



## The Consciousness and Perspective of Female Undergraduate Students at Imo State University on Breast Self-Examination

Eberendu, I.F<sup>1</sup>, Ugwulor, L.O<sup>2</sup>, Umeh, F<sup>3</sup>, Chinedu-Eleonu, P.O<sup>4</sup>, Obianozie, T.I<sup>5</sup>

<sup>1,2,3,4,5</sup> Department of Public Health Imo State University Owerri

**KEYWORDS:** knowledge, attitude, female, undergraduate students, Imo state university, breast self-examination

### ABSTRACT

This study looked at Imo State University's female undergraduate students' attitudes and knowledge on breast self-examination. In order to fulfill the goals of this investigation, relevant literature was examined. The cross-sectional survey research approach was employed for this study, and respondents' responses were obtained via a questionnaire. Two hypotheses were put forth, and a straightforward percentage analysis was used to examine the data. 389 students in total, aged 20–30, made up of 301 (77.38%), 31–40, 88 (22.62%), and 113 (29.05%) as freshmen, 100 (25.71%) as second-year students, 81 (20.82%) as third-year students, and 95 (24.42%) as fourth-year students, took part in the study. The findings demonstrated that the students had a solid understanding of breast self-examination, as 196 (or 50.39%) of them were aware that it is an evaluation conducted by an individual to look for breast lumps, and 196 were aware that a woman should begin performing a breast self-examination as soon as she begins her menstrual cycle. The students' attitude toward breast self-examination was bad, though, as just 180 (46.27%) of them performed one because 50 (23.92%) thought it was unimportant, 45 (21.53%) were unsure of how to conduct it, and 39 (18.66%) were just afraid they might find a lump. Based on the results, the researcher made some recommendations that will help students become more knowledgeable about and have a more positive attitude toward breast self-examination. These recommendations include practical approaches like supporting student organizations that will increase peer education rates, offering media templates and ceremonies, or holding events like Breast Cancer Awareness Day and encouraging students to take part in such ceremonies in order to change their perception of BSE, which will gradually contribute to a decrease in the rates of breast cancer morbidity and mortality.

**Corresponding Author:**  
Eberendu, I.F

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### INTRODUCTION

The most prevalent cancer among women, especially in low- and middle-income nations, is breast cancer [1]. One non-invasive screening technique is breast self-examination, in which a woman examines her breasts for any unusual findings, such as lumps, enlargements, or deformities. Even though breast self-examination has been shown to be effective in early detection of breast cancer, the majority of cases still show up at an advanced stage [2].

These days, some groups believe that routine mammograms are a better way to identify cancer than self-examinations. For instance, breast self-examinations are no longer required by the American Cancer Society. Nonetheless, among 426 breast masses, researchers discovered in a 2022 study that 81% of ultrasonography findings and 96% of malignancies were caused by lumps that the patient had discovered [3].

Because of this, breast self-examinations remain a valuable tool for monitoring your breast health. They can assist you in becoming more acquainted with the size, shape, and feel of your breasts. This is crucial since it can assist you in identifying whether or not what you're observing is typical.

In resource-constrained environments like Nigeria, BSE has been described as friendly, cost-free, and acceptable in terms of both culture and religion [4]. Globally, breast cancer (BC) is the most prevalent cancer among women. Moreover, it is the primary cause of cancer-related deaths or the female mortality rate. This is because early detection and management services are lacking, and the general public and healthcare professionals are not well-informed about the early warning signs and symptoms of cancer. At every stage of the cancer control spectrum, from prevention to early detection, treatment, and palliative care, there are chances to lessen the pain and death caused by cancer. But among African women, Breast Self-Examination (BSE) stands out as an easy, affordable, rapid, and noninvasive early detection technique for BC [4]. BSE helps women become more acquainted with the look and feel of their breasts and helps them recognize changes in them early on. Additionally, it motivates people to seek medical care, including mammograms and clinical breast exams. The proper application of efficacious preventative measures, like BSE, is intimately linked to the knowledge of diseases and the advantages of self-examination methods. Comprehensive knowledge of BSE lowers problems and mortality connected to BC and enables early detection of abnormalities in the breast [5].

As a result, breast cancer is a significant public health concern and one of the main causes of cancer-related deaths among women [6].

This is a significant public health concern that affects both wealthy and low-resource countries [7]. Breast cancer is the leading cause of mortality for women worldwide, accounting for 70% of cases recorded in low- and middle-income nations. In Ethiopia, breast cancer incidence makes up 22.6% of all cancer cases.

One non-invasive screening technique is called breast self-examination (BSE), in which a woman examines her breasts for any abnormal findings, such as lumps, distortions, discharges, or swellings, with the goal of detecting them early for early treatment initiation and a higher chance of survival for breast cancer patients [8]. While mammography and clinical breast examination (CBE) have been shown to be more effective in lowering the death rate from breast cancer in women over 50, their higher costs have rendered them unfeasible in certain areas. BSE is an easy, inexpensive, non-invasive procedure that takes five minutes to accurately diagnose [9]. Although few studies have found that BSE is successful in lowering the death rate from breast cancer, early diagnosis can increase the 5-year survival rate for individuals with stage I and stage II breast cancer by 85% and for those who are detected in the last stage by 10% [10]. This technique aids in warning women of any breast anomalies. Frequent breast self-examination (BSE) helps women become more conscious of their breasts and raises the possibility of identifying any changes in the breast tissue, which could result in an early breast cancer diagnosis.

Breast cancer, which primarily affects women, is a disease whose mortality can be delayed with early detection. This is due to the fact that early identification might lead to efficient treatment of breast cancer prior to its advancement. It can lessen the biggest obstacle of late presentation and raise the likelihood of illness survival. On the other hand, females must be aware of and perform breast self-examination in order to discover breast cancer early [11].

Prior to recently, breast cancer was thought to be more common in adult females (45 years and older). However, reports indicate that the disease is now more common in younger females, with a reported incidence of 16 to 35 years. These younger women also have lower survival rates due to delayed detection and treatment.

Undergraduate female students are among the younger female population affected by breast cancer. Consequently, they ought to be aware of and skilled in breast self-examination. The question of "What is the knowledge and attitude of female undergraduate students of Imo state university towards breast self examination?" is consequently raised by this situation. And this is what the current study's objective is.

## **MATERIALS AND METHODS**

### **RESEARCH DESIGN**

This study adopted the cross-sectional survey research design as it is a procedure used in obtaining information from a sample or relevant population that is familiar with the ideas relating to the objectives of the study. This design is therefore appropriate for this study as it tends to obtain data from female undergraduate students of Imo state university.

### **STUDY AREA**

Data were collected at the different departments in Imo State University (IMSU) in Owerri, Imo State, Nigeria

### **STUDY POPULATION**

The population of this study comprises the female undergraduate students of Imo state university, for the 2022/2023 academic section which are about 7,321 (office of the registrar, admissions unit Imo state university)

### **SAMPLE SIZE**

The sample size was determined using the Yamene formula for sample size determination

$$n = \frac{N}{1+Ne^2}$$

n = desired sample size

NB the population size (7,321)

e is margin of error (0.05)

$$n = \frac{N}{1+Ne^2}$$

$$n = \frac{7,321}{1+7,321 \times (0.05)^2}$$

$$n = \frac{7,321}{19.3025}$$

$$n = 379.27 \sim 379$$

Furthermore, to account for non response rate the sample size was increased by 5% = 0.05.

$$379 \times 0.05 = 18.95 = 19$$

$$n = 379 + 19 = 398$$

$$n = 398$$

This study was conducted in 4 different faculties in the university namely, the faculty of sciences, faculty of health sciences, faculty of humanities and social sciences. And then 4 different student groups in the University were selected using the multi stage random sampling technique, namely students in the Department of public health, students in the department of economics , student in the department of micro biology and students of the English and literary department .In this study the first year, second year ,third year and final year students of the department were selected as respondents for this study

#### INSTRUMENT FOR DATA COLLECTION

The instrument for this data collection is a structured questionnaire, which contains about 16 questions for the assessment of the students knowledge about breast self examination and with some of the questions representing the research question.

#### ETHICAL CONSIDERATION

This researcher made sure to prioritize the dignity of all participants and also full consent was obtained from all participants, and lastly the protection of the privacy of all participants was ensured .

#### METHOD OF DATA COLLECTION

The researcher collected data using the questionnaire. Copies of the questionnaire were administered by the researcher on the respondents. All the respondents gave maximum co-operating as expected ,as the information on the questionnaire are all on things that revolve around their health . Hence, enough time was taken to explain how to tick or indicate their opinion on the items stated on the questionnaire.

#### METHOD OF DATA ANALYSIS

The collected data were analyzed using the frequency tables and percentage, which provided answers to the research questions. Responses from the questionnaire were coded and analyzed using Statistical package for social sciences software (SPSS). Hypothesis was tested using a chi-square test analysis.

#### RESULTS

. The data analysis depicts the simple frequency and percentage of the respondents as well as interpretation of the information gathered. A total of three hundred and ninety eight(398) questionnaires were administered to respondents of which only three hundred and eighty nine (389)were returned and this was due to irregular, incomplete and inappropriate responses to some questionnaire.

#### DEMOGRAPHIC DATA

TABLE 4.1

Gender: females	Frequency	Percentage
Age:20-30	301	77.38%
31-40	88	22.62%
Total	389	100%
LEVEL OF STUDY		
Freshers	113	29.05%
Second year	100	25.71%

Third year	81	20.82%
Fourth year	95	24.42%
Total	389	100%
MARITAL STATUS		
Married	95	24.42%
Single	294	75.84%
Total	389	100%
AREA OF RESIDENCE		
Front gate	108	27.76%
Okwu uratta	153	39.33%
Bishop's court	128	32.9%
Total	389	100%
Has anyone in your family been diagnosed with breast cancer?	Yes. 59	15.17%
	No. 330	84.83%
Total	389	100%

**SOCIO-DEMOGRAPHICS OF STUDY PARTICIPANTS:**

The ages of the students ranged from 20 -40 years , majority of the students 77.38% were in the age group of 20- 30years while the others 22.62% were within the age of 31-40 years. Regarding the various levels of study 29.05% were freshers , 25.71% were second year students,20.82% were third year students, 24.42% were fourth year students. However regarding the marital status of the students majority 75.84% of the students were single while 24.42% were married .39.33% of the students lived in Okwu Uratta ,32.9% lived in Bishop's court axis and 27.76% lived at front gate in respect to their various residences. Most of the students 84.83% had no family history of breast cancer whereas 15.17% had a family history of breast cancer.

**TABLE 4.2: Knowledge of Study Participant towards Breast Self Examination (BSE)**

What do you understand by the term BSE ?	Frequency	Percentage
Assessment made by individuals to check for breast lump	196	50.39%
The assessment made on the breast by a doctor or nurse to check for breast lump	115	29.56%
The use of X rays to assess breast cancer	78	20.5%
Total	389	100%
What do women inspect during BSE		
Fluids coming from the nipples in non lactating mothers		
Yes	321	82.52%
No	55	14.14%
I do not know	13	3.34%
Total	389	100%
Shape of the breast		
Yes	201	51.67%
No	108	27.76%
I do not know	80	20.57%
Total	389	100%
Skin for changes in the contour, any swellings and nipples appearance		
Yes	110	28.28%
No	98	25.19 %
I do not know	181	46.53%
Total	389	100%
What does a woman feel for during BSE?		
Breast lump which maybe painless or painful and fixed	240	61.7%
Pimples on the breast	44	11.31%

Enlarged lymph nodes on the axillae	105	26.99%
Total	389	100%
When should a woman start doing BSE?		
As soon as she starts menstruating	196	50.39%
At the age of 20 in order to familiarize with her breast	153	39.33%
At age 40	6	1.54%
When she has been diagnosed with breast cancer	34	8.74%
Total	389	100%
How often should BSE be performed?		
Monthly	228	58.61%
Once every four months	21	5.4%
When one suspects something abnormal is developing	140	35.99%
Total	389	100%

As illustrated in table 3: majority 196(50.39%) of the female undergraduate students knows that BSE is an assessment done by an individual to check for breast lump while 115 (29.55%) reported that it's an assessment done by a doctor or nurse to check for a breast lump and 78(20.05%) reported that, it is the use of x rays to assess breast cancer. 321(82.52%) reported correctly that when doing a BSE one should inspect for fluid coming out from the nipples of non lactating mothers, 55(14.14%) disagreed, while 13(3.34%) respondents reported they had no idea. Also 201(51.67%) reported they inspect the the shape of the breast when doing a BSE , 108(27.76%) disagreed and 80(20.57%) had no idea about inspecting the shape of the breast during a BSE.

Regarding inspecting the skin for changes in the contour, any swelling and nipple appearance 110(28.28%) agreed ,98(25.19%) of the respondents disagreed ,while 184(47.3%) had no idea . When asked what a woman feels for during a breast self examination 240(61.7%) respondents reported correctly to checking for breast lumps .concerning their knowledge on when a woman should start BSE 196(50.39%) respondents reported that BSE should begin as soon as a woman starts seeing menstruating ,153(39.33%) reported at age 20 and 6 (1.54%) respondents reported at age 40 while 34(8.74%) of the students reported when a woman has been diagnosed of breast cancer, when asked how often BSE should be done 228(58.61%) of the students agreed to BSE being done monthly,21(5.4%) reported once every four months and 140(35.99%) reported that BSE should be done when one suspects something abnormal is developing .

**TABLE 4.3: BSE and Reduction of Breast Cancer**

Have you been diagnosed with breast cancer?	Frequency	Percentage
Yes	36	9.25%
No	353	90.75%
Total	389	100%

From the responses obtained from the respondents as expressed in the table in the table above 9.25% of the students ticked yes while 90.75% of the students ticked no.

**How is breast self examination performed? :**

**TABLE 4.4**

Activity	Frequency	Percentage
In the shower or bath :using the pads of fingers, the woman should move around her entire breast in a circular manner moving from the outside to the center, checking the breast and armpit area		
Agree	223	57.33%
Disagree	67	17.22%
No idea	99	25.45%
Total	389	100%
Both breasts to be checked monthly for a lump and thickening		
Agree	218	56.04%
Disagree	58	14.91%

No idea	113	29.05%
Total	389	100%
In front of a mirror: the woman should visually inspect her breasts with her arms at her sides, next raise her arms high overhead		
Agree	227	58.35%
Disagree	34	8.74%
No idea	128	32.9%
Total	389	100%
Look for any changes in the contour, any swelling or dimpling of the skin or changes on the nipple, she has to rest her hips and press firmly to flex her chest muscle.		
Agree	110	28.28%
Disagree	98	25.19%
No idea	181	46.53%
Total	389	100%
Lying Down: when lying down, the breast tissue spreads out evenly along the chest wall, the woman to place a pillow under her left shoulder and her left arm behind her head		
Agree	105	26.99%
Disagree	74	19.02%
No idea	210	53.98%
Total	389	100%
Using her right hand she moves the pads of her fingers around her left breast gently in circular motions covering the entire breast area and armpit		
Agree	229	58.87%
Disagree	58	14.91%
No idea	102	26.22%
Total	389	100%
The woman should squeeze the nipple, check for discharge and lumps		
Agree	275	70.69%
Disagree	26	6.68%
No idea	88	22.62%
Total	389	100%
visit her doctor for any changes		
Agree	209	53.73%
Disagree	93	23.91%
No idea	87	22.37%
Total	389	100%

The university students had adequate knowledge on postures to assume when performing a BSE 57.33% identified that in the shower or bath , using the pads of fingers , the woman should move around her entire breast in circular manner moving from the outside to the center , checking the breast and armpit area and 56.04% agreed that the breasts should be checked monthly for a lump and thickening . Additionally more than half 58.35% knew a woman should visually inspect her breast her breasts with her arms at her sides in front of a mirror , And also 46.53% respondents reported that while in front of the mirror one should look for changes in the contour , swelling or dimpling of the skin or changes in the nipples . However , only 26.99% knew that while lying down, the breast tissues spreads out evenly along the chest wall , and a pillow should be placed under the left shoulder and her left hand behind her head while checking for a lump. Most of the students 70.69% knew that a woman should squeeze the nipple checking for a discharge or lumps , and 53.73% knew that they should visit a doctor for any changes .

## The attitude of the female undergraduate students of Imo state university towards breast self examination

TABLE 4.5

Do you do breast self examination?	Frequency	Percentage
Yes	180	46.27%
No	209	53.73%
Total	389	100%
If no , why?		
Not important	50	23.92%
Afraid of finding a lump	39	18.66%
Don't know how to do it	45	21.53%
I believe it's not my portion	75	35.89%
Total	209	100%
If yes to question no1 , why did you perform it?		
Advice from a friend	58	32.22%
From Radio jingles	63	35%
Family history	59	32.78%
Total	180	100%
If you answered yes to question 1,how often do you do it?		
Monthly	73	40.56%
Whenever I remember	89	49.44%
Twice a year	18	10%
Total	180	100%
If you answered "No "to question 1,which method do you use to examine your breast for lumps?		
Mammogram	47	22.49%
Bread self examination done by a health care practitioner	67	32.6%
Nothing	95	45.4%
Total	209	100%
What do you think influenced your practice of breast self examination?		
Age	135	34.7%
Family history of breast cancer	59	15.17%
Previous diagnosis of breast cancer	36	9.25%
Mass media	159	40.87%
Total	389	100%

**Attitude of the study participants towards breast self examination:**

From the table above 180(46.27%)of the students perform a BSE while 209(53.73%)of the students do not practice BSE with their various reasons, where 50(23.92%)of the students see it as not being important , 39(18.66%)of the respondents are afraid of finding a lump,45(21.53%)do not know how to carry out a BSE ,and 75(35.89%) believes it's not their portion .For those of the students who do perform a BSE 58(32.22%)of them do it as a result of an advice from a friend ,63(35%)heard about BSE from radio jingles and decided to do it.meanwhile others do it as a result of a family history

Furthermore about 73(40.56%)of the students do a BSE monthly on themselves, while 89(49.44%)of them do it whenever they remember and 18(10%)of the students do it about twice a year. For those who do not perform a BSE about 47(22.49%)of the respondents use the mammogram and 67(32.6%)of the students prefer a BSE done by a health care practitioner while 95(45.4%)of the students do not use any method . And also 135(34.7%)of the students were influenced by their age to perform a BSE and 59(15.7%)is as a result of a family history of breast cancer,36(9.25%)was as a result of a previous diagnosis of breast cancer and 159(40.87%)were influenced by the mass media

**DISCUSSION**

The best strategy to lower breast cancer mortality rates globally has, by far, been early identification of the disease. Because BSE is a more straightforward and cost-effective approach in environments with limited resources, it has been suggested for early

identification in underdeveloped nations [12]. Because it is often detected too late, breast cancer nevertheless has terrible consequences. This study examined the attitudes and knowledge of breast self examination (BSE) among female undergraduate students at Imo State University. It also evaluated the students' knowledge and attitudes regarding BSE.

According to this survey, the majority of students are aware of breast self-examination and possess good knowledge of it.

Given that our study involved female undergraduate students, the degree of awareness may have been influenced by the participants' educational backgrounds. This is consistent with the findings of a study conducted by [13] among female college students in the United States, which found that 66% of the participants were aware of BSE. The study supports the results of [14], who found that 73.3% of individuals had heard about BSE. However, our results are at odds with those of a study on knowledge, attitudes, and practices regarding breast cancer and breast self-examination conducted in a teaching hospital in central India by [15], where a startling 81% of women had no knowledge of BSE.

In terms of study participants' attitudes toward breast self-examination, it was found that 46.27% of study participants perform BSE and 53.73% of study participants do not perform the breast self exam. This finding is somewhat better than the study conducted by [17], where 59.3% of the respondents had never practiced BSE, and it is closely related to the study conducted by [16] in Cameroon, where 40% of the sample population had never performed the BSE before. According to the study's findings, individuals who choose not to perform the BSE did so for a variety of reasons, including the belief that the test is unimportant (23.92%) and fear of discovering a lump. 18.66%, or roughly 21.53%, do not know how to perform a BSE, and 35.89% think it is not their responsibility. According to the study's findings, 46.27% of the respondents perform BSE, with 40.56 percent doing so on a monthly basis and 49.44% doing it anytime the thought occurs to them. This study bears some similarities to one conducted in Cameroon by Suh et al., when 35% of the participants took out BSE on a monthly basis, whereas 12.5% of the participants did so once a month. Furthermore, the results of this study differ from those of a study conducted by [18] on female undergraduates at Addis Abeba University in Addis Ababa, Ethiopia, where 21.4% of the respondents said they performed BSE on a monthly basis. Additionally, for this study, 40.87% of the respondents said that the mass media had influenced their practice of BSE. This could be attributed to young undergraduate students' frequent use of the internet for academic purposes. This finding may be comparable to a study by [19] conducted in Malaysia, where 56.7% of the respondents said that the media was their primary source of information regarding breast cancer and breast self-examination. Additionally, 15.17% of the respondents in this survey had a family history of breast cancer, which is comparable to a study done by [20] among female Pakistani citizens, where 13.2% had a history of the disease.

## CONCLUSION

In terms of what they understood by BSE, when a woman should begin doing a breast self-examination, and even how frequently a woman should perform a BSE, the majority of survey participants were well-versed in the subject. However, they demonstrated a generally negative attitude toward BSE, as only a small percentage of students performed a BSE on a monthly basis, while others performed one whenever the thought occurred to them. This is because the majority of students consider BSE to be unimportant; some are merely afraid of discovering lumps, while others lack the necessary skills, and still others just felt it wasn't their responsibility.

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