



# **Knowledge Of Breast Self-Examination Among Junior Secondary School Students In Obio/Akpor Local Government Area Of Rivers, State**

<sup>1</sup>Prof Azuonwu, Goodluck & <sup>2</sup>Opia, Janet

<sup>1</sup>Department of Nursing Science,  
University of Port Harcourt, Nigeria  
goodator2002@yahoo.com

<sup>2</sup>Department of Human Kinetics, Health and Safety Education,  
Ignatius Ajuru University of Education, Rivers State, Nigeria  
Correspondence author: opiajanet@gmail.com

## **ABSTRACT**

This study investigated the knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers, State. A cross sectional descriptive study design was used for the study with a population of about fifteen thousand, three hundred and seventy-nine (15,379). A multistage sampling procedure was used to select a sample size of 420 for the study. A semi-structured questionnaire was used for data collection and analysis was done using statistical tools such as percentage, Pearson correlation and Chi-square. The findings of the study showed that the level of knowledge of BSE was high as majority 400(98.8%) knew that BSE was done to detect any lump in the breast and 368(90.9%) knew that if any changes is detected during BSE it should be reported to the doctor. Also, knowledge of BSE was not significantly related to the age, class of study and religion of the respondents. It was concluded that, junior secondary school students have good knowledge of BSE. It was recommended that health care practitioners should intensify the campaign on breast self-examination to sustain the high level of knowledge found among the junior secondary school students.

**Keywords:** breast self-examination, breast cancer, knowledge, students, health care practitioners

## **INTRODUCTION**

Breast cancer is one of the most common cancer in women around the world; About 12.7 million cancer cases and 7.6 million cancer deaths are estimated to have occurred globally (Jemal, Bray, Center, Ferlay, Ward & Forman, 2011). According to Ferlay, Soerjomataram, Dikshit, Eser, Mathers and Rebelo (2012), the estimated incidence of breast cancer in relation to overall cancers in both genders was about 11.9%. Breast cancer constitutes a major public health issue. Annually over 1 million new cases diagnosed, resulting in 1.67 million deaths and about 4.4 million women around the world live with the diseases. In Nigeria, Akarolo, Ogundiran and Adebamowo (2010) noted that, the number of women at risk for breast cancer increase steadily from approximately 24.5 million in 1900 to approximately 40 million in 2010 and is projected to rise to over 50 million by 2020.

Good knowledge of breast self-examination and the risk factors of cancer associated with it especially at the onset amongst teens are the most important keys for reducing morbidity and mortality. Early approaches for the detection of breast cancer (breast self-examination and clinical breast examination) increase the chance for successful treatment which results in the improvement of survival rate and quality of life (McCready, Littlewood & Jenkinson, 2011). Knowledge is the understanding of information about

a subject which a person gets by experience or study, which is either in a person's mind or known by people generally (Cambridge, 2016). Knowledge is a major driver to the awareness about breast cancer. A study in sub-urban and rural Nigeria showed that knowledge towards breast cancer is low (Nwaneri, Osuala, Okpala, Emesowum & Iheanacho, 2017). However, Oluwatosin (2012) stated that, late presentation of breast cancer patients suggests that women in Nigeria have poor knowledge of the disease. Knowledge of breast self-examination and breast cancer is of importance to secondary school students. This is so because most of the students fall between the ages of breast development while some have developed a sizable breast that can undergo self-breast examination. However, studies revealed that cancer is most developed amongst the ages of 40years below and noticeable among the older adults as they progress in age. It is therefore important to inculcate knowledge of breast cancer among these students. Thus, if secondary school students have good knowledge about breast cancer and the risk factors of the disease, it will serve as important keys for reducing morbidity and mortality. The World Health Organization (2014) reported that, students with inadequate breast cancer knowledge are twice as likely to have problems as students with adequate knowledge. Therefore, an effective preventive program is desirable for these students. However, it is important to evaluate the current status of breast self-examination knowledge and practice before designing an effective prevention program. Oluwatosin (2012) reported that late presentation of breast cancer patients suggests that women in Nigeria have poor knowledge and practice of breast self-examination which contributes to early detection of cancer cases. A case study is noticed among female students in Obio/Akpor where young girls had poor knowledge and practice of breast self-examination. Hence, reaching out to them at the grass root level will help in early detection through proper health education on breast changes. In Rivers State, little is known about breast cancer especially among secondary school students despite all research work that have been written. This study therefore investigated the knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State.

### **Research Questions**

The study provided answers to the following research questions:

1. What is the knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State?
2. What is the relationship between age and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers?
3. What is the relationship between class of study and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers?
4. What is the relationship between religion and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers?

### **Hypotheses**

The following Hypotheses were formulated to guide the study and was tested at 0.05 level of significance.

**Ho<sub>1</sub>:** There is no significance relationship between age and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State.

**Ho<sub>2</sub>:** There is no significance relationship between class level and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State.

**Ho<sub>3</sub>:** There is no significance relationship between religion and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State.

### **METHODOLOGY**

The methods and procedure used in this study are described below:

**Research design:** A cross-sectional research design was used for the study. This is because it reports things the way they are. It also observes, describe and document aspect of a situation as it naturally occurs

(Ofo, 2005). This design was considered appropriate for this study because the study investigated the practice of breast self-examination among the students without manipulating any variable.

**Population for the Study:** The population for the study consisted of all junior secondary school students in the 23 junior secondary schools in Obio/Akpor Local Government Area with a population of about fifteen thousand, three hundred and seventy nine (15,379) (Rivers State Secondary Schools Board, 2018).

**Sample and Sampling Techniques:** A sample size of four hundred and twenty (420) was determined using the Taro Yammane formula for a finite population. The formula is given as:  $n = N/1+N(e)^2$ . A 3 stage random sampling technique was used. The first stage was a simple random sampling technique to select schools, the second stage was a stratified random sampling technique where the sample was stratified based on schools and were selected using stratified proportional sampling techniques and the third stage was a systematically selection of samples from each classes.

**Instrument for Data Collection:** A semi structured questionnaire consisting of sections A-C was composed to extract information on the variables of the study. Section A addressed the socio-demographic characteristics of the respondents. Section B addressed the level of knowledge of breast self-examination while Section C addressed the practice of breast self-examination among students.

**Validity of the Instrument:** Validation of the instrument was done by the researchers' supervisor and three other specialists from the Department of Human Kinetics, Health and Safety Education, Ignatius Ajuru University of Education. Port Harcourt.

**Reliability of the Instrument:** The validated instrument was pre-tested on 10% of the population homogenous to the research sample in Ikwerre Local Government Area. The pre-tested instrument was then subjected to a reliability test using the Cronbach-alpha for testing the internal consistency of an instrument with a reliability coefficient of 0.78 obtained, which certify the instrument to be reliable for use.

**Procedure for Data Collection:** The questionnaire titled knowledge and practice of breast self-examination was self-administered by the researcher with the help of 1 trained research assistant to the junior secondary school students in Obio/Akpor local government area. The research assistant was guided on how to approach respondents, the objectives of the study and how to fill the questionnaire was explained. The respondents were assured of the confidentiality of their answers. Instruments was collected at the spot after filling.

**Method of Data Analysis:** The data collected was analysed using the Statistical Package for Social Science version 23.0. Descriptive statistics such as percentages, Pearson Correlation (r) and Chi-square at 0.05 Alpha level was used to analyze the data.

## RESULTS

The results of this study are presented below in Table 1-4:

**Table 1: Knowledge of Breast Self-Examination among junior secondary school students**

| Items  | True<br>F(%)         | False<br>F(%)         |
|--|----------------------|-----------------------|
| BSE is done to detect any change(s) or lump in the breast                | 400(98.8)            | 5(1.2)                |
| Regular BSE decreases person's chances of getting breast cancer          | 331(81.7)            | 74(18.3)              |
| Changes in the breast or lumps can be detected without BSE               | 136(33.6)            | 269(66.4)             |
| Assistance from someone is needed to perform BSE                         | 217(53.6)            | 188(46.4)             |
| If any changes is detected during BSE, it should be reported to a doctor | 368(90.9)            | 37(9.1)               |
| Someone who do not carry out BSE will develop breast cancer              | 216(53.3)            | 189(46.7)             |
| <b>Items</b>   | <b>Frequency (F)</b> | <b>Percentage (%)</b> |
| <b>Who should perform BSE</b>  |                      |                       |
| Males only   | 14                   | 3.5                   |
| Juniors only   | 257                  | 63.5                  |
| Both males and juniors   | 134                  | 33.1                  |
| <b>Total</b>   | <b>405</b>           | <b>100.0</b>          |
| <b>Age at which persons should begin BSE</b>                             |                      |                       |
| Below 16 years   | 180                  | 44.4                  |
| Above 16 years   | 225                  | 55.6                  |
| <b>Total</b>   | <b>405</b>           | <b>100.0</b>          |
| <b>How often BSE should be performed</b>                                 |                      |                       |
| Daily  | 102                  | 25.2                  |
| Weekly   | 131                  | 32.3                  |
| Monthly  | 154                  | 38.0                  |
| Yearly   | 18                   | 4.4                   |
| <b>Total</b>   | <b>405</b>           | <b>100.0</b>          |
| <b>How BSE is done</b>   |                      |                       |
| Palpate with finger  | 107                  | 26.4                  |
| Palpate with palm and minimum of three fingers                           | 263                  | 64.9                  |
| Anyhow   | 35                   | 8.6                   |
| <b>Total</b>   | <b>405</b>           | <b>100.0</b>          |

Table 1 shows the knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area of Rivers State. The result shows that majority 400(98.8%) knew that BSE was done to detect any lump in the breast, 368(90.9%) knew that if any changes is detected during BSE, it should be reported to a doctor. 257(63.5%) indicated that BSE should be performed by juniors only, more than half 225(55.6%) indicated that a person above 16 years should begin BSE, 154(38.0%) indicated that BSE should be performed monthly while 263(64.9%) knew that BSE is done by palpating with the palm and minimum of three fingers.

**Table 2: Chi-square test showing significant relationship between age and knowledge of breast self-examination among junior secondary school students**

| Age   | Knowledge of BSE |              | Total    | df | X <sup>2</sup> -value | p-value | Decision |
|-------|------------------|--------------|----------|----|-----------------------|---------|----------|
|       | Good<br>F(%)     | Poor<br>F(%) |          |    |                       |         |          |
| 10-15 | 378(98.7)        | 5(1.3)       | 383(100) | 1  | .508                  | .476    | Accepted |
| 16-20 | 22(100)          | 0(0.0)       | 22(100)  |    |                       |         |          |
| Total | 400(98.8)        | 5(1.2)       | 405(100) |    |                       |         |          |

**\*Not Significant. P>0.05.**

Table 2 shows the chi-square test of significant relationship between age and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area. The result shows that there was no significant relationship between age and knowledge of BSE ( $X^2$ -value = .508, df = 1, p>0.05). Therefore, the null hypothesis which states that there is no significant relationship between age and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area was accepted.

**Table 3: Chi-square test showing significant relationship between class of study and knowledge of breast self-examination among junior secondary school students**

| Class of study | Knowledge of BSE |              | Total    | df | X <sup>2</sup> -value | p-value | Decision |
|----------------|------------------|--------------|----------|----|-----------------------|---------|----------|
|                | Good<br>F(%)     | Poor<br>F(%) |          |    |                       |         |          |
| JSS 1          | 28(90.3)         | 3(9.7)       | 31(100)  | 2  | .691                  | .708    | Accepted |
| JSS 2          | 51(100)          | 0(0.0)       | 51(100)  |    |                       |         |          |
| JSS 3          | 321(99.4)        | 2(0.6)       | 323(100) |    |                       |         |          |
| Total          | 400(98.8)        | 5(1.2)       | 405(100) |    |                       |         |          |

Table 3 shows the chi-square test of significant relationship between class of study and knowledge of BSE among junior secondary school students. The result shows that there was no significant relationship between class of study and knowledge of BSE ( $X^2$ -value = .691, df = 2, p>0.05). Therefore, the null hypothesis which states that there is no significant relationship between class of study and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area was accepted.

**Table 4: Chi-square test showing significant relationship between religion and knowledge of breast self-examination among junior secondary school students**

| Religion     | Knowledge of BSE |              | Total    | df | X <sup>2</sup> -value | p-value | Decision |
|--------------|------------------|--------------|----------|----|-----------------------|---------|----------|
|              | Good<br>F(%)     | Poor<br>F(%) |          |    |                       |         |          |
| Christianity | 373(98.9)        | 4(1.1)       | 377(100) | 2  | .711                  | .701    | Accepted |
| Islam        | 24(96.0)         | 1(4.0)       | 25(100)  |    |                       |         |          |
| Traditional  | 3(100)           | 0(0.0)       | 3(100)   |    |                       |         |          |
| Total        | 400(98.8)        | 5(1.2)       | 405(100) |    |                       |         |          |

Table 4 shows the chi-square test of significant relationship between religion and knowledge of BSE among junior secondary school students. The result shows that there was no significant relationship between religion and knowledge of BSE ( $X^2$ -value = .711, df = 2, p>0.05). Therefore, the null hypothesis which states that there is no significant relationship between religion and knowledge of breast self-examination among junior secondary school students in Obio/Akpor Local Government Area was accepted.

## **DISCUSSION OF FINDINGS**

The finding of the study showed that the level of knowledge of BSE was high as majority 400(98.8%) knew that BSE was done to detect any lump in the breast and 368(90.95%) knew that if any changes is detected during BSE it should be reported to the doctor. The finding of this study is encouraging and there is the implication that the schools are doing their best in disseminating health information among the students which would have led to the high level of knowledge found among the students. The finding of this study is in keeping with that of Yakubu, Gadanya, and Sheshe (2014) which showed that all the study respondents have knowledge of breast self-examination. The result shows that 211(64.7%) indicated that BSE should be performed by juniors only, more than half 191(58.6%) indicated that a person above 16 years should begin BSE, 133(40.8%) indicated that BSE should be performed monthly while 218(66.9%) knew that BSE is done by palpating with the palm and minimum of three fingers. The finding of this study is also in line with Ossai et al (2019) which showed that majority were aware of breast self-examination. The finding of this study is also in line with that of Koc et al (2019) which showed that majority of the students were aware of BSE and its purpose. The finding of this study is also in tandem with that of Kayode Tanimola and Osagbemi (2005) which showed that majority of the respondents were aware of breast self-examination.

The result of the study showed that there was a very low non-significant negative relationship (r-value = -.039) between knowledge of BSE and factors such as age, class of study and religion of junior secondary students. The finding of this study is in tandem with that of Faronbi and Abolade (2012) where the results showed that, there was no significant relationship between age of the respondents and knowledge ( $X^2 = 14.501$ ;  $p = 0.264$  and  $df = 8$ ) of breast self-examination. The findings of this study is at variance with that of Habu et al (2017) which showed that there is significant relationship between knowledge, and class, age of the respondents.

## **CONCLUSION**

Based on the findings of the study, it was concluded that junior secondary school students in Obio/Akpor Local Government Area have good knowledge of BSE.

## **RECOMMENDATIONS**

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

1. Health care practitioners should intensify the campaign on breast self-examination to sustain the high level of knowledge found among the junior secondary school students.
2. The government should assist health practitioners with some fund to sustain the campaign on breast self-examination via radio and television talk show.
3. Health professionals should organize programmes from time to time in the various secondary schools particularly during world cancer day to sustain the knowledge of BSE among the secondary school students.

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