

**AWARENESS, PRACTICES AND PERCEPTIONS OF BREAST SELF-EXAMINATION  
AMONG FEMALE TEACHERS IN NIGERIA: A SCOPING REVIEW**

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**Abstract**

Breast cancer remains a major public health concern, and breast self-examination (BSE) is a critical preventive measure. This study explores the knowledge, attitudes, and practices of BSE among female teachers in Nigeria by synthesising existing literature. The objectives include assessing awareness levels, examining BSE practices, exploring perceptions, identifying influencing factors, and evaluating the impact of health education initiatives. A methodological scoping review was adopted to ensure a transparent, structured, and replicable synthesis of existing studies. Relevant literature was retrieved from Google Scholar, PubMed, and other databases using systematic search strategies with Boolean operators and Medical Subject Headings (MeSH) terms. Inclusion criteria comprised peer-reviewed studies published between 2014 and 2024 that focused on BSE awareness, practice, and perceptions among female teachers in Nigeria. Data synthesis revealed three dominant themes: (1) Knowledge and awareness—moderate awareness levels, but misconceptions regarding the appropriate initiation age of BSE; (2) BSE practice—high awareness but irregular or improper execution of the procedure; and (3) Barriers—sociocultural factors, lack of structured awareness programmes, and limited access to advanced screening methods. Despite the positive attitudes of female teachers toward BSE, gaps persist between awareness and correct practice. The study highlights the need for enhanced health education and targeted interventions. Future research should focus on designing structured BSE training programmes, assessing their

long-term effectiveness, and exploring the role of digital health tools in improving BSE awareness and adherence among female educators in Nigeria.

**Keywords:** Breast Self-Examination (BSE), Female Teachers, Awareness and Practice, Health Education, Breast Cancer Prevention

## **Introduction**

Breast self-examination (BSE) is a technique that women can perform on themselves to increase breast awareness. It involves visually and manually checking the breasts for any noticeable changes (Sianipar et al., 2024). However, despite its potential for early detection of breast abnormalities, the practice of BSE remains low across the globe, particularly in Africa and Nigeria. The poor uptake of BSE can be attributed to inadequate knowledge, negative attitudes, and misconceptions surrounding the practice (Ogunmodede et al., 2022). It is essential for women to have a strong knowledge base, a positive attitude, and good perception regarding BSE, as these factors contribute to the early detection of breast cancer. Early detection significantly reduces morbidity and mortality rates associated with breast cancer in Nigeria (Akpanekpo, 2017). BSE is widely regarded as an effective and accessible strategy for identifying breast abnormalities, with the potential to detect up to 40% of breast lesions when properly conducted (Carol et al., 2021). It is a cost-effective, self-administered, and fundamental technique that enables women to understand their breast structure and identify any irregularities (Ogunmodede et al., 2022).

The stage at which breast cancer is diagnosed plays a crucial role in its management. A timely diagnosis is highly dependent on individuals possessing adequate knowledge about breast cancer, maintaining a positive attitude towards preventive measures, and having the necessary skills to perform BSE correctly (Ogunmodede et al., 2022). Female secondary school teachers, who play a critical role in shaping young minds, may not have sufficient knowledge regarding breast cancer risk factors. This knowledge gap raises concerns about their ability to adopt and promote BSE as a preventive health measure.

The objective of this scoping review is to systematically examine the existing literature on the awareness, practices, and perceptions of BSE among female teachers in Nigeria. The study aims to explore the level of knowledge and awareness of BSE, assess the frequency and methods of practice, and investigate the cultural, social, and personal perceptions that influence engagement with this preventive measure. A systematic search and synthesis of relevant literature will be conducted using predefined inclusion and exclusion criteria. By employing a scoping review approach, this study will provide a comprehensive exploration of current findings, identify trends and gaps, and highlight opportunities for intervention. The findings will contribute to breast cancer prevention efforts by emphasizing the importance of BSE, which remains an often-overlooked aspect of early detection strategies.

Compared to other diagnostic methods, BSE is an inexpensive approach that could be widely implemented in Nigeria, particularly given the challenges in the country's healthcare sector that limit access to advanced diagnostic facilities (Sadoh et al., 2021). As educated professionals, female teachers have the potential to influence positive health behaviours and raise awareness about breast cancer. However, several factors hinder the adoption and consistent practice of BSE, including a lack of knowledge, myths regarding breast cancer epidemiology, cultural beliefs, and inadequate standardized practices (Daniel et al., 2024). Despite the clear benefits of BSE in breast cancer prevention, there is a lack of quantitative data on female teachers' awareness, practices, and

perceptions of BSE in Nigeria. This scoping review seeks to bridge this gap by examining the literature on female teachers' knowledge, behaviours, and attitudes towards BSE in Nigeria.

The study will identify challenges and facilitators, as well as map opportunities to enhance BSE knowledge and implementation among female teachers. While previous research highlights that BSE is an affordable and accessible method for breast cancer detection, there is limited evidence regarding female teachers' awareness and practices related to BSE, which justifies the need for this study (Maitanmi et al., 2023). There remains a significant gap between having knowledge of BSE, possessing the ability to perform it, and actually performing it correctly. This gap is particularly concerning given the critical role that teachers play in disseminating health education. Maitanmi et al. (2023) reported that while some female teachers engage in aspects of BSE, such as squeezing nipples to check for discharge, there is inconsistency in their methods. This inconsistency suggests a lack of comprehensive knowledge about the proper techniques and steps involved in BSE.

The purpose of this study is to explore and synthesise the existing literature on the knowledge, attitudes, and behaviours of female teachers in Nigeria regarding BSE. The study aims to identify gaps, assess the effectiveness of existing interventions, and highlight areas where further research is needed. The study's objectives are to assess the level of awareness of BSE among female teachers in Nigeria, examine the practices of BSE among this group, and explore their perceptions and attitudes towards the practice. Additionally, the study seeks to identify factors influencing the awareness and practice of BSE and evaluate the role of health education and awareness programs in promoting BSE among female teachers in Nigeria. Through these objectives, the study will provide valuable insights into how knowledge and practices related to BSE can be improved, ultimately contributing to enhanced breast cancer prevention strategies.

## **Methodology**

The study adopted a methodological scoping review design, which provided a transparent and structured approach to evaluating existing literature. This methodological choice ensured replicability, objectivity, and minimised bias in the review process. The study aimed to answer the research question: What are the levels of awareness, practices, and perceptions of breast self-examination among female teachers in Nigeria? This research question guided the descriptive scoping review design. A comprehensive search for potentially eligible articles was conducted across multiple databases, including Google, Google Scholar, and PubMed, to obtain relevant literature. The search strategy incorporated a combination of keywords and Boolean operators to refine the results. Keywords such as ("awareness" OR "knowledge" OR "recognition") AND ("practices" OR "behaviors" OR "habits") AND ("perceptions" OR "attitudes" OR "beliefs") AND ("breast self-examination" OR "BSE" OR "manual breast check") AND ("female teachers" OR "women teachers" OR "female educators") AND ("Nigeria" OR "West Africa") were utilised. Medical Subject Heading (MeSH) terms were also included to enhance the precision of the search.

The inclusion criteria for article selection encompassed studies published in English, studies appearing in peer-reviewed journals, and studies employing quantitative, qualitative, or mixed-method methodologies. Additionally, eligible studies specifically reported on awareness, practices, and perceptions of breast self-examination and were conducted within Nigeria. Only articles published between 2014 and 2024 were considered. Conversely, exclusion criteria included studies published in languages other than English, literature reviews, opinion pieces, editorials, non-peer-reviewed articles, studies lacking quantitative or qualitative data, studies that did not address

awareness, practices, or perceptions of breast self-examination, and those conducted outside Nigeria or falling outside the specified publication period. A systematic keyword strategy was employed, with synonyms incorporated to ensure comprehensive coverage. For example, "awareness" was associated with "knowledge," "recognition," and "familiarity"; "practices" included "behaviours," "habits," and "self-care practices"; "perceptions" encompassed "attitudes," "beliefs," "views," and "opinions"; "breast self-examination" was referred to as "BSE," "self-breast examination," and "manual breast check"; "female teachers" included "women teachers" and "female educators"; and "Nigeria" was broadened to include "West Africa" and "Nigerian population."

The article selection process involved a thorough assessment of titles and abstracts by reviewers. Full-text reviews were subsequently conducted to confirm eligibility for inclusion. A meticulous evaluation was carried out before final selections were made based on the inclusion and exclusion criteria. Data were extracted systematically from all included studies, while articles containing incomplete data or unclear information were excluded from the final analysis. Data extraction entailed systematically collecting relevant information from selected studies, including key findings, study design, and population characteristics. According to Noyes et al. (2019), data extraction approaches vary based on the type of synthesis being conducted and the study's objectives. Methods for data extraction included the use of standardised templates, pre-established frameworks, or customised templates tailored to the specific research questions of the review.

Data synthesis involved combining and summarising extracted data to identify patterns either narratively or quantitatively. The extracted data were analysed to uncover emerging themes or trends (Schmidt et al., 2021). By focusing on these common elements, the review sought to create a comprehensive analysis reflecting dominant trends across multiple studies. The synthesis process aimed to generate insights that could contribute to a deeper understanding of the awareness, practices, and perceptions of breast self-examination among female teachers in Nigeria.

**Result**

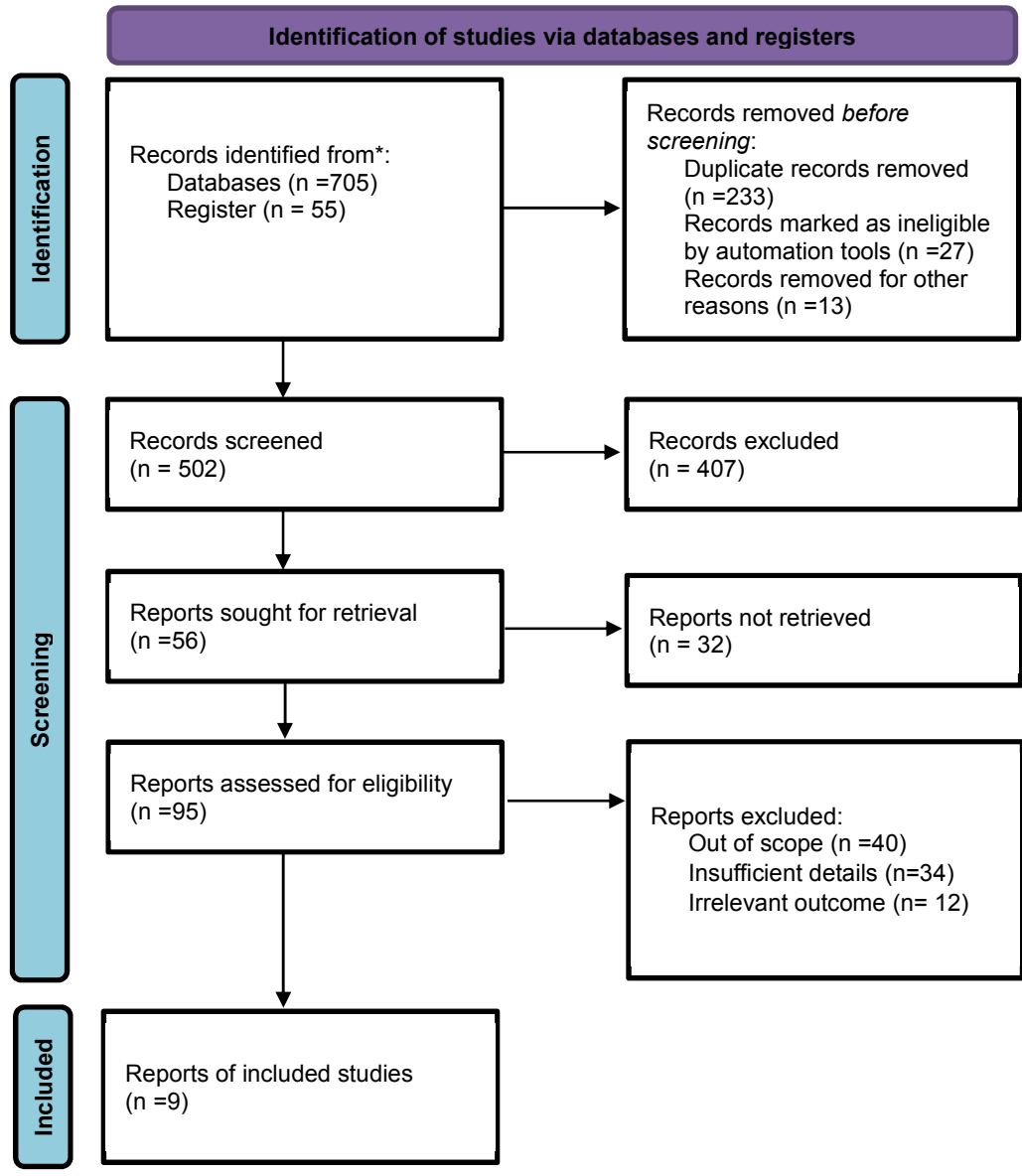


Fig 1: PRISMA flow diagram

**Key characteristics**

The data extracted from the selected studies are presented in tabular form below, summarizing the key characteristics of each study's

Article	Study design	Findings		Population
Ojewusi and Arulogun (2016)	cross-sectional in design	Only 2% of the respondents said that they have heard of SBE, 10.7% said that they knew the right age for SBE to begin. Of these respondents, only 111 (36.2%) had ever practiced SBE and only 28 (27.6%) of the 111 examined their breast monthly. Compared to the 73 and 163 respondents who reported to have a hear of mammography and CBE respectively 1.6 and 4.6% had ever done the screening or ever gone for the exam.	semi-structured questionnaire	411 female teachers in SS school.
Nnebue et al. (2018)	descriptive cross-sectional study	Among them 236(90.1%) were aware of BSE, 199(70.1%) CBE and 120(42.3%) mammography. About 209(71.5%) respondents responded that they ever practiced BSE (of which the currently married were 79 (27.3%) p= 0.021); 79 (27.8%) practiced CBE and 45 (15.8%) mammography.	semi-structured self-administered questionnaire	284 females secondary, schools teachers in Owerri
Maitanmi et. al (2023)	The cross-sectional descriptive design	The 96.9% of населения of this study had good knowledge about BSE but very few practiced BSE. 11.3% always looked at their breasts in the mirror by raising their hands above their head, and moving it around in circles while looking at it; 56% said they rarely looked for puckering, changes in colour and dimpling of the skin when investigating their breasts.  mirror, however 53.8% of respondents sometimes squeeze their nipples and search for discharge when examining their breast.	structured questionnaire administered	160 respondents
Enemuo et al. (2020)	descriptive cross-sectional survey research design	Analysis of the data showed that only 4.5% of the respondents had good practice of SBE, 26.1 percent had fair practice of SEBE and 93 percent had good practice of SEBE. In conclusion, Enugu South female teachers' SBE practice was low.	Structured questionnaire	360 female secondary school teachers in public secondary schools in Enugu South LGA of Enugu State
Abiola et al (2020)	descriptive cross-sectional study	Majority 264(79.52%) of the respondents performed breast self-examination (BSE), 240(72.29%) have had clinical breast examination (CBE) performed for them by health personnel	open-ended and close-ended self-administered questionnaire	348 public senior secondary school female teachers



Tobin and Okeowo (2014)	A cross-sectional study	All participants had knowledge of BSE but only 38 (12.7%) had good knowledge, attitude towards BSE was good for 240 (80%), 238 claimed practicing BSE but 24(10.1%) regularly practice breast self-examination.	Questionnaire	Among 300 female secondary school teachers in selected Local Government in Benin City.
Onwuama et al. (2019)	Descriptive survey research and purposeful sampling technique	The result revealed that 89% of female staff are aware of BSE and 56.4% know how to perform BSE but only 32.7% are still practicing BSE.	Self-structured questionnaire	60 female staff
Alabi et al (2018)	cross-sectional survey	Women secondary school teachers' knowledge of BSE in this survey, 124 out of 173 respondents interpreted as 71.7% of the teachers had heard about BSE before. While 103 out of the total 175 respondents self-reported that they know how to do BSE, only 73 out of 175 actually do it. However, among the respondents who perform BSE, only 11 (15.1%) have at any one time felt a lump in their breast. But before then, they go to hospital for the diagnosis. teachers studied in this survey revealed that of 173 respondents, 124 (71.7%) have heard of BSE before. While 103 (59.5%) of the respondents perceive to know how to perform BSE, 73 (42.2%) actually Perform it. However, only 11 (15.1%) of those who perform BSE have ever felt lump in their breast. After which, they visit hospital for the diagnosis	Questionnaires	173 female teachers
Ezema et al (2016)	cross-sectional survey	There is high level of knowledge only for breast self-examination but neither for clinical breast examination nor mammography. This implies that majority of the teachers only know about breast self-examination as a screening method for early detection of breast cancer	Structured questionnaire	278 respondents for the study.

### ***Result Synthesis***

#### **Theme 1: Knowledge and awareness of Breast self-examination Methods**

Ojewusi and Arulogun (2016) indicated a degree of social coherence regarding breast self-examination (BSE), though specific knowledge remained limited. While many individuals were aware that the recommended age to commence BSE is 20 years, misconceptions persisted, with some associating it with breast formation or other ages. The level of awareness regarding BSE was moderate; however, comprehension of the appropriate initiation age was relatively low. When asked about the correct age to begin BSE, the majority of respondents lacked accurate knowledge. Additionally, awareness of mammography was notably low. The study by Nnebue et al. (2018) highlighted that respondents, particularly healthcare workers, exhibited a high level of

awareness of breast cancer. However, awareness of BSE was significantly higher than that of clinical breast examination (CBE) and mammography. This finding suggested that more individuals had heard about BSE compared to more accurate screening methods.

According to Tobin and Okeowo (2014), the attitudes of female teachers toward BSE were generally positive, with 80% demonstrating a good attitude towards the practice. Furthermore, 96% of respondents expressed a willingness to educate others about BSE, and 90% felt comfortable discussing their findings with a healthcare provider. However, despite these positive attitudes, proper practice did not always follow. Among those who practiced BSE, 7.6% discovered lumps, with the majority seeking medical attention. This underscored the role of BSE in facilitating early detection of breast abnormalities. Nevertheless, misconceptions persisted, as some individuals opted for traditional medical care rather than professional medical assistance. Ezema et al. (2016) found that female secondary school teachers exhibited a high level of awareness regarding BSE as an early detection method for breast cancer. Specifically, 62.7% of respondents demonstrated knowledge of BSE and provided positive responses to related questions. However, awareness and knowledge about CBE and mammography were significantly lower, indicating that BSE remained the most commonly known screening method among female teachers. Older teachers benefited from past opportunities that enhanced their knowledge, while younger teachers leveraged technology to access relevant health information. Additionally, academic certification played a role in the level of awareness observed, with higher degrees correlating with greater awareness of breast cancer screening methods.

## **Theme 2: Practice of Breast Self-Examination (BSE)**

Ojewusi and Arulogun (2016) revealed that only a few individuals had knowledge of anyone practicing breast self-examination (BSE), with friends being the most common source of information. However, there was poor knowledge and practice regarding the appropriate age and methods for performing BSE. More than half of the respondents believed that BSE should commence at the onset of breast development, indicating a misconception about the recommended age for initiation. Similarly, Nnebue et al. (2018) found that most respondents had engaged in BSE at least occasionally, with the practice being more frequent among married individuals and those with higher education levels. The study further indicated that BSE was most commonly practiced by individuals aged 30–34 years. Despite respondents' awareness of BSE, the study revealed that regularity and proper techniques for performing BSE were still lacking. Abiola et al. (2020) identified BSE as the most commonly used breast cancer screening method, with 79.52% of respondents regularly performing it. Clinical breast examination (CBE) by health personnel was also practiced by 72.29% of respondents. These findings suggest that while awareness of BSE was relatively high, more advanced screening techniques such as mammography remained less prevalent. The lower adoption of mammography may be attributed to limited access, high costs, or inadequate healthcare infrastructure. The study further highlighted a positive correlation between awareness and the practice of BSE among female teachers, underscoring the importance of health education and awareness campaigns in promoting early detection practices.

Maitanmi et al. (2023) reported that although the majority of respondents demonstrated a high level of knowledge about BSE, their actual practice was suboptimal. Many participants did not



regularly examine their breasts in the mirror, check for puckering or dimpling, or use techniques such as circular motions to examine the entire breast. A significant proportion rarely or never performed BSE while standing or lying down. However, some respondents occasionally practiced BSE using techniques such as squeezing the nipples to check for discharge or changes. The overall practice scores suggested that good self-examination practices were relatively low, despite the respondents' high awareness and education levels. Alabi et al. (2018) found that the practice of BSE among respondents varied. While many were aware of its importance and had performed it before, only a few practiced it consistently. Some participants reported experiencing embarrassment, discomfort, or pain while performing BSE, which discouraged them from conducting regular self-examinations. Others who had never practiced BSE cited a lack of knowledge about the correct procedure, doubts about its significance, or fear of being diagnosed with breast cancer. Among those who practiced BSE, the frequency varied, with some conducting it monthly, while the majority began the practice after adolescence. Most respondents performed BSE at home, highlighting the need for further education and support to encourage regular and effective self-examinations.

Onwuama et al. (2019) found that female staff demonstrated a fair level of BSE practice but focused mainly on breast cancer awareness. Given the crucial role of BSE in early detection, the study emphasised the need for increased awareness and education on the benefits of BSE to improve practice among women.

### **Theme 3: Barriers and Challenges in Breast Self-Examination (BSE)**

Ojewusi and Arulogun (2016) found that awareness and knowledge of certain aspects of breast self-examination (BSE) and mammography were low. Only a few respondents were aware of the recommended age for screening or the correct use of the Karnofsky scale. While most participants correctly identified a lump in the breast as a symptom, other indicators such as bloody nipple discharge and lumps in the armpit were poorly understood, which could hinder early detection of breast cancer. Similarly, Nnebue et al. (2018) identified key barriers to screening practices, including inadequate knowledge of clinical breast examination (CBE) and mammography, despite some exposure to these procedures. Cultural factors, such as level of independence and access to healthcare facilities, also influenced screening behaviour. Although there was some recognition of BSE among respondents, no significant correlation was found between the level of knowledge and the actual practice of CBE and mammography.

Maitanmi et al. (2023) highlighted that factors such as age, religion, ethnicity, and education level contributed to irregular BSE practices. Cultural and demographic influences appeared to impact adherence, with the Yoruba ethnic group, which predominated in the study, demonstrating better BSE practices than other ethnic groups due to their generally higher level of education. Religious inclination also played a role, particularly in the context of the study being conducted in a Christian institution where health messages were actively disseminated. Nevertheless, various sociological factors, including poorly structured awareness programmes, inequalities in access to health information, and other socio-economic barriers, continued to hinder the consistent and proper practice of BSE within the population.

Enemuo et al. (2020) further identified common challenges to BSE practice, including noncompliance with the recommended timing and techniques. Many respondents failed to wash their hands before performing BSE or to use appropriate methods such as the finger pad technique, vertical strip method, or circular motion when examining their breasts during menstruation. Additionally, a lack of knowledge regarding the comprehensive features of breast examination contributed to poor practices. Differences in knowledge levels were particularly evident in relation to BSE and mammography, with many respondents unaware of the significance of these screenings or the appropriate age to undergo them regularly. Furthermore, variations in knowledge were linked to factors such as educational attainment, interest in health-related topics, cultural beliefs, and religious ideologies. These findings suggest that informal sources of information may sometimes have a greater impact on awareness than formal education. The expectation that urban dwellers would be more knowledgeable about BSE and mammography than their rural counterparts was not supported by the study. This could be attributed to the growing influence of social media and the increasing accessibility of health-related information across different locations. According to Tobin and Okeowo (2014), barriers to proper BSE practice included the perception that the procedure was difficult (23.3%) and a lack of confidence in performing it correctly. Furthermore, only 8.3% of respondents were aware that BSE should be performed monthly. Despite these challenges, most participants expressed willingness to improve their BSE practices through proper re-education and training. The findings underscore the need for comprehensive re-education programmes targeting female teachers, integrating both theoretical and practical aspects of BSE. Healthcare professionals should play a more active role in disseminating accurate BSE information, while mass media should ensure the accuracy and completeness of health messages to enhance public awareness and adherence to proper breast examination practices.

### Summary of findings

Article	Percentage knowledge of BSE	Study design
Ojewusi and Arulogun (2016)	2%	Quantitative (Cross-sectional)
Nnebue et al. (2018)	83.1%	Quantitative (Cross-sectional)
Maitanmi et. al (2023)	96.9%	Quantitative (Cross-sectional)
Enemuo et al. (2020)	Not provided	Quantitative (Cross-sectional)
Abiola et al (2020)	79.52%	Quantitative (Cross-sectional)
Tobin and Okeowo (2014)	100%	Quantitative (Cross-sectional)
Onwuama et al. (2019)	89%	Quantitative (Descriptive study)

Alabi et al (2018)	71.7%	Quantitative (Cross-sectional)
Ezema et al (2016)	Not provided	Quantitative (Cross-sectional)

The findings collectively highlight significant gaps in awareness, knowledge, and practice of breast self-examination (BSE) and mammography among women, particularly female teachers in Nigeria. Despite some recognition of BSE, many respondents lacked knowledge of key screening indicators such as bloody nipple discharge and lumps in the armpit, which could hinder early breast cancer detection (Ojewusi & Arulogun, 2016). Cultural and socio-economic barriers further exacerbated these challenges, with factors such as education level, religious beliefs, and healthcare accessibility influencing screening behaviours (Nnebue et al., 2018). Maitanmi et al. (2023) observed that demographic differences contributed to irregular BSE practices, with the Yoruba ethnic group demonstrating better adherence due to higher education levels and structured health messaging within Christian institutions. However, widespread deficiencies in awareness programmes, inequalities in information access, and social constraints continued to obstruct consistent and accurate BSE practices. Enemu et al. (2020) reinforced these concerns, identifying poor adherence to recommended BSE techniques and a general lack of understanding regarding breast examination procedures.

Knowledge disparities were evident, influenced by factors such as educational background, personal interest in health topics, cultural perceptions, and religious ideologies, suggesting that informal learning sources may sometimes outweigh formal education in shaping awareness. Contrary to expectations, urban residents did not necessarily exhibit greater knowledge than their rural counterparts, possibly due to the growing role of social media in disseminating health information. Additionally, perceptions of BSE as a difficult procedure and a lack of confidence in performing it correctly contributed to low compliance rates, with only a small percentage of respondents aware of the recommended monthly practice (Tobin & Okeowo, 2014). Despite these challenges, many participants expressed a willingness to improve their BSE knowledge and practices through targeted re-education and training. These findings underscore the urgent need for comprehensive awareness campaigns integrating both theoretical and practical aspects of BSE, with healthcare professionals playing a more active role in disseminating accurate information. Furthermore, leveraging mass media to ensure the accuracy and accessibility of health messages could enhance public adherence to breast cancer screening practices.

## **Discussion**

Even though most participants in various studies demonstrate awareness of breast self-examination (BSE), as evidenced by Nnebue et al. (2018) and Maitanmi et al. (2023), this awareness does not necessarily translate into regular practice. The gap between knowledge and actual implementation suggests that being aware of BSE is insufficient if women do not possess a deeper understanding of its proper execution and importance. For instance, while Nnebue et al. (2018) and Maitanmi et al. (2023) reported high overall awareness, Ojewusi and Arulogun (2016) identified significant misconceptions regarding critical aspects such as the appropriate starting age and correct techniques. This discrepancy highlights the need for educational

interventions that extend beyond merely raising awareness to fostering comprehensive understanding. Tobin and Okeowo (2014) similarly emphasised that while awareness levels were high, many women lacked technical knowledge about how to properly perform BSE. Simply hearing about BSE is not enough; women must be taught the correct procedures in a way that encourages regular practice. The challenge, therefore, extends beyond knowledge deficits to include behavioural and psychological barriers that hinder consistent adoption of BSE.

Furthermore, research by Abiola et al. (2020), Maitanmi et al. (2023), and Alabi et al. (2018) suggests that despite being aware of BSE, many women still do not practise it correctly or consistently. This implies that other factors, such as discomfort, lack of confidence in executing the technique, or fear of discovering an unfavourable result, contribute to the low adoption of BSE. Alabi et al. (2018) argue that both educational and psychological barriers must be addressed to improve BSE practice. Fear and anxiety surrounding self-examination can discourage women from performing BSE regularly, making it imperative to incorporate supportive and empathetic communication into awareness campaigns. In many cases, women may avoid BSE due to anxiety over the possibility of detecting abnormalities, concerns about what a diagnosis could mean for their social or marital status, or a general reluctance to confront health uncertainties. These psychological barriers must be addressed through targeted reassurance, counselling, and confidence-building strategies. Additionally, cultural and religious beliefs, limited knowledge about breast cancer, and reduced access to healthcare facilities further impede the proper and consistent use of BSE. Given these factors, it is evident that culturally sensitive interventions are needed to accommodate the social realities of different communities. The influence of social norms, religious perspectives, and traditional health beliefs must be considered when designing health promotion campaigns, as they significantly shape how women perceive and engage with BSE.

The findings collectively emphasise the need for targeted interventions that address the multifaceted challenges associated with BSE. As Tobin and Okeowo (2014) suggest, interventions should not be limited to providing information on the benefits and frequency of BSE but should also incorporate practical training sessions to enhance confidence and alleviate women's anxieties. Hands-on training under the supervision of healthcare professionals can ensure that women learn the correct techniques and feel comfortable performing BSE independently. Maitanmi et al. (2023) also advocate for interventions that are tailored to specific cultural and social contexts, recognising that beliefs and societal practices influence health behaviours. Furthermore, the dissemination of BSE information should utilise diverse communication channels, ranging from community outreach programmes and healthcare settings to mass media, ensuring that knowledge reaches a broad audience. Healthcare professionals, religious and community leaders, and women's groups can play pivotal roles in reinforcing the importance of BSE and dispelling misconceptions.

Ultimately, BSE interventions should prioritise not only education but also behavioural change strategies that empower women with the skills, confidence, and motivation to integrate BSE into their regular health routines. Addressing psychological, cultural, and socio-economic barriers holistically can significantly enhance BSE uptake, leading to earlier breast cancer detection and improved health outcomes for women. A comprehensive approach, incorporating theoretical

knowledge, practical training, and culturally relevant messaging, will be instrumental in bridging the gap between awareness and consistent practice.

### **Research gap**

As much as awareness of breast self-examination (BSE) has increased there is still a large void between knowing about BSE, being able to perform it and performing it correctly among female teachers in Nigeria. This is even more necessary because of the special status of teachers in health education. In light of this knowledge and practice regarding BSE, it is possible to find out their own lack of health knowledge and promote the popularization of BSE accurate knowledge among their students and other members of the community. Additionally, if the teachers have correct perception and perform BSE correctly, they will form good model amongst the students and enhance the prevalence of BSE within schools and society. Studies should look into problems that generalized female practitioners may have in the exercise of BSE including issues of time, workload, availability of material and psychological issues. Such measures include the identification of the specific knowledge deficit and barriers to better BSE practices amongst this important group of population.

### **Recommendation for Further Studies**

Research in future should seek into the particular barriers of translation of BSE awareness to consistent and accurate practice among female teachers in Nigeria. This includes examining the interplay of psychological factors (such as fear, anxiety, self-efficacy), socio – cultural influences (such as cultural norms, religious beliefs, family dynamics), and practical constraints (such as time, workload and access to resources) in BSE behavior. Such qualitative studies as in depth interviews and focus groups might give valuable information about lived experiences with BSE from the perspective of female teachers. Additionally, studies can explore the possibility of the teachers as BSE health educators in their communities, the ways in which their BSE knowledge and practice shape their capacity to deliver accurate information and encourage BSE to their students and other people to the communities. The effectiveness of targeted BSE knowledge improvement and removal of psychological barriers among this crucial population group are also needed to further evaluate, and intervention studies are necessary. Therefore, such studies should take a culturally appropriate approach, and use mixed method approaches to capture both quantitative and qualitative data.

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