal relationship, which might have negative result wherein the man marries another wife, or seeks separation/divorce

The respondents' view of breast cancer and their knowledge of the disease were significantly correlated (r=0.20; p=0.004). That there is a substantial correlation (r=0.28; p=0.000) between the respondents' knowledge and practice. Furthermore, there is no statistically significant correlation (r=0.02; p=0.743) between the respondents' view and strategy of preventing breast cancer. In a similar way, Esan, Ihunanyachi, Adedeji, & Ramos, (2022), findings regarding female employees' knowledge, attitudes, and acceptance of bilateral prophylactic mastectomy in a private university in Nigeria showed that 56.4% of respondents knew very little about BPM, the majority (65.1%) had a negative attitude toward BPM, and acceptance was low 62.6% of respondents accepted BPM less than 37.4% of respondents accepted it much. Coping with the embarrassment of losing their breast and the fear that having their breast removed could lower their self-esteem were the main barriers to embracing BPM. The study conducted by Okunnuga, Alegbeleye, & Okunnuga, (2023), examined the obstacles that prevent women in Ondo State, Nigeria from presenting with breast cancer early. The results indicated a noteworthy correlation between patients' delay and insufficient social support (AOR = 8.12, 95% CI 1.22–24.80, P = 0.002), with a P value of less than 0.005 indicating significance.

AJSS 14(2) 2024

22-47

From the findings of this study, the diagnosis and the treatment of breast cancer sharpened the nature of the sexual relationship between the partners which resulted in some men not wanting to sleep with the women. This was borne out of pity or sympathy so as not to hurt the woman. This is similar to Adejoh, Olorunlana, & Adejayan, (2021), examined patients' experiences of family members' responses to breast cancer diagnoses and assistance with the disease's treatment. The results indicate that certain individuals experienced unfavorable responses from certain family members, which had a detrimental impact on them. Some participants' relatives provided assistance, but others did not. Bosire, Mendenhall, & Weaver (2020), study on comorbid suffering, discovered that women attempting to manage therapy attempt to strike a balance between managing comorbid pain and continuing to carry out daily tasks.

Further findings from the study revealed that the relationship that the partners had with their family and friends, still existed after the diagnosis and treatment as they provided financial and other forms of support. This is because the qualitative findings revealed that a person's family is his/her enemy, and they do not know where the health-attack emanated from. This reflected peoples believe that BC has a spiritual or social cause. However, the spouse needed to inform the woman's family of the nature and extent of the disease. The reason was that in the event that the woman dies, the spouse would not be held responsible. Women's fear of rejection from their relatives or the social gap that their diseases caused between family members and the larger community served as the foundation for discrimination and isolation against them. This research supports a Chinese study (He et al., 2022) that looked at the connection between breast cancer patients and family functioning. The results, which are consistent with studies in other cultural contexts such as China, highlight the importance of family cohesiveness, in providing breast cancer patients with various sorts of help. Thus, this study demonstrates how severe family responsibilities are necessary for comorbid suffering both during and after sickness. De Souza et al. (2021) aimed to determine the effect of breast cancer on Brazilian women's family lives in their qualitative study. During her therapy, a lady shared that she felt alone, but her spouse refused to acknowledge it. My brother did not pay me a visit. And before the chemotherapy came my father. He stated he didn't have the guts to come visit me when I was doing the chemotherapy. De Souza et al., (2021).

Mexican women with breast cancer who were asked open-ended questions about their definition of a cancer survivor identity in Knaul et al.'s (2020) study explained that it meant an identity that promoted self-preservation by learning to negotiate and set new boundaries as well as learn self-care. Nearly half of the 22 Mexican women in the research who had previously had breast cancer found it difficult to accept who they were after having a mastectomy (Knaul 2020). Women's femininity, mothering, and caring duties might be adversely affected by breast loss (Sethi et al. 2021).

Sexual function may also be negatively impacted by cancer therapies such radiation, chemotherapy, and surgery (Lambert et al. 2020). Patients with cancer experience mental and physical changes, and they gain from interactions that help them better adjust to their increased demands and stress levels. Research like (Ristevski et al. 2020) modified interventions to include spouses and caretakers of patients with breast cancer during therapy. In order to boost support from spouses, loved ones, extended families, and relatives, Segelov and Garvey (Segelov & Garvey 2020) used yarning to collect data on the effects of cancer diagnosis and treatment on self, family, and community in Australia.

AJSS 14(2) 2024

22-47

6. Conclusion

According to the study, supportive behaviors include giving participants instrumental support like paying for their meds and assisting them with drug application, as well as emotional support like empathy and easing their anguish due to breast cancer. Women described experiences that forced them to reevaluate who they were, allowing for reconnection and the integration of their sense of self, when experiences with cancer treatment were examined through the prism of the individuation process. According to studies, male partners who were undergoing treatment for breast cancer were also inspired to rediscover their real selves. They recognized the nonsexual value of women and developed the relatedness value that was necessary to preserve their partnership during the transitional period, ultimately influencing the process of wholeness. Support from friends, spouses, family, and churchgoers is associated with better quality of life. Although there is a dearth of study on the transforming power of spouses, women's experiences have the capacity to balance spousal relationship. Talking about breast cancer can help to open up real conversation and recast partners as social justice activists. Women who adopt an attitude of acceptance and non-attachment to retain tranquility have found that spirituality plays a significant role in cancer diagnosis and treatment. Although, in some indigenous aboriginal cultures the experience of breast cancer place a high priority on spirituality, with spiritual activities fostering a greater degree of inner understanding and integration. Cancer is a gift that may lead to personal development; but, after experiencing physical changes, women must reconstruct their femininity.

7. Limitations

In spite of the conduct of the study under the canon of science, a number of challenges were encountered. First, the study only sampled respondents from the Ibadan metropolis without considering other patients in some other health facilities in Nigeria. This may largely affect the generalisation of the findings from the study. Hence, a larger size of sample size with the inclusion of patients from other health facilities outside the Ibadan metropolis could be significant to the generalisation of the results on breast cancer and spousal relationship for proper health policy formulations.

More so, this study was a self-reported data gathering from the participants and respondents. Relying heavily on self-reported data could undermine the objectivity of the findings because most of their responses could rarely be verified independently. In other words, only face values of their responses were taken into cognizance instead of having an in-depth understanding of the subject matter. This may result to biases that could undermine the results and the generalisation of the findings from the study.

Finally, some of the participants that were recruited from the University College Hospital (UCH), Ibadan came with late presentation of the breast cancer to the clinic, which led to referrals to the Palliative Unit of the hospital. However, majority of the participants were recruited for the study at the Surgical Out-Patient (SOP) Unit of the hospital, where different cases of breast cancer were attended to. In view of this, most of the participants included in the sample from the unit seemed not to be in perfect frame of mind when discussing issues related to breast cancer. Although this may be as a result of being overwhelmed by the diagnosis or treatment procedures they had undergone, it may undermine the generalisation and validity of the findings from the research.

REFERENCES

- Adam, A., and Koranteng, F. (2020). Availability, accessibility, and impact of social support on breast cancer treatment among breast cancer patients in Kumasi, Ghana: a qualitative study. PLoS One 15:e0231691. doi: 10.1371/journal.pone.0231691.
- Adejoh, S. O., Olorunlana, A., & Adejayan, A. (2021). Patients' experiences of family members' reactions to diagnosis of breast cancer and support in the management of breast cancer in Lagos, Nigeria. Palliative & Supportive Care, 19(5), 592-597.
- Adeoye, P. A. (2023). Epidemiology of Breast Cancer in Sub-Saharan Africa. In Breast Cancer Updates. IntechOpen.
- Agha, N., & Rind, R. D. (2021). Beliefs and perceptions about breast cancer among the people living in rural and less privileged areas in Sindh, Pakistan. Health Education, 121(2), 200-214.
- Al-Kaylani, H.M., Loeffler, B.T., Mott, S.L., Curry, M., Phadke, S., van der Plas, E., 2022. Characterizing early changes in quality of life in young women with breast cancer. Front. Psychol. 13, 871194 https://doi.org/10.3389/fpsyg.2022.871194.
- Benson, R.B., B. Cobbold, E.O. Boamah, C.P. Akuoko & D. Boateng 2020. Challenges, Coping Strategies, and Social Support among Breast Cancer Patients in Ghana. Advances in Public Health Article ID: 4817932. https://doi.org/10.1155/2020/4817932
- Borstelmann, N.A., Gray, T.F., Gelber, S., Rosenberg, S., Zheng, Y., Meyer, M., Ruddy, K. J., Schapira, L., Come, S., Borges, V., Cadet, T., Maramaldi, P., Partridge, A.H., 2022. Psychosocial issues and quality of life of parenting partners of young women with breast cancer. Support. Care Cancer, 30, 4265–4274. https://doi.org/10.1007/s00520-022-06852-7.
- Bosire, E. N., Mendenhall, E., & Weaver, L. J. (2020). Comorbid suffering: Breast cancer survivors in South Africa. Qualitative Health Research, 30(6), 917-926.
- BUSARI, O. M., & AKINBOYE, D. O. (2021). Knowledge, Perception and Methods of Breast Cancer Prevention Among Womenin Agro-Chemical Companies In Lagos State, Nigeria. Journal of Medical and Dental Science Research, 8(5), 19-28.
- Chen JJ, Wang QL, Li HP, Zhang T, Zhang SS, Zhou MK (2021) Family resilience, perceived social support, and individual resilience in cancer couples: Analysis using the actor-partner interdependence mediation model. Eur J Oncol Nurs 52:101932. https://doi.org/10.1016/j.ejon.2021.101932
- De Souza, G.M., L.M. Rosa, M.A. Arzuaga-Salazar, V. Radünz, M.J. Santos & Y.Y. Rangel-Flores 2021. Meaning of Breast Cancer in Women's Discourse. Aquichan 21, e2138. https://doi.org/10.5294/aqui.2021.21.3.8
- Ernst, J., Friedrich, M., Vehling, S., Koch, U. and Mehnert-Theuerkauf, A. (2021) 'Cancerrelated distress: How often does it co-occur with a mental disorder?–Results of a Secondary Analysis' Frontiers in Psychology, 12, p. 1–8.
- Esan, D. T., Adedeji, O. A., Ihunanyachi, M. O., & Ramos, C. (2022). Knowledge, attitude and acceptance of bilateral prophylactic mastectomy among female staff in a private university in Nigeria. Revista de Senología y Patología Mamaria, 35(3), 184-191.European Journal of Cancer Care, 29(1), pp. 1-14.

- Fathollahi Anvigh, M., Khademi, A., Etemadinia, M. and Shaker Dolagh, A. (2021) 'Proposing causalmodel of adjustment to cancer based on attachment styles and mediating of causal attribution
- Fitch, M.I., 2021. Perspectives of survivors: coping with lifestyle adjustments following cancer diagnosis and treatment. Can Oncol Nurs J 31 (2), 235–238.
- Gao, L., Liu, J.E., Zhou, X.P., Su, Y.L. and Wang, P.L. (2020) 'Supporting her as the situation changes: A qualitative study of spousal support strategies for patients with breast cancer in China',
- He, C., Yang, T., He, Y., Guo, S., Lin, Y., Wu, C., & Cao, B. (2022). Relationship between family functioning and self-transcendence in patients with breast cancer: A network analysis. Frontiers in public health, 10, 1028860.
- International Agency for Research on Cancer (2020). Agency for Research on Cancer-IARC. GLOBOCAN 2020: New Global Cancer Data. Available at: https://www.uicc.org/news/globocan-2020-new-global-cancer-data (Accessed July 17, 2023).
- Irani E, Niyomyart A, Hickman RL (2021) Family caregivers' experiences and changes in caregiving tasks during the COVID-19 pandemic. Clin Nurs Res 30:1088–1097. https:// doi. org/ 10. 1177/10547 73821 10142 11
- Jabłoński MJ, Garcia-Torres F, Zielińska P, Bułat A, Brandys P (2020) Emotional burden and perceived social support in male partners of women with cancer. Int J Environ Res Public Health
- Knaul, F.M., S.V. Doubova, M.C. Gonzales Robledo, A. Durstine, G.B. Pages, F. Casanova & H. Arreola-Orneals 2020. Self-Identity, Lived Experiences, and Challenges of Breast, Cervical, and Prostate Cancer Survivorship in Mexico: A Qualitative Study. BMC Cancer 20, Article No. 577. https://doi.org/10.1186/s12885-020-07076-w https://bmccancer.biomedcentral.com/articles/10.1186/s12885-02007076-w
- Krok, D. and Gerymski, R. (2021) 'Affect and psychological well-being in spouses of cancer patients: the mediating role of meaning in life and self-efficacy' Family Forum, 11, pp. 267-286.
- Kuang Y, Lei RM, Wen S (2020) Effect factors of joint stigma in breast cancer spouse caregivers. Med Innov China 17:124–127. https:// doi. org/ 10. 3969/j. issn. 1674-4985. 2020. 18. 031
- Kuteyi, R. K., & Victor, F. T. (2020). Social capital: An explorative investigation of experiences of women with breast cancer in Lagos, Nigeria. SOCIAL CAPITAL, 1(1).
- Lambert, M., E. Mendenhall, A.W. Kim, H. Cubasch, M. Joffe & S.A. Norris 2020. Health System Experiences of Breast Cancer Survivors in Urban South Africa. Women's Health 16: 1 - 10. https://doi.org/10.1177/1745506520949419
- Lei, S., Zheng, R., Zhang, S., Chen, R., Wang, S., Sun, K., Zeng, H., Wei, W., He, J., 2021. Breast cancer incidence and mortality in women in China: temporal trends and projections to 2030. Cancer Biol. Med. 18, 900–909. https://doi.org/10.20892/j. issn.2095-3941.2020.0523.
- Liu, M., Liu, L., Zhang, S., Li, T., Ma, F., Liu, Y., 2022. Fear of cancer recurrence and hope level in patients receiving surgery for non-small cell lung cancer: a study on the

mediating role of social support. Support. Care Cancer 30, 9453–9460. https://doi. org/10.1007/s00520-022-07318-6.

- Luo D, Eicher M, White K (2020) Individual resilience in adult cancer care: a concept analysis. Int J Nurs Stud 102:103467. https:// doi. org/ 10. 1016/j. ijnur stu. 2019. 103467
- Maggi, R. M., Johnson, A. R., & Agrawal, T. (2022). Community perceptions and individual experiences of breast cancer in communities in and around Bangalore, India: a qualitative study. Journal of Psychosocial Oncology, 40(2), 234-246.
- Martins-Klein, B., Bamonti, P.M., Owsiany, M., Naik, A. and Moye, J. (2021) 'Age differences in cancer-related stress, spontaneous emotion regulation, and emotional distress' Aging and Mental Health, 25(2), pp. 250–259.
- Michalczyk, J., J. Dmochowska, A. Aftyka & J. Milanowska 2022. PostTraumatic Growth in Women with Breast Cancer: Intensity and Predictors. International Journal of Environmental Research and Public Health 19: Article No. 6509. https://doi.org/10.3390/ijerph19116509
- MoH (2022). Ministry of Health–MoH. Health Annual Report, Palestine 2021, Ramallah, Palestine.
- Ogunkorode, R. S. A., Holtslander, L., Ferguson, L., Maree, J. E., Anonson, J., & Ramsden, V. R. (2021). Factors influencing the health-seeking behaviors of women with advanced stages of breast cancer in southwestern Nigeria: an interpretive description study. International Journal of Africa Nursing Sciences, 14, 100273.
- Okunnuga, N. A., Alegbeleye, B. J., & Okunnuga, A. A. (2023). Barriers to early presentation of breast cancer among women in Ondo State, Nigeria. World Journal of Biomedical Research, 10(2), 44-55.
- Park, S., Sato, Y., Takita, Y., Tamura, N., Ninomiya, A., Kosugi, T., Sado, M., Nakagawa, A., Takahashi, M., Hayashida, T., Fujisawa, D., 2020. Mindfulness-based cognitive therapy for psychological distress, fear of cancer recurrence, fatigue, spiritual wellbeing, and quality of life in patients with breast cancer—a randomized controlled trial. J. Pain Symptom Manag. 60, 381–389. https://doi.org/10.1016/j. jpainsymman.2020.02.017.
- Ristevski, E., S. Thompson, S. Kingaby, C. Nightingale & M. Iddawela 2020 Understanding Aboriginal Peoples' Cultural and Family Connections Can Help Inform the Development of Culturally Appropriate Cancer Survivorship Models of Care. JCO Global Oncology 6: 124 - 132. https://doi.org/10.1200/JGO.19.00109
- Rudy, L., Maheu, C., K¨orner, A., Lebel, S., G´elinas, C., 2020. The FCR-1: initial validation of a single-item measure of fear of cancer recurrence. Psycho Oncol. 29, 788–795. https://doi.org/10.1002/pon.5350.
- Sawma, T., Choueiri, P., 2022. The influence of family functioning on the severity of fear of cancer recurrence: a cross-sectional study in a sample of breast cancer survivors of Lebanese women. Eur. J. Oncol. Nurs. 60, 102169 https://doi.org/10.1016/j. ejon.2022.102169.
- Segelov, E. & G. Garvey 2020. Cancer and Indigenous Populations: Time to End the Disparity. JCO Global Oncology 6: 80 82. https://doi.org/10.1200/JGO.19.00379

- Sethi, S., X. Ju, J. Hedges & L. Jamieson 2021. Pyscho-Oncological Considerations for Indigenous Populations. Journal of Cancer Biology 2: 114 - 120. https://doi.org/10.46439/cancerbiology.2.035 styles in women with cancer', Scientific Research Quarterly of Woman and Culture, 13(47), pp. 65–81.
- Sharma, R. (2021). Breast cancer burden in Africa: evidence from GLOBOCAN 2018. Journal of Public Health, 43(4), 763-771.
- Tao L, Wang M, Zhang X, Du X, Fu L (2020) Exercise adherence in breast cancer patients: a cross-sectional questionnaire survey. Medicine 99:e20427. https:// doi. org/ 10. 1097/ MD. 00000 00000020427
- Uzar-Ozceti NYS, Dursun Sİ (2020) Quality of life, caregiver burden, and resilience among the family caregivers of cancer survivors. Eur J Oncol Nurs 48:101832. https:// doi. org/ 10. 1016/j. ejon. 2020. 101832
- Vagia, E., Mahalingam, D., Cristofanilli, M., 2020. The landscape of targeted therapies in TNBC. Cancers 12, 916. https://doi.org/10.3390/cancers12040916.
- Winters-Stone, K.M., Lyons, K.S., Dieckmann, N.F., Lee, C.S., Mitri, Z., Beer, T.M., 2021. Study protocol for the Exercising Together© trial: a randomized, controlled trial of partnered exercise for couples coping with cancer. Trials 22, 579. https://doi.org/ 10.1186/s13063-021-05548-3.
- Wu P, Zheng Y, Fan X, Wang H, Deng X, Sun B, Huang P, Jin S, Chen Y, Bao Y (2020) Predictors of caregiver burden in patients with neurologic Wilson disease. J Int Med Res 48(3):00060520930156. https:// doi. org/ 10. 1177/ 03000 60520930156
- Yan Z, Zhang Q, Chang L, Liu Y, Li Y (2021) Dyadic effects of family resilience on posttraumatic stress symptoms among breast cancer patients and their primary family caregivers: a crosssectional study. Eur J Oncol Nurs 53:101998. https:// doi. org/ 10.1016/j. ejon. 2021. 101998
- Zhang, X., Sun, D., Qin, N., Liu, M., Jiang, N., Li, X., 2022. Factors correlated with fear of cancer recurrence in cancer survivors: a meta-analysis. Cancer Nurs. 45, 406–415. https://doi.org/10.1097/NCC.00000000001020.

© 2024 African Journal of Social Sciences (AJSS) TopJournals, England, United Kingdom http://www.topjournals.co.uk

APPENDICES

Demographic characteristics	WLBC (N=15) (%)	Spouse (N=15) (%)
Age:		
30-39	2 (13)	1 (7)
40-49	6 (40)	7 (46)
≥50	7 (47)	7 (47)
Religion		
Christianity	12 (80)	10 (67)
Islam	3 (20)	5 (33)
State of Origin		
Ekiti	1 (7)	3 (20)
Оуо	4 (27)	5 (33)
Ogun	4 (27)	2 (13)
Osun	5 (33)	4 (27)
Delta/Enugu	1 (7)	1 (7)
Occupation		
Public/Private Sector Employed	6 (40)	7 (46)
Self Employed	7 (47)	7 (47)
Unemployed (Retired	2 (13)	1 (7)
Highest level of Education		
Primary	2 (13)	2 (13)
Secondary	3 (20)	4 (27)
Tertiary	10(67)	9 (60)
Length of Marriage		
\leq 10 yrs.	2 (13)	3 (20)
19-Nov	5 (33)	4 (27)
20 - 29	7 (47)	6 (40)
30 - 39	2 (13)	2 (13)

Appendix 1	 Background 	characteristics of	f IDI pai	rticipants (N=30)
------------	--------------------------------	--------------------	-----------	--------------	-------

Appendix 2. Background characteristics of respondents (N=660)

Demographic characteristics	Frequency (N=660)	Percentage
Gender		
Male	326	49.4
Female	334	50.6
Age (35.53±11.244 years)		
≤19	23	3.5
20-29	193	29.2
30-39 40-49	156	32.4
>50	74	11.2
Religion		
Christianity	439	66.5
Islam	215	32.6
Traditional	6	0.9
Ethnic group		
Hausa	5	0.8
Igbo	55	8.3
Yoruba	561	85
Others(Ijaw,Fulani, Igala,Esan)	30	5.9
Occupation		
Unemployed	91	13.8
Public/Private-sector Employed	280	42.4
Self-employed	243	36.8
Others	46	7
Income (month)		
Less than ¥20000	460	69.7
N 20000 - N 49999	144	21.8
N 50000 - N 79999	30	4.5
N 80000 and above	26	3.9
Highest Educational level		
No formal education	40	6.1
Primary education	36	5.5
Secondary education	151	22.9
Tertiary	433	65.6

Oyebola; Jegede: & Ogundiran.	AJSS 14(2) 2024	22-47
Marital status		
Single	280	42.4
Married	361	54.7
Separated/Divorced/Widowed	19	2.9
Spousal Education*		
No formal education	267	40
Primary	24	4
Secondary	84	13
Tertiary	285	43

Oyebola; Jegede: & Ogund	liran. AJSS	14(2) 2024		22-47
Appendix3.Relationshipbetweensourcesofknowledge,perceivedseverity, and perceived levelofofknowledgeaboutBCsymptoms				
Variables	Perceived knowledge about BC symptoms			Chi Square;
	Low knowledge	Moderate knowledge (%)	High knowledge	p-value
	(%)		(%)	
Knowledge source				-
Electronic media	12 (4.2)	4 (4.0)	15 (5.4)	$X^2 = 5.998;$ DF = 6;
Print media	2 (0.7)	1 (1.0)	0 (0.0)	P = 0.423
Social groups	267 (94.0)	94 (94.0)	253 (91.7)	
Health professionals	3 (1.1)	1 (1.0)	8 (2.9)	
Perceived severity*				v ² –
Very serious	160 (56.3)	80 (80.0)	220 (79.7)	$A^{-} = 98.908;$ DF = 4;
Serious	35 (12.3)	17 (17.0)	47 (17.0)	P = 0.000
Not serious	89 (31.3)	3 (3.0)	9 (3.3)	
Awareness of its causes*				V ?
Yes, aware	157 (55.3)	83 (83.0)	231 (83.7)	$X^2 = 63.107;$ DF = 2;
No, not aware	127 (44.7)	17 (17.0)	45 (16.3)	P = 0.000
Seen affected person*				x z?
Yes	55 (19.4)	35 (35.0)	89 (32.2)	$X^2 = 15.450;$ DF = 2;
No	229 (80.6)	65 (65.0)	187 (67.8)	P = 0.000
Relationship with affected person*				
Family members	11 (3.9)	6 (6.0)	23 (8.3)	$X^2 = 19.150;$ DF = 10;
Friends	10 (3.5)	8 (8.0)	21 (7.6)	P = 0.038
Neighbours	18 (6.3)	10 (10.0)	19 (6.9)	
Colleagues	7 (2.5)	4 (4.0)	9 (3.3)	

7 (7.0)	17 (6.2)	
65 (65.0)	187 (67.8)	
	65 (65.0) = chi square	$\frac{65\ (65.0)}{=\ chi\ sauare} \frac{187\ (67.8)}{=\ chi\ sauare}$

Oyebola; Jegede: & Ogundiran. AJSS 14(2) 2024

Appendix 4. Distribution of respondents by perceived risk factors, mode of contacting BC, its diagnosis and treatment				
Variables	Frequency (N=660)	Percentage (%)		
Perception of those at risk (multiple response)				
Any woman	461	69.8		
Women with family history of BC	342	51.8		
Promiscuous women	192	29.1		
Elites/educated women	212	32.1		
Uneducated women	256	38.8		
High socio-economic class women	227	34.4		
Low socio-economic class women	226	34.2		
Mode of contacting BC (multiple response)				
Non-communicable disease	137	20.8		
Communicable disease	51	7.7		
Individual body development	173	26.2		
Inherited	204	30.9		
Work of the enemy	77	11.7		
Unknown	133	20.2		
Mode of BC diagnosis (multiple response)				
Cannot be diagnosed	20	3		
Self-breast examination	329	49.8		
Mammography	186	28.2		
Ultrasound	185	28		
Other ways	14	2.1		
Treatment options (multiple response)				
Traditional medicine	211	32		
Radiotherapy	252	38.2		
Chemotherapy	320	48.5		
Lumpectomy	210	31.8		
Mastectomy	235	35.6		
Hormone therapy	145	22		
Perceived effect of treatment (multiple response)				
Body disfigurement	265	40.2		
Body pain	304	46.1		
Psychological trauma	214	32.4		
Social stigma	135	20.5		
Best mode of curing BC				
Traditional medicine	21	8.3		
Modern medicine	169	66.5		
Change in lifestyle	51	20.1		
Spiritual healing	11	4.3		

Oyebola; Jegede: & Ogundiran.	AJSS 14(2) 2024		22-47
Incurable		1	0.4
Only be managed		1	0.4
Perception of treatment and breast cancer			
Can be treated		479	72.6
Cannot be treated		35	5.3
Breast cancer is curable		348	52.7
Breast cancer is prevenAppendix		416	63

Appendix5Relationshipbetweenperceivedriskfactors,diagnosisandperceivedknowledgeofcauses of BC

Variables	Perceived knowledge of the causes of BC			Chi Square;
	Social causes	Biological causes	Environmental causes	p-value
	(%)	(%)	(%)	
Those at risk				
Any woman*	382 (85.1)	48 (38.7)	31 (35.6)	154.902; 0.000
Women with family history of BC*	290 (64.6)	25 (20.2)	27 (31.0)	94.151; 0.000
Promiscuous women*	172 (38.3)	9 (7.3)	11 (12.6)	58.552; 0.000
Elites/educated women*	187 (41.6)	13 (10.5)	12 (13.8)	58.720; 0.000
Uneducated women*	228 (50.8)	13 (10.5)	15 (17.2)	86.044; 0.000
High socio-economic class women*	206 (45.9)	11 (8.9)	10 (11.5)	82.267; 0.000
Low socio-economic class women*	202 (45.0)	13 (10.5)	11 (12.6)	72.138; 0.000
Source of risk factor				
Electronic media	18 (4.0)	3 (2.4)	10 (11.5)	20.433; 0.002
Print media	1 (0.2)	2 (1.6)	0 (0.0)	DF = 6
Social groups	423 (94.2)	118 (95.2)	73 (83.9)	
Health professionals	7 (1.6)	1 (0.8)	4 (4.6)	
Mode of contacting BC				
Non-communicable disease*	122 (27.2)	10 (8.1)	5 (5.7)	35.292; 0.000
Communicable disease*	41 (9.1)	2 (1.6)	8 (9.2)	8.006; 0.018
Individual body development*	153 (34.1)	10 (8.1)	10 (11.5)	45.213; 0.000
Inherited*	171 (38.1)	20 (16.1)	13 (14.9)	33.896; 0.000
Work of the enemy*	65 (14.5)	6 (4.)	6 (6.9)	10.971; 0.004
Unknown*	81 (18.0)	36 (29.0)	16 (18.4)	7.489; 0.000
Mode of BC diagnosis				
Cannot be diagnosed	12 (2.7)	3 (2.4)	5 (5.7)	2.538; 0.281

Oyebola; Jegede: & Og	undiran.	AJSS 14	(2) 2024	22-47
Self-breast examination*	264 (58.8)	40 (32.3)	25 (28.7)	45.243; 0.000
Mammography*	154 (34.3)	19 (15.3)	13 (14.9)	25.965; 0.000
Ultrasound*	151 (33.6)	22 (17.2)	12 (13.8)	22.228; 0.000
Other ways*	6 (1.3)	4 (3.2)	4 (4.6)	4.631; 0.099
Treatment options				
Traditional medicine*	186 (41.4)	14 (11.3)	11 (12.6)	57.780; 0.000
Radiotherapy*	224 (49.9)	14 (11.3)	14 (16.1)	82.047; 0.000
Chemotherapy*	278 (61.9)	25 (20.2)	17 (19.5)	101.435; 0.000
Lumpectomy*	187 (41.6)	16 (12.9)	7 (8.0)	63.111; 0.000
Mastectomy*	211 (47.0)	15 (12.1)	9 (10.3)	79.497; 0.000
Hormone therapy*	133 (29.6)	7 (5.6)	5 (5.7)	47.966; 0.000
Perceived effects of treatment				
Body disfigurement*	222 (49.4)	31 (25.0)	12 (13.8)	53.132; 0.000
Body pain*	249 (55.5)	29 (23.4)	26 (29.9)	50.775; 0.000
Psychological trauma*	182 (40.5)	16 (12.9)	16 (18.4)	42.864; 0.000
Social stigma*	121 (26.9)	9 (7.3)	5 (5.7)	36.476; 0.000
Best mode of curing BC				
Traditional medicine	18 (8.5)	2 (7.7)	1 (6.2)	7.894; 0.639
Modern medicine	137 (64.6)	19 (73.1)	13 (81.2)	DF = 10
Change in lifestyle	47 (22.2)	4 (15.4)	0 (0.0)	
Spiritual healing	8 (3.8)	1 (3.8)	2 (12.5)	
Incurable	1 (0.5)	0 (0.0)	0 (0.0)	
Only be managed	1 (0.5)	0 (0.0)	0 (0.0)	
*Significant at $p < 0.05$; $DF = degree$ of freedom; $X^2 = chi$ square				