# Assessment of Breast Cancer Awareness Campaigns on the Practice of Breast Self-examination: A Survey of Imo State University Undergraduates

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*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

Breast cancer has long been thought to be a concern in developed nations, but investigations have revealed that this is no longer the case, with breast cancer now affecting both developed and developing nations. Early identification and treatment among students may be challenging to attain in cases where there is a low degree of breast cancer awareness among students through the practise of breast self-examination. The goal of this study was to determine how awareness and knowledge of Imo State University undergraduates have influenced the practise of breast self-examination. The theoretical underpinning of this investigation was the health belief model. The methodology adopted for this study was a survey research design. From a population of 20,000 students, the Wimmer and Dominick online sample size calculator was used to determine a sample

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size of 377. The findings indicated that IMSU students are very aware of breast cancer initiatives. Additional findings indicated that undergraduate students possess a high level of awareness of breast self-examination. We draw the conclusion that respondents have a very high level of awareness about breast cancer campaigns. Because respondents had a high degree of knowledge about breast self-examination due to their high level of awareness, this has had a favourable impact on their attitudes towards it. It was recommended that encouraging breast self-examination will improve early identification of breast cancer and lower the death rate to the absolute minimum. The government and health organisations are advised to launch more effective programmes on how to prevent BSE in public spaces like schools.

## 1. INTRODUCTION

In recent times, there has been an increase in the death rate amongst women and adolescent children, most of which has been attributed to late detection of breast cancer and negligence in breast self-examination [1]. Young adolescent children in school as well as adults, male and female, in society are already carriers of breast cancer unknowingly [1,2]. One of the ways this human killer can be stopped is through enlightenment programmes geared towards breast self-examination as one of the means for early detection of lumps in the breast [3]. It is safe to say that if students are properly exposed to the fundamentals and importance of breast self-examination, they can easily educate their parents and relatives at home on the need for the same.

Jedy-Agba [4] explained that the chances of survival for patients with breast cancer are very high when it is detected earlier. This implies that breast self-examination, among other methods, should be observed regularly so as to keep one's health status updated. The benefit of breast self-examination cannot be overemphasised, and thus, this study is geared towards investigating the awareness and knowledge level of breast self-examination among undergraduate students at Imo State University.

According to the National Breast Cancer Coalition [5], breast cancer currently affects both men and women equally frequently, accounting for 23% of female cancers and 12.3% of all cancers. Breast cancer risk is enhanced by proliferative breast disease [1]. According to Eleanor and Robyn [6], although it has long been assumed that this illness only affects people in developed nations, it has recently been shown that this is untrue given that 58% of breast cancer fatalities and 50% of new cases are found in less developed nations. Since most patients present to hospitals when little or no treatment is available, the attitude towards managing breast cancer in Africa is relatively low. According to Opoku, Benwell, and Yarney [7], screening techniques such as breast self-examination (BSE), clinical breast examination (CBE), and mammography are frequently used for the early diagnosis of breast cancer. The mortality, morbidity, and expense of treating the disease have all been shown to decrease with an early breast cancer diagnosis. But because there are not many professionals and not many sophisticated diagnostic tools available in developing nations, encouraging routine BSE has been suggested as a workable screening alternative for breast cancer. However, its application is dependent on women's attitudes and information regarding BSE and breast cancer. According to GLOBOCAN [8], women should perform a monthly breast self-examination between days 7 and 10 of their menstrual cycle. The article continued by stating that approximately 80% of breast cancers missed by mammography are found by women themselves, most frequently as a result of daily activities like washing and dressing rather than as part of a systematic, routine self-examination. BSE is regarded as an effective breast cancer screening tool when used in conjunction with CBE and mammography. Additionally, it can be used to raise women's awareness of breast cancer. BSE is advised since it is low-cost, personal, painless, simple, safe, and needs no specialised equipment. Additionally, it has been demonstrated to raise breast health awareness, potentially enabling the early diagnosis of breast irregularities. In the absence of an early diagnosis of breast cancer, it can develop and become worse, thereby exposing the patient to all sorts of pathogen-causing disease.

According to Schulman [9], "pathogens can thrive and survive in any host where they are able to evade the body's immune responses and use the resources of the body to replicate before

leaving and spreading to a new host." Skin-to-skin contact, contact with bodily fluids, airborne objects, touching a surface, and contact with the face are all ways that these diseases might spread. Viruses, bacteria, fungus, and parasites are the most prevalent pathogen types. Schulman explained that patients with breast cancer are susceptible to any of the pathogen types.

According to Ntekim et al. [1], the persistently high breast cancer mortality rate in Nigeria is brought on by a lack of population awareness, poor health seeking behaviour, low levels of female empowerment and education, as well as a failing healthcare system that produces subpar treatment services. Jedy-Agba [4] noted that a significant contributing factor to a poor prognosis for breast cancer is the stage of diagnosis. One of the main factors affecting breast cancer survival is the stage at diagnosis. Early-stage disease has a better prognosis than late-stage disease. Early detection and technological advances in treatment are largely responsible for the remarkable drops in breast cancer mortality rates over the past 20 years [10].

According to Harbeck, Gnant, and Thomssen [11], there has not been much progress in the treatment of breast cancer in women of this age range throughout time. To help design a plan for delivering appropriate care targeted at this population to increase survival, it is necessary to estimate the proportion of AYA diagnosed with breast cancer in the nation.

This assumption served as the foundation for the researchers' investigation of undergraduates at Imo State University's awareness and knowledge of breast self-examination.

## 1.1 Research Questions

The following research questions were raised to guide the study: 1. To what extent are undergraduates at Imo State University aware of breast cancer campaigns? 2. What is the knowledge level of Imo State University undergraduates on breast self-examination? 3. What is the attitude of undergraduates at Imo State University towards breast self-examination?

## 2. LITERATURE REVIEW

### 2.1 Breast Cancer

The basic definition of breast cancer is a cancer that can arise from breast tissue. Breast cancer

symptoms can include lumps, a changed breast shape, dimpling of the skin, milk rejection, fluid coming from the nipple, an inverted nipple, or a red or scaly patch of skin. In individuals with distant disease dissemination, there may be bone soreness, swollen lymph nodes, shortness of breath, or yellow skin (Gtzsche & Jrgensen, 2013).

Over time, there has been ongoing discussion over the benefits and drawbacks of breast cancer screening. A 2013 Cochrane study found that it was unclear whether mammographic screening causes more harm than good, given that a sizable portion of women who test positive for the disease turn out not to have cancer. The medications raloxifene or tamoxifen may be administered to a person who has a high risk of developing breast cancer in an effort to prevent it. The surgical removal of both breasts in high-risk women is another prophylactic strategy. Various treatments, including surgery, radiation therapy, chemotherapy, hormone therapy, and targeted therapy, are available for cancer patients. Mastectomy and breast preservation surgery are two distinct surgical procedures. Breast reconstruction can be done before or after surgery. The majority of cancer patients' treatments concentrate on improving comfort and quality of life, particularly for those whose disease has progressed to other bodily locations [12].

The outcome is influenced by the patient's age, the kind of breast cancer, and the severity of the disease. In England and the US, between 80 and 90 percent of people live to age five. Less developed countries have lower five-year survival rates. Breast cancer is the most prevalent type of cancer in women globally, accounting for 25% of all cases. In 2018, there were 2 million new cases and 627,000 fatalities. It affects women more commonly than men do and is more common in industrialised countries.

According to Miller, Wilson, Chapman, Flight, Nguyen, Fletcher, and Ramsey [13], the most common types are: "Ductal Carcinoma in Situ (DCIS), Invasive Breast Cancer (IDC/ILC), Triple-negative Breast Cancer, Inflammatory Breast Cancer (IBC), Paget Disease of the Breast, Angiosarcoma of the Breast: Phyllodes Tumour."

### 2.2 Breast Self-Examination

Breast self-examination (BSE), according to Nelson [12], is a screening method used to

discover breast cancer at an early stage. To check for any potential lumps, abnormalities, or swelling, the woman herself touches and feels each breast. Women should check their breasts for any changes on a monthly basis. You may preserve breast health and spot cancer early, when it is simpler to treat and more likely to be cured, by getting regular breast exams. Although most bumps and anomalies are not cancerous, you should still tell your doctor if anything has changed. Women can check their breasts step-by-step with a breast self-exam. By regularly checking and feeling your breasts, you can identify anything that feels abnormal.

Large randomised controlled studies revealed that BSE did not help prevent deaths but, instead, injured people by causing needless biopsies, surgery, and worry. BSE was formerly widely hailed as a method for detecting cancer when it was still treatable. The World Health Organisation and other organisations oppose BSE. According to Saran, Sandhiya, Yogashkumar, Vignash, and Manjula [14], other organisations have a neutral approach and make no recommendations for or against BSE.

Breast self-examination, or routinely checking your own breasts, is a good way to detect breast cancer early, when it can be more effectively treated. Even though there isn't a single test that can catch all cases of breast cancer in their early stages, many people think that completing a breast self-exam in addition to other screening procedures increases the likelihood of a timely diagnosis.

As part of your overall breast cancer screening approach, you can use a straightforward, free tool called a breast self-exam once a month at any age [15]. You can find changes, such as lumps or patches that feel different in your breasts, that could be indicators of an infection or breast cancer by performing monthly self-exams. Survival rates for breast cancer are significantly increased by early detection. Self-examination is essential for breast health. However, they should not substitute for the checkups and tests for cancer (like mammograms) that doctors encourage their patients to have. You ought to continue visiting your gynaecologist and/or primary care physician frequently.

## 3. METHODS

Based on a report from the International Agency for Research on Cancer [16], the following are the best techniques for conducting breast self-examination:

**Visual inspection:** Place yourself in front of a mirror while taking off your shirt and bra. You should have your arms by your sides. Watch out for any modifications to the nipples, skin dimpling, breast swelling, or breast contour. Next, while still looking for the same things, spread your arms widely in front of you. Finally, exert strong pressure with your hands on your hips to constrict your chest muscles. Check again for the same changes. Pay close attention to both breasts.

**Manual inspection while standing up:** Examine your right breast with your right hand first, then your left breast while taking off your shirt and bra. Using the pads of your three middle fingers, press firmly on one breast. Apply light pressure first, then medium, and eventually firm pressure. Examine your physique for any lumps, thick spots, or other modifications. By employing a circular pattern, you can be sure that you strike every target. The tissue should then be pressed firmly against the arm. Make sure to check under the areola before gently pinching the nipple to see if there is discharge. Repeat the techniques on the opposite side of your body.

**Manual inspection while lying down:** While you are lying down, the distribution of your breast tissue is more even. This is a great place to feel for changes if your breasts are large. When you're lying down, put a pillow under your right shoulder. Put your right arm behind your head. Apply the same technique as in step 2 with your left hand, pushing with the pads of your fingers all areas of the breast tissue and under your arm. Finally, inspect the opposing breast and armpit by flipping the pillow to the opposite side. Check under the areola first, then gently press the nipple to check for discharge. To check for discharge, gently squeeze the nipple after checking under the areola.

## 3.1 Breast Cancer Awareness Campaign

Campaigns to raise awareness of breast cancer have been quite effective at informing and empowering people about this common disease. These efforts have tried to help those impacted by breast cancer, encourage early detection, and raise awareness over time [17].

October's annual Breast Cancer Awareness Month is one of the most well-known campaigns. During this time, a number of charities, organisations, and healthcare providers work together to increase public awareness of breast cancer. They use a variety of tactics, including handing out fact sheets, planning awareness marathons and walks, lighting up famous places in pink, and enlisting celebrities as ambassadors [18].

Through PSAs and social media campaigns, these initiatives stress the value of routine mammograms, self-examinations, and early diagnosis. They seek to debunk myths, promote candid dialogue, and emphasise the importance of getting medical help for any abnormal breast changes [19].

Additionally, breast cancer awareness initiatives show the tenacity and fortitude of patients and survivors by supporting them. They include details on the resources, support networks, and financial aid programmes that are accessible. These programmes encourage solidarity and a sense of community among those impacted by breast cancer [20].

The campaigns have been crucial in eradicating the stigma associated with the condition, promoting proactive healthcare practises, and raising funds for research [21]. Because of these initiatives, more people are aware of breast cancer, which improves outcomes through early identification, higher survival rates, and better care for patients and their families [22].

## 3.2 Empirical Review

Kibret, Yeneabat, and Zerko [23] conducted a study in Gondar Town, Northwest Ethiopia, with the goal of assessing women's knowledge, attitudes, and practises about breast self-examination and related factors. The findings of this study have important ramifications for the lack of knowledge, negative attitudes, and subpar practises that women had regarding breast self-examination. The study's findings called for the implementation of extensive, methodical, continuous BSE educational activities as well as a breast cancer awareness campaign, with an emphasis on enhancing women's understanding, attitudes, and practises in this area.

The level of BSE knowledge and practise among female university students was evaluated in

Samira, Mohamed, Karim, and Yasser's [24] study on breast cancer knowledge and practise of breast self-examination among female university students in Gaza. The study's findings revealed that knowledge ratings for general understanding of breast cancer disease, early detection and management approaches, and applying BSE practise exercises were all below average (70%). Further research showed that while 69.8% of students knew when to perform BSE and that all students (96.5%) had heard of it, only 31.4% actually practised it on a regular basis. Findings also showed a statistically significant association between practising regularly and knowing the instructions for using the BSE. This study suggested that a training programme be created to raise knowledge of breast cancer and actual BSE practise.

Another study, conducted by Muhabaw, Temesgen, Abera, Emebet, Solomon, Mosina, Tejitu, and Genet in 2021, examined the knowledge and behaviour of female summer social science students at the Maraki Campus of the University of Gondar, Ethiopia, regarding breast self-examination and its contributing factors. According to the study's findings, female students have good knowledge and behaviour about breast self-examination.

Mikiyas, Mesfin, Kenean, and Abel's study [25] sought to determine how well-informed female students at Ethiopia's Addis Ababa University were regarding breast self-examination and the elements that are related to it. According to the study's results, 49.9% of respondents had a thorough comprehension of breast self-examination. In the past, urban residents were roughly twice as likely to have a thorough understanding of BSE as rural residents. The results of the study showed that less than half of the students who took part in the survey had a thorough comprehension of breast self-examination. This warrants educating female pupils about breast self-examination. Sarker, Islam, Moonajilin, Rahman, Gesesew, and Ward conducted a study in 2022 on the knowledge of breast cancer among students in Bangladesh, and it was revealed that breast self-examination practises and understanding about breast cancer are both poor. The study showed a need for educational intervention programmes that are appropriate for Bangladesh's social, cultural, and demographic contexts and that aim to increase breast cancer awareness and promote the practise of breast self-examination. The study recommended using media campaigns and other

reliable platforms to spread breast cancer awareness and encourage breast self-examination.

The purpose of Doshi, Srikant, Suhas, and Karunakar's [26] study was to assess the knowledge, attitudes, and practises of a cohort of Indian female dental students about breast self-examination (BSE). The study's findings demonstrated that students had a favourable attitude towards BSE practises and that there is a good level of comprehension regarding animal self-examination. The study's findings highlighted the need for educational campaigns to increase public awareness of standard breast cancer screening procedures. As a result, the study advised spreading awareness of the importance of breast self-examination to enable the early diagnosis of lumps in the breast region.

## 3.3 Theoretical Framework

The basis of this inquiry was the Health Belief Model (HBM). The HBM was developed by American social scientists at the beginning of the 1950s. According to the HBM, a person's propensity to engage in a behaviour can be anticipated by their perception of their own risk of getting a disease or sickness as well as their belief that the suggested health behaviour or activity is effective [27]. Through the HBM, the perception and attitude of women and young adolescent adults towards breast self-examination are examined. Also, the HBM helps to investigate if the husbands, fathers, uncles, and brothers of the women and female youth are knowledgeable of BSE and how they provide guidance and enlightenment to the female gender on BSE. Through the HBM, the minds of both male and female genders are organised towards the appreciation of the benefits of breast self-examination [28].

People always engage in activities when they are the beneficiaries of a process, which is why this theory is relevant to the study. Thus, undergraduate students will often engage in breast self-examination when they realise it is for their benefit.

## 3.4 Methodology

For this study, the survey research design was adopted. This method was employed because it allows for respondents opinions on a subject matter to be measured [29]. For the population of this study, the undergraduate students of Imo State University served as the population of the study, and according to the Admission Unit (2020), the population is 20000. In order to derive a sample size, the Wimmer and Dominick online sample size calculator was used to arrive at a sample size of 377 at a confidence level of 95% and a margin of error of 5%. The researchers employed a multi-stage sampling technique to be able to get to all the elements in the sample. The multi-stage entails categorising the sample into stages, thus:

Stage 1: The researcher listed the entire faculty situated at Imo State University: agriculture and veterinary medicine, business administration, education, engineering, environmental sciences, humanities, law, biological sciences, physical sciences, social sciences, basic medical sciences, basic clinical sciences, and clinical medicine. Stage 2: In this stage, the researchers divided the sample of 377 among the 14 faculties in the university to give 27 respondents in each faculty. This was done for the purpose of equal representation among the faculties where the study was carried out. Stage 3: At this stage, 27 students were purposefully selected to answer the questions on the instrument. The criterion for selection was that you must be from the faculty where the instrument is being distributed. Also, the respondents consent was sought before they were asked to fill out the questionnaire. They were assured of keeping their identities hidden. The instrument for data collection was a questionnaire, which was face-validated by an expert in the department of mass communication at Imo State University, Owerri. The items on the questionnaire were structured in dichotomous and Likert scale format, with the following scale: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). All the items were structured in line with the research objective for proper direction. The face-to-face approach was used to administer the instrument within a week. The descriptive analysis was used in analysing the data retrieved from the field.

**Table 1. Respondents response on the level of awareness of breast cancer campaigns**

| Option | Frequency | Percentage% |
|--------|-----------|-------------|
| Very high | 300 | 80% |
| High | 67 | 18% |
| Moderate | 7 | 2% |
| Low | 0 | 0 |
| **Total** | **374** | **100%** |

*Source: field survey, 2023*

**Table 2. The level of knowledge of Imo state university undergraduates on breast self examination**

| Options | SA | A | D | SD | Mean | Remark |
|---|---|---|---|---|---|---|
| Lump in the breast and around the armpit are the signs of breast cancer | 170 | 185 | 9 | 10 | 3.4 | Accepted |
| Lying down on the bed is one of the most appropriate place to perform BSE. | 100 | 200 | 26 | 48 | 2.9 | Accepted |
| Early detection of breast cancer improve chances of survival | 250 | 74 | 24 | 26 | 3.4 | Accepted |
| Average mean | | | | | 3.2 | |

*Source: field survey, 2023*

**Table 3. The attitude of undergraduate students of Imo state university towards breast self examination**

| Options | SA | A | D | SD | Mean | Remark |
|---|---|---|---|---|---|---|
| If there is lump I prefer to get treatments from a health institution | 187 | 93 | 51 | 43 | 3.1 | Accepted |
| Because I am always worried of breast cancer I want to do BSE. | 109 | 215 | 37 | 13 | 3.1 | Accepted |
| Breast self examination is not embarrassing to me. | 208 | 93 | 73 | _ | 3.5 | Accepted |
| Average | | | | | 3.2 | |

*Source: field survey, 2023*

## 3.5 Data Presentation and Analysis

The researcher gave the respondents 377 copies of the questionnaire, and 374 of those copies were returned. Three (3) copies, however, were not returned. The return rate stood at 99%.

The analysis of Table 1 above reveals that 80% of undergraduate students at Imo State University have a very high level of awareness of breast cancer campaigns.

Decision Rule: The mean value for decisions is 2.5. Therefore, if the calculated mean is between 1 and 2.4, the researchers will reject the item, but if the calculated mean is between 2.5 and 4.0, the researchers will accept the item.

The analysis of the data shows that there is an appreciable degree of knowledge regarding breast self-examination, with an average mean of 3.2 (N = 374). This implies that students at Imo State University have good knowledge of breast self-examination.

According to the data presented in the above table, Imo State University undergraduate students had a positive attitude towards breast self-examination, with a mean score of 3.2 (N = 374) on average. This suggests that respondents prefer to notify a medical facility if a breast lump is seen.

## 4. DISCUSSION OF FINDINGS

The goal of this study was to assess the impact of breast cancer awareness campaigns on the practise of breast self-examination. Based on the result, it was revealed that undergraduate students at Imo State University have a high level of awareness of the breast cancer campaign, with an average awareness of 80%. From the findings, respondents confirmed in strong terms that they are highly exposed to breast cancer awareness campaigns geared towards making people aware of all that has to do with breast cancer as well as breast self-examination. The implication of this is that as long as there is an increase in various

sensitization campaigns and programmes geared towards increasing the awareness level of undergraduate students at Imo State University, they will certainly begin to see breast self-examination as a powerful tool for early detection of breast cancer. This result is consistent with those of Doshi et al. [26], who found that students have a positive attitude towards the practise of BSE and have a high degree of understanding of animal self-examination. The study's conclusion emphasised the necessity for educational initiatives to raise public knowledge of routine breast cancer screening practises. The study concluded that in order to continue raising public awareness of breast cancer, additional education about the value of breast self-examination should be promoted. This finding further buttresses the health belief model, which explains that people will always engage in health activities the moment they are seen as beneficial to them.

The second research question focused on how knowledgeable Imo State University undergraduates were about breast self-examination. Findings indicate that breast self-examination is a subject on which there is a lot of knowledge. This indicates that students at Imo State University are knowledgeable about breast self-examination. This has the connotation that since Imo State University undergraduate students are well-versed in the activity, the practise of breast self-examination will be on the rise. Given the student's demonstrated level of expertise in breast self-examination, HBM explained that if they regularly practise breast self-examination, there will undoubtedly be an increase in early detection of breast cancer, which will in no small way allow for a prolonged life. As a result of the undergraduate students at Imo State University's understanding and practise of breast self-examination, the likelihood of breast cancer cases will likewise be extremely low. In consonance with this study, Muhabaw et al. [30] found that the percentage of students who regularly perform breast self-examination was high. Similar findings were made by Mikiyas et al. [25], who showed that respondents understood breast self-examination well. The results of the study showed that less than half of the students who took part in the survey had a thorough comprehension of breast self-examination. Female students should be taught about breast self-examination in light of this. This finding contrasts with that of Sarker et al. [31], who discovered that breast cancer awareness and practise are both low. The study showed a need for educational intervention programmes that are appropriate for Bangladesh's social, cultural, and demographic contexts and that aim to increase breast cancer awareness and promote the practise of breast self-examination. The study recommended using media campaigns and other reliable platforms to spread breast cancer awareness and encourage breast self-examination. Even though the findings of Sarker et al. did not fit the findings of this study, we still maintain that if the knowledge level can be increased, people will begin to see the benefit of breast self-examination and also engage in the practise of it, just as the HBM explained.

The analysis of the data indicated that Imo State University undergraduate students have a favourable attitude towards breast self-examination. This suggests that respondents prefer to notify a medical facility if a lump is seen in the breast area. The implication of this finding is that the health of the undergraduate students of Imo State University will always receive sound medical care as they interface with medical experts to ensure their health is in check. This will by no means decrease their chances of living with breast cancer. This simply demonstrates, to a large extent, the importance of breast self-examination and the need to seek medical attention the moment lumps are detected around the breast region for proper diagnoses. This result is consistent with that of Samira et al. [24], who found a statistically significant link between regular practise and awareness of the BSE's application stages. This study suggested that a training programme be put in place to raise awareness of BC and actual BSE usage. The results of the study by Samira et al. further prove that the practise of breast self-examination is more appreciated when the awareness level is high. This will ultimately promote the health conditions of undergraduate students who adhere to such practises. Contrary to this finding, the study of Kibret et al. [23] revealed that women had limited information, which affected their attitudes and practises of breast self-examination. The disparity in the findings could be linked to the area of study or the methods used in the study. Students who are in the place of learning may have the opportunity to get exposed to messages on breast cancer compared to the group used by Kibret et al. in their study. The current finding of this study supports the HBM's relevance, which also aims to explain why people are most likely to perform breast self-examination if they are aware of its advantages [32-35].

## 5. CONCLUSION AND RECOMMENDA-TIONS

In line with the findings, we therefore conclude that the level of awareness of breast cancer campaigns among respondents is very high. The high level of awareness has also translated to a high level of knowledge on breast self-examination among respondents. What this means is that due to the amount of exposure respondents have received to breast cancer campaigns, they have gained valuable knowledge on how to take some preventive steps against breast cancer. We can also draw the conclusion that respondents' views regarding breast self-examination have been favourably impacted by their level of awareness and knowledge. It is on this ground that the following recommendations are given:

1. Given that there is a high level of awareness of breast cancer among undergraduate students at Imo State University, at an average of 80%, various health agencies should harness other platforms to constantly bring to the attention of the masses the importance of BSE.
2. Findings have shown that there is a significant level of knowledge of breast self-examination among respondents; therefore, more practical campaigns on various ways to conduct BSE should be encouraged in schools and public places.
3. The positive attitude towards breast self-examination by undergraduates at Imo State University is a call for the ministry of health to intensify its campaigns on BSE, which will result in more detection of early breast cancer.

## 6. LIMITATION OF THE STUDY

The limitations of the study are based on the fact that only the survey method was employed to get data. Also, the scope happened to be narrow because it was limited to undergraduate students of Imo State University, Owerri, so the findings cannot be generalised to the people of Imo State. Based on these limitations, it is suggested that studies be done where consideration should be given to a mixed-methods research design where the researcher will have room to get both quantitative and qualitative data to enable in-depth analysis of the issue of discourse. Also, researchers undertaking studies in this area should consider using a larger scope to enable generalisation.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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