Factors Influencing Delay At Initial Presentation With Breast Cancer Among Women Attending Oncology Clinic In Barau Dikko Teaching Hospital (Bdth), Kaduna, Nigeria

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ABSTRACT

The study sought to assess the factors influencing delay at initial presentation with breast cancer among women attending oncology clinic in Barau Dikko Teaching Hospital (BDTH), Kaduna. Its specific objectives were to: determine the level of knowledge/awareness to breast cancer screening, stages at which women present with breast cancer in oncology clinic and to assess their level of adherence with methods of screening and treatment. The population of study constitutes women receiving oncology care in BDTH. A 32 item structured questionnaire was used as instrument for data collection, 75 of which were administered through sampling by convenience. 50 respondents completely filled the questionnaire and were retrieved immediately. The questionnaire was validated by three different experts in terms of face and content validity, while test-retest was used to establish its reliability, yielding a coefficient of 0.84. Simple frequency; percentage and mean statistics were used to analyse the findings. Analysis of socio-demographic characteristics of respondents indicated a mean age of 33 years. A good response rate of 66% was recorded. Grand mean of 2.75 indicated that majority of the respondents are aware of breast cancer screening. Majority of respondents present with breast cancer at late/advanced stage of the disease (60%). Most of the respondents affirmed that socioeconomic factors, level of education, location of health facility (accessibility) including system delay, with a grand mean of 3.62, are the common factors influencing delay at initial presentation with breast cancer, leading to poor health outcome. Low level of adherence to screening and treatment (66%) was revealed. It was recommended that government, in collaboration with non-governmental organizations and the media, should raise awareness about the importance of breast cancer screening and treatment.

Key words: Breast cancer, delay at presentation, knowledge, stages of breast cancer, adherence.

Method: Descriptive survey was adopted; data was collected by the administration of questionnaire during clinic visit/consultation for the period of 6 months (August-2021 to Feb. 2022).

Limitation: The study was limited to patients' factors influencing delay at initial presentation with breast cancer.

INTRODUCTION

Cancer ranks as a leading cause of death and an important barrier to increasing life expectancy in every country of the world (Bray.et.al, 2021). Based on the estimates from the World Health Organization (WHO) in 2019, cancer is the first or second leading cause of death before the age of 70 years in 112 of 183 countries and ranks third or fourth in a further 23 countries . Cancer's rising prominence as a leading cause of death partly reflects marked declines in mortality rates of stroke and coronary heart disease, relative to cancer, in many countries (Bray.et.al, 2021). Overall, the burden of cancer incidence and mortality is rapidly growing worldwide; this reflects both aging and growth of the population as well as changes in the prevalence and distribution of the main risk factors for cancer, several of which are associated with socioeconomic development (Gersten. O and Wilmot. JR, 2002).Female breast cancer is the most commonly diagnosed with new cases and death among 36 cancers and all cancers combined, having the highest incidence (2.3million cases, representing 11.7%) and highest number of deaths: 684,996, representing 6.9% (GLOBOCAN,2020). It is also the most common cancer among women both in developed and developing countries, and a major cause for public health concern (WHO, 2021). While it exists around the globe, developed countries have a higher incidence rate and the incidence rate also varies by ethnicity and race (DeSantis et al., 2013). Breast cancer was also the 5th leading cause of cancer deaths worldwide in 2020, with 685,000 deaths attributed to it (WHO, 2021). In Nigeria, breast cancer cases were historically low but are now increasing as a result of urbanization and lifestyle changes. It is the leading cause of cancer deaths currently, representing about 23% of all cancer cases and approximately 18% percent of deaths are attributed to it in the country (Global cancer observatory, 2020). More tragic is the GLOBOCAN report which estimated that globally, 28.4 million new cancer cases (including NMSC, except basal cell carcinoma) are projected to occur in 2040, a 47% increase from the corresponding 19.3 million cases in 2020, assuming that national rates estimated in 2020 remain constant. The relative magnitude of increase is most striking in low HDI countries (95%) and in medium HDI countries (64%). In terms of the absolute burden, the high HDI countries are expected to experience the greatest increase in incidence, with 4.1 million new cases more in 2040 compared with 2020. This projection is solely due to the growth and aging of the population and may be further exacerbated by an increasing prevalence of risk factors in many parts of the world.

The GLOBOCAN 2020 estimates indicate that there were 19.3 million new cases of cancer and almost 10 million deaths from cancer in 2020. The disease is an important cause of morbidity and mortality worldwide, in every world region, and irrespective of the level of human development. It is worth reiterating that, in Africa, the cumulative risk of death from cancer among women in 2020 is broadly comparable to the risks observed among women in Northern America and in the highest income countries of Europe. Therefore, efforts to build a sustainable infrastructure for the dissemination of proven cancer prevention measures (early detection and early presentation for effective treatment) and the provision of cancer care in transitioning countries are critical for global cancer control. The global total number of deaths per year from breast cancer has increased from 250,000 in 1980 to 425,000 annual rate of increase of 1.8%, compared to the lower annual rate of increase of 0.46% for cervical cancer (Fouranzanfar et al, 2010). Control of modifiable breast cancer risk factors such as maintaining a healthy weight, regular exercise and reducing alcohol intake could eventually have an impact in reducing the incidence of breast cancer. However, these strategies cannot eliminate the majority of breast cancers. Therefore, early detection in order to improve breast cancer outcome and survival remains the cornerstone of breast cancer control (Anderson and Jakesz, 2008). Early detection involves the use of two methods: First, improving and increasing the awareness of breast cancer risk factors and clinical manifestations in symptomatic populations in order to facilitate early detection and early treatment. Second, the adoption of screening tests in a presumably asymptomatic population to detect the disease in its early stage. For breast cancer screening programmes to be effective, regular and periodic participation of women is paramount. The lack of participation of women in breast cancer screening programmes and delays in seeking for medical attention when clinical manifestations occur might be attributed to economic and health care accessibility issues (Alkhasawneh, 2007) and Hatefnia et al (2010).

In the African world, economics, culture and religion play a major role in either facilitating or hindering screening and early detection of breast cancer (Azaiza & Cohen, 2008; Hatefnia et al, 2010 and Baron-Epel, 2010).The role that women play in the community and the social stigma attached to breast cancer might have prevented early detection of the disease. Many factors play a role in creating cancer disparities, some of which are socioeconomic status, culture, social injustice and poverty being the dominant factor (Freeman, 2004).The American cancer society (2008) reports that "complex and interrelated factors contribute to the observed disparities in cancer in cadence and death among ethnic and underserved groups. The most obvious factors are associated with lack of health care coverage and low socioeconomic status". Hospitals and health centers run by faith-based organizations have been reported to provide a significant portion of care in most African countries, usually reaching rural areas and underserved populations with subsidized cost of health care (Forouzanfar et al, 2008). Almost 80% of Africans use unorthodox health care (Anderson & Jakesz, 2008) which are easily accessible to all with highly committed and influential practitioners. It is therefore,

unsurprising that many women with breast cancer present late and with advanced diseases to the orthodox health care system.

LITERATURE REVIEW

Breast cancer arises in the lining cells (epithelium) of the ducts (85%) or lobules (15%) in the glandular tissue of the breast. Initially, the cancerous growth is confined to the duct or lobule ("in situ") where it generally causes no symptoms and has minimal potential for spread (metastasis). Over time, these in situ (stage 0) cancers may progress and invade the surrounding breast tissue (invasive breast cancer) then spread to the nearby lymph nodes (regional metastasis) or to other organs in the body (distant metastasis). If a woman dies from breast cancer, it is because of widespread metastasis. Female breast cancer has now surpassed lung cancer as the leading cause of global cancer incidence in 2020, with an estimated 2.3 million new cases, representing 11.7% of all cancer cases (GLOBOCAN, 2020). It is the fifth leading cause of cancer mortality worldwide, with 685,000 deaths. Among women, breast cancer accounts for 1 in 4 cancer cases and for 1 in 6 cancer deaths, ranking first for incidence in the vast majority of countries (159 of 185 countries) and for mortality in 110 countries. Incidence rates are 88% higher in transitioned countries than in transitioning countries (55.9 and 29.7 per 100,000, respectively), with the highest incidence rates (>80 per 100,000) in Australia/New Zealand, Western Europe (Belgium has the world's highest incidence), Northern America, and Northern Europe and the lowest rates (<40 per 100,000) in Central America, Eastern and Middle Africa, and South Central Asia. However, women living in transitioning countries have 17% higher mortality rates compared with women in transitioned countries (15.0 and 12.8 per 100,000, respectively) because of high fatality rates, with the highest mortality rates found in Melanesia, Western Africa, Micronesia/Polynesia, and the Caribbean (Barbados has the world's highest mortality).

Breast Cancer Risk Factors
The elevated incidence rates in higher HDI countries reflect a longstanding higher prevalence of reproductive and hormonal risk factors (early age at menarche, later age at menopause, advanced age at first birth, fewer number of children, less breastfeeding, menopausal hormone therapy, oral contraceptives) and lifestyle risk factors (alcohol intake, excess body weight, physical inactivity), as well as increased detection through organized or opportunistic mammographic screening (Brinton LA, Gaudet MM et al,2018). An exceptionally high prevalence of mutations in high-penetrance genes, such as *BRCA1* and *BRCA2* among women of Ashkenazi Jewish heritage (range, 1%-2.5%), in part accounts for the high incidence in Israel and in certain European subpopulations (Metcalfe KA, Poll A et al,2010). For majority of women presenting with breast cancer, it is not possible to identify specific risk factors (IARC,2008;Lacey et al, 2009). A family history of breast cancer increases the risk by a factor of two or three. Danaei et al (2005) conclude that 21% of all breast cancer deaths world-wide, are attributable to alcohol use, overweight, obesity, and physical inactivity. The increasing adoption of Western lifestyle in low and middle-income countries is an important determinant in the increase of breast cancer incidence in these countries.

Awareness/Knowledge of Breast Cancer Screening
A great majority of women diagnosed with breast cancer are symptomatic at the time of diagnosis, probably with no access to screening mammography. Therefore, the effect of awareness about breast cancer screening methods such as Breast Self- Examination (BSE) and Clinical Breast Examination (CBE) would have a great impact on women's health in countries with limited resources. Breast cancer awareness, examination and screening practices of women presenting with newly diagnosed breast cancer, is generally poor. Linsell et al. (2008) reported that older women are less aware about the clinical manifestations and risk factors associated with breast cancer than the younger ones. Based on the survey in the same study, for women aged 60-80 years,50% of women believed that the lifetime risk of developing breast cancer is less than 1 in 100 women and 75% were not aware that age is a risk factor.Stockston et al. (2007) reported that in the Uk during the 1980s before the introduction of the national screening program, public awareness was increased through public education and messages about early detection, resulting in a dramatic decrease in advanced breast cancer cases in the following years. One important message to be disseminated through public awareness campaigns is that breast cancer is not rapidly fatal if diagnosed early. New techniques for diagnosis and advanced treatment modalities could enable women to survive breast cancer for longer period of time (Smith et al, 2006). Linsell et al. (2009) stressed the importance of awareness of breast cancer clinical manifestations and risk factors in promoting early presentation to treatment. Lack of awareness about risk factors, initial manifestations, screening and treatment are some of the major findings of many researchers targeting the factors affecting delayed presentation of women to treatment (Lodhi et al, 2010). The effective and timely diagnosis of breast cancer relies on breast health awareness. Thus, increased breast health awareness is an important key element of intervention at all resource levels, including countries with limited resources. Pineros et al (2009) reported that approximately,40% of women delay in

seeking for help due to lack of knowledge about initial breast cancer clinical manifestations and do not consider the manifestations to be important.

Stages of Presentation With Breast Cancer
Breast cancer in developing countries is characterized by late presentation, advanced stage of the disease at diagnosis, worse biologic behavior and occurrence in younger women than reported in the developed countries (Lodhi et al, 2010). Previous studies have estimated that approximately one third of women experiencing symptoms of breast cancer delay in seeking for help for at least three months and approximately 25% of women will delay six months or longer (Lannin et al, 1998; Pineros, et al, 2009). Among poor or minority populations, the percentage of women who delay at least three months may be as high as 45% (Lodhi, 2010). Although, women self-detected breast lump in 90.6% of cases in Nigeria, only 32% sought for medical advice within the first month (Alwan, 2010).These observations reflect the poor breast health education of women and lack of knowledge about breast cancer screening. Literatures from developing countries suggest that the advanced disease at presentation, is a reflection of the cultural norms which downplay women's health problems (Miller, 2009). It is believed that the improved survival rates of breast cancer in the US and Europe are related to an earlier stage presentation, instead of an improved treatment (Etzioni et al, 2003). It was hypothesized that delay in presentation to treatment and late diagnosis, is due to lack of awareness, cultural barriers and access to treatment (Rezaianzadeh et al, 2009). Research from the African region did not only report the early age of onset of breast cancer among women, but also described the aggressive breast cancer phenotype in African women (Elsaghir et al, 2002).

Factors Influencing Delay At Initial Presentation With Breast Cancer
Breast cancer delay or total delay is defined as "more than three months between Symptom discovery by the patient and the beginning of definitive treatment" (Pack & Gallo,1938).Many factors were found to be influencing delayed presentation to treatment, which include: demographics, socioeconomic, psychosocial, cultural beliefs, and system delay which result in diagnosis, referral, or treatment of breast cancer. Patient delay/primary delay is described as the time elapsed from the discovery of clinical manifestations by the patient to first consultation. On the other hand, provider delay/secondary delay is seen as more than one month between the first medical consultation and initiation of definitive treatment (Pack & Gallo, 2008).Patient delay: socioeconomic status is influential in women's health. Evidence showed that women with late stage breast cancer often live in poverty and low income communities (Lodhi et al, 2010).

A low level of education and low socioeconomic status lead to poor participation in breast cancer screening. Women with low socioeconomic status are more likely to be diagnosed with advanced stage breast cancer, compared to more economically privileged women (Miller et al, 2002). Regardless of age, or ethnicity, poverty has a strong effect on the probability of being diagnosed at an advanced stage (Campbell et al, 2009).A study conducted on 400 Northern Nigerian women with breast diseases revealed that 33% mentioned economic factors as their reason for delay in seeking for help (Yusuf et al, 2001). Demographic factors: Women were more likely to be diagnosed in later stages if they were older (50 years and above), or postmenopausal women, in lower in-come areas, delay was seen in widowed, divorcee, or unmarried women with low educational level (Ali et al, 2008). Psychosocial factors/Cultural beliefs: These create variations in the reaction to initial breast cancer clinical manifestations. Painless lumps as an initial breast cancer manifestation is an important determinant of delayed response to the disease. The association of late presentation with painless breast lump is related to the social and cultural beliefs of women, that painless breast lumps have no danger to life and pain is the body's language to alert individuals to seek for help (Lodhi et al, 2010). Misconception of breast lumps is common among women who are defined as disadvantaged, ethnic minorities with lower socioeconomic status and poorer access to care (Rauscher et al, 2010). Yau et al (2010) stated that there are two psychological reasons why patients exhibit delay in seeking for medical attention, namely: optimistic bias or defensive bias which leads to psychological minimization of threats and immobilization by fear, embarrassment or denial after recognizing the seriousness of the clinical manifestation.

The perception that cancer is not curable and surgical intervention promotes its spread and the fear of losing a body part by surgery, are factors which have been addressed by many researchers. Lamptey et al (2009) reported that women's fear of mastectomy (surgical removal of the breast) is the main reason for abscondment from hospital by women in Nigeria after being diagnosed. Many women link mastectomy to death, which is often due to lack of proper conseling at diagnosis and lack of support services that offer the opportunity to express fears.Lamptey et.al (2009) supported the idea of offering newly diagnosed women the chance to meet and talk with breast cancer survivors in order to overcome the problem of abscondment from hospitals. Resorting to alternative medicine is a common practice worldwide. In the US,28% of early diagnosed brest cancer patients are known to utilize various forms of alternative medicine while on

medical treatment (Lamptey et al, 2009).Women in the developing countries often opt for alternative medicine as the first choice.e.g. traditional healers and spiritualists, a standard medical treatment is used as a last resort when the disease becomes more advanced with obvious signs such as discharging fungating breast lumps. The reason for this is numerous and for some, it offers a convenient escape from mastectomy, or it is an extension of denial. Accessibility and affordability of alternative medicine by women, especially those in low socioeconomic status, might be a factor (Ukwenya et al, 2008). Unserious attitude and hesitancy in seeking for help and disclosure of clinical manifestations to strangers and shyness regarding male physicians, is also another factor (Khan et al, 2008).Many women are keener to seeking unconventional therapies and herbal rather than the medical treatment (Lodhi et al, 2010). One of the main causes of this, is lack of trust in medical treatment and local health care providers, or a failure to provide female physicians in gender-sensitive communities (Rauscher et al, 2010). Arndt et al (2003) conducted a population- based study on provider/system delay among breast cancer patients in Germany.380 women diagnosed with breast cancer were interviewed to discuss the diagnostic process they have gone through. Median provider delay was found to be 15 days and do not differ by physician's specialty in the first visit. Delays in diagnostic work up were found to be related to the erroneous initial suspicion of a benign breast disease. Other reasons were time constraints by either the patient or physician. System delay over 3 months was found in 11% of all breast cancer cases and was associated with patient's characteristics such as lower education status, full-time employment and presenting with a non-breast complaint. Bright et al (2011) conducted a study in Mexico to examine the role of health system factors in delaying final diagnosis and treatment of breast cancer.32 patients were interviewed using a semi-structured questionnaire. Participants were asked to provide an account of what transpired between the time of discovery of the breast cancer clinical manifestations and subsequent primary, secondary and specialty clinic visits. Results showed a prolong delay, with a total diagnostic delay of 7.8 months and a total treatment delay of 8.4 months. The average delay from the time of clinical manifestations discovery to first consultation was shorter (1.8 months) and mainly related to patient factors. Breast cancer treatment can be highly effective, especially when the disease is identified early. Treatment of breast cancer often consists of a combination of surgical removal, radiation therapy and medication (hormonal therapy, chemotherapy and/or targeted biological therapy) to treat the microscopic cancer that has spread from the breast tumor through the blood. Such treatment, which can prevent cancer growth and spread, thereby saves lives.

Level of Adherence to Screening and Treatment

Adherence to BC screening guidelines is frequently lower in racial, ethnic and cultural minority populations and, therefore, late diagnosis, worse prognosis and increased mortality are commonly observed in these groups (Talley et al,2017). This adherence is affected by potential inequities or barriers to screening that these minorities face; thus, it is crucial for physicians to have the necessary information and skills to be able to reach these women, increasing the commitment to screening and reducing BC mortality. Furthermore, public health-related decisions and interventions must take into account these disparities between racial, ethnic and cultural groups to adopt the most efficient measures for dealing with this issue. Evidence from studies have shown that since there is no effective health welfare scheme in Nigeria, the burden of procuring exorbitant chemotherapeutic drugs was borne by the patient and or their relatives. Significant proportion of the patients is poor and could not afford the estimated average cost of procuring a course of chemotherapy. This probably affects patients' adherence to the chemotherapy schedule in most instances. This was affirmed by Adewale (2008) who reported that 45% of patients cited financial constraint as reason for non-adherence to breast cancer treatment. Also in another study of adherence to chemotherapy for breast cancer, conducted at Sussex, United kingdom,55% of patients were non adherent either unintentionally, due largely to forgetfulness, or intentionally as a result of side effects of drugs and difficulty in swallowing tablets (Atkins L & Fallow field L, 2006).

RESULTS

The data was analyzed using simple frequency, percentage and mean statistic, the structured questionnaire was distributed to the 75 respondents who registered for breast cancer treatment in the oncology clinic, 50 were duly filled and returned, representing 65% response rate. The response is considered satisfactory to make conclusion for the study. Mgenda and Mugenda (2003) observed that a 50% response rate is adequate, 60% and above is good, while above 70% rated as very good and this correlate with Bailey (2000) assertion that a response rate of 50% is adequate, response greater than 70% is very good. This implies that based on this scholastic assertions, the response rate of 65% in this study is therefore very good.

Table 1: Demographic information

Age	frequency (f)	percentage (%)
15 – 20	1	2
21 – 25	4	8

26 – 30	9	18
31 – 35	10	20
36 – 40	12	24
40 and Above	13	28
Marital status		
Single	12	24
Married	28	56
Divorced	4	8
Widowed	6	12
Religion		
Islam	28	56
Christian	22	44
Others	-	-
Occupation		
Working class	18	36
Trader	6	12
House wife	8	16
Farmer	2	4
Others	14	28
Level of education		
FSLCE	14	28
O, Level	12	24
NCE/OND	6	12
HND/BSC/B.A	9	18
MSc/M.A	9	18

The result of the study shows that most of the respondents (28%) are above 40 years, majority of the respondents (56%) are married, most of the respondents (36%) are working class, most of the respondents (28%) have first school leaving certificate.

A likert scale of 1 - 4 intervals was used to determine the mean statistic of the responses, the result indicated that the grand mean of 2.75 suggest general acceptance and therefore considered as good knowledge of breast cancer screening while mean value less than 2.75 was considered as poor knowledgeable of breast cancer screening among women attending oncology clinic in BDTH Kaduna.

Table 2: Knowledge of breast cancer screening

Knowledge	SA	A	D	SD	Mean	Remarks
Breast cancer screening is the examination of breast to achieve early diagnosis.	24	21	0	0	3.48	Accepted
Breast cancer screening has Side effects.	0	13	1	27	1.90	Rejected
Breast cancer screening is dangerous to women health.	0	13	1	36	1.54	Rejected
Breast cancer is as a result of sins against God.	4	8	19	19	1.94	Rejected
Breast self- examination is one of the methods of Screening for breast cancer.	40	5	0	0	3.50	Accepted
Breast cancer screening is not beneficial.	1	7	18	24	1.70	Rejected

Breast cancer screening help to reduce the incidence of breast cancer.	39	11	0	0	3.78	Accepted
Breast cancer screening reduces Mortality rate from breast cancer.	36	14	0	0	3.72	Accepted
Clinical Breast examination is done during antenatal visits in the hospital.	25	15	5	5	3.20	Accepted
Have you done breast cancer screening Before?	15	20	5	10	2.80	Accepted

Grand mean = 2.75

The result shows that most of the respondents (3.50, 3.78. 3.40, 3.72 and 3.20) respectively are aware about the breast cancer screening

Table 3: stages at initial presentation: Alphabet A-D was used to represent breast cancer stages 1-4.

At what stage did you stat attending clinic?	A (F) (%)	B (F) (%)	C (F) (%)	D (F) (%)
a) When I noticed a small lump in my breast.	03(6)			
b) When the lump had grown to a bigger size.		05(10)		
c) When the lump had spread to the armpit.			30(60)	
d) When the lump had spread beyond the armpit and chest wall and discomfort/pains steadily worsens.				12(24)

The result shows that majority of the respondents present with breast cancer at late/advance stage of the disease (60% and 24% respectively).

Table 4: Factors influencing delay at initial presentation to clinic for diagnosis and treatment

Factors	SA	A	D	SD	Mean	Remarks
Age of women	29	21	0	0	3.58	Accepted
Level of education	45	5	0	0	3.90	Accepted
Marital status	29	11	11	0	3.38	Accepted
Religious belief and culture	15	35	0	0	3.30	Accepted
Socio-economic status	50	0	0	0	4.00	Accepted
Psychosocial perceptions (stigma)	23	27	0	0	3.46	Accepted
Lack of fund for purchase of cancer drugs	15	20	15	0	3.00	Accepted
System delay due to lack of skills personnel	45	5	0	0	3.90	Accepted
Accesibility to health facility	50	0	0	0	4.00	Accepted
Non-availability of diagnostic equipments e.g mammography	30	20	0	0	3.60	Accepted

Grand Mean = 3.62

The result shows that almost all the respondents affirmed that the above factors are the major determinants leading to the delay at initial presentation to oncology clinic for diagnosis and treatment.

Table 5: Level of adherence with breast cancer therapy

Level of adherence	Frequency (f)	Percentage (%)

How long have you been diagnosed with breast cancer?		
0 – 1 year	37	74
I year and above	13	26
How long have you been on medication?		
0 -1 year	19	38
I year and above	31	62
Adherence with medication		
Regular	17	34
Non regular	33	66
Reason for non-adherence		
Inappropriate knowledge of treatment	7	21
High cost of breast cancer drugs	15	45
Side effect of the drugs	11	33.3

The result revealed a low level of adherence to breast cancer treatment (66%)

DISCUSSION OF FINDINGS

The study findings show that majority of women attending oncology clinic in BDTH are aware of breast cancer, screening and treatment and this is in conformity with the postulations of Linsell et al (2009) who claim that breast cancer awareness programs, which include breast cancer knowledge, confidence, skills and motivation needed to self-detect symptoms and seek help accordingly, reduce delays in presentation. The initial and most important step in symptoms recognition is highly affected by breast cancer perceived risk and symptoms knowledge regarding breast cancer (Lim & Edlin, 2009). Pineros et al (2009) reported that approximately 40% of women delay in seeking help due to lack of knowledge about initial breast cancer symptoms. The result shows that majority of respondents present with cancer at late/advance stage of the disease. This is evidenced in the findings of Lodhi et al, (2010) who said that breast cancer in developing countries is characterized by late presentation, advanced stage of disease at diagnosis, worse biologic behavior and occurrence in younger women than reported in developed countries. Prior studies have estimated that approximately one third of women experiencing symptoms of breast cancer delay seeking help for at least 3 months, and approximately 25% of women will delay 6 months or longer (Lannin et al, 1998; Pineros et al, 2009). Among poor or minority populations, the percent of women who delay at least 3 months may be as high as 45% (Ladhi et al, 2010). The result shows that most of the respondents affirmed that age, level of education, marital status, and religious/cultural beliefs, socio-economic among others, are the factors influencing delay at initial presentation to diagnosis and treatment.

Alwan (2010) reported that women self-detected breast lumps in 90.6% of cases in Nigeria; only 32% sought medical advice within the first month. These observations reflect the poor breast health education of women and lack of knowledge about breast cancer screening. The advance disease at presentation is a reflection of the cultural norms which downplay women's health problems (Miller, 2009). The result revealed a low level of adherence to breast cancer treatment (66%). This is in line with observations of Atkins L & Fallowfield L, (2006) who found that patients adherence to chemotherapy for breast cancer carried out at Sussex, United Kingdom, 55% of patients receiving chemotherapy were noted not to have adhere to medications either unintentionally (due largely to forgetfulness) or intentionally (due to drug side effects and difficulty swallowing the drugs). Drug side effects have also been given as reason for not-adherence among women taking Tamoxifen (Drungeld EA. Hunter MS, Sikka P &Mittal S) and tamoxifen, Lash TL, Fox MP, Westrup JL, fink AK & Silliman RA, (2006).

CONCLUSION

The findings of the study imply that despite level of knowledge about breast cancer, women adopt the habit of delay at initial presentation. Age, marital status, level of education, cultural belief, socio-economic status among others are factors influencing delayed presentation to diagnosis and treatment. Surgery and chemotherapy are found to be effective in stopping the spread of the cancer cells. There was low level of compliance with method of screening and treatment.

RECOMMENDATIONS

1. The government, in collaboration with non-governmental organizations and the media, should raise awareness about the importance of breast cancer screening.
2. Government should open more centers for breast cancer screening.

3. Government in collaboration with community organization should organized community sensitization on breast cancer.
4. Health care facilities should be well equipped for breast cancer screening and treatment..
5. Women should be educated on how to carry out breast self-examination.
6. Adequate information should be available on the breast cancer by the hospital during ANC visits.
7. Government should provide free breast cancer diagnosis and treatment.

SUGGESTIONS FOR FURTHER STUDIES

Based on the limitation of this study, further research should be focus on the following areas:
1. Strategies for encouraging breast-self-examination among women.
2. Strategies to encourage early presentation with breast cancer to the oncology clinic.

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