# Knowledge and Practice of Breast Cancer Screening Among Young Women in Ekiti State, Nigeria

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### Abstract

Breast cancer is one of the most dreaded conditions among women, which is formed in the cells of the breasts. After skin cancer, breast cancer is the most common cancer diagnosed in women. Breast cancer can occur in both men and women, but it's far more common in women. The main aim of this study is to evaluate the knowledge and practices of breast cancer screening among young women in Ekiti state teaching hospital, Ado Ekiti, Ekiti State, Nigeria. The research design that was used for this study was survey design of the descriptive type of research. The sample size of two hundred (200) middle aged women was sampled for the study using simple random sampling technique. The respondents were drawn from attendees and staff of Ekiti State Taching Hospital, Ado-Ekiti, Ekiti State, Nigeria. The instrument for data collection was a self-constructed questionnaire. The split half method of reliability was used to ascertain the reliability of the instrument using Pearson's Product Moment Correlation and Spearman Brown's formula. A coefficient of 0.82 was obtained. Formulated hypotheses were tested using inferential statistics of Pearson Chi-Square, the hypotheses were tested at 0.05 level of significance. The researcher concluded that young women are aware of breast cancer screening methods, level of education influence young women on the practice of breast self-examination and finally, young woman significantly engage in breast self-examination toward breast cancer screening. The researcher recommended that Symposiums and seminars should be organized for young women in order to sensitize them on the prevalence of breast cancer in Nigeria as well as the immense benefit early detection could be of help in healthy treatment. Females should be educated on some healthy part of their body that needs to be examined for healthy living and prolonged life. This will help them in cross examine their body anytime.

**Keywords:** Breast, Cancer, Knowledge, Mammography, Practice, Screening

## Introduction

Breast cancer is one of the silent deadliest disease affecting both young and old women in our society. Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body (World Health Organization [WHO], 2018). These contrast with benign tumors, which do not spread. Possible signs and symptoms include a lump, abnormal bleeding, prolonged cough, unexplained weight loss, and a change in bowel movements. While these symptoms may indicate cancer, they can also have other causes. Over 100 types of cancers affect humans (National Cancer Institute, 2015).

Cancer starts when a cell is somehow altered so that it multiplies out of control. A tumor is a mass composed of a cluster of such abnormal cells. Tobacco use is the cause of about 22% of cancer deaths (WHO, 2018). Another 10% are due to obesity, poor diet, lack of physical activity or excessive drinking of alcohol (Jayasekara et al., 2016). Other factors include certain infections, exposure to ionizing radiation and environmental pollutants.

Breast cancer is one of the most dreaded conditions among women, which is formed in the cells of the breasts. After skin cancer, breast cancer is the most common cancer diagnosed in women. Breast cancer can

occur in both men and women, but it's far more common in women. Breast cancer incidence is increasing in developing countries which can be attributed to increased urbanization and the adoption of Western lifestyles. Majority of breast cancers that develop in low- and middle-income countries where breast cancer are diagnosed at a very late stage. Therefore, early detection to improve the outcomes and women survival to breast cancer is very important for breast cancer control (WHO, 2015).

Nowadays, breast cancer is a serious problem for women in all countries of the world. Almost 1.7 million new cases and 522,000 deaths occur each year due to breast cancer (Torre, 2015). Breast cancer contains 25% of all cancers, and is the second most common cancer (Ferlay,2010) and have an increasing trend (Rafiemanesh et al., 2016). While, the majority of women who die as a result of breast cancer (324,000), are from the countries with low or medium income (WHO, 2017).

African women; in comparison with their low incidence of cancer disproportionately bears a high cancer mortality rates (Azubuike&Okwuokei, 2013). The peak age of breast cancer in Nigeria is about ten years earlier than the experience of many western women. This could be attributed to increasing adoption of western life style and diet compounded by poor knowledge and attitude related to cancer issues (Azubuike&Okwuokei, 2013).

Breast Cancer awareness and attitude has been linked to several factors determining the stage at which patients with breast cancer present to the hospital (Azubuike&Okwuokei, 2013). There are reports suggesting that factors related to women's knowledge and beliefs about breast cancer and its management may contribute significantly to medical help-seeking behaviours (Hadi et al., 2010). One important strategy in reducing breast cancer mortality is the use of screening to achieve earlier detection of cancer (Azubuike&Okwuokei, 2013). Early diagnosis usually results in treatment before metastasis and signifies a better outcome of management (American Cancer Society, 2018).

Breast cancer screening is almost non-existent in Nigeria. However, the inexpensive practice of breast self-examination helps women to be self-reliant and responsible for their own health. Many risk factors are attached to breast cancer such as increasing age, hormone replacement therapy (HRT), high dietary fat, excessive alcohol consumption, smoking and family history among others. The importance of knowledge of these risk factors and the need for every woman to be aware of the need for surveillance on her breasts and the various ways to do this cannot be over emphasized. Hence, the researcher seeks to examine the knowledge and practice of breast cancer screening among young women in Ekiti State, Nigeria.

**Objectives of the study**

The main aim of this study is to evaluate the knowledge and practices of breast cancer screening among young women in Ekiti state teaching hospital, Ado Ekiti, Ekiti State, Nigeria. Specifically, the study sought to:

   i.   Examine if young women were aware of breast cancer screening methods in Ekiti state teaching hospital, Ado Ekiti, Ekiti State, Nigeria.

   ii.  Evaluate if level of education influence young women practice of breast self-examination in Ekiti state teaching hospital, Ado Ekiti, Ekiti State, Nigeria.

   iii. Determineif young woman engage in breast cancer screening in Ekiti state teaching hospital, Ado Ekiti, Ekiti State, Nigeria.

**Hypotheses**

The following hypotheses are tested based on the objectives derived for the study at 0.05 alpha level of significance.

   i.   Young women willnot significantly beaware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

ii.   Level of education will not significantly influence young women on the practice of breast self-examination Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

iii.   Young woman will not significantly engage in breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

## Methodology

Survey design of the descriptive type of research was adopted for this study. This is considered as appropriate because the researcher did not manipulate any of the independent variables that is measured. The study was conducted at Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. The medical centre is a public multi-specialist healthcare centre in Ekiti state that provides 24 hours emergency care services, diagnostics services, maternity care, immunization and other related health services.

The population of the study comprised of young women within the age of 18 – 45 years attending Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. The sample size of two hundred (200) respondents was used for the study. The respondents were middle aged staffs and patients from Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. The sample size was determined using Krejcie and Morgan (1970) sample size technique.The instrument for data collection was a self-structured close ended questionnaire.

In order to validate the instrument, drafts of the questionnaire was prepared by the researcher and was given to experts to vet in order to establish face, content and construct validity. Based on the suggestions that were made by these experts, the items were restructured where necessary and the corrected draft of the questionnaire was used for this study.The reliability of the instrument was established using split half method of reliability. The researcher administered the instrument to twenty (20) respondents from one of the primary health care centre which did not form part of the final study. Pearson Product Moment Correlation Coefficient (PPMC) was used to determine the value of (r) at 0.05 level of significance. Reliability coefficient of 0.82 was obtained. An oral informed consent was obtained from each of the respondents who agreed to participate in the research after explaining the aim and the importance of the study. They were assured about confidentiality of the obtained data and that they are to be used for research purpose.The questionnaire was administered to the respondents with the help of two (2) trained research assistants and completed questionnaire were retrieved from the respondents on the spot.The completed questionnaire was collected, coded and analysed. Inferential statistics of Analysis of Variance (ANOVA)was used to test the hypotheses set for this study at 0.05 level of significance.

## Results

The following results are generated for this study:

### Hypothesis 1

Young women willnot significantly beaware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Table 1: ANOVA showing awareness of young women towards breast cancer screening methods**

|  | Sum of Squares | df | Mean Square | F-Cal | F-Table | Sig. (P) |
|---|---|---|---|---|---|---|
| **Between Groups** | 58.061 | 1 | 58.061 | 106.755 | 3.85 | .000 |
| **Within Groups** | 21.936 | 158 | .061 |  |  |  |
| **Total** | 79.997 | 159 |  |  |  |  |

**P < 0.05 (Significant)**
**Field Survey (2021)**

The result of analysis presented in table 1 revealed F-Cal = 106.755, df = (1, 158), F-tab = 3.85 and P-value = 0.00 at 0.05 level of significance. This means that the hypothesis 1 which states that young women will not significantly be aware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria was rejected based on the fact that that F-Cal $_{(1, 158)}$ = 106.755 was greater than F-table (3.85) and P (0.00) < 0.05 level of significance. Hence, young women are aware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Hypothesis 2**

Level of education will not significantly influence young women on the practice of breast self-examination Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Table 2: ANOVA for influence of level of education of young women on practice of breast self-examination**

|  | Sum of Squares | df | Mean Square | F-Cal | F-Tab | Sig. |
|---|---|---|---|---|---|---|
| **Between Groups** | 25.824 | 1 | 17.824 | 138.101 |  | .000 |
| **Within Groups** | 40.464 | 158 | .144 |  | 3.85 |  |
| **Total** | 66.289 | 159 |  |  |  |  |

**P < 0.05 (Significant)**
**Field Survey (2021)**

The result of analysis presented in table 2 revealed F-Cal = 138.101, df = (1, 158), F-tab = 3.85 and P-value = 0.00 at 0.05 level of significance. This means that the hypothesis that states that Level of education will not significantly influence young women on the practice of breast self-examination Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeriawas rejected based on the fact that that F-Cal $_{(1, 158)}$ = 138.101 was greater than F-table (3.85) and P (0.00) < 0.05 level of significance. This implies that level of education had influence on young women practice of breast self-examination inEkiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Hypothesis 3**

Young woman will not significantly engage in breast self-examination toward breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Table 3: ANOVA for engagement of young women in breast self-examination toward breast cancer screening**

|  | Sum of Squares | df | Mean Square | F-Cal | F-Tab | Sig. |
|---|---|---|---|---|---|---|
| **Between Groups** | 66.696 | 1 | 66.696 | 165.738 |  | .000 |
| **Within Groups** | 22.404 | 158 | .063 |  | 3.85 |  |
| **Total** | 89.100 | 159 |  |  |  |  |

**P < 0.05 (Significant)**
**Field Survey (2021)**

The result of analysis presented in table 3 revealed F-Cal = 165.738, df = (1, 158), F-tab = 3.85 and P-value = 0.00 at 0.05 level of significance. This means that the hypothesis that states that young woman will not significantly engage in breast self-examination toward breast cancer screening in Ekiti State University

Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria was rejected based on the fact that that F-Cal $_{(1, 158)}$ = 165.738 was greater than F-table (3.85) and P (0.00) < 0.05 level of significance. This implies that young woman significantly engage in breast self-examination toward breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria.

**Discussion of findings**

The findings of the study for hypothesis 1 which stated thatYoung women willnot significantly be aware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria was rejected. Hence, young woman are aware of breast cancer screening methods in Ekiti State University Teaching Hospital, Ado-Ekiti, Ekiti State, Nigeria. The findings contradicted the study of Mahdi and Awat (2014) which showed that the level of awareness about breast cancer screening methods among adult woman was low, in which only 33.2% had high knowledge and remaining had mixed or weak awareness level. Also, thestudy showed inadequate knowledge about well-known risk factors for breast cancer among their study population, in which only about 32% of participants had high knowledge and majority of them (about 43%) had moderate and the remaining had low awareness levels. In the same vein, Al Dubai et al. (2011) study have shown that young woman had poor knowledge, but slightly higher, about breast screening methods towards breast cancer prevention.

The findings also oppose the conclusion of Elobaid et al. (2014) which stated that despite the increase in the uptake of screening modalities in their study group, lack of knowledge about breast cancer screening is still evident. The positive association between knowledge of breast cancer and screening uptake is clear, but it is difficult to determine whether breast cancer knowledge preceded cancer screening or whether previous exposure to screening increased knowledge.

Furthermore, the findings of the study for hypothesis 2 which stated that level of education will not significantly influence young women on the practice of breast self-examination in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeriawas rejected. This implies that level of education influence young women on the practice of breast self-examination in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. The study was supported by the study of Shahbaz and Nisa(2013) who conducted in middle- and low-income countries and the study indicate a significant relationship between educational level and knowledge and practice of BSE. Women with higher educational level have more knowledge of BSE, betterperformance and more likely to practice BSE regularly. Sani et al. (2016) stated that education plays an important role in behavior modification and may lead to cues to action. The study of Amasha (2013) contradicted the findings of the study conducted in high-income countries where majority of women have higher level of education, the study indicate that there is no significant association between educational level and the knowledge and practice of breast self-examination.

Lastly, the findings for hypothesis 3 which stated that young woman will not significantly engage in breast self-examination toward breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria was rejected. This implies that young woman significantly engage in breast self-examination toward breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. The finding was supported by assertions made in the study of Shrivastavaet al. (2013) which identified a wide knowledge application gap with regards to BSE, the practice of BSE remaining low and variable in different nations like 54% in England; varying from 19% to 43.2% in Nigeria and varying from 0 to 52% in India. Shinet al. (2012) in their study done in Korea, revealed that 27% of students were engaged in BSE which was higher than what was observed in students (10.1%) from Nigeria. In addition, the finding was complimented by the study of Careli et al. (2008) who observed that among the health-care providers, around 90.3% women performed BSE in Sao Paulo; while in Turkey 28% of the nurses and 32% of physicians did not practice BSE.

**Conclusionsand Recommendations**

Based on the findings of the study, the researcher concluded that young women are aware of breast cancer screening methods, level of education influence young women on the practice of breast self-examination and finally, young woman significantly engage in breast self-examination toward breast cancer screening in Ekiti State University Teaching Hospital, Ado Ekiti, Ekiti State, Nigeria. On this conclusion, the researcher recommended that:

1. Symposiums and seminars should be organized for young women in order to sensitize them on the prevalence of breast cancer in Nigeria as well as the immense benefit early detection could be of help in healthy treatment. And this could be achieved majorly by breast cancer screening, which in turn mean that young women have to practice breast cancer screening often.

2. Females should be educated on some healthy part of their body that needs to be examined for healthy living and prolonged life. This will help them in cross examine their body anytime.

3. Breast self-examination should be encouraged in all women so as to foster the prevention and early detection of breast cancer among young women in Nigeria. This will help in curbing rates of mortality among young women as well as disease prevention.

**Reference**

1. Al-Dubai, S., Qureshi, A. M., Saif-Ali, R., Ganasegeran, K., Alwan, M. R. &Hadi, J. I. S. (2011). Awareness and knowledge of breast cancer and mammography among a group of malaysian women in Shah Alam. *Asian Pacific Journal of Cancer Prevention*, 12(10), 2531–2538.

2. Amasha, H. A. (2013). Breast self-examination and risk factors: Awareness of Jordanian nurses. *Health Sci J.,* 7:303-14

3. Azubuike S. O. &Okwuokei S. O. (2013). Knowledge, Attitude and Practices of Women Towards Breast Cancer in Benin City, Nigeria. *Ann Med Health Sci Res. 2013 Apr-Jun; 3(2):* 155–160

4. Carelli, I., Pompei, L.M., Mattos, C.S., Ferreira, H.G., Pescuma, R., Fernandes, C. E. &Peixoto, S. (2008). Knowledge, attitude and practice of breast self-examination in a female population of metropolitan Sao Paulo," *Breast,* 17 (3), 270-274.

5. Elobaid, Y. E., Aw, T. C., Grivna, M. &Nagelkerke, N. (2014). Breast Cancer Screening Awareness, Knowledge, and Practice among Arab Women in the United Arab Emirates: *A Cross-Sectional Survey. PLoS ONE* 9(9): e105783.

6. Ferlay, J., Shin, H. R., Bray, F., et al (2010). Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. *Int J Cancer*, 127, 2893-917.

7. Hadi, M. A., Hassali, M. A., Shafie, A. A. &Awaisu, A. (2010). Evaluation of breast cancer awareness among female University students in Malaysia. *Pharm Pract (Internet);* 8:29–34.

8. Jayasekara, H., MacInnis, R. J., Room, R. & English. D. R. (2016). Long-Term Alcohol Consumption and Breast, Upper Aero-Digestive Tract and Colorectal Cancer Risk: *A Systematic Review and Meta-Analysis". Alcohol and Alcoholism. 51 (3):* 315–30

9. Mahdi T. &Awat, F. (2014). Awareness Levels about Breast Cancer Risk Factors, Early Warning Signs, and Screening and Therapeutic Approaches among Iranian Adult Women: A large Population Based Study Using Latent Class Analysis. *BioMed Research International*, vol. 2014, Article ID 306352, 9pg.

10. National Cancer Institute (2014). Male Breast Cancer Treatment. Archived from the original on 4 July 2014. Retrieved 29 June 2014

11. Rafiemanesh, H., Salehiniya, H. &Lotfi, Z. (2016). Breast cancer in Iranian woman: Incidence by age group, morphology and trends. *Asian Pac J Cancer Prev*, 17, 1393-7.

12. Sani, A. M., Naab, F. &Aziato, L. (2016). Influence of educational level on knowledge and practice of breast self-examination among women in Sokoto, Nigeria. *Journal of Basic and Clinical Reproductive Sciences*. 5. 100. 10.4103/2278-960X.194482.

13. Shahbaz, T. &Nisa, K. U. (2013). Knowledge and practice of BSE among antenatal attendance presenting to a tertiary hospital in Karachi, Pakistan. *Int J Univ Teach FacDev;* 4:49-55

14. Shin, K.R., Park, H. J. & Kim, M. (2012). Practice of breast self-examination and knowledge of breast cancer among female university students in Korea," *Nurs Health Sci,* 14 (3), 292-297.

15. Shrivastava, S. R., Prateek, S. S. &Jegadeesh R. (2013). Self Breast Examination: A Tool for Early Diagnosis of Breast Cancer." *American Journal of Public Health Research* 1(6), 135-139.

16. Torre, L. A., Bray, F., Siegel, R. L., Ferlay, J., Lortet-Tieulent, J. &Jemal, A. (2015). Global cancer statistics, 2012. CA Cancer J Clin. 65(2):87–108.