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# Early Detection of Breast Cancer: Awareness and Practice of Self Breast Examination among Female Traders and Shoppers In Sagamu.

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***Abstract***
***Background:*** *Breast cancer accounts for 29.7% of cancers in Nigerian females.[1] The incidence among Nigerian women is increasing, with a peak at 35-45 years age bracket.[2]*
***Objectives:*** *The aim of this study was to assess the awareness and practice of self breast examination as a screening tool for early detection of breast cancer among female traders and shoppers in Sagamu.*
*The objectives were: to assess the awareness of self breast examination among the study group; to find out what proportion of them do practise self breast examination; and to find out factors that are associated with the practice of self breast examination.*
***Method:*** *It was a cross sectional study of female traders and shoppers, who were aged 15-65years. Questionnaires were administered by interviewers on women who were selected by two-stage sampling technique. Analysis was done using the Statistical Package for Social Sciences, version 17.0.*
***Results:*** *Four hundred and thirty four women (84.3%) were aware of breast cancer; 349 (67.8%) were aware of self breast examination; and 269 (52.5%) were aware of its advantage in detecting breast cancer. The rate of practising self breast examination was 29.5%, Age (P=0.446) and religion (P=0.121) did not have any significant association with the practice of self breast examination. The educational status (P=0.016) was significantly associated with the practice of self breast examination.*
***Conclusion:*** *In this study 52.5% of the women knew that self breast examination is a screening tool for early detection of breast cancer. However the practice of self breast examination was low (29.5%).*
***Keywords:*** *breast, cancer, lump, examination.*

## I. Introduction:

The term "breast cancer" implies a carcinoma arising in the ductal and glandular structure of the breast. It accounts for 29.7% of cancers in Nigerian females, followed by cancer of the cervix which accounts for 23.2%. Reports from the Ibadan cancer registry showed a doubled incidence from 15 per 100,000 to 33 per 100,000 over a 16-year period.[1] The peak age incidence among women in developing countries is 35-45 years.[2]

It has been estimated that 11% of women living on earth will develop breast cancer at one time or the other in their life time. [3] Breast cancer also occurs in men, the male to female ratio is 1:99 in Nigeria.[4]

Researchers have found out that breast cancer was the commonest malignant condition in Sagamu and many of these patients presented late[5]. In another study 72% of the women had Manchester Stage III and IV at presentation.[6] It has been reported that over 70% of Nigerian women presented with advanced breast cancer.[7]

Early detection of breast cancer is the single best strategy to reduce its morbidity and mortality.[8] Whereas an important screening method for early detection of breast cancer disease is self breast examination.[9] Hence the need for this study which was aimed at assessing the awareness and practice of self breast examination among women in Sagamu.

The specific objectives were:

1. to assess the awareness of self breast examination among female traders and shoppers in Sagamu;
2. to find out the proportion of female traders and shoppers in Sagamu that practise self breast examination;
3. to find out factors that are associated with the practice of self breast examination among them.

## II. Materials And Method:

The study area is Sagamu, the headquarters of Sagamu Local Government Area in Ogun State, Nigeria. The study population was female traders and shoppers in Sagamu markets. The age bracket 15 – 65years was used for this study because breast cancer is not likely to develop before 15years of age; and women that are older than 65years of age may not benefit from self breast examination with a view of preventing death from breast cancer. They are expected to die from causes other than breast cancer.[1,2] Health workers were excluded because they may give biased information.

It was a cross-sectional study. Two-staged sampling technique was used. Data collection was carried out with the aid of interviewer-administered questionnaire. The analysis of results was done with Statistical Package for Social Sciences version 17.0. Chi square tests were done. The level of significance was 0.05 and data was presented using tables.

## III. Results

**Sociodemographic Characteristics**

**Table 1. Distribution of respondents according to their age group, religion, and marital status.**

| CHARACTERISTICS | FREQUENCY | PERCENTAGE |
|---|---|---|
| **AGE GROUP (YEARS)** | | |
| 11 – 20 | 39 | 8.0 |
| 21 - 30 | 198 | 40.7 |
| 31 - 40 | 123 | 25.3 |
| 41 - 50 | 75 | 15.4 |
| 51 - 60 | 38 | 7.8 |
| 61 - 70 | 13 | 2.7 |
| Mean = 34.15 SD = 11.82 | | |
| **RELIGION** | | |
| Christianity | 282 | 59.5 |
| Islamic Religion | 180 | 38.0 |
| Traditional | 10 | 2.1 |
| Pagan | 1 | 0.2 |
| 3 in one | 1 | 0.2 |
| **MARITAL STATUS** | | |
| Single | 165 | 32.6 |
| Married | 278 | 54.9 |
| Widowed | 28 | 5.5 |
| Divorced | 35 | 6.9 |

The mean age of the respondents is 34years, this is very close to the peak age incidence for breast cancer in developing countries, which is 35-45years. [2]

**Table 2. Educational status and occupational distribution of respondents.**

| Characteristics | Frequency | Percentage |
|---|---|---|
| **Educational Status** | | |
| No formal Education | 45 | 9.0 |
| Primary School | 47 | 9.4 |
| Secondary School | 132 | 26.5 |
| Post Secondary | 274 | 55.0 |
| **OCCUPATIONAL DISTRIBUTION** | | |
| Professional | 45 | 8.9 |
| Skilled | 67 | 13.2 |
| Semi-skilled | 217 | 42.9 |
| Unskilled | 27 | 5.3 |
| Students | 120 | 23.7 |
| Unemployed | 30 | 5.9 |

Most of the respondents, 90.9%, had at least primary school education. Apart from the unemployed and students, the remaining 70.3% of them were gainfully employed.

**Awareness**

**Table 3a. Past medical history of breast disease and breast operation.**

| **Diagnosis & Management** | **Yes (%)** | **No (%)** |
|---|---|---|
| Past history of breast disease | 121 (23.5) | 394 (76.5) |
| Past history of breast operation | 91 (17.7) | 424 (82.3) |

One hundred and twenty one of them had a past history of breast disease, only ninety one of them underwent an operation.

**Table 3b. Past history of breast disease versus awareness of breast cancer.**

| **Previous breast disease** | **Awareness** | |
|---|---|---|
| | **No(%)** | **Yes(%)** |
| No | 76 (19.3) | 318 (80.7) |
| Yes | 5 ( 4.1) | 116 (95.9) |
| Total | 81 (15.7) | 434 (84.3) |

$X^2 = 16.045$ P = 0.000

Being diagnosed of a breast disease in the past was significantly associated with awareness of breast cancer among the respondents.

**Table 3c. Past history of breast operation versus awareness of breast cancer.**

| **Breast operation** | **Awareness** | |
|---|---|---|
| | **No(%)** | **Yes(%)** |
| No | 76 (17.9) | 348 (82.1) |
| Yes | 5 ( 5.5) | 86 (94.5) |
| Total | 81 (15.7) | 434 (84.3) |

$X^2 = 8.733$ P = 0.003

Having had a breast operation in the past, was significantly associated with awareness of breast cancer in the study population.

**Table 3d. Past history of breast disease versus practice of self breast examination.**

| **Breast disease** | **Practice** | |
|---|---|---|
| | **No (%)** | **Yes (%)** |
| No | 285 ( 77.9) | 109 ( 73.2) |
| Yes | 81 ( 22.1) | 40 ( 26.8) |
| Total | 366 (100.0) | 149 (100.0) |

$X^2$ = 1.309 P = 0.253

The fact that some of these women had a breast disease in the past was not significantly associated with the practice of self breast examination.

**Table 3e. Past history of breast operation versus practice of self breast examination.**

| **Breast operation** | **Practice** | |
|---|---|---|
| | **No (%)** | **Yes (%)** |
| No | 309 ( 84.4) | 115 ( 77.2) |
| Yes | 57 ( 15.6) | 34 ( 22.8) |
| Total | 366 (100.0) | 149 (100.0) |

$X^2$ = 3.821 P = 0.051

Having had a breast operation in the past, was not significantly associated with the practice of self breast examination.

**Table 4. Distribution of respondents by source of information about breast cancer.**

| **SOURCE OF INFORMATION** | **FREQUENCY** | **PERCENTAGE** |
|---|---|---|
| Religious houses | 26 | 5.9 |
| Mass media | 193 | 43.8 |
| School | 31 | 7.0 |
| Hospital | 96 | 21.8 |
| Friends | 44 | 10.0 |
| Relations | 19 | 4.3 |
| Others | 32 | 7.3 |

Many of the respondents, 43.8% of them heard about breast cancer from the mass media.

**Table 5. Awareness of self breast examination and its purpose.**

| **Awareness of self breast examination** | **Yes (%)** | **No (%)** |
|---|---|---|
| | 349 (67.8) | 166 (32.2) |

| **What is the purpose of doing it?** | **Yes (%)** | **No (%)** |
|---|---|---|
| | 269 (52.5) | 243 (47.5) |

Many of the respondents, 67.8% of them have heard about self breast examination; while 52.5% of them answered correctly that it can detect breast cancer.

**Table 8. Effect of religion, culture and work on the practice of self breast examination.**

| | YES | NO |
|---|---|---|
| Religion permits | 467 (90.7%) | 48 (9.3%) |
| Culture permits | 486 (94.4%) | 29 (5.6%) |
| Work allows | 441 (85.8%) | 73 (14.2%) |

**Table 6. Effect of religion, culture and work on the practice of self breast examination.**

| **Variables** | **Yes (%)** | **No (%)** |
|---|---|---|
| Religion permits | 467 (90.7) | 48 ( 9.3) |
| Culture permits | 486 (94.4) | 29 ( 5.6) |
| Work allows | 441 (85.8) | 73 (14.2) |

Majority of the women responded that there were no religious, cultural and work-related constraints to doing self breast examination.

**PRACTICE**

**Table 7. The rate of practice of self breast examination among the respondents.**

| **Practice of self breast examination** | **Frequency (%)** |
|---|---|
| Yes | 147 (29.5) |
| No | 351 (70.5) |

Among the respondents, only 29.5% of them were practicing self breast examination.

**Table 8. Relationship between educational status and the practice of self breast examination.**

| Educational group | Practice of self breast examination | |
|---|---|---|
| | **No (%)** | **Yes (%)** |
| No formal education | 40 (88.9) | 5 (11.1) |
| Primary school | 36 (76.6) | 11 (23.4) |
| Secondary school | 93 (70.5) | 39 (29.5) |
| Post secondary | 182 (66.4) | 92 (33.6) |

$X^2 = 10.342$ P = 0.016

The level of education of the women was significantly associated with the practice of self breast examination.

**Table 9. Relationship between age group and the practice of self breast examination.**

| Age group | Practice. . | |
|---|---|---|
| | **No (%)** | **Yes (%)** |
| 11-20yrs | 30 (8.6) | 9 ( 6.6) |
| 21-30yrs | 137 (39.1) | 61 (44.9) |
| 31-40yrs | 92 (26.3) | 31 (22.8) |
| 41-50yrs | 54 (15.4) | 21 (15.4) |
| 51-60yrs | 30 ( 8.6) | 8 ( 5.9) |
| 61-70yrs | 7 ( 2.0) | 6 ( 4.4) |

$X^2 = 4.757$ P = 0.446

The age of the women was not significantly associated with the practice of self breast examination.

**Table 10. Relationship between religion and the practice of self breast examination.**

| Religion | Practice | |
|---|---|---|
| | **No (%)** | **Yes (%)** |
| Christianity | 198 ( 70.2) | 84 ( 29.8) |
| Islamic Religion | 137 ( 76.1) | 43 ( 23.9) |
| Traditional | 5 ( 50.0) | 5 ( 50.0) |
| Atteist | 1 (100.0) | 0 ( 0.0) |
| 3 in one | 0 ( 0.0) | 1 (100.0) |

$X^2 = 7.307$ P = 0.121

The religion of the women was not significantly associated with the practice of self breast examination.

## IV. Discussion:

One hundred and sixty five (32.6%) of the respondents were single.[**table1**]. It could be due to the fact that many of our women now defer marriage and childbearing on account of education and career pursuit.[10,11]

The past history of breast disease (P=0.000) and past history of breast operation (P=0.003) significantly enhanced the awareness of breast cancer among the respondents. [**table3b,c**]. However the past history of breast disease (P=0.253) and the past history of breast operation (P=0.051) did not significantly affect the practice of self breast examination among the respondents [**table3d,e**].

In contrary, Sule and Igberase found a strong positive association between the rate of self breast examination and previous breast operation among nursing students in Warri.[12]

Three hundred and forty nine (67.8%) women have heard of self breast examination but only 269 (52.5%) were aware that self breast examination could detect breast cancer early [**table5**]; those who actually practise self breast examination 147 (29.5%).

Researchers in Ibadan found that only 37.1% of female traders in Sango market were aware of self breast examination.[13] In Aba, Mbanaso et all reported an awareness rate of 61.4%. [14]

Oluwole found that 94% of female health workers in Owo were aware of self breast examination.[15] Among nurses at Ebonyi, the rate of awareness of self breast examination was reported as 92.9%.[16] These data suggest that the awareness of self breast examination is higher among female health workers than in the general population. This may be attributed to their experience at the work place.

Two hundred and sixty nine (52.5%) of the women in Sagamu were aware that self breast examination could detect breast cancer early [**table5**]. Akhigbe and Omuemu found that only 45.5% of female health workers in Benin were aware that self breast examination is a screening tool for early detection of breast cancer.[17]

One hundred and forty seven (29.5%) of the respondents were practicing self breast examination [**table7**] as a result of previous awareness. In Aba 37.7% of the women practise self breast examination.[14] In Enugu 47.9% of female secondary school teachers do practise self breast examination.[18]

Among female undergraduates in Zaria, the rate of self breast examination was 8.6%. [19] Similarly in Kampala the capital of Uganda, the rate of self breast examination among female undergraduates was 4.5%.[20] In contrast, among female medical students in Jos, the rate of self breast examination was reported as 74.4%.[21] This may be attributed to their professional exposure in the wards and clinics.

The rate of self breast examination was reported as 83% among female health workers in Lagos.[22] In Owo, 80% of female health workers practise self breast examination but only 50% do it every month.[15] Sule and Igberase found a rate of 88.52% among female nursing students in Warri.[12]

In contrast, lower rates were found among female health workers in other places. Abubakar and Rabiu found a 57.0% rate of self breast examination among female health workers in Kano.[23] Also, the rate of self breast examination among female health workers in Aba was reported as 47.9% by Mbanaso et all.[24] Agwu et all found the rate of self breast examination among female nurses in Ebonyi to be 28.6%. [16]

Age and religion did not have any association with the rate of practising self breast examination among female traders and shoppers in Sagamu. Age did not affect the rate of self breast examination among secondary school teachers in Enugu.[18] Similarly age and religious beliefs were not significantly associated with the rate of self breast examination among female health workers in Lagos.[22] Although awareness about self breast examination was highest within 50-59years age bracket among female traders in Ibadan, it did not significantly affect their rate of self breast examination.[13]

There was significant relationship between the educational status (P=0.016) and the practice of self breast examination. This is in agreement with the finding of Balogun and Owoaje among female traders in Ibadan.[13] The rate of self breast examination was significantly associated with the duration of stay in the university among female undergraduates in Zaria.[19]

Among the factors set out to be studied: age, religion and level of education; the level of education was the only factor that significantly influenced the rate of practising self breast examination among female traders and shoppers in Sagamu.

## V. Conclusion:

The awareness of breast cancer disease was high (84.3%) but the awareness of self breast examination as a screening tool was low (52.5%). Consequently the practice of self breast examination was poor (29.5%). The practice of self breast examination was found to be significantly associated with the level of education (P=0.016) of the women.

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