Major Predictors of Breast Cancer Screening Among Women in Southwest, Nigeria

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Abstract

The issue of breast cancer in the world has become a global one that is claiming lives of women all over the world. There is need to evaluate the major predictors of breast cancer screening in Southwest, Nigeria with the aim of identifying those factors that are crucial to predicting the susceptibility of women to breast cancer screening. This study investigated the major predictors of some psychosocial factors on breast cancer screening among women in Southwest, Nigeria. A descriptive research design of the survey type was adopted for the study. The population for this study comprised all women in Southwest, Nigeria. The sample consisted of 1800 women between the ages of 18 and 60 from three randomly selected States and Local Governments. A questionnaire titled "Predictors of breast screening" (PBS) was used to collect data. Expert judgments were used to ensure face and content validity. Test-retest method was used to determine the reliability of the instrument and reliability co-efficient of 0.72 was obtained at 0.05 level of significance using Pearson Product Moment Correlation Analysis. Data collected were analyzed using Multiple Regression Analysis. The result revealed that the best predictor of women's susceptibility to breast cancer screening is age. It was also revealed that the identified psychosocial variables significantly predict the susceptibility of women to breast cancer screening. Based on the findings, it can be concluded that there is a peak age of presentation of women to breast screening exercise. It was recommended that counselor s should design effective programmes that would create more awareness on women's health issues as a way of detecting cancer in its early stage through breast screening.

Keywords: Predictors and breast screening

1. Introduction

 The rising global incidence of malignant diseases such as breast cancer as documented by World Health Organization (WHO, 2006) is an issue of serious concern, particularly in the developing countries such as Nigeria. Breast cancer mortality rates are higher in developing countries as a result of late detection and diagnosis. Okobia, Bunker, Okonofua and Osime (2006) reported that breast cancer ranks second in cancer incidence and is still the second principal cause of cancer mortality among women worldwide including Nigeria. The burden of death from breast cancer among women in Nigeria is rapidly increasing and it is likely to continue as women are left without deliberate attempts to guide them on issues relating to breast cancer and the risk factors. Every woman seems to be at the risk of developing breast cancer. There are diverse risk factors that may affect each woman's susceptibility to breast cancer as a disease. Parkin and Fernandez (2006) explained that over one million cases of breast cancer and 411,000 deaths from breast cancer occur annually representing 14% of female cancer deaths worldwide. As a result, the mortality rate from breast cancer ranks second in cancer incidence and is still the second principal cause of death from cancer among women worldwide including Nigeria (Parkin, Bray, Frelay and Pisani, 2005).

Being ill could be an unpleasant and possibly life threatening experience. Illness is something physical over which there may be little or no control. Chronic illness constitutes a major disruptive force in people's lives, so responses to illness are strongly influenced by the physical, economic and relationship resources that people have. The more of these they are able to respond to, the more they are to maintain a positive body image and be able to live a more normal life. There are many psychosocial factors that can explain the different disposition of women to breast cancer screening. Such factors include self efficacy, beliefs, age, economic status, location, social influence and barriers which may determine breast cancer screening among women (Parsa, Kandiah, Mohd and Rahman, 2008).

Okobia *et al;* (2006) explained that attitude of women towards Breast Self Examination (BSE), Clinical Breast Examination and Mammography as screening exercise is an important factor for low participation rate among Nigerian women. The reason for low participation rate in mammography as a form of breast cancer screening among Nigerian women was their inability in perceiving the importance of breast cancer screening test. Attitudes towards breast cancer screening are also developed by women's belief about the expected outcomes resulting from the screening performance. The antecedents of attitude are about personal belief concerning the perception of what they should do regarding breast cancer which eventually prescribed their action to go for treatment or early detection. It was discovered by Ertem and Kocer (2009) in their study carried out among nurses and midwives in Odemis health district in Turkey that only 52% of the participants performed breast self examination (BSE). The low rate of BSE practices according to them could be attributed to the absence of feelings of breast problems and a negative attitude towards the importance of BSE as an early detection method.

Also majority of the nurses who did not practice clinical breast examination reported that they do not have breast problems and do not want to expose their breast to strangers.

Akhigbe and Omuemu (2009) reported that the majority of female health workers respondents in a Nigerian urban city had very poor knowledge (55%) about breast cancer screening. Odunsanya (2001) pointed out that among Nigerian women, some of the factors preventing early presentation in hospitals are thoughts that include inadequacy of systems protecting and promoting women's health and cultural taboos regarding the female body. Lack of knowledge about breast cancer has also been identified as an important factor preventing women from participating in breast cancer screening. This additionally adds to the delay in presentation and treatment of breast cancer cases among women. These delays according to Odusanya (2001) contribute to high rate of mortality among Nigerian women.

Breast cancer in Nigeria according to Adebamowo (2007) seems to be common in women of age 50years and older. The two primary risk factors common in women for breast cancer are increasing age and female gender. Although the precise causes of breast cancer are still unclear, but it seems that advancement in age has certain influence on breast cancer and also have a significant impact on the way a patient copes with diagnosis. The age of women after menopause appears to have an association with an increased likelihood of having breast cancer as well (Odusanya, 2001). Individual's attitude and beliefs may be connected to the behavioural disposition of women to breast cancer screening. The incidence of breast cancer among women and the outcomes of breast screening could be increasing based on the disposition of women to survival processes. The behavioural disposition may be negative attitudes towards breast cancer screening and even disbelief in the efficiency of screening tests for survival. This could contribute to an overall mentality that may serve as a barrier to breast cancer screening for early detection and survival.

Screening according to the World Cancer Report (2008) refers to tests and examination used to find a disease like cancer in people who do not have any symptoms. The major goal of screening is to find cancers before they start to cause symptoms. Breast cancer screening refers to testing women for breast cancer in an attempt to achieve an earlier diagnosis with the assumption that early detection will improve outcomes. It was observed that breast cancers found during screening examinations are more likely to be small and still confined to the breast. The size of a breast cancer and how far it has spread are important factors in predicting the outlook for a woman with breast cancer (National Cancer Institute, 2015). Breast cancer screening may involve a number of different methods of examinations. These according to National Cancer Institute (2013), include:

- Breast Self Examination (BSE)
  Breast self-examination involves the woman checking her own breast for any irregularities which may include lumps, changes in breast size or shape, nipple discharge or irregular tissue thickening. Breast self examination are performed by women themselves.
- Clinical Breast Examination
  A clinical breast examination is a physical examination of the breast usually performed by a health professional. The healthcare professional will carefully feel the breasts and under the arms for lumps and anything else that seems unusual. The purpose is to find breast cancer early before any symptoms can develop.
- Mammography
  This is the diagnostic examination of the breast using low-dose X-rays. Reports from the World Cancer Report of 2008 have shown that annual mammography screenings have been shown to reduce the number of women dying from breast cancer in the age group of 40years and above.

1.1 Statement of the Problem

It was observed that despite a barrage of health campaigns, warning labels on products and doctors' advice, some women still seems to dismiss the empirical evidence of dangers of breast cancer in Nigeria. Significant number of women, though aware of health risks in breast cancer still ignores the preventive actions of breast screening. So failure of the early detection seems to have caused death in many instances which is more than deaths from other diseases. The purpose of this study therefore was to examine same psychosocial factors as an influence to breast cancer screening and the major predictors of these factors to breast cancer screening.

2.1 Materials and Methods

The researcher used the descriptive design of the survey type. The plan of study involved the use of questionnaire to collect data in order to test the hypothesis formulated for the study. The population for this study was all women in Southwest, Nigeria within the age of 15 and 60. The sample was 1800 women selected using simple and multistage sampling techniques from the States, Local Government areas and the towns for this study. A self designed questionnaire titled "Predictors of Breast Screening (PBS) questionnaire which face, content and construct validities were ensured was used to gather the data used for the study. The instrument's reliability was ensured through test-retest method. The scores obtained from two administration of the questionnaire at two

weeks interval were correlated by using Pearson Product Moment Correlation. A reliability coefficient of 0.72 was obtained and found significant. The data generated were analyzed using Multiple Regression Analysis. The hypothesis was tested at 0.05 level of significance.

3. Results and Discussion

3.1 Testing of Hypothesis

Hypothesis: The identified psychosocial factors will not significantly predict the susceptibility of women to breast cancer screening. In testing the hypothesis, scores on the identified psychosocial variables were regressed on susceptibility of women to breast cancer screening at 0.05 level of significance. The regression equation of psychosocial variables as predictors of women's susceptibility to breast screening is presented below:

$Y = -5.781 + 1.355A + 0.042B + 0.596C + 0.797D + 0.479E + -0.073F + 0.593G - 0.264H - 0.7091$.

The identified psychosocial variables significantly predict the susceptibility of women to breast cancer screening (f1237.101, P<0.05) (Table 1). The null hypothesis is rejected. All the identified variables jointly explained about 80% ($r^2 = 0.861$) of the variance in women's susceptibility to breast cancer screening while the remaining 14% unexplained variance is largely due to variation in other variables outside the regression model. The best predictor of women's susceptibility to breast cancer screening is age which is closely followed by knowledge about breast cancer, residential area of women, knowledge of family history, educational background, emotional feelings, economic status while religious belief is the least predictor of women's susceptibility to breast cancer screening with a beta weight of 0.022 (2.2%).

The study revealed that the age of women is the best predictor of women's susceptibility to breast screening. The report of Olowokere, Orubokun and Oluwatosin (2012) supported this view. They asserted that there is a peak age of presentation of women to breast screening to detect cancer. The age of women correlates significantly with subjecting themselves to breast self examination, clinical breast examination and mammography.

4. Conclusion

Based on the evidence from this study, it is concluded that the best predictor of women's susceptibility to breast cancer screening is age. This will be for early detection, treatment and survival. In view of this, it is recommended that counselors should design effective programmes that would create awareness at an early age of women's health issues as a way of detecting breast cancer in its early stage through breast screening.

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Table 1: Multiple Regression Analysis of Psychosocial Variables of Women's Susceptibility to Breast Screening

	Model	B	Std. Error	Beta	T	Sig. T	R	R^2	F
	Constant	-5.781	.782		-7.390	.000			
A	Age	1.338	.032	.522	41.934	.000			
B	Location	.042	.051	.010	.824	.410			
C	Knowledge of family history	.596	.045	.159	13.162	.000			
D	Knowledge about breast cancer	.797	.024	.351	33.399	.000	.928	.861	1237.101
E	Educational background	.479	.071	.071	.0766	.770			
F	Religious belief	-.073	.038	-.022	-1.936	.053			
G	Residential area	.593	.041	.194	14.499	.000			
H	Economic status	-.264	.047	-.073	-5.672	.000			
I	Emotional feelings	-.709	.075	-.111	-9.455	.000			

$P < 0.05$