

Breast Cancer Screening Practices among Women in Akure South Local Government Area of Ondo State

Obalase Stephen Babatunde^{1*}, Adegboro Joseph Sunday²

¹Federal University of Technology, Akure, Ondo State, Nigeria

²Department of Human Kinetics and Health Education, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria

* **Corresponding author:** Obalase Stephen Babatunde, Federal University of Technology, Akure, Ondo State, Nigeria, Tel: 08033653158; E-mail: obalase@yahoo.com

Abstract

This study examined breast cancer screening practices among women in Akure South Local Government area of Ondo State. The descriptive research of the survey type was adopted for the study. The sample consisted of 180 respondents between the ages of 18 and 50 selected from all political wards in Akure South Local Government Area of Ondo State. The validity of the instrument was established by three experts in health education, while the reliability coefficient of 0.77 was obtained and deemed fit for the study. Descriptive statistics was used to analyse the research questions while inferential statistics was used to test all the hypotheses raised for the study at 0.05 level of significance.

The results showed that the prominent source of information and knowledge about breast cancer screening came from hospitals, at home and mass media. The respondents conducted breast self-examination once a while. Level of education has a significant influence on women susceptibility to breast cancer screening and they used to involve in breast self-examination often than clinical screening and mammography.

Keywords: Influence, Psychosocial, Breast cancer, Screening

Introduction

Breast cancer is a type of cancer that originates from breast tissues, most commonly from the inner lining of milk ducts or the lobules that supply the ducts with milk.¹Cancer that originate from duct are known as ductal carcinomas while cancer that originate from lobules are known as lobular carcinomas. It is observed that every year about one million women worldwide are diagnosed with breast cancer out of which 18% of all the cases of cancer reported are breast cancer.² Prognosis and survival rates for breast cancer vary greatly depending on the cancer type, stage, treatment and geographical location of the patient. Survival rates in the western world as reported are high while survival rates in the developing countries are however very poor³ as if the burden of the death from breast cancer among women in Nigeria is rapidly increasing and it is likely to continue as women are left without deliberate attempt to guide them on issues relating to breast cancer and the risk factors. Some notable personalities in Nigeria had died through the disease called breast cancer; the characteristics of the breast cancer also determine the treatment which may include surgery, medication, radiation and chemotherapy.⁴

There are several types of breast cancer; the majority of breast cancer cases are classified as either *in situ* or invasive. The carcinoma *in situ* may be lobular carcinoma *in situ* or ductal carcinoma *in situ*. In the same vein, invasive breast carcinoma comprises of

invasive lobular carcinoma. This develops in the milk producing glands {lobules} of the breast. It has the ability to spread to other parts of the body. Invasive ductal carcinoma is the most common type of invasive breast cancer, responsible for almost 85% of cases. Invasive ductal carcinoma has the ability to move to other parts of the body.³

The first noticeable symptom of breast cancer is typically a lump that is quite different from the rest of the breast tissues. It is observed that more than 80% of breast cancer cases are discovered when the woman feels a lump.⁵ According to American Cancer Society⁴, Breast Self-Examination (BSE) is a screening method that is being used to detect early breast cancer that involves a woman examining her own breast. It involves looking and feeling the breast for possible lumps, swelling or distortion based on this, breast self-examination was once promoted as a means of detecting breast cancer at a more curable stage on a monthly basis to check for any abnormalities in appearance size and shape.

Another way of detecting breast cancer is through mammogram which is an x-ray of the tissues inside the breast. This may likely show a breast lump even before it can be felt. The burden of breast cancer as observed is rapidly increasing and it is likely to continue as more people are exposed to the risk factors of breast cancer. The aim of breast cancer control program in Nigeria is to reduce the risk factor for breast cancer and improve the quality of life; this can be achieved by prevention, early detection or diagnosis and treatment as well as palliative care and psychosocial support. Breast cancer, like other cancer occurs because of the interaction between an environmental (external) factor and a genetically susceptible host. Normal cells are to divide as many times as needed and stop. They attach to other cells, to stay where they belong and to die at the proper time. Normal cells are to commit cell suicide called apoptosis when they are no longer needed. Many prominent Nigerian women have reportedly died of breast cancer following inability to detect the cancer at early stage of development.⁶ Breast cancer in Nigeria according to⁶ seems to be common in women of age 50 years and older. The two primary risk factors common in women for breast cancer are increasing age and female gender other risk factors include early menarche, obesity, low level of physical activity, smoking, consumption of alcohol, use of hormone replacement therapy.⁷ Screening can be done through periodic breast examination for early diagnosis, treatment and probably for survival. Breast Cancer Screening refers to testing of women for breast cancer in an attempt to achieve an early diagnosis with the assumption that early detection will improve outcomes.

Educational background and individual attitudes appear to be connected to the underlying issues contributing to the prevalence of breast cancer in women as observed by the researcher. Lifestyle practices which are under an individual's control such as smoking, drinking of alcohol and lack of body exercise could all contribute to breast cancer risk negatively. The environment may even be a potential cause of breast cancer which needs an urgent attention. Likewise, overweight, obesity and lack of physical activity may all play a role in breast cancer risk. Factors which could be attributed to breast cancer may include genetics, cultural and social factors such as poverty, psychological problems and family issues and social concerns. Breast cancer mortality rate appears to be higher in developing countries like Nigeria as a result of late detection and diagnosis. The aim of breast cancer control program in Nigeria is to reduce the risk factor for breast cancer and improve the quality of life, this can be achieved by prevention, early detection or diagnosis and treatment as well as palliative care. Without knowing the screening practices of women and those factors that can influence it, it will be difficult to plan effective preventive and cancer control programme, this is the gap in knowledge that this study wishes to cover.

Significance of the study

The study would benefit women, health care providers, students in various places of learning, breast cancer patients, survivors, health educators, and health institutions. The study would help increase the knowledge and awareness of women on the dangers involved in late detection of breast cancer symptoms that could lead to death. This study would help the policy makers to adopt a standardized methods and guidelines on how women should make themselves available for clinical and mammography examinations for early detection of signs and symptoms of breast cancer.

Research questions

The following research questions were generated to guide the study;

1. How often do the women conduct self-breast examination and breast screening examination?
2. What is the influence of psycho-social variables on breast screening practices of women in Akure community?
3. What are the sources of getting information as regards breast cancer screening among women of Akure South LGA, Ondo State?
4. What is the influence of educational background on breast screening practices of women in Akure community?

Research hypothesis

Research hypothesis was formulated to guide the study at 0.05 level of significance

1. There is no significant relationship between the breast cancer screening types among women
2. The educational background of women will not significantly influence their susceptibility to breast cancer screening.

Method of the Study

A descriptive research of the survey type was used for this study. The population for the study were all women of child bearing age in Akure South Local Government Area of Ondo State.

One hundred and eighty (180) women of childbearing age in Akure South Local Government Area of Ondo State participated in the study. They were selected using multistage random sampling techniques. The first stage involved the random selection of nine political wards from the local government using simple random sampling technique. The second stage involved the random selection of twenty households from each of the wards earlier selected while the third stage involved the selection of a woman of childbearing age from each of the selected households thus giving every woman of childbearing age equal and a none zero chance of being part of the study. A self-designed questionnaire was used to elicit information from respondents. The questionnaire was validated by three experts in health education. A reliability coefficient of 0.87 was obtained using Pearson Product Moment Correlation Analysis. The instrument was administered to 180 respondents by the researchers and their research assistants. The data generated were analyzed using descriptive and inferential statistics while alpha was set at 0.05 level.

Results and Discussion

Research question 1: How often do the women conduct self-breast examination and breast screening examination? The Table 1 above shows that the largest percentage of the respondents conduct breast self-examination once a while which accounted for 65%, about 19.4% conduct self-breast examination regularly while 15.6% of the respondents conduct self-breast examination monthly. By implication, the women of child bearing age in Akure South Local government area of Ondo State had poor attitude towards the practice of breast cancer screening.

Research question 2: What are the factors influencing women in subjecting themselves to breast cancer screening? The Table 2 above revealed that knowledge about breast cancer accounted for 14.4% of the factors influencing women to subject themselves to breast cancer screening, age factors 12.8%, economic status and level of education accounted for 10.6%, family history accounted for 10%, Religious belief and emotional feelings accounted for 9.4%, and anxiety accounted for 8.3%. However, social factors and location of the respondents accounted for 7.2%.

Research question 3: What are the sources of getting information as regards breast cancer screening among women of Akure South LGA, Ondo State? The result from Table 3 above revealed that the major sources of information by the respondents on breast cancer screening and breast examination is hospitals which accounted for 40.6%, mass media 27.2%, friends 19.4 %, market places 8.3 % while the least source of information about breast cancer examination and screening was home which accounted for 4.4%.

Research question 4: How often do the women conduct self-breast examination and breast screening examination? The Table 3 revealed that the largest percentage of the respondents conduct breast self-examination once a while with 52.8%, monthly 25% and regularly accounted for 22.2%.

The Table 4 above revealed the influence of educational background on women subjecting themselves to breast cancer screening methods as follows: about 13.8% of the respondents who had WASC O'Level certificate conducted breast self-examination, 7.2% clinical examination and 5.6% WASC O'Level certificate holders conducted mammography. In addition, holders of NCE/HND had 7.2%, 5.6% and 2.8% for breast self-examination, clinical examination and mammography respectively. Furthermore, about 9.4% of those respondents who had first degree subjected themselves to breast self-examination, 10.6% clinical examination and 5.6% mammography. In the same vein, about 17.2% of the respondents with higher degrees conducted breast self-examination, 9.4% clinical examination and 6.7% mammography.

Hypothesis testing

H01. There is no significant relationship between the breast cancer screening types among women * $P \leq 0.05$. The table 5 above shows that there is significant relationship between breast self-examination and clinical breast examination ($r=0.3980$, $P<0.05$). Similarly, the correlation between breast self-examination and mammography ($r=0.4080$, $P<0.05$), Clinical breast examination and mammography ($r=0.3080$, $P<0.05$) is statistically significant at 0.05 level of significance in each case. Therefore, there is enough evidence to reject the null hypothesis. By implication, there is a significant relationship between the breast cancer screening types among women of Akure South Local Government Area of Ondo State. H02: The educational background of women will not significantly influence their susceptibility to breast cancer screening.

In order to test the hypothesis, scores relating to educational background of women and their susceptibility to breast cancer screening were subjected to statistical analysis involving Pearson Product Moment Correlation at 0.05 level of significance. The result is presented below.

* $P < 0.05$. The result shows that the educational background of the women have significant influence on their susceptibility to breast cancer screening ($r = 0.490$, $P < 0.05$). The null hypothesis is rejected. This implies that the educational background of women will significantly influence their susceptibility to breast cancer screening.

Discussion

Explanation for analysis for investigation regarding the influence of the control factors

The psychosocial factors affecting the Breast Cancer Screening in Akure South include anxiety, age, family history, knowledge about breast cancer, religious belief, location and socio-economic status of the respondents. This finding was in agreement with the findings made by where they reported that psychosocial factors added a significant and substantial variance to the prediction of screening behavior of women. This could had been as a result of the fact that breast cancer screening as a behavior is characterized largely by the women's psychosocial attributes.⁸

The sources of information and knowledge of breast cancer screening from the study came from hospital, mass media and friends. This was consistent with the result cited by 9 who reported in their study that health care providers remain the major source of information to the people on breast cancer issues. The study revealed that majority of the respondents (65%) do conduct breast self examination once a while, about 19.4% regularly and 15.6% monthly. This disagreed with the findings of from Enugu, and that of¹⁰ from Lagos State that breast self examination was known to be practiced by the respondents monthly. The findings of this study also revealed that breast self examination are more frequent, accessible and effective methods of breast screening than mammography.

The result of this study revealed that the religious beliefs of women significantly influence their disposition to breast cancer screening as 9.4 % agreed that religious belief was one of the critical psychosocial factors influencing breast cancer screening in Akure South Local Government Area of Ondo State. This result agreed with the findings of Ahmadian¹¹ that Iranian women are not interested in those practices that require their bodies to be touched by physicians, so breast screening practices would be neglected by those women.

Conclusion

It could be concluded that social factors, socioeconomic status, age, location, family history, knowledge about breast cancer, religious beliefs, and emotional feelings of women constituted psychosocial factors that influenced women to subject themselves to breast cancer screening. It is concluded that breast self-examination and clinical breast examination are more effective methods of breast cancer screening than mammography. It is concluded that religious beliefs of women is a barrier to their disposition to breast cancer screening and there is a significant relationship between the breast cancer screening types among women.

Recommendations

Based on the findings of this study the following recommendations were made:

Health educators should design effective programme that would create awareness of women's health issues as a way of detecting breast cancer in its early stage through breast screening.

Health care providers should carefully address the misconceptions about breast screening and actively plan for strategies that will have great effect on women's adherence to breast cancer screening behaviour.

There should be a regular routine breast check by health care providers which will help women to feel at ease and become more confident, education and training about performing breast self-examination and its benefits should be stressed.

Mass media should be saddled with the great responsibility to create adequate awareness about breast cancer screening.

Government should oversee the strict applicability of breast cancer prevention programme through breast screening.

References

1. Sariego J. The Impact of Facility Volume/ Size on Breast Cancer Treatment and Outcome. *Am J Surg* 2010; 76: 1333-1337.
2. Ozmen V. Breast Cancer in the World and Turkey. *J Breast Health* 2008; 4: 7-2.
3. World Cancer Report. International Agency for Research on Cancer 2008. Available at [http://www.cancer.org/cancer/breast cancer/detailed guide](http://www.cancer.org/cancer/breast%20cancer/detailed%20guide)/Retrieved 07/05/2016.
4. American cancer society. The risk factor for breast cancer 2013. Available at [http://www.cancer.org/breast cancer](http://www.cancer.org/breast%20cancer). Retrieved 25th April,2016.
5. Merck Manual of Diagnosis and Therapy. Breast Disorders :Breast cancer 2003; 2-5.
6. Adebamowo CA. Cancer in Nigeria. American Society of Clinical Oncology (ASCO) 2007.
7. Available at <http://www.ascocancerfoundation.org/amf/past+issues/April+2007/cancer+in+Nigeria?cpsex+currchannel=1>. Retrieved 25/04/2016.
8. World Health Organization. Breast Cancer: Prevention and Control 2007. Available at <http://www.who.int/cancer/detection/breastcancer/en/html>.
9. Akpo E., Akpo M., Akhator A. Breast Cancer Knowledge and Screening Practices Among Nigerians Medical Students .*The Internet J of Health*. 2009; 11. Available at <http://www.cancer.org/docroot/CR//content/CRI>. Retrieved 15/04/20.
10. Olowokere AE., Onibokun AC., Oluwatosin AO. Breast Cancer Knowledge and Screening Practices Among Women in Selected Rural Communities of Nigeria . *J Public Health Epidemiol* 4: 235-245.
11. Odeyemi KA., Oyediran MA. Effect of a Breast Cancer Screening Community Intervention Ikeja, Lagos State,Nigeria. *Nigerian J of Community Medicine and Primary Health Care* 2002; 14: 66-77.
12. Ahmadian M. Factors Influencing Women's Participation in Breast Cancer Prevention Program in Tehran,Iran.Doctoral Research University Putra, Malaysia. 2011.

QUESTIONNAIRE

SECTION A: SOCIAL DEMOGRAPHIC CHARACTERISTICS

Please tick as appropriate and applicable to you.

Age group A 18 -25 B 26 - 33 C 34 -41 D 42 -50 E 51 -57.

Family History of breast problem A YES B. NO.

Location A Urban B Rural.

Economic status A Lower class B Middle class C High class.

Level of Education A WASC'O'L B.NCE/ HND C.FIRST DEGREE D. HIGHER DEGREES.

Religious belief A Christianity B .Muslim C Traditional believer D Others (specify).

Marital status A.Married B Single C Divorced D Separated/ single parent.

SECTION B

1. Where do you get your information as regards breast cancer?

Sources of information about breast cancer	YES	NO
Mass media		
Friends		
Hospitals		
At home		
Market place		

2. How often do you conduct self breast examination ?

Conduct of breast self examination	YES	NO
Regularly		
Monthly		
Once a while		

3. What types of breast examination applicable in your area?

Type of breast examination	YES	NO
Self breast examination		
Clinical breast examination		

Mammography

4. Can any of the following factors responsible for women to subject themselves to breast cancer screening?

Factors	YES	NO
Anxiety		
Emotional feelings		
Social factors		
Family history		
Age factors		
Religious belief		
Knowledge about breast cancer		
Economic status		
Location		
Level of Education		

5. Is there any health facility around your location?

A. YES B. NO.

6. Is the cost for breast cancer screening around your location affordable for average citizens?

A. YES B. NO.

Please be informed that all information provided will be treated as a confidential documents and is for academic purposes only.

Thanks and God bless you.

OBALASE, S.B.

EKSU, KHE.

Table 1: Showing How Women Conduct Breast Self-Examination.

SN	CONDUCT OF BREAST SELF EXAMINATION	Frequency	Percentage

I	Regularly	35	19.4%
II	Monthly	28	15.6%
III	Once a while	117	65%
	TOTAL	180	100%

Table 2: Factors that Influence Women to Subject themselves to Breast Cancer Screening.

SN	FACTORS	FREQUENCY	PERCENTAGE
I	Anxiety	15	-8.30%
II	Emotional feelings	17	-9.40%
III	Social factors	13	-7.20%
IV	Family history	18	-10.00%
V	Age factors	23	-12.80%
VI	Religious belief	17	-9.40%
VII	Knowledge about breast cancer	26	-14.40%
VIII	Economic status	19	-10.60%
IX	Location	13	-7.20%
X	Level of Education	19	-10.60%

Table 3: Showing sources of Information and Knowledge of Breast Screening.

SN	SOURCES	OF	FREQUENCY
	INFORMATION		PERCENTAGE
I	Mass media	49	(27.2%)
II	Friends	35	(19.4%)
III	Hospitals	73	(40.6%)
IV	At home	08	(4.4%)

V	Market places	15	(8.3%)
---	---------------	----	--------

Table 4: Showing How Women Conduct Breast Self-Examination.

SN	CONDUCT OF BREAST SELF EXAMINATION	FREQUENCY	PERCENTAGE
I	Regularly	40	(22.2%)
II	Monthly	45	(25%)
III	Once a while	95	(52.8%)
	TOTAL	180	(100%)

Table 5: Showing Influence of Educational Background on Women Subjecting Themselves to Breast Cancer Screening Methods.

SN	LEVEL OF EDUCATION	BREAST SELF EXAMINATION	CLINICAL EXAMINATION	MAMMOGRAPHY
I	WASC/O'LEVEL	23 (13.8%)	13 (7.2%)	10 (5.6%)
II	NCE/HND	13 (7.2%)	10 (5.6%)	05 (2.8%)
III	FIRST DEGREE	17 (9.4%)	9 (10.6%)	10 (5.6%)
IV	HIGHER DEGREES	31 (17.2%)	17 (9.4%)	12 (6.7%)

Table 6: Correlation Matrix of Breast Cancer Screening Types Among Women.

VARIABLES	BREAST SELF EXAMINATION	CLINICAL BREAST EXAMINATION	MAMMOGRAPHY
BREAST SELF EXAMINATION	1.0000	0.3980*	0.4080*

CLINICAL BREAST	1.0000	0.3080*
EXAMINATION		
MAMMOGRAPHY		1.0000

Table 7: Pearson Product Moment Correlation Showing the Educational Background of Women and their Susceptibility to Breast Cancer Screening.

VARIABLE	N	Mean	SD	r cal	R tab	Remarks
Educational Status	180	1.48	2.57	0.49*	0.195	Sig
Susceptibility to breast cancer screening	180	6.04	10.46	0.49*	0.195	Sig

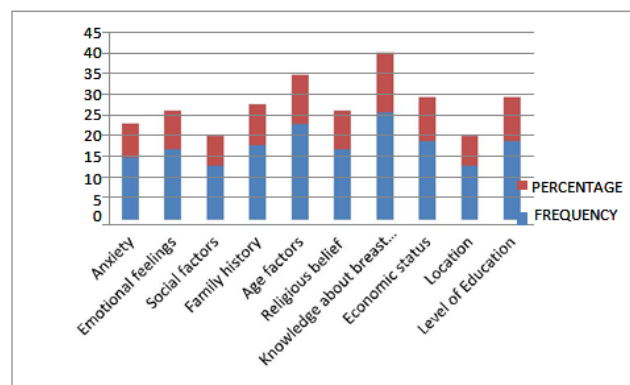


Figure 1: Factors that Influence Women to Subject themselves to Breast Cancer Screening.

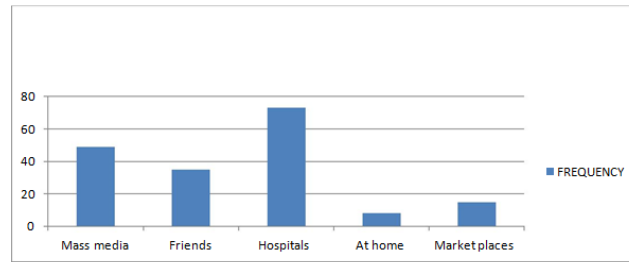


Figure 2: Showing sources of Information and Knowledge of Breast Screening.

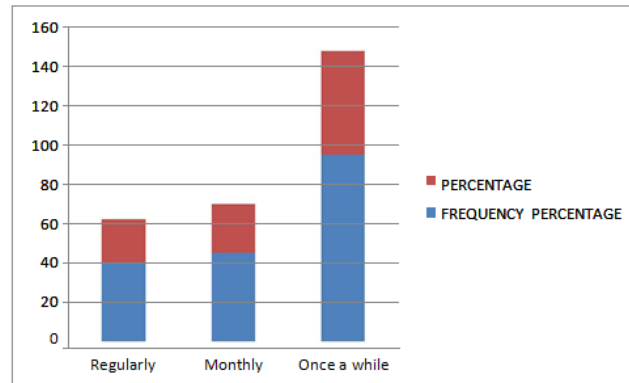


Figure 3: Showing How Women Conduct Breast Self-Examination.

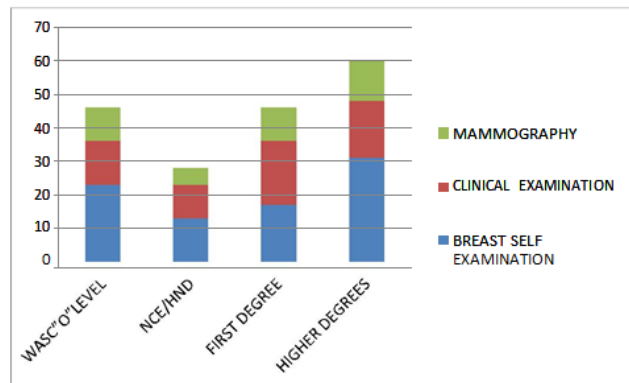


Figure 4: Showing Influence of Educational Background on Women Subjecting Themselves to Breast Cancer Screening Methods.