RISK FACTORS OF BREAST CANCER AMONG WOMEN IN AKOKO SOUTH WEST LOCAL GOVERNMENT AREA OF ONDO STATE

OBALASE, STEPHEN BABATUNDE

TELEPHONE NO +2348033653158

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE.

OGBEYE GBEMISOLA BOLANLE

TELEPHONE NO +2348033663305

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE.

ADELUSI CLEMENT

TELEPHONE NO +2348034434882

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE.

ADELUSI RACHAEL OMOTOLA

TELEPHONE NO +2348034434882

FEDERAL MEDICAL CENTRE OWO

Abstract

The current study was designed to investigate the risk factors of breast cancer among women in Akoko South West Local Government Area of Ondo state. Questionnaire was the research instrument. Two research questions and two hypotheses were raised in the study. Data were gathered using a questionnaire which was subjected to face and content validity by expert in education. The reliability value of Pearson product moment correlation was 0.93 which indicated that the instrument was reliable before it was administered on the respondents. The study involved 200 respondents which were randomly selected. Data collected from the respondents were subjected to statistical analysis using simple percentage, chi-Square and correlation. Analysis of the data revealed that Socio – Economic Cultural and Demographic factors such as age, travel distance to screening facility, cost of screening, most cultural practices and socio – commitments have significant negative correlation with breast cancer screening uptake. However, marital status, educational level, socio – economic status, most religious practices and socio – cultural factors have a significant positive association with breast cancer screening uptake. Psychosocial variables such as fear, anticipated pain and discomfort, stigma and concern for embarrassment were found to be significantly associated to breast cancer screening uptake among the respondents. Institutional characteristics such as Breast Health Education, guidance and follow up by nurses on Breast Screening Examination, psychological care by the psychologist. Advertisements on breast cancer and screening have significant and positive correlation with breast cancer screening uptake.

Introduction

The breast is an accessory organ of reproduction in females and it is perceived by the society as an evidence of feminity, womanhood and motherhood. Women breasts are associated with sexual attractiveness, sexual stimulation and feeding of babies. (MacDonald, 2005).Female gender is usually

faced with many health problems among which is breast cancer. Boyle (2005) reported that the incidence of breast cancer has been increasing steadily from an incidence of 1:20 in 1960 to 1:8 in women today. This high incidence necessitates that breast lumps are detected early enough so as to reduce its mortality rate. Many people are aware that there are many causes of morbidity and mortality for women in society and that gender is associated with certain diseases that can increase mortality (Baun, 2002). Breast cancer is considered to be one of the leading causes of death among women (MacDonald, 2005). It can be defined as 'a growth of malignant cells within the breast tissue (American Cancer Society ,2013) More specifically, breast cancer can occur as a result of cells under the influence of oestrogen multiplying and infringing on other tissue; eventually spreading to other regions of the body (Boyle, 2005).

Breast cancer is one of the most important diseases for women to know about, not only because of the commonality of it or the seriousness of the disease but also because it is a major concern of many women who do not have the disease (Baun, 2002), although this is not so apparent in younger women without personal experience. Cancer incidence is on the rise globally. In 2012, an estimated 11 million new cancer cases and 7 million cancer deaths were reported worldwide; and nearly 25 million persons were living with cancer (American Cancer Society, 2013). In spite of underestimation, developing countries are known to be contributing 61% of the global incidence. American Cancer Society (2013) reported that cancer in all forms are causing about 12 percent of death throughout the world. It is the second leading cause of death ,next to cardiovascular diseases accounting for 21 percent (2.5 million) for all mortality in developed world, while in the developing world such as Nigeria ,cancer ranks third as a cause of death and accounts for 9.5 percent (3.8 million) of all death.

The spread of cancer varies along geographical lines and according to differences in population groups (Sholanke,1998). Cancer health disparities reflect differences in cancer incidence, mortality, and prevalence among different populations. Among the eight most common cancers, global disparities in cancer incidence, mortality, and prevalence are evident, and are likely due to complex interactions of non modifiable (that is genetic susceptibility and aging) and modifiable risk factors (that is tobacco, infectious agents, diet, and physical activity) (MacDonald, 2005). It had been widely documented that in African countries while deaths from communicable and nutritional diseases are falling, those from cancer is rising exponentially (Boyle, 2005). Although in Nigeria, the commonest causes of death are infectious diseases, cancer is being increasingly diagnosed; and it is estimated that about 100,000 people are diagnosed with cancer annually. The crude incidence rate for malignant neoplasm in Ondo State was 33.7 and 45.1 per 100,000 for males and females respectively in the 2000's, with the highest rates of 408 and 506 per 100,000 for males and females in the post 60 to 70 year age group (Boyle, 2005).

Generally, early breast cancer does not cause pain, breast cancer may not cause any symptoms. A lump may be too small for you to feel or to cause any unusual changes you can notice on your own. Often, an abnormal area turns up on a screening mammogram (X-ray of the breast), which leads to further testing. In some cases, however, the first sign of breast cancer is a new lump or mass in the breast that you or your doctor can feel. A lump that is painless, hard, and has uneven edges is more likely to be cancer. But sometimes cancers can be tender, soft, and rounded. So it's important to have anything unusual checked by your doctor.

According to the American Cancer Society (2013), any of the following unusual changes in the breast can be a symptom of breast cancer: swelling of all or part of the breast, skin irritation or dimpling, breast pain, nipple pain or the nipple turning inward, redness, scaliness, or thickening of the nipple of breast skin, a nipple discharge other than breast milk, a lump in the under arm area These changes also can be signs of less serious conditions that are not cancerous, such as an infection or a cyst. It's important to get any breast changes checked out promptly by a doctor. Cancers are a group of hundreds of different diseases and affect various organs of the body. Cancer symptoms depend on the stage of cancer, the grade of cancer, whether it has spread to other organs, the general health, age and condition of the patient and numerous other factors (American Cancer Society, 2013).

Statement of the problem

Breast cancer unlike cervical cancer has no precise etiological agent. It therefore constitutes a major public health issue globally. The morbidity and mortality rate of breast cancer is on the increase especially in developing countries like Nigeria (Adebamowo & Ajayi,2000).Our knowledge about breast cancer is evolving, but it is still limited with respect to its etiology and biological with respect to its features in individual countries and cultures .All efforts are geared towards early diagnosis, prompt and standardized treatment to reduce the disease burden of advanced disease in Nigeria women, majority who are worse hit in the most productive part of their life time (Akpo, Akpo & Akhator, 2009) .Various studies had been conducted in advanced parts of the world but no researcher has carried out study in Akoko South West of Ondo State to know the risk factors of breast Cancer among these population despite increase mortality records in this part of the Country as a result of breast cancer.. Therefore, there is the need to elicit the risk factors of breast cancer among women in Akoko South West local Government Area of Ondo Sta**te.**

Objectives of the Study

The purpose of this study is to identify the major risk factors for Breast cancer in Nigeria and to ascertain;

- The number of women undertake screening in the last two years
- The extent to which it had spread and response of the respondents to screening exercises
- To determine the association of risk factors contributing to Breast cancer.

Research Questions

(i) What proportion of women in Akoko South West has undertaken breast cancer screening over the last two years?

(ii) What socio - economic, cultural and demographic factors (SECDs) influence screening for breast cancer among the women in Akoko South West Local Government Area of Ondo State?

(iii)What is the source of information of the respondents about breast cancer ?

Hypotheses

(i) There is no association between socio - economic, cultural and demographic factors (SECDs) with breast cancer screening uptake among the women.

(ii) There is no association between psychosocial factors and breast screening among the women.

Significance of the study

This study would assist the entire population to benefit from health promotion of early detection and treatment of breast cancer among women of reproductive age. Secondly, this study generated information on the role of Maternal and Child Health (MCH) clinics in creating awareness of breast screening and reducing the incidence of late breast cancer. Thirdly, it generated information for policy formulation by the Ministry of Health to promote early breast health seeking behaviour among the women (Ahmadian, 2011) and facilitate the removal of barriers to accessing medical care among the women. Finally, the study will help the government to formulate policy on the need to ensure routine and clinical breast Screening Examination and participation in clinical screening by women in the district for which very little information was available to them in the past.

Methodology

Research Design

The research design adopted for this study is the descriptive survey type. According to Akintola (1999): Kolawole (2006): Kothari and Gaurav (2015) , a descriptive survey is a research approach that focuses on people and their beliefs, opinions, perceptions, motivations and behaviours. Descriptive survey also attempts to determine the incidence, the distribution and interpretation among sociological and psychological variables. Hilla Brink, et al., (2012) noted that a descriptive survey design involves the use of questionnaire and rating scale for obtaining the opinions of a sample of a population. The descriptive survey also has an advantage of being unobtrusive and efficient.

Population

The target population for this study was women aged 25 – 49 years in Akoko South West Local Government. This was the most accessible age group and most appropriate for the study, given that the incidence of breast cancer in Nigeria starts from approximately the age of 18 and after that there is a step increase until the age of 49 years (Akintola,1999;Akpo etal.,2009)

Sample technique and procedure

A simple random sampling procedure was adopted in choosing the population of the study as it involves a fairly large community. The respondents were randomly selected using purposive and stratified random sampling technique. The selection procedure took cognizance population of the women in the community. Random sampling technique was used in selecting 200 respondents for the study. The women were randomly selected by the researcher. Hence, 200 women formed the final sample for the study.

Research Instrument

The instrument that was used for this study a questionnaire which was designed by the researcher after a careful review of the related literature. Kothari and .Gaurav (2015), submitted that a questionnaire elicits information from respondents who are randomly drawn from the target population. The questionnaire has three sections: A, B, and C. Section A was the socio-demographic data of the respondents, section B addressed uptake of breast cancer screening and section C was on risk factors and source of information of breast cancer and screening among women of child bearing age .

Validity of the Instrument

The instrument for the study was subjected to face and content validity. Experts in the field of Human Kinetic Department at Ekiti State University, Ado Ekiti, Test and Measurement Department of Adekunle Ajasin University Akugba Akoko, confirmed the face and content validity of the instrument.

Reliability of the Instrument

Reliability of the instrument was established by administering it on a representative sample of 30 women which did not form part of the final administration. This was done twice within an interval of two weeks using the test re-test method. The scores from the two administrations were correlated by means of Pearson Product Moment Correlation Coefficient method. The reliability coefficient of 0.93 was found which is significant at the 0.05 level of significance, α.

Procedure for Data Collection

The questionnaire were administered directly to the respondents by the researcher. The questionnaire for the study were collected through on the spot which involves face to face situation. The researcher visited the selected and questionnaire were given to the respondents and their responses were collected from them on the spot.

Method of Data Analysis

In analyzing the data, descriptive statistics was used on the demographic data using frequency counts and simple percentage. Research hypotheses were tested and analysed using Chi- Square ,correlation analysis and t-test statistics to determine the association between the dependent and independent variables

Result, Analysis and Findings

Socio-demographic characteristics of the respondents

The highest percentage of the respondents was in the age bracket 25 - 29 years while the least percentage was in the age bracket 45 - 49 years. 93(46.5%) of the respondents had no basic Education while 107(53.5%) of the respondents had basic Education and those in marital unions were 130(65%), 57(28.5%) of the respondents were divorced while 13(6.5%) of the respondents were widowed (Table 1)

Table1: Socio-demographic characteristics of the respondents in percentage

	Number (n)	**Percentage (%)**
Age category		
Below 25years	37	18.5
25-29 years	79	39.5
30- 34 years	44	22
35-39 years	19	9.5
40- 44 years	15	7.5
45- 49 years	6	3
Level of Education		
No Basic Education	93	46.5
Basic Education	107	53.5
Marital Status		
Married	130	65
Divorced	57	28.5
Widowed	13	6.5

Table 2 Showing the percentage uptake of Breast Cancer Screening among the women.

	Number (n)	Percentage (%)
Uptake	63	31.5
No uptake	137	68.5
Total	200	100

One hundred and thirty seven women (68.5%) of the 200 respondents confirmed never to have undertaken BSE or Mammography at all within the last two years while 63(31.5%) confirmed that they have undertaken Breast Screen Examination.

Table 3: Percentage uptake of breast self examination within last two years among the women

Uptake of BSE	Number (n)	Percentage (%)
Once in more than a year	50	25
Annually	50	25
Monthly	100	50
Total	**200**	**100.0**

Breast self examination uptake among the respondents

Within the last two years, only 108 respondents had undertaken BSE, representing 54% of the total respondents, whereas 68.5% of the total number of respondents had never undertaken BSE. However, it was 50 % of the 108 respondents that had undertaken the examination once a month (Table 3), as recommended by Adebamowo and Ajayi (2000) 137 women who had never undertaken Breast Screening Examination.

Table 4: Source of information about breast cancer and screening.

Source of information	Number(n)	Percentage (%)
Radio	94	47

Television	40	20
Newspapers	7	3.5
Internet	2	1
Nurse/Doctor	57	28.5
Total	**200**	**100**

The majority of the respondents obtained information about breast cancer and screeningthrough the radi o. 94(47%) of the respondents informed about breast cancer and screening,screening throughthe radio, 40(20%) of the respondents obtained information about breast cancer and screeningthrough the Television, 7(3.5%)
of the respondents obtained information about breast cancer and screeningthrough the Newspapers, 2(1%) of the respondents obtained information about breast cancer and screening through the internet

While57(28.5%) of the respondents obtained information about breast cancer and screeningthrough the Nurse/Doctor.

HO_1: There is no association between socio - economic, cultural and demographic factors (SECDs) with breast cancer screening uptake among the women.

Table 5: The influence of demographic factors on breast screening uptake

Variable	Beta	Simple correlation (r)	t - value	P - value
Age	- 0.258	- 0.530	- 6.038	<0.005
Marital status	0.241	+ 0.261	3.448	0.005
Educational level	0.151	+ 0.304	3.271	0.005
Distance to screenin g facility	-0.328	- 0.306	- 4.725	<0.005

(R^2 = 66.2% F = 117.742 p< 0.005)

The demographic factors, Age, marital status, level of education and distance to breastscreening facilities were found to be significantly associated to breast screening uptake among the women (Table 5).

There is significant negative correlation between age and breast cancer screening uptake (X^2= 16 3.613, df = 3, p = < 0.005), (r = 0.530,p <0.005). The marital status of the respondents has significant positive correlation withbreast screening uptake (X^2= 159.988, df = 1, p = < 0.005), (r = + 0.261, p = 0.005). There is significant positive correlation between the educational level of the respondents andbreast screenin g uptake (X^2=191.139, df = 2, p = < 0.005), (r = + 0.304, p = 0.005).However, travel distance to the screening facility has significant negative correlation with clinical breast screening uptake (X^2= 81.972, df = 1, p<0.005), (r = - 0.306, p=<0.005). About 28.0% of variations in age account for the highest negative association with breast screening uptake among the respondents. These associations are shown in tables 5 and 6.

Table6: Relationship between demographic factors and breast screening uptake

Variable	**Breast Screening Uptake**					
Age group	**Uptake N(%)**	**No Uptake n (%)**	**Total**	X^2 Value	**df**	**P – value**
Below 25yrs	13(35.1)	24(64.9)	37	**163.613**	**3**	**<0.005 ** **
25-29 yrs.	62(78.5)	17(21.5)	79			
30-34 yrs.	13(29.5)	31(70.5)	44			
35-39 yrs.	8(42.1)	11(57.9)	19			
40-44 yrs.	6(40)	9(60)	15			
45-49 yrs.	2(33.3)	4(66.7)	6			
Marital Status						
Married	119(91.5)	11(8.5)	130	**159.988**	**1**	**<0.005 ** **
Divorced	25(43.9)	32(56.1)	57			
Widowed	4(30.8)	9(69.2)	13			
Level of education						
No Basic Education	31(33.3)	62(66.7)	93	**191.139**	**2**	**<0.005 ** **
Basic Education	79(73.8)	28(26.2)	107			
Distance toscreening facility						

Agree	132(86.8)	20(13.2)	152	**81.972**	**1**	**<0.005 ****
Disagree	10(20.8)	38(79.2)	48			

The respondents within the age bracket 25

29 years had the highest uptake (78.5%);while the respondents in the age bracket 45–49 years had the least uptake of breastscreening (33.3%). Breast screening uptake considerably decreases with increase in ageupto 39 years. Married women had the highest screening uptake (91.5%) whereas widowed women had the least uptake (5.5%).The uptake was highest among respondents with basic level of education (73.8%), while it was lowest among respondents with no basic level of education level (33.3%). However,13.2% of the respondents who failed toundertake Breast

cancerexamination indicated that the travel distance to the screeningfacility affects breast screening uptake.

HO2: There is no association between risk factors and breast screening among the women.

Table 7: The influence of psychosocial factors on breast cancer screening uptake

The table 7 below presents psychosocial factors that influence breast cancer screeninguptake.

Fear, pain, stigma and embarrassment are significantly associated to breast cancerscreening uptake.

Variable	**Breast Screening Uptake**					
	Uptake n (%)	**No uptake n (%)**	**Total**	**X^2 Value**	**Df**	**P – value**
Fear						
Agree	100(84.7)	18(15.3)	118	97.162	1	<0.005**
Disagree	8(9.8)	74(90.2)	82			
Pain						
Agree	9(13.2)	59(86.8)	68	218.446	1	<0.005**
Disagree	102(77.3)	30(22.7)	132			
Stigma						
Agree	101(63.1)	59(36.9)	160	102.605	1	<0.005**
Disagree	7(17.5)	33(82.5)	40			
Embarrassment						
Agree	103(73.6)	37(26.4)	140	230.576	1	<0.005**

Disagree	5(8.3)	55(91.7)	60			

There is significant association between fear and breast screening uptake (X^2= 97.162,df =1, p < 0.005) and 15.3% of the respondents did not undertake BSE due to the fear associated to finding breast cancer (Table 7). The anticipated pain during a mammogramis significantly associated to the uptake of mammograms among the respondents (X^2= 218.446, df =1, p < 0.005) and 86.8% of the respondents did not undertake a mammogram due to the anticipated pain (Table 7). Socio stigma is highly associated to clinical breastscreening uptake (X^2=102.605, df =1, p < 0.005) and 36.9% of the respondents who didnot undertake breast screening attributed it to the socio stigma associated to it (Table 7).The concern that breast screening is embarrassing is significantly associated to the uptakeof clinical breast examination (X^2=230.576, df =1,p < 0.005) and 26.4% of the respondents who did not undertake breast screening indicated that embarrassment influences clinical breast caner screening uptake (Table 7).

Implication of the study findings

Fifty five point nine percent of the women interviewed indicated that they had neverundertaken any form of breast screening in the last two years, hence the need for moreinnovative and aggressive ways to improve breast cancer screening uptake among thewomen.A majority of the respondents (36.9%) received information about breast cancer andscreening through the radio, hence the need to explore the diversification of radioprogrammes and advertisements on breast cancer screening to create greater awareness,correct misconceptions and promote breast screening uptake.

Conclusion

Breast cancer has been, and continues to be, a major health issue in our current society. Although technology is advancing, and taking with it our knowledge of the disease, we are still a considerable distance from finding a cure. Significant numbers of women are being diagnosed with breast cancer each year and, contrary to popular belief, this includes young women, indicating a need to increase the general public's understanding and awareness. In many cases, it is evident that there is a cultural expectation that only the older women in our society need to be concerned and proactive about breast cancer. The respondents who did not undertake breast cancer screening held that breast screening is not necessary and does not have value.The study is in line with Amerian CancerSociety(2013)report.Such women look at clinical examination as a waste of time, money and aninconvenience; given that the lumps are initially not painful. This has created a generation that

have little to no knowledge of breast cancer, a lack of interest or concern about awareness or prevention and a significant and powerful mind set that it is not something they have to worry about.

This study therefore rejects the null hypotheses that:Socio economic, cultural and demographic fact ors have no association with the women'suptake of breast cancer screening. There is no association between psychosocial factors andbreast screening uptake among women. There is no association bet ween institutionalcharacteristics in CHC clinics and breast screening uptake. There is no association betweenthe women's knowledge about screening and the uptake of breast cancer screening.

The study therefore conclude that, Socio – Economic Cultural and Demographic factors such as age, travel distance to screening facility, cost of screening, most cultural practices and socio – commitments have significant negative correlation with breast cancer screening uptake. However, marital status, educational level, socio – economic status, most religious practices and socio – cultural factors have a significant positive association with breast cancer screening uptake. Psychosocial variables such as fear, anticipated pain and discomfort, stigma and concern for embarrassment were found to be significantly associated to breast cancer screening uptake among the respondents. Institutional characteristics such as Breast Health Education, guidance and follow up by nurses on BSE, Advertisements on breast cancer and screening have significant and positive correlation with breast cancer screening uptake.

Recommendations

This study makes the following recommendations:

i. The Ministry of Public Health and Sanitation through hospital authorities shoulddiversify Breast hea lth education in hospitals and clinics to incorporate; more breast healtheducation sessions, guidance by nurses on BSE and regular follow up by nurses to ensurecompliance.

ii. The Ministry of Public Health and Sanitation should intensify advertisements on breastcancer and sc reening through; radio, television, issue of brochures and posters to bringabout increased awareness and an attitude change to promote uptake.

iii. The Ministry of Education and that of Public Health should work on a policy framework to disseminate breast cancer information to women of reproductive age at middlelevel colleges throu gh an integrated curriculum and public forums to counter fear andmisconceptions.

iv. The Ministry of Health should come up with a breast cancer screening policy to facilitate /subsidize the consultation and screening fee and introduce mobile screening units to improve uptake.

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