

Knowledge and Attitude of Female Undergraduate Students towards Breast Cancer Media Awareness Campaign in Anambra East Local Government Area of Anambra State

Nkechi E. Ibeagha

Department of Physical and Health Education, Nwafor Orizu College of Education, Nsugbe, Anambra State, Nigeria

Corresponding Author's Email: nkechiiba988@gmail.com

Abstract

This paper investigates the knowledge and attitude of female undergraduate students towards breast cancer media awareness campaign in Anambra East Local Government Area of Anambra State. It was noted that despite the rising burden of breast cancer globally, studies assessing KAP related to BCS among university students in rural or semi-urban settings remain limited. Students in these areas often encounter substantial barriers to accessing health information and screening services due to infrastructural, educational, and socioeconomic constraints. Thus, the study reviewed the concept of breast cancer and types of breast cancer. The study adopted a descriptive survey research design. The population of the study consisted of all the female students in the degree programme, totaling one thousand, four hundred and fifty (1,450) female students. A simple random sampling technique was used to select 200 students used for the study. The sample was done using simple random sampling technique. The major instrument used for data collection was a self structured questionnaire. The data generated in the course of the research study was analyzed using weighted mean. The findings revealed that having a close family member with breast cancer, early menstruation and late menopause increase breast cancer risk. Again use of oral contraceptives for a long time may slightly increase risk, are the level of knowledge of breast cancer and BSE among female undergraduate students. It was also reported that most students do not know the correct steps to perform breast self-examination, where to go for clinical breast examination; students believe that breast cancer cannot happen to them because they are still young, and that students feel shy or embarrassed to touch their breasts for examination. Based on the findings, the study recommends among others that the school management should integrate practical breast self-examination (BSE) demonstrations into General Studies and orientation programmes.

Keywords: Breast Cancer, Female Undergraduate Students, Cancer Awareness

Introduction

Cancer is a group of diseases involving uncontrolled cell growth typically resulting in tumors with the potential to invade or spread to other parts of the body. These malignant tumors contrast with benign tumors, which do not spread. Over 100 types of cancers affect humans (Otolorin, 2020). About 33% of deaths from cancer are caused by tobacco and alcohol, obesity, lack of fruit and vegetables in the diet and lack of exercise. Typically, many genetic changes are required before cancer develops. Cancer can be detected by certain signs and symptoms or screening tests (Tijani, 2025). It is then typically further investigated by medical imaging and confirmed by biopsy. Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells (Ladipo, 2019). While cancer can affect any part of the body, some types are more common in specific populations. Breast cancer is the most common cancer among women worldwide and a leading cause of cancer-related deaths in women, including in Nigeria. Understanding breast cancer specifically its nature, risk factors, signs, prevention, and control is vital for early detection and improved outcomes, especially among adolescents and young adults who need to develop lifelong health awareness (Oni, 2021).

Breast cancer is the uncontrolled growth of epithelial cells in the breast and is the most commonly diagnosed cancer among women worldwide. It affects approximately 2.1 million women annually and accounts for the highest number of cancer-related deaths in women. Globally, approximately 627,000 women die from breast cancer each year, accounting for about 15% of all cancer-related deaths among women worldwide (Tsui, 2020). Although breast cancer was previously more common in developed nations, its incidence is now increasing in low- and middle-income countries (LMICs) as well. Despite the rising burden of breast cancer globally, studies assessing KA related to BCS among university students in rural or semi-urban settings remain limited. Students in these areas often encounter substantial barriers to accessing health information and screening services due to infrastructural, educational, and socioeconomic constraints (Coetzee and Ngunyulu, 2020).

Breast cancer is the most common malignancy among women globally and the leading cause of cancer-related death among Nigerian women. In Nigeria, over 32,000 new cases are projected annually, with most patients presenting at advanced stages due to poor early detection practices (Chimah, 2024). Early detection through breast self-examination (BSE), clinical breast examination (CBE), and mammography significantly improves survival rates. Female undergraduates represent a critical demographic for breast cancer prevention because lifestyle habits formed in young adulthood influence long-term risk, and they are also potential health educators for their families and communities (Mehra, 2019). Studies across Nigerian universities show a recurring pattern: awareness of breast cancer is high, but detailed knowledge of risk factors, symptoms, and screening techniques is poor. While 90.5% of female students at Nnamdi Azikiwe University knew about BSE, only 67.2% had ever practiced it, and CBE rates were as low as 17.5%. Similar studies in Southwest Nigeria found that 90.3% had poor knowledge of breast cancer and screening, despite 97.1% having positive attitudes (Rose-Clarke, 2019).

Media has become the dominant channel for breast cancer awareness in Nigeria. “Pink October” campaigns are now amplified through Instagram, television, and corporate sponsorships. Public figures like Senator Oluremi Tinubu, influencers such as Aproko Doctor, and organizations like Access Bank and MedPrime Diagnostics use digital media to promote early detection and screening. These campaigns often include walkathons, video tutorials, and free screening drives (Ayesha and Quarraisha, 2024). However, exposure to media campaigns does not automatically translate to practice. Health education interventions have been shown to improve KA scores significantly, but many students still cite forgetfulness, lack of skill, and socio-cultural barriers as reasons for not practicing BSE. Anambra East Local Government Area in Anambra State, has a large female undergraduate population. Given their age, media consumption habits, and future roles as teachers and community leaders, understanding their KA towards breast cancer media awareness campaigns is essential for designing targeted interventions that can improve early detection behaviour (Ayesha and Quarraisha, 2024).

Breast Cancer awareness and attitude has been described as a common denominator to several factors determining the stage at which patients with breast cancer present to the hospital. There are reports suggesting that factors related to women's knowledge and beliefs about breast cancer and its management may contribute significantly to medical help-seeking behaviours (Orji and Onwudiegwu, 2019). One potentially important strategy in reducing breast cancer mortality is the use of screening to achieve earlier detection of cancer. Early diagnosis usually results in treatment before metastasis and signifies a better outcome of management (Izugbara and Modo, 2025).

Female undergraduates in Nigeria generally have high awareness of breast cancer due to robust media campaigns, but their depth of knowledge remains inadequate for effective prevention. Media has succeeded in creating visibility but must evolve from awareness to skill-building (Radovich, 2018). For students in Anambra East Local Government Area, campaigns should be

continuous, interactive, and tailored to address procedural knowledge, risk factors, and referral pathways. Improving the quality of knowledge among this group is essential because it directly influences early detection behavior and their capacity to educate others. A few studies on Knowledge, attitude and practices towards breast cancer have been conducted in Benin City Nigeria (Tsui, 2025). Each of these studies has recorded low knowledge and attitude among the participants.

The need for new studies especially in the core urban part of the city has become necessary to ascertain levels of improvement. This would be necessary in designing appropriate awareness creation intervention strategies (Olaleye, 2025). Knowledge of the level of awareness and attitude among urban population would also give an indication of what may be expected in the rural areas, since urban people are expected to have more access to information. It is against this backdrop that this study has undertaken to study Breast Cancer knowledge, Attitudes, Practices and its hindrances among women

Statement of the Problem

Despite numerous breast cancer media awareness campaigns in Nigeria, the mortality rate remains high due to late detection. While female undergraduates are heavily exposed to breast cancer content on social media and traditional media, studies from other institutions suggest that knowledge gaps and poor screening practices persist. There is limited empirical data on how female students in Anambra East Local Government Area, Nsugbe, perceive these campaigns, what they actually know about breast cancer, and whether media exposure translates to positive attitudes and regular practice of preventive measures.

Given the increasing incidence of breast cancer in Anambra East Local Government Area and the crucial role of early diagnosis in improving survival outcomes and reducing healthcare costs, this study provides timely and context-specific evidence to inform targeted awareness campaigns and screening strategies. By focusing on an underserved population, the findings contribute to enhancing preventive healthcare and promoting proactive health-seeking behaviors among young women. This study seeks to identify the knowledge and attitude of female undergraduate students towards breast cancer media awareness campaign in Anambra East Local Government Area of Anambra State. Understanding these issues will help address the knowledge gap, reduce unintended pregnancies, and promote better reproductive health education within the students.

Purpose of the Study

The purpose of this study was to survey on the knowledge and attitude of female undergraduate students towards breast cancer media awareness campaign in Anambra East Local Government Area of Anambra State. The study aims to:

1. Determine the level of knowledge of breast cancer and BSE among female undergraduate students.
2. Examine the attitude of female undergraduates towards breast cancer media awareness campaigns.
3. Identify barriers to practicing breast cancer preventive measures among the students.

Research Questions

The following three (3) research questions guided the study:

1. What is the level of knowledge of breast cancer and BSE among female undergraduate students?
2. What is the attitude of the students towards breast cancer media awareness campaigns?
3. What factors hinder the practice of breast cancer preventive measures among the students?

Conceptual Framework

Cancer

Cancer is one of the leading causes of morbidity and mortality worldwide, posing a major public health challenge in both developed and developing countries. Despite advances in medicine, the word “cancer” still evokes fear because of its association with pain, suffering, and death (Oni, 2021). However, cancer is not a single disease but a large group of diseases characterized by uncontrolled cell growth. Understanding the concept of cancer its definition, causes, development, types, and prevention is essential for students, health workers, and the general public in order to reduce its burden. Cancer refers to a condition in which some of the body’s cells begin to divide without stopping and spread into surrounding tissues. In a healthy body, cells grow, divide, and die in an orderly manner. New cells replace old or damaged ones (Ladipo, 2019).

In cancer, this orderly process breaks down. Damaged or abnormal cells survive when they should die, and new cells form when they are not needed. These extra cells can divide uncontrollably and form masses of tissue called tumors. Not all tumors are cancerous (Tijani, 2025). Benign tumors are non-cancerous; they do not spread to other parts of the body and are usually not life-threatening. Malignant tumors are cancerous; they can invade nearby tissues and spread to distant parts of the body through the blood and lymph systems, a process called metastasis. Cancers of the blood, such as leukemia, generally do not form solid tumors.

Breast Cancer

Breast cancer is a disorder marked by the unchecked growth of breast cells, usually starting in the milk ducts or lobules. It is the most diagnosed female malignancy globally and in Nigeria. WHO data indicate approximately 2.3 million women are diagnosed worldwide annually, with over 32,000 projected new cases in Nigeria for 2025 (Sudhinaraset, 2018). Breast cancer is the leading cause of cancer death among Nigerian women, largely due to late presentation. Risk factors include female gender, increasing age, family history, BRCA1/2 mutations, early menarche, late menopause, nulliparity, obesity, and alcohol use. Common symptoms are breast lumps, nipple discharge, skin dimpling, nipple retraction, and change in breast size or shape (Izugbara & Modo, 2025).

Breast cancer is a major global public health issue and the most frequently diagnosed cancer among women worldwide. It is characterized by the uncontrolled growth of abnormal cells in the breast tissue, which can invade surrounding tissues and spread to other parts of the body (Sugh, 2021). In Nigeria, breast cancer is the most common female malignancy and a leading cause of cancer-related death among women, with over 32,000 new cases projected annually (Akani, 2018).

Understanding the concept of breast cancer, its definition, types, risk factors, symptoms, detection methods, and social implications is essential for effective prevention, early diagnosis, and treatment, especially among young women in tertiary institutions (Amos, 2025). Breast cancer is a disorder marked by the unchecked growth of breast cells. It typically begins in the milk ducts (ductal carcinoma) or lobules (lobular carcinoma) of the breast. These abnormal cells multiply and form a tumor that can be felt as a lump. If not detected early, cancer cells may invade nearby lymph nodes and metastasize to organs such as the lungs, liver, bones, or brain. While it predominantly affects women, men can also develop breast cancer, though at much lower rates (Sudhinaraset, 2018).

Types of Breast Cancer

Ductal Carcinoma in Situ (DCIS): Non-invasive cancer confined to the milk ducts.

Invasive Ductal Carcinoma: The most common type, where cancer cells spread beyond the ducts into surrounding breast tissue.

Invasive Lobular Carcinoma: Begins in the milk-producing lobules and can spread to other tissues.

Inflammatory Breast Cancer: A rare, aggressive form that blocks lymph vessels, causing the breast

to appear red and swollen.

Triple-Negative Breast Cancer: Lacks estrogen, progesterone, and HER2 receptors, making it harder to treat. This type is more common among African women (Duze & Mohammed, 2024).

Breast Cancer Media Awareness Campaigns

Adeyinka, Adekanbi, Folope, and Aimakhu, (2025) stated that these are structured communication strategies using TV, radio, print, and digital media to increase knowledge, change attitudes, and promote early detection. In Nigeria, “Pink October” is the flagship campaign. Key features include:

Government advocacy: The First Lady, Senator Oluremi Tinubu, issues annual messages stating that October is Breast Cancer Awareness Month and that “early detection through self-examination and timely medical screening saves lives”.

Corporate campaigns: Access Bank disseminates statistics and emphasizes that breast cancer also affects men. MedPrime Diagnostics promotes mammography and notes breast cancer is “one of the most common cancers worldwide” (Alibi, 2022).

Social media edutainment: Influencers like Aproko Doctor teach BSE steps with clinical visuals and humor to boost shareability.

Community mobilization: #WalkAwayCancer2025 and similar events use walks, kits, and merchandise to create participation.

Knowledge and Attitude (KA)

KA is a framework for assessing health behavior:

Knowledge: Information and understanding of breast cancer risk factors, symptoms, and screening. Studies show 90.3% of female undergraduates in Southwest Nigeria had poor knowledge of breast cancer and screening.

Attitude: Beliefs and feelings toward breast cancer and campaigns. 97.1% of female undergraduates had positive attitudes towards screening.

Knowledge of Female Undergraduate Students towards Breast Cancer Media Awareness Campaign

Breast cancer is the most common cancer affecting women in Nigeria and a major contributor to cancer-related mortality. Over 32,000 new cases are projected annually in the country, yet late presentation remains widespread due to poor early detection practices. Early detection through breast self-examination (BSE), clinical breast examination (CBE), and mammography significantly improves survival outcomes (Akani, 2018). In response, government agencies, NGOs, health professionals, and corporate organizations have intensified breast cancer media awareness campaigns, especially during the global “Pink October” initiative. Pink October is an annual global health campaign observed every October to raise awareness of breast cancer, promote early detection, and support survivors (Salako, 2024). Female undergraduates are a strategic population for these campaigns. They are highly active on digital platforms, are at a formative age for adopting health behaviors, and often serve as health information conduits for their families and future students. This study examines the level, sources, and gaps in the knowledge of female undergraduate students towards breast cancer media awareness campaigns (Okunlola, Morhason-Bello, Owonikoko & Adekunle, 2024).

Studies across Nigerian tertiary institutions show that general awareness of breast cancer is high among female undergraduates. At Nnamdi Azikiwe University, 99.3% of students had heard of breast cancer, and at Babcock University, 96.9% had good knowledge of BSE. Television, social media, and health workers are frequently cited as primary sources of information (Adeokun, 2019). However, high awareness does not equate to comprehensive knowledge. A cross-sectional study in Southwest Nigeria reported that 90.3% of female undergraduates had poor knowledge of breast cancer and screening methods. Specific deficiencies exist in understanding risk factors, early warning signs, and correct screening procedures (Tayo, 2021). While family history is the most commonly

recognized risk factor, knowledge of modifiable factors such as obesity, alcohol use, late age at first birth, and nulliparity is limited. Similarly, many students know that BSE exists but cannot accurately describe the recommended timing, frequency, or palpation technique (Oladokun, Morhason-Bello,

Enakpene, Owonikoko, Akinyemi & Obisesan, (2025).

Knowledge levels are influenced by academic level and exposure to health education. Students in their third year and above, or those in health-related departments, demonstrate significantly better knowledge than first-year students. Interventional studies also show that structured health education markedly improves knowledge scores, indicating that gaps are correctable (Olugbenga-Bello, Abodunrin, & Adeomi, 2021).

Attitude of Female Undergraduates towards Breast Cancer Media Awareness Campaigns

Breast cancer is the most prevalent malignancy among Nigerian women and a leading cause of cancer death, largely because most cases are detected at advanced stages. To promote early detection, breast cancer media awareness campaigns have become a fixture on television, radio, billboards, and especially social media during “Pink October” (Trussell and Raymond, 2019). Female undergraduates are a core audience for these campaigns due to their high media consumption, age bracket, and potential to influence peers and future students. While knowledge and practice are often studied, attitude, the feelings, beliefs, and predispositions students hold toward these campaigns determines whether awareness translates into preventive behaviour (Steiner, Trussell, Mehta, Condon, Subramaniam and Bourne (2024).

This study examines the attitudes of female undergraduates towards breast cancer media awareness campaigns in Nigeria. Research consistently shows that female undergraduates hold largely positive attitudes towards breast cancer screening and awareness efforts (Benagiano, Bastianelli and Farris, 2024). In a Southwest Nigerian study, 97.1% of female undergraduates had a positive attitude towards screening. Similarly, post-intervention studies report that “all of the respondents showed a positive attitude about BSE” after educational sessions, with most agreeing that BSE is crucial for early diagnosis even though it is not a treatment (Trussell and Raymond, 2019). This positivity is reflected in how students engage with media campaigns. Social media posts by public figures and influencers during Pink October receive supportive comments, shares, and blessings. Campaigns framed as acts of “leadership,” “prevention,” and “collective action” resonate with young women. The involvement of trusted figures like the First Lady, Senator Oluremi Tinubu, who urges women to “prioritize health” and “raise awareness,” reinforces the perception that breast cancer advocacy is socially valuable (Steiner, 2024).

Components of Attitude towards Media Campaigns

Cognitive Component: Perceived Importance and Relevance: Most female undergraduates believe breast cancer is a serious issue and that awareness campaigns are necessary. Campaigns by Access Bank that cite WHO statistics 2.3 million women worldwide are diagnosed annually, with over 32,000 projected new cases in Nigeria for 2025 help students understand the scale of the problem (Alemu, 2025).

Affective Component: Emotional Response: Emotional reactions to campaigns are mixed. Pink October branding, survivor stories, and celebrity involvement evoke empathy, solidarity, and hope. Students often describe campaigns as “inspiring” and “empowering.” However, graphic images of late-stage tumors or messaging that emphasizes mortality can trigger fear, denial, or anxiety (Abiodun & Balogun, 2019).

Behavioral Component: Intention to Act: Positive attitude does not always translate to action. While students agree BSE is important, actual practice remains low. Only 52.9% had done

BSE and 4.6% had done CBE in one study, despite 97.1% positive attitude. Post-intervention data show attitudes improve significantly after education, and practice scores also rise, but “some study participants forgot to complete a BSE practice assignment” even after training. This attitude-behavior gap is linked to barriers like forgetfulness, lack of skill, cultural stigma, and limited access to screening (Nigeria’s National Demographic Health Survey, 2018).

Barriers to Practicing Breast Cancer Preventive Measures among Female Undergraduate Students

Breast cancer is the leading cancer among Nigerian women, with over 32,000 new cases projected annually. Early detection through breast self-examination (BSE), clinical breast examination (CBE), and mammography is key to reducing mortality. While breast cancer media awareness campaigns have raised general awareness among female undergraduates, practice of preventive measures remains low (Abiodun and Balogun, 2019). Studies consistently report a gap between knowledge, positive attitude, and actual behaviour. This study examines the major barriers that prevent female undergraduate students, including those at institutions like Nwafor Orizu College of Education, Nsugbe, from practicing breast cancer preventive measures.

Knowledge-Related Barriers: The most fundamental barrier is inadequate procedural knowledge. Although 90.5% of female students at Nnamdi Azikiwe University knew about BSE, many cannot correctly describe the steps, timing, or frequency. A Southwest Nigerian study found 90.3% of female undergraduates had poor knowledge of breast cancer and screening methods (Omo-Aghoja, 2019). Without knowing how and when to perform BSE, students cannot practice it effectively. Media campaigns often mention “check your breasts” but provide limited hands-on instruction, leaving students uncertain (Sugh, 2021).

Psychological Barriers: Fear and anxiety significantly hinder practice. Some students avoid BSE because they are afraid of finding a lump. Fear-based media messaging that emphasizes death statistics without teaching coping strategies can increase denial and avoidance (Adeyinka, Adekanbi, Folope, & Aimakhu, 2019). Additionally, low perceived susceptibility is common; many students believe breast cancer affects only older women, so they deprioritize monthly self-checks. Fatalism, the belief that cancer cannot be prevented or cured also reduces motivation to engage in preventive behaviours (Akani, 2018).

Socio-Cultural and Religious Barriers: Cultural taboos around discussing or touching the breast make BSE practice uncomfortable for some students. In conservative settings, breast health is considered a private issue, and seeking CBE from male providers may be unacceptable. Myths and misconceptions persist alongside campaign messages, such as beliefs that wearing bras or using deodorants causes breast cancer, which dilute evidence-based information (Salako, 2024).

Forgetfulness and Lack of Routine: BSE should be performed monthly, ideally 5–7 days after menstruation. However, students cite forgetfulness as a major reason for non-practice. Unlike other health behaviors tied to daily routines, BSE lacks built-in cues. Post-intervention studies note that despite reminders through WhatsApp groups, some students still did not complete practice assignments, indicating that sustained habit formation requires stronger reinforcement systems (Okunlola, Morhason-Bello, Owonikoko & Adekunle, 2024).

Access and Economic Barriers: While BSE is free, CBE and mammography require access to health facilities. Students report financial constraints, long waiting times, and distance to screening centers as barriers to CBE. On many campuses, there are no regular breast screening programs, so even students who detect abnormalities through BSE do not know where to seek confirmation. The absence of institutional support means media awareness does not translate to clinical follow-up

(Adeokun, 2019).

Media and Message-Related Barriers: Although media campaigns drive awareness, several aspects limit their impact on practice:

Message fatigue: Oversaturation during Pink October leads some students to tune out.

Lack of skill demonstration: Many campaigns raise alarm but do not show how to perform BSE correctly.

Language and relevance: Campaigns in English only, or featuring urban elites, feel distant to students in rural campuses.

Fear without efficacy: Messages that stress mortality without providing clear, achievable steps increase anxiety and avoidance.

Institutional and Policy Barriers: Most tertiary institutions lack structured breast health programs. Without orientation workshops, peer educator systems, or periodic screening days, students have no organizational support to convert knowledge into practice. At colleges of education, health curricula often exclude practical breast health modules, so future teachers graduate without the skills to protect themselves or educate pupils (Tayo, 2021).

This chapter reviewed some related works of other scholars from different books, articles and journals under conceptual framework and empirical studies. Breast cancer is the uncontrolled growth of epithelial cells in the breast and is the most commonly diagnosed cancer among women worldwide.. Thus, the study reviewed the concept of breast cancer and types of breast cancer. The chapter also stated the level of knowledge of breast cancer and BSE among female undergraduate students, the attitude of female undergraduates towards breast cancer media awareness campaigns and barriers to practicing breast cancer preventive measures among the students.

From the literature reviewed on the knowledge and attitude of female undergraduate students towards breast cancer media awareness campaign in Anambra East Local Government Area of Anambra State, it was revealed that while substantial number still remains ignorant of breast cancer issues, a good number of those who have knowledge were yet to translate knowledge and attitudes into practice and the knowledge and attitudes were found to be key factors in influencing and determining the acceptability and proper utilization of any health related programs such as breast cancer screening.

Method

This chapter described the method used in this study. This study adopted a descriptive survey research design. Descriptive survey involves obtaining information from a group of people through sample representative (Nworgu, 2024). This study was carried out in Nwafor Orizu College of Education, Nsugbe, Anambra East Local Government Area of Anambra State

The population of the study consisted of all the female students in the degree programme within the twenty-two (22) departments in Nwafor Orizu College of Education Nsugbe. The total population comprises of one thousand, four hundred and fifty (1,450) female students. A simple random sampling technique was used to select 200 students for the study. The sample was done using proportionate simple random sampling technique. The major instrument used for data collection was a self structured questionnaire. The data generated in the course of the research study was analyzed using weighted mean rating scale. All the items with the mean value of 2.5 and above were taking as positive response while those below 2.5 were taking as negative responses.

Results and Discussion

The results showed the presentation of data analyzed in line with formulated research questions.

Research Question 1: What is the level of knowledge of breast cancer and BSE among female undergraduate students?

Table 1: Respondents Mean Score Rating on the level of knowledge of breast cancer and BSE among female undergraduate students. **N =200**

S/N	Item	SA	A	SD	D	Total	$\bar{X}$	Decision
1	Having a close family member with breast cancer increases one's risk.	70	60	50	20	200	2.9	Agreed
2	Early menstruation and late menopause increase breast cancer risk.	85	60	20	20	200	3.1	Agreed
3	Use of oral contraceptives for a long time may slightly increase risk.	84	50	36	30	200	2.9	Agreed
4	Wearing tight bras or using deodorants causes breast cancer while breastfeeding reduces the risk of breast cancer.	35	50	30	18	200	1.9	Disagreed
5	Smoking and alcohol consumption increase breast cancer risk.	40	50	36	30	200	2.1	Disagreed

Table I above shows that items 1, 2, and 3 with the mean ($\bar{x}$) responses of 2.9, 3.1, and 2.9 of the respondents were well above the cut-off point of 2.50, except items 4 and 5 with mean scores of 1.9 and 2.1 respectively. However, an average mean ($\bar{x}$) score of 3.16 > 2.50 shows that respondents agreed that the above items are the level of knowledge of breast cancer and BSE among female undergraduate students.

Research Question 2: What is the attitude of the students towards breast cancer media awareness campaigns?

Table 2: Respondents Mean Score Rating on the attitude of the students towards breast cancer media awareness campaigns. **N =200**

S/N	Item	SA	A	SD	D	Total	$\bar{X}$	Decision
6	Most female undergraduates believe breast cancer is a serious issue and that awareness campaigns are necessary.	20	50	47	33	200	1.8	Disagreed
7	Emotional reactions to campaigns are mixed in the survivor stories, and celebrity involvement evokes empathy, solidarity, and hope.	50	49	43	28	200	2.3	Disagreed
8	Students are more receptive when campaigns feature medical professionals, survivors, or respected public figures.	84	50	36	30	200	2.9	Agreed
9	Campaigns that use local language, modest visuals, and faith-friendly messaging reduce resistance.	55	60	50	35	200	2.5	Agreed
10	Campus influencers or student associations share campaign content, attitudes improve because peers normalize participation.	70	60	50	20	200	2.9	Agreed

Table 2 above showed that items 8, 9, and 10 with the mean ($\bar{x}$) responses of 2.9, 2.5, and 2.9

of respondents are well above the cut-off point of 2.50, except items 6 and 7 with mean scores of 1.8 and 2.3 respectively. However, an average mean ($\bar{x}$) score of $2.9 > 2.50$ shows that respondents agreed that the above items are the attitude of the students towards breast cancer media awareness campaigns.

Research Question 3: What factors hinder the practice of breast cancer preventive measures among the students?

Table 3: Respondents Mean Score Rating on the factors hinders the practice of breast cancer preventive measures among the students. **N = 200**

S/N	Item	SA	A	SD	D	Total	$\bar{X}$	Decision
11	Most students do not know the correct steps to perform breast self-examination.	90	65	32	13	200	3.2	Agreed
12	Students do not know where to go for clinical breast examination.	70	58	42	30	200	2.9	Agreed
13	Most students are afraid of finding a lump in my breast.	85	21	31	19	200	2.3	Disagreed
14	Students believe that breast cancer cannot happen to them because they are still young.	83	70	27	20	200	3.1	Agreed
15	Students feel shy or embarrassed to touch their breasts for examination.	70	60	50	20	200	2.9	Agreed

Table 3 above shows that items 11, 12, 14 and 15 with the mean ($\bar{x}$) responses of 3.2, 2.9, 3.1 and 2.9 of respondents are well above the cut-off point of 2.50, except item 13 with mean score of 2.3. However, an average mean ($\bar{x}$) score of $3.2 > 2.50$ shows that respondents agreed that the above items are the factors hindering the practice of breast cancer preventive measures among the students.

Discussion of the Findings

The findings discussed the level of knowledge of breast cancer and BSE among female undergraduate students. The female students revealed that having a close family member with breast cancer increases one's risk, early menstruation and late menopause increase breast cancer risk and use of oral contraceptives for a long time may slightly increase risk are the level of knowledge of breast cancer and BSE among female undergraduate students. This finding was supported by Okunlola, Morhason-Bello, Owonikoko and Adekunle (2024) that female undergraduates are a strategic population for these campaigns. They are highly active on digital platforms, are at a formative age for adopting health behaviors, and often serve as health information conduits for their families and future students. This study examines the level, sources, and gaps in the knowledge of female undergraduate students towards breast cancer media awareness campaigns.

The findings discussed the attitude of the students towards breast cancer media awareness campaigns. The female students observed that students are more receptive when campaigns feature medical professionals, survivors, or respected public figures, campaigns that use local language, modest visuals, and faith-friendly messaging reduce resistance and campus influencers or student associations share campaign content, attitudes improve because peers normalize participation. Research by Steiner, Trussell, Mehta, Condon, Subramaniam and Bourne (2024) reported that female undergraduates are a core audience for these campaigns due to their high media consumption, age bracket, and potential to influence peers and future students. While knowledge and practice are often studied, attitude, the feelings, beliefs, and predispositions students hold toward these campaigns determines whether awareness translates into preventive behaviour.

The findings discussed the factors that hinder the practice of breast cancer preventive measures among the students. The female students responded that most students do not know the correct steps to perform breast self-examination, students do not know where to go for clinical breast examination, students believe that breast cancer cannot happen to them because they are still young and students

feel shy or embarrassed to touch their breasts for examination. Sugh (2021) noted that without knowing how and when to perform BSE, students cannot practice it effectively. Media campaigns often mention “check your breasts” but provide limited hands-on instruction, leaving students uncertain. Even after educational interventions, some participants “forgot to complete a BSE practice assignment,” showing that one-time exposure does not build mastery.

Conclusion

The study highlights the critical gaps in knowledge and attitude of female undergraduate students towards breast cancer media awareness campaign in Anambra East Local Government Area of Anambra State. This study revealed that the majority of female undergraduate students in Anambra East Local Government Area exhibited limited knowledge, negative attitudes, and inadequate practices concerning breast cancer screening. Factors significantly associated with poor knowledge and screening behaviors included rural residence, younger age, absence of a family history of breast cancer, and being in the first year in the institution. Negative attitudes were more prevalent among those unaware of their risk. These findings highlight the urgent need for targeted, evidence-based interventions, particularly for vulnerable subgroups such as rural and younger students. The Ministry of Health should prioritize breast cancer awareness initiatives tailored to rural communities. In parallel, in Anambra East Local Government Area, through collaboration with healthcare professionals and media outlets, should implement comprehensive breast health education programs, with a particular focus on first-year students and those with no family history of the disease.

Recommendations

Based on the findings from this research the following recommendations were made:

1. The school management should integrate practical breast self-examination (BSE) demonstrations into General Studies and orientation programmes.
2. The federal government should collaborate with health NGOs to run quarterly campus screenings paired with education sessions.
3. School authorities should train student health ambassadors to produce peer-led content in native languages.
4. Government should evaluate campaigns using pre- and post-tests rather than reach metrics alone.
5. There is a need to create and strengthen breast cancer awareness campaigns through all available media platforms, health facilities, and schools. This should not only be for improved breast cancer screening practices but very importantly, to improve knowledge on its presentation, risk factors and benefits of early detection and treatment for a better outcome.
6. Increased public health education and promotional campaign regarding the effectiveness of breast cancer screening for early detection are needed to increase participation in breast cancer screening programmes.

References

- Abah, A. L. (2019). Popular Culture and Social Change in Africa: the Case of the Nigerian Video Industry. *Media, Culture and Society*. 31(5): 731-748.
- Abdulraheem, I. S. & Fawole, O. I. (2019). Young People's Sexual Risk Behaviour in Nigeria. *Journal of Adolescent Research*, 24(4): 505-527.
- Alemu, H., Damen, M.H., Belay, K.A. and Davey, G. (2025). Factors Predisposing Out-of-School Youths to HIV/AIDS-related Risky Sexual Behaviour in Northwest Ethiopia. *Journal of Health Population Nutrition*, 25(3): 344-350.
- Amoran, O.E., Onadeko M.O. (2025). Parental Influence on Adolescent Sexual Initiation Practices in Ibadan, Nigeria. *International Quaterly Journal of Community Health Education*, 23(1): 72-81.
- Amos, O. 2025. Determinants of Contraceptive Usage: Lessons from Women in Osun State, Nigeria.

Journal of Humanities and Social Sciences, 1(2): 1-14.

- Aomreore, A.A. and Alikor, A.D. (2018). Prevalence of Major HIV-Risk Related Behaviour among SSS3Students in Port Harcourt Metropolis, Nigeria. *African Journal of Health Sciences*, 15: 42-49.
- Appiah-Agyekum, N.N. and Kayi, E.A. (2025). Students' Perception of Contraceptives in University of Ghana. *Journal of Family and Reproductive Health*, 7(1): 39-44.
- Arowojolu, A.O., Ilesanmi, A.O., Roberts, O.A. & Okunola, M.A. (2022). Contraceptive Choice and AIDs Awareness among Nigerian Undergraduates. *African Journal of Reproductive Health*, 6(2): 60-70.
- Attahir, A., Sufiyan, M.B., & Abdulkadir, A. (2020). Knowledge, Perception and Practice of Emergency Contraception among Female Adolescent Hawkers in Rigasa Suburban Community of Kaduna State Nigeria. *Journal of Family and Reproductive Health*, 4(1): 15-20.
- Avong, G. H. (2022). Relationship between Religion and Use of Modern Contraceptives among the Atyap in Kaduna State. Nigeria. *Research on Humanities and Social Sciences*, 2(8): 82-89.
- Ayesha, K. & Quarraisha, K. (2024). HIV Infection and AIDS in Sub-Saharan Africa: Current Status, Challenges and Opportunities. *Open AIDS Journal*. 10: 34-48.
- Aziken M.E, Patrick IO, & Ande A. (2023) International family planning perspectives. *Journal for Health and the People*, 29(2):84-7.
- Blanc, K; Tsui, O; Croft, N; & Trevitt, L. (2019). Patterns and trends in adolescents' contraceptive use and discontinuation in developing countries and comparisons with adult women. *International Perspectives on Sexual and Reproductive Health (IPSRH)*. 35: 63-67.
- Chandra-Mouli, V; McCarraher, R; Phillips, J; Williamson, E; Hainsworth, G. (2019). Contraception for adolescents in low and middle income countries: Needs, barriers, and access. *Reprod Health*. 11: 1-4.
- Chimah, C; Lawoyin, O; Ilika, L; Nnebue, C. (2024). Contraceptive knowledge and practice among senior secondary school students in military barracks in Nigeria. *Niger J Clin Pract*. 19: 182-188.
- Coetzee, H; Ngunyulu, N. (2025). Assessing the use of contraceptives by female undergraduate students in a selected higher educational institution in Gauteng. *Curationis*. 38: 1-7.
- Curtis, KM; Tepper, NK; Jatlaoui, TC; Jamieson, DJ; Whiteman, MK. (2024). U.S. Medical Eligibility Criteria for Contraceptive Use. *MMWR Recomm Rep*. 65(3), pp.1-103.
- Duru, B; Ubajaka, C; Nnebue, C; Ifeadike, O; & Okoro, P. (2020). Sexual behaviour and practices among secondary school adolescents in Anambra state, Nigeria. *Afrimedical Journal*. 1: 22-27.
- Duru, C. B., & Okonkwo, P. (2018). Factors influencing contraceptive use among young women in Nigerian universities. *BMC Public Health*, 18(1), 245.
- Egbuna, P. (2018). Sexual behaviour and practices among secondary school adolescents in Anambra State, Nigeria. *Afrimedical Journal*. 1: 22-27.
- Ladipo, O.A. (2019). Sexual and Reproductive Health Knowledge, Behaviour and Education Needs for In-School Adolescents in Northern Nigeria. *African Journal of Reproductive Health*, 13(4): 37-49.
- Mason-Jones, AJ; Sinclair, D. & Lombard, C. (2024). School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. *Cochrane Database Syst Rev*. 11: CD006417.
- Mehra, D; Agardh, A; Petterson, K; & Ostergren, P. (2019). Non-use of contraception: Determinants among Ugandan university students. *Globe Health Action*. (5), 18599.
- National population commission (2025) *ICF international. Nigeria demographic and health survey*. National Population Commission and ICF international.
- Ogbuji. G. K. (2025) knowledge about HIV/AIDS and sexual practice. *Afr J Med.Sci.*;34(1):25-31.
- Ogunjuyigbe, P. O., & Adebawale, A. S. (2024). Determinants of contraceptive use among university students in Nigeria. *African Journal of Reproductive Health*, 20(3), 73-80.

- Okigbo, CC; Kabiru, CW; Mumah, JN; Mojola, SA; & Beguy, D. (2025). Influence of parental factors on adolescents' transition to first sexual intercourse in Nairobi, Kenya: a longitudinal study. *Reprod Health*. 12:73.
- Oni, T. (2021). Knowledge and usage of contraceptives among female students of tertiary institutions in Southwest Nigeria. *International Journal of Women's Health*, 1(3), 335-340.
- Otolorin, E.O. (2020). Evaluation of the Nigerian Population Policy: Myth or Reality?. *African Journal of Medicine and Medical Sciences*, 29(3-4): 305-310.
- Padmore, A; Joseph, E; & David, A. (2018). Social Networks and Health: Understanding the Nuances of Healthcare Access between Urban and Rural Populations. *International Journal. Environ. Res. Public Health*. 15: 973.
- Radovich, E; Dennis, M; & Wong, K. (2018). Who meets the contraceptive needs of young women in SubSaharan Africa. *J Adolesc Health*. 62: 273-280.
- Rose-Clarke, K; Bentley, A; Marston, C; Prost, A. (2019). Peer-facilitated community-based interventions for adolescent health in low- and middle-income countries: A systematic review. *PLoS One*. 14: e0210468.
- Tijani, A.M. (2025). Knowledge and Determinants of Emergency Contraception Use among Students in Tertiary Institutions in Osun State, Nigeria. *Journal of Basic and Clinical Reproductive Sciences*, 2(1): 46-53.
- Tsui, AO; Brown, W; Li, Q. (2025). Contraceptive practice in sub Saharan Africa. *Popul Dev Rev*. 88 (43), 166-191.
- Tsui, AO; McDonald-Mosley, R; Burke, AE. (2020). Family planning and the burden of unintended pregnancies. *Epidemiol Rev*. 32(1), pp. 152-174.
- UNFPA. State of the World Population Report, (2019). Available from: <http://www.unfpa.org/sites/default/files/pub-pdf/web.pdf> (cited 1 April 2025)
- World Health Organization (2025). Preventing unsafe abortion Fact sheet no.388. Available: <http://www.who.int/mediacentre/factsheets/fs388/en/>.