

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/320920600>

# Knowledge, Attitude and Practice of Breast Self Examination (BSE) among Female Undergraduates in the University of Uyo, Southern Nigeria

Article · January 2017

DOI: 10.21276/ejph.1.3.2

CITATION

1

READS

56

1 author:



Emaediong Akpanekpo

Papers Publish Inc

14 PUBLICATIONS 1 CITATION

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Comparison of Oral Misoprostol vs Oxytocin in the Management of Post Partum Haemorrhage: Systematic Review and Meta-analysis [View project](#)



Books Published [View project](#)

# Knowledge, Attitude and Practice of Breast Self Examination (BSE) among Female Undergraduates in the University of Uyo, Southern Nigeria

Emaediong Ibong Akpanekpo<sup>1</sup>

## ABSTRACT

**Introduction:** Breast Self-Examination (BSE) is a technique in which a woman examines her own breasts by seeing and feeling with fingers to detect breast lump. The purpose of breast self-examination is to increase familiarity with breast, to detect presence of lump in the breast at an early stage and to look for any abnormal changes in the breast.

**Objective:** This study was done to determine the knowledge, attitude and practice of BSE among female undergraduates in University of Uyo.

**Methodology:** This was a cross-sectional descriptive study carried out among 350 registered female undergraduates in the University of Uyo, Akwa Ibom State, Nigeria between August and October 2017. They were selected using a proportionate stratified random sampling method. Data collection was done using a self-administered semi-structured questionnaire and was analyzed using Statistical Package for the Social Sciences, version 23.

**Results:** The average age of the respondents was  $22.57 \pm 1.73$  years. All the respondents had heard of breast cancer. However, only 80% acknowledged that it was common in the population under consideration. 89.4% of the respondents reported that breast cancer can be detected early and 89.1% were of the opinion that early detection can improve the chances of survival. 78.3% of the respondents had heard of BSE and 51.7% reported that it is important in the early detection of cancer. Only 23.4% of respondents reported performing BSE regularly. 24.6% of respondents started BSE before 19 years while 57.8% started BSE above 19 years.

**Conclusion:** In spite of the high awareness about BSE and breast cancer, there seems to be a poor level of knowledge about the specific dynamics that comprises BSE. The relatively poor level of knowledge can explain the inefficient practice of BSE.

**Keyword:** breast self examination, breast cancer

EJPH 2017; Vol. 2, Issue 2; 6-11  
DOI: 10.21276/ejph.1.3.2

<sup>1</sup>College of Health Sciences,  
University of Uyo, Akwa Ibom  
State, Nigeria.

\*Corresponding Author:

Emaediong I. Akpanekpo  
College of Health Sciences,  
University of Uyo, Akwa Ibom  
State, Nigeria.

emaed.ekpo@gmail.com

Conflict of interest - none

Funding - none

## INTRODUCTION

Breast cancer is the most common malignancy among women worldwide with 55% of it occurring in the developing countries<sup>1</sup>. Globally, over 1.15million cases of breast cancer are diagnosed every year<sup>1</sup>, and 502,000 women die from the disease each year, making it second only to lung cancer as the cause of cancer related deaths among women<sup>2,3</sup>. In Nigeria, breast cancer has been reported as the most

common cancer in women and the second leading cause of death<sup>4,5</sup>. The peak age incidence of breast cancer in Nigeria is reported to be between 45 - 50 years<sup>6</sup>. Late presentation of patients at advanced stages of when little or no benefit can be derived from any form of therapy is the hallmark of breast cancer in Nigerian women<sup>7</sup>.

Breast cancer is a public health problem. It attacks women in their most productive years of life but breast cancer can be cured with limited resources if detected early, but treating advanced stage disease is expensive and outcome is often poor<sup>8</sup>. Breast cancer survival rates vary greatly worldwide, ranging from 80% or over in North America, Sweden, and Japan to around 60% in middle-income countries and below 40% in low-income countries<sup>9</sup>. The low survival rates in less developed countries can be explained mainly by the lack of early detection program, resulting in a high proportion of women presenting with late stage disease, as well as by the lack of adequate diagnosis and treatment facilities<sup>10</sup>.

The key strategy in reducing breast cancer-related mortality, improving breast cancer outcome and survival is screening to detect and manage breast cancer early. This is very important because an excellent prognosis is directly associated with the stage at which the tumor is initially detected<sup>11</sup>.

Breast Self-Examination (BSE) is a technique in which a woman examines her own breasts by seeing and feeling with fingers to detect breast lump. The purpose of breast self-examination is to increase familiarity with breast, to detect presence of lump in the breast at an early stage and to look for any abnormal changes in the breast<sup>12</sup>. Self examination of the breast each month between the 7th and 10th day of the menstrual cycle is the simplest yet extremely important way to detect breast cancer at the early stage of growth<sup>6</sup>. The BSE technique involves palpation of the breasts for lump with the tips of the fingers, rather than the flat of the hand. The woman would be in the erect position, either sitting or standing and while lying down. It has been observed that women can detect 95% of breast cancers and 65% of early minimal breast cancers through BSE<sup>13</sup>.

Breast Self Examination (BSE) is a simple, quick, and cost-free procedure. But the practice of BSE is low and varies in different countries. Several reasons like lack of time, lack of self-confidence in their ability to perform the technique correctly, fear of possible discovery of a lump, and embarrassment associated with manipulation of the breast have been cited as reasons for not practicing BSE<sup>14,15</sup>. The purpose of this study was to evaluate the knowledge, attitude and practice of BSE among female undergraduates of the University of Uyo, in order to generate data that may be useful in designing interventions aimed at creating awareness of BSE as a screening method for the early detection of breast cancer.

## METHODOLOGY

### *Study Location*

Akwa Ibom State is a state in Nigeria located on the southern part of the country lying between latitudes 4°32'N and 5°33'N, and longitudes 7°25'E and 8°25'E with

a population of over 5 million people based on the 2005 population census. The population density is 330/km<sup>2</sup>. University of Uyo is located in the state capital, Uyo.

### *Study Design*

This was a descriptive cross sectional study conducted among female undergraduates in University of Uyo, Akwa Ibom State from August to October, 2017 to evaluate the knowledge, attitude and practice of BSE among female undergraduates of the University of Uyo. Ethical approval was received from the Ethical Review Board of Akwa Ibom State Ministry of Health.

### *Sample*

350 undergraduates were randomly selected using a proportionate stratified random sampling method. Formula for obtaining sample size was:

$$SS = \frac{Z^2 p(1-p)}{C^2}$$

Where;

SS= Sample size;

Z= Given z value;

P= Percentage of population

C= Confidence level

The university was divided into 11 faculties. The total number of female students and percentage of students in each faculty was determined from the Students Affairs Division of the University and the sample size determined in proportion to the size of each faculty. Each student was randomly selected into the study sample using simple balloting. Female undergraduates who were unable to provide informed consent were excluded. Male undergraduates were excluded. Female undergraduates under 18 years of age were also excluded. Female undergraduate students in the School of Continuing Education were also excluded because their faculties were already represented in the study population.

### *Study Instrument*

The questionnaire was developed after a thorough literature review and further evaluation to ensure quality and content validity. The reliability of the instrument was determined through a test-retest reliability method with undergraduates in the School of Continuing Education.

The students were interviewed using a structured pre-tested self-administered questionnaire after signing an informed written consent. It consisted of a short introduction explaining why the study was being carried out and five sections.

Participants completed study instrument assessing socio-demographic information; knowledge, attitude and practice of breast self examination

**Assessment of knowledge on BSE**

There were 10 knowledge indicators used to evaluate the respondents. Knowledge was scored on 10, one for each indicator. Respondents who scored between 8 and 10 were considered as substantially aware of BSE, scores between 5 and 7, as partially aware, and scores between 0 and 4 as not aware.

**Assessment of attitude towards BSE**

There were 10 attitude indicators used to evaluate the respondents. Attitude was scored on 20; 2 for every response to the indicators which demonstrated that the respondent was highly in favor of BSE and 1 for every response which demonstrated that the respondent was partially in favor of BSE and 0 for response that was not in favour of BSE.

**Analysis**

The questionnaires were carefully examined for correctness and completeness, coded and analysed using the Statistical Package for Social Sciences (SPSS) version 21 for Windows. Quantitative data generated from the study was presented in form of tables and analysed as descriptive frequencies and percentages.

Chi-square tests were used to determine the association between knowledge and attitude stratified according to the scores, and the practice of BSE. Statistical significance was set at  $P < 0.05$ .

**RESULTS**

The mean age of all the respondents was  $22.57 \pm 1.73$  years. The minimum age reported was 18 years, while the maximum was 25 years. All the respondents were female. Most of the respondents were from the Faculties of Arts (21.3%), Engineering (17.5%) and Sciences (16.8%). One hundred and eighty four (52.6%) respondents were from the 300 level classes.

All the respondents had heard of breast cancer. However, only 80% acknowledged that it was common in the population under consideration. 89.4% of the respondents reported that breast cancer can be detected early and 89.1% were of the opinion that early detection can improve the chances of survival. 78.3% of the respondents had heard of BSE and 51.7% reported that it is important in the early detection of cancer.

Only 23.4% of respondents reported performing BSE regularly. 24.6% of respondents started BSE before 19 years while 57.8% started BSE above 19 years.

**Table I. Knowledge and Sources of Information on BSE**

Variable	Yes	I Don't Know	No
Have you heard of cancer of the breast	350(100.0)	0(0)	0(0)
Is it common in our population?	280(80.0)	48(13.7)	22(6.3)
Can breast cancer be detected early	313(89.4)	22(6.3)	15(4.3)
Can early detection improve the chance of survival	312(89.1)	22(6.3)	16(4.6)
Ever heard of BSE	274(78.3)	31(8.9)	45(12.9)
BSE should be performed monthly	214(61.1)	93(26.6)	43(12.3)
BSE should be performed in three positions	169(48.3)	121(34.6)	60(17.1)
Should both males and females perform BSE	183(52.3)	129(36.9)	38(10.9)
BSE should be done with palm and minimum of three fingers	205(58.6)	119(34.0)	26(7.3)
BSE is important in the early detection of cancer	181(51.7)	117(33.5)	52(14.9)

**Table II. Attitude of Respondents on BSE**

Variable	Agree	Disagree	Unsure
BSE is a disgraceful practice	97(27.7)	245(70.1)	8(2.3)
Campaigns inspire to do BSE	306(87.4)	15(4.3)	29(8.3)
Afraid to detect cancer on BSE	280(80.0)	43(12.3)	27(7.7)
BSE is necessary	312(89.1)	8(2.3)	30(8.6)

**Table III. Practice of BSE on BSE**

Variable	Yes	No
<b>Do you regularly perform BSE (12 times)</b>	82(23.4)	268(76.6)
<b>At what age did you start BSE?</b>		
<19 years	86(24.6)	62(17.7)
Above 19 years	202(57.8)	
<b>What time do you normally perform BSE?</b>		
A regular day of each month	204(58.4)	71(20.3)
Within 5 days after	75(21.5)	

menstruation		
<b>Have you had a breast examination in the last 3 year</b>	214(61.2)	136(38.9)
<b>When was the last time you performed BSE?</b>		
Week	27(7.6)	105(30.0)
Months	218(62.4)	
<b>Where was the examination done?</b>		
At home	82(23.5)	63(18.0)
Hospital	102(29.1)	
Free screening program	103(29.4)	

### DISCUSSION

This study was performed among female students in the University of Uyo was aimed at evaluating their knowledge, attitude and practice of BSE. BSE has been recommended in developing countries for the early detection of breast cancer where access to adequate diagnostic and curative facilities is lacking<sup>16,17</sup>.

The level of practice of BSE observed in this study was abysmally low. 24.3 percent of students in this study acknowledged the regular practice of BSE. Only 61.2 per cent of respondents reported to having performed a BSE at least once in the past three years while 7.6 percent admitted performing a BSE in the past week. 21.5 per cent of the sample reported to performing BSE within 5 days of menstruation. Moreover, 29.1 per cent of the respondents reported to going to the health facility to have their breast clinically examined. These findings are similar to a previous study performed in Similar findings have been reported among students in Cameroon, Malaysia and Kaduna<sup>18,19,20</sup>.

In this study, 78.3 per cent of respondents had heard of BSE, and 61.1 per cent opined that BSE should be performed monthly. Unfortunately, only 48.3 per cent agreed that BSE should be performed in three positions and 58.6 per cent thought that BSE should be done with palm and minimum of three fingers. Poor knowledge about BSE has been implicated as the main reason for the inconsistent and inefficient practice of BSE in similar studies<sup>21,22</sup>. A study by Kayode *et al.* reported 95.6% awareness of BSE among female school teachers<sup>23</sup>. Another study by Agboola reported 100% awareness among nurses<sup>24</sup> with an overwhelming majority (88.6%) perceiving BSE as an important technique in the early detection of breast cancer as opposed to 51.7 percent of respondents in this study. However, only 9% knew

how to perform it, and only 13.9% knew what to look for while performing BSE<sup>24</sup>.

In this study, 52.3 per cent of respondents agreed that males and females can perform and 24.6 per cent actually started performing BSE before 19 years. A previous study with female medical students in Iruurhe reported that 53.6% of the respondents knew that both male and female are required to perform BSE while 54.5% of the respondents had the view that BSE should start at <19 years<sup>25</sup>. A similar study in India reported 45.4% and 47.5%, respectively for the same parameters.

89.1 per cent felt that BSE was necessary. This is consistent with the study done in India<sup>26</sup> which reported 93.3 per cent and Agboola<sup>24</sup> which reported 91 per cent for the same parameter. In spite of the fact that most of the female students felt BSE was necessary, 27.7 percent found BSE to be a disgraceful practice and 80 per cent were afraid to discover a breast lesion/cancer during the course of BSE. A similar study by Sujindra and Elamurugan in India reported that some of the students had false beliefs, fear, shyness, and embarrassment to BSE<sup>26</sup>.

### V. CONCLUSION

In spite of the high awareness about BSE and breast cancer, there seems to be a poor level of knowledge about the specific dynamics that comprises BSE. The relatively poor level of knowledge can explain the inefficient practice of BSE. Beyond awareness about the concept of BSE, the knowledge on how and when to perform BSE and knowing that BSE is important in the detection of breast cancer is central to the utilization of the said knowledge in the efficient practice of BSE.

## REFERENCES

1. World Health Organisation. Breast cancer: prevention and control. Geneva, Switzerland: WHO; 2013.  
<http://www.who.int/cancer/detection/breastcancer/en/>
2. Burke K, LeMone P, Mohn-Brown E. Medical-surgical nursing care. 2nd ed. Pearson: Prentice Hall; 2007.
3. Suh M, Julius A, Fuh E, Eta V. Breast self-examination and breast cancer awareness in women in developing countries: a survey of women in Buea, Cameroon. *BMC Res Notes* 2012. 2012;9 Suppl 5:627–32.
4. American Cancer Society (2002) Cancer Statistics. *CA: Am cancer l clin*, 52, 10-11.
5. Adebamowo, C.A. and Ajayi, O.O. (2000) Breast Cancer in Nigeria. *West African Journal of Medicine*, 19, 179-191.
6. Abudu, E.K., Banjo, A.A.F., Izegbu, M.C., Agboola, A.O.J., Anunobl, C.C. and Musa, A. (2007) Malignant Breast Lesions at Olabisi Onabanjo University Teaching Hospital (OOUTH) Saganu: A Histopathological Review. *Nigeria Postgraduate Medical Journal*, 14, 57-59.
7. Okobia, M.N., Bunker, C.H., Okonofua, F. and Osime, U. (2006) Knowledge, Attitude and Practices of Nigeria Women towards Breast Cancer: A Cross-Sectional Study. *World Journal of Surgical Oncology*, 4, 11-16.
8. R. Unkels and E. J. Kantelhardt, "Breast cancer," in *A Textbook of Gynecology for Less-Resourced Locations*, pp. 367–390, Paula and David Bloomer, 2011, [https://www.glowm.com/pdf/Chap-30\\_Unkels%20and%20Kantelhardt.pdf](https://www.glowm.com/pdf/Chap-30_Unkels%20and%20Kantelhardt.pdf).
9. F. O. Kayode and T. M. O. G. Akande, "Knowledge, attitude and practice of breast self-examination among female secondary school teachers in Ilorin, Nigeria," *Eurepan Journal of Scientific Research*, vol. 10, no. 3, 2005.
10. Timothy JK, Pia KV, Emily B. Epidemiology of breast cancer. *Lancet Oncol* 2001;2:133-40.
11. Parkin DM. Cancer in developing countries. Trends in Cancer Incidence and Mortality Cancer Surveys 1994;19-20:519-61.
12. Deaton, J.G. (1988) How to Recognize Cancer before It's Too Late. *Herald of Health*, June, 9-11.
13. Brunar, L.S. and Suddarth, D.S. (1988) Textbook of Medical Surgical Nursing. J. B. Lippincott Company, Philadelphia, 890-895.
14. Karayurt O, Ozmen D, Cetinkaya AC. Awareness of breast cancer risk factors and practice of breast self examination among high school students in Turkey. *BMC Public Health* 2008;8:359.
15. Ferlay J, Bray F, Parkin DM, Pisani P. Cancer Incidence, Mortality and Prevalence Worldwide. IARC Cancer Base No. 5. [1.0]. Lyon, France: IARC; 2001.
16. Chioma C, Asuzu S. Knowledge, attitude and practice of self-breast examination among the female students of the University of Ibadan, Nigeria. *Pakistan J Social Sci* 2007. 2007;4 Suppl 3:400–2.
17. Arzu T, Aklime D. Assessing the efficacy of a peer education model in teaching breast self-examination to university students. *Asian Pacific of Cancer Prevention*. 2007;8:481–4.
18. Nde et al. Knowledge, attitude and practice of breast self-examination among female undergraduate students in the University of Buea. *BMC Research Notes* (2015) 8:43
19. Norliza BS. Knowledge and practice of breast self-examination among female undergraduate students in University of Malaysia Sarawak. [http://ir.unimas.my/2190/1/Knowledge%20and%20practice%20of%20breast%20self%20examination%20among%20female%20undergraduate%20students%20in%20Universiti%20Malaysia%20Sarawak%20\(UNIMAS\).pdf](http://ir.unimas.my/2190/1/Knowledge%20and%20practice%20of%20breast%20self%20examination%20among%20female%20undergraduate%20students%20in%20Universiti%20Malaysia%20Sarawak%20(UNIMAS).pdf).
20. U.M.D. Gwarzo, K. Sabitu and S. H. Idris. Knowledge And Practice Of Breast-Self Examination Among Female Undergraduate Students Of Ahmadu Bello University Zaria, Northwestern Nigeria. *Annals of African Medicine Vol. 8, No. 1; 2009: 55 – 58*
21. Salaudeen A, Akande T, Musa O. Knowledge and attitudes to breast cancer and breast self-examination among female undergraduates in a state in Nigeria. *Eur J Soc Sci*. 2009;7 Suppl 3:157–64.
22. Sarfo L, Dorothy AP, Elizabeth A, Florence A. Knowledge, attitude and practice of self-breast examination among female university students at Presbyterian University College, Ghana. *Am J Res Communication*. 2013;1 Suppl 11:395–404.
23. Kayode FO, Akande TM, Osagbemi GK. Knowledge, attitude and practice of breast self examination among female secondary school

- teachers in Ilorin, Nigeria. *Eur J Sci Res* 2005;10:42-7.
24. Agboola AOJ, Deji-Agboola AM, Oritogun KS, Musa AA, Oyebadejo TY, Ayoade BA. Knowledge, attitude and practice of breast self examination in female health workers in Olabisi Onabanjo University teaching hospital, Sagamu, Nigeria. *IMJ* 2009;8:5-10.
25. Irurhe NK, Olowoyeye OA, Arogundade RA, Bassey RB, Onajole AT. Knowledge, attitude and practice of breast self examination among female medical students in the university of Lagos. *Internet J Health* 2009;12.
26. Sujindra E, Elamurugan TP. Knowledge, attitude, and practice of breast self-examination in female nursing students. *Int J Educ Psychol Res* 2015;1:71-4.