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KNOWLEDGE AND PRACTICE OF BREAST SELF-EXAMINATION FOR EARLY DETECTION OF BREAST CANCER AMONG WOMEN ATTENDING ANTENATAL CLINIC AT USMANU DANFODIYO UNIVERSITY TEACHING HOSPITAL SOKOTO.

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Abstract
Background: Breast cancer is currently the most common cancer worldwide. Poor outcomes of breast cancer management in Africa are linked to late presentation.
Early diagnosis based on breast self-examination and awareness has been advocated.
Objective: To develop guidelines for Breast self-examination (BSE) in Nigeria, there is a need for current Knowledge and practice of breast self-examination. This study aims to provide foundational literature in our setting.
Methodology: This cross-sectional study assessed knowledge and determined the practice of self-breast Examination of women attending the antenatal Clinic of Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto from January to March 2023.
Results: A total of 602 pregnant women participated in the study. The mean age of the respondents was 22±4 years. Most (70.4%) participants had heard about breast cancer. The older age groups were more likely to have heard of BSE. There was a significant relationship between awareness of BSE and level of education (p-0.002), but no significant relationship was found between marital status and awareness of BSE. Most (66.0%) believed that BSE would make them worry about breast cancer. The percentage of positive attitudes increased as a woman is getting older (p-0.0001). A total of 142 participants (23.6%) had ever practiced BSE.
Conclusion: This study showed that knowledge of BSE was good, but attitude and practice were unacceptably poor. Age, marital status, education level, and family history of BC were important determinants.

1. INTRODUCTION

Breast cancer is presently the most common cancer worldwide, having replaced lung cancer.(Sung et al., 2021) It was responsible for 1 in every 8 cancer diagnosis and a total of 2.3 Million new cases in 2020.(Sung et al., 2021) (Arnold et al., 2022)

Breast cancer was previously thought to be a disease of the developed west.(Arnold et al., 2022) However, this narrative is changing with the incidence in Africa witnessing a rapid increase, with disproportionately poorer

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outcomes and higher mortality.(Arnold et al., 2022) The highest breast cancer prevalence rates in 2017 were reported in West, East, and North Africa.(Tsoka et al., 2017)

In Nigeria, like other parts of the world, breast cancer is the most common type of cancer and is responsible for the highest mortality rate. The incidence of breast cancer is currently 54.3 per 100,000 individuals, representing a dramatic increase over the last 10 to 20 years.(Olasehinde et al., 2021)

The incidence of breast cancer in Sokoto in 2011 was 7.4 per 100,000 women, with 99% presenting with advanced disease (stages 3 and 4) and 0.5% with stage 2 disease.(Agbo et al., 2013)

One key factor that has been linked to high mortality rates and generally poor outcomes of breast cancer management in Africa is late presentation.(Johnson, 2019; Olasehinde et al., 2021) Reports have shown that 77% of all staged cases in Africa were advanced at stage III or metastatic at stage IV.(Johnson, 2019) In contrast, only 15% of 0f cases in the developed West present in the advanced stages of III and IV.(Johnson, 2019)

The cornerstone of improved outcomes in breast cancer management in Africa is early detection. There is significant potential for improving outcomes by promoting early diagnosis.(Olasehinde et al., 2021)

Breast Self-Examination (BSE) is the visualization and palpation of the breast by oneself for lumps, shape, texture, size, and contour.(Mut et al., 2019) BSE enables a woman to be able to identify changes in the breasts should they exist. The procedure is performed once monthly between days 7 and 10 of the menstrual cycle. Reports have confirmed that this therapy has a strong positive effect on the early detection of breast cancer.(Mut et al., 2019)

Thus, BSE is a valuable screening tool for the early detection of breast cancer when used as an adjunct to CBE and mammography. Moreover, it enhances breast cancer awareness among women. BSE plays a vital role in resource-poor countries because it is inexpensive, private, painless, easy, and safe and requires no special equipment. It has also been shown to improve breast health awareness and, thus, potentially allow for the early detection of breast anomalies.(Johnson, 2019)

Furthermore, evidence has shown that only a few established risk factors for breast cancer are truly modifiable, limiting primary prevention. This further reinforces the crucial role of educational and awareness efforts in early diagnosis. A report from sub-Saharan Africa estimated that at least one-third of breast cancer deaths can be prevented by early diagnosis of symptomatic breast cancer.

A key factor responsible for poor outcome of breast cancer in Africa is delayed presentation and consequent advanced stage at presentation.

Evidence has shown that one-third of the mortality from breast cancer in sub-Saharan Africa can be prevented by early diagnosis and timely evidence-based treatment.

In the absence of organized screening programs nor capacity for such mass screening in Africa. Early diagnosis focusing on BSE awareness has been advocated.(Johnson, 2019) This, together with other coordinated interventions such as reduction in stigmas through public education, is needed to enhance improved referral for diagnosis and timely evidence-based treatment. Knowledge and health-seeking behavior regarding breast cancer management in Africa is low.(Ströbele et al., 2018)

BSE is an attractive option because it is the only cost effective, feasible, and effective method for early diagnosis in African patients with a high incidence of late presentation. It is a powerful tool for health education and promotion of dissemination of knowledge on breast cancer and its early detection, early diagnosis, referral, and timely start of evidence-based treatment.

To develop guidelines and translate Breast self-examination into the real world in Nigeria, there is a need for background information on current Knowledge and practice of breast self-examination. This study aims to provide foundational literature in our setting.

2. METHODOLOGY

Study Area

The study was conducted at the antenatal clinic of Usmanu Danfodiyo University Teaching Hospital (UDUTH) in Sokoto, Sokoto State.

The antenatal clinic is run by four units of Consultants Gynecologists and residents daily, from Mondays to Thursdays.

UDUTH is a 850-bed federal owed multi-specialty tertiary Hospital located in the Sokoto metropolis. It manages primary and referral cases from Sokoto State, the neighboring states of Zamfara, kibbi, and Niger, and parts of the neighboring Niger and Benin Republics.

Sokoto is located in the northwest, covering an area of 25,973 km2, with an estimated population of 4,244,399 inhabitants (2005 census).

The region is situated in the dry Sahel region and is surrounded by Savannah vegetation. The inhabitants are mainly of the Hausa and Fulani ethnic groups. The major economic activities in the area are farming, trading, and cattle raising. The state has 23 local government areas, three health zones, and two tertiary hospitals.

Study Design

This was an institutional-based cross-sectional study that assessed the knowledge and determine the practice of self-breast Examination of women attending an antenatal clinic at UDUTH, Sokoto State.

Study Population

The study population were pregnant women attending the ante natal clinic of UDUTH Sokoto.

Inclusion Criteria

a. All women who attended the antenatal clinic during the study period

b. women who provided consent to participate in the study

Exclusion Criteria

a. Women with breast disease or a past history of breast Malignancy.

Sample Size Determination

The consideration that the study is a Cross-sectional study

1. Estimate of the expected proportion (p) of knowledge about breast self-examination among women attending ANC = 0.5
2. Desired absolute precision (d) = 0.05.
3. Estimated design effect (DEFF) = 1.5

$$n = \frac{1.96 \times p(1-p)\,(DEFF)}{d^2}$$

n= 576.24

4. Assuming that 4% of participants will decline to participate in the study Minimum sample size = 576.24 + 23.05 = 599 participants

Sampling Technique

All consecutive patients who presented to the four clinics in the antenatal clinic of UDUTH within the study period were recruited into the study.

Study Instruments

The questionnaire was used. The instrument was designed based on research questions and by reviewing the existing literature extensively.

The questionnaire was designed to obtain information on the sociodemographic characteristics of the respondents (which include Age, Religion, Ethnic group, Marital status, Level of education, family history of breast cancer etc), knowledge of breast cancer and breast self-examination, attitude of the respondents toward breast self-

examination, prevalence and pattern of breast self-examination practices, and factors influencing the practice of breast self-examination among the respondents.

The questionnaire was developed based on the objectives of the study, literature on the etiology of breast cancer, beliefs regarding breast cancer, common methods for early breast cancer detection, and knowledge regarding breast self-examination. A three-point Likert scale (from strongly agree to disagree) was used to assess the perceived constraints in performing breast self-examination. The factors that influence the non-practice of breast self-examination were identified by reviewing past literature. The questionnaire was developed in English. The questionnaire was pre-tested in 50 female medical students at Usmanu Danfodiyo University Sokoto.

Collection Methods

The data was collected using the developed semi-structured questionnaire through a face-to-face interview of all patients recruited from the antenatal clinic. Administration was by trained research assistants.

The data collection was collected Monday to Thursday during the study period. The specific objectives of the study were explained to the participants, and clarification of the study was sought. Participation was voluntary, and consent was obtained. Short briefings and feedback meetings will be held with the research assistants daily to monitor and ensure standardized data collection processes.

Data Management

The questionnaires were retrieved from the research assistants, and completeness was ensured. The questionnaire was labeled with serial numbers for easy identification and for recall if needed. The Variables will be coded by the researcher and entered into SPSS software. The findings are summarized in the table presentation.

Variable Measurement

Respondents were scored a point for each correct response and a point for each wrong or 'do not know" response on variables related to knowledge, attitude, and practice. The questionnaire includes a 32-point knowledge scale on Breast Cancer and BSE, an 11-point attitude scale, and a 13-point BSE practice scale. A knowledge score of ≤15, >15 to 28 and >28 will be rated as poor, fair and good, respectively. Attitude score of ≤5 and >5 will be rated negative and positive attitudes, respectively. A practice score of ≤7 and >7 will be rated unhealthy and healthy practice, respectively. However, questions about factors influencing the practice of breast self-examination will not be scored.

Statistical Analysis

Analysis will be performed using SPSS version 25. The findings were presented as descriptive statistics summarized in tables and charts.

A p-value 0.05 was considered statistically Significant. Hypothesis testing was performed using the Chi-square test to compare dependent and independent variables.

Ethical Considerations

Ethical approval was obtained from the Hospital Research Ethics Review Committee of Usmanu Danfodiyo University Teaching Hospital Sokoto. The study was guided by the ethical principles of handling human participants. The participants will be autonomous; participation in the study will be voluntary. No harm will be done to the participants and Data confidentiality will be ensured throughout the study.

Limitations

The cross-sectional nature of this study does not allow us to establish causal inferences. The analysis was restricted to pregnant women who were in the reproductive age group (15–40 years). Therefore, our findings may not necessarily reflect the dynamics in the general population. Moreover, the age groups that fall outside the scope of the reproductive age (15–40 years). We also understand the possibility of social desirability and recall bias that could have affected the results. Hence, interpretations and generalizability must be made with caution.

3. RESULTS

Baseline sociodemographic data

A total of 602 pregnant women participated in the study distribution across four firms that operate ANC clinics in the hospital. The mean age of the respondents was 22±4 years with age ranged from 15 to 24. The major ethnic group was the Hausa (58.9%) and Fulani (19.9) ethnic groups.

Most (87.2%) respondents were Muslims. Many (98.0%) respondents were married. Most (62.8%) of the respondents a form of formal education, 34.9 % had secondary education, 19.9% had post-secondary education, and 31.6% had primary school education.

Few (5.0%) respondents had a family history of breast cancer.

Table 4.1: Socio-demographic characteristics of the respondents

SOCIO-DEMOGRAPHY	FREQUENCY	PERCENTAGE
AGE GROUP (years)		
15-19	120	19.9
20-24	280	46.5
25-29	165	27.4
30-34	22	3.7
35-39	15	2.5
ETHNIC GROUP		
Hausa	355	58.9
Fulani	120	19.9
Yoruba	45	7.5
Igbo	30	5.0
Others	52	8.6
RELIGION		
Islam	525	87.2
Christianity	77	12.8
Others		
MARITAL STATUS		
Married	590	98.0
Single	10	1.7
Others	2	0.3
LEVEL OF EDUCATION		
Primary	190	31.6
Secondary	210	34.9
Post Secondary	120	19.9
Arabic Education	82	13.6
FAMILY HISTORY OF BREAST CANCER		
YES	30	5.0
NO	572	95.0

Knowledge of Breast-Self Examination.

Most (70.4%) participants had heard about breast cancer, whereas 29.6% had never heard about breast self-examination. Most respondents (42.5%) received information on breast self-examination from informal sources, i.e. peers. Formal and more accurate sources of information, such as health workers and public awareness programs, played a lesser role as sources of information see table 4.2

Table 4.2: **Distribution of Sources of Information on BSE**

Sources of Information	Frequency n=424	Percentages
Television	28	6.6
Radio	64	15.1
Peers	180	42.5
Parents/Guardians/Relatives	62	14.6
Health Care Workers	33	7.8
Public awareness	35	8.3
School	22	5.2

Table 4.3 shows that there was a significant relationship between knowledge of the breast self

Examination and the respondents‟ age. The older age groups were more likely to have heard of BSE than the younger respondents. Awareness of breast self-examination decreased with the level of education; the proportion of respondents who had primary, secondary, and postsecondary school education was 31.6%. 34.9%, and 19.9%, respectively. However, the percentage of respondents who were aware of BSE increased from 50.0% among those who had primary school education to 82% among those who had postsecondary school education. There was a significant relationship between awareness of BSE and level of education (p-0.002). Married Women were more likely to be aware of BSE; however, no significant relationship was found between marital status and awareness of BSE.

Table 4.3: Level of knowledge of BSE demographic variables

Variable	Percentage Of Awareness of BSE	P Value
15-19	71/59.2	
20-24	185/66.1	**P=0.001**
25-29	135/81.8	
30-34	19/86.4	
35-39	14/93.3	
MARITAL STATUS		
Married	419/70.8	
Single	6/60.0	**P=0.212**
Others	1/50	
LEVEL OF EDUCATION		
Primary	145/50.0	
Secondary	140/66.7	**P=0.02**
Post Secondary	99/82.5	
Arabic Education	40/48.7	
FAMILY HISTORY OF BREAST CANCER		
YES	24/80.0	**P=0.08**
NO	400/69.9	

Attitude toward BSE

Most (94.3%) of the respondents reported that BSE was important for the early detection of breast cancer, whereas 5.7% of these respondents did not agree that breast self-examination was important.

Most (66.0%) believed that BSE would make them worry about breast cancer. Few (19.3%) agreed that they are not comfortable touching their breasts, while 30.0% thought that BSE skills are difficult to learn.

The scoring of the respondents‟ attitude toward breast self-examination showed that 30.2% had a positive attitude, while 69.8% had a negative attitude.

examination. The mean attitude score for breast cancer among respondents was 4.0 ± 2.1.

Table 4.4 shows the relationship between respondents' attitudes and demographic characteristics. The percentage of positive attitudes increased as women got older from 17.5% in the 15-19 years age group to 86.7% in the 35-39 years age group (p-0.0001). Family history and educational level also had a statistically significant relationship with positive attitudes toward BSE, however there was no statistically significant relationship with marital status.

Table 4.4: Attitudes of respondents by sociodemographic characteristics

SOCIO-DEMOGRAPHY	Frequency/percentage with a positive attitude	P Value
AGE GROUP (years)		
15-19	21/17.5	
20-24	63/22.5	
25-29	70/42.4	p-0.0001
30-34	15/68.2	
35-39	13/86.7	
MARITAL STATUS		
Married	178/30.2	
Single	3/30.0	p-0.08
Others	1/50.0	
LEVEL OF EDUCATION		
Primary	12/6.3	
Secondary	76/36.2	p-0.002
Post Secondary	88/73.3	
Arabic Education	6/7.3	
FAMILY HISTORY OF BREAST CANCER		
YES	15/50.0	p-0.002
NO	167/29.2	

BSE Practices among Participants

One hundred and forty-two participants (23.6%) had ever practiced BSE, while four hundred and sixty (76.4%) respondents had never done BSE. Only Eight (5.6%) of those who had ever performed BSE performed BSE monthly, fifteen (10.6%) weekly, and six (4.2%) annually.

Few (4.9%) respondents who practiced BSE could correctly describe the steps of BSE, whereas 95.4% could not. Furthermore, 5.6% of the respondents who had ever practiced BSE had good

The practice score of 94.4 had a poor practice score for breast self-examination. The mean practice score was 3.8 ± 2.8 out of a maximum score of 13 points.

Most (37.8%) of those who had never performed BSE attributed it to lack of information, 2.2% fear, 5.4% lack of time to perform BSE, and 1.1% reported that they never believed that breast cancer exists. However, .96.3% of the respondents agreed to perform regular BSE.

Table 4.5 shows the relationship between the practice of BSE among respondents and their sociodemographic characteristics. The older the respondents were, the higher was the percentage of good practice scores. Single respondents had a higher percentage of good practice scores. Moreover, respondents with postsecondary education had the highest percentage of good practice scores among the other educational levels, whereas those with a family history of breast cancer had a higher practice score than those without a family history.

Table 4.5: BSE practice by sociodemographic characteristics of respondents

SOCIO-DEMOGRAPHY	FREQUENCY OF GOOD-Patient Score	Percentage of Good Practice Scores
AGE GROUP (years)		
15-19	1	0.8
20-24	2	0.7
25-29	2	1.2
30-34	1	4.5
35-39	2	13.3
MARITAL STATUS		
Married	7	1.2
Single	1	10.0
Others	0	0
LEVEL OF EDUCATION		
Primary	0	0
Secondary	2	0.9
Post Secondary	6	5.0
Arabic Education	0	0
FAMILY HISTORY OF BREAST CANCER		
YES	2	6.6
NO	6	1.0

4. DISCUSSION

The sociodemographic picture of this study showed that the respondent's age ranged from 15 to 38 years, which is relevant as this is the age group that precedes the usual age group for development of BC, making information on preventive measures and early diagnosis worthwhile. This study revealed the predominance of the Hausa and Fulani tribes, alluding to the general dominance of these tribes in the study area. The majority of patients had formal education and should therefore have understood the value of early diagnosis of BC. Similar demographic characteristics have been reported in many studies on the subject with similar methodology.(Faronbi & Abolade, 2012; Isara & Ojedokun, n.d.)

This study clearly shows that most women (70.4%) have heard about breast self-examination. Furthermore, it was noted that the level of awareness correlated well with the level of education, increasing age, being married, and having a relative who had a BC. The literature is awash with contrasting reports on the level of awareness of BSE in sub-Saharan Africa.(Udoh et al., 2020) Nde et al. from Cameroon, Fondio in Ghana and some studies in Nigeria similar to our study found results of high knowledge of BSE among respondents.(Fondjo et al., 2018; Gwarzo et al., 2009; Nde et al., 2015) In a sharp contrast there a reports which have clearly shown a low level of awareness of BSE some reporting values as low as a only a third of the participants having heard of BSE.(Udoh et al., 2020) It remains to be elucidated the reason for these sharp differences in the level of awareness, This may have been partially explained from the level of development from where the participants resides, urban or rural. It is postulated that urban dwellers will be more exposed to sources of BSE-related information. There is a need to study this further

The most common source of information reported by respondents for breast self-examination was from peer groups, whereas it was obvious from this study that more accurate sources of information such as health care

workers, organized public awareness and school programs played little role. This could explain why other aspects such as knowledge on how and when to perform BSE was poor among the participants in the study. Similar studies in the southern part of Nigeria have shown that the media, television and radio play significant roles as sources of information on BSE.(Nwabgo & Akpala, 1996)

The findings of this study showing a low contribution of parents and guardians to information on breast self-examination highlight one of the gaps existing in family life education, as parents and care givers have no time to discuss pertinent health issues with their children. It might also be due to the fact that some of the parents had no information or knowledge about the topic and thus have little or nothing to discuss.(Nuhu & Saleh, 2020)

The majority (94.3%) of the respondents in this study reported that breast self-examination was important for the early detection of breast cancer. The study further revealed that most (66.0%) respondents have the perception that doing BSE would make them worry about breast cancer, some respondents were not comfortable touching their breasts, and 30.0% believed that BSE skills are difficult to learn. The scoring of the respondents' attitudes toward breast self-examination showed poor attitudes, with 30.2% having positive attitudes and 69.8% had negative attitude toward breast self-examination. In contrast to the study by Isara & Ojedokun in 2011 showed that the majority (82.6%) of senior high school students in Nigeria had a positive attitude toward BSE (Isara & Ojedokun, n.d.). Sarfo et al. also reported that female nursing students in Ghana had a positive attitude towards BSE (Sarfo et al., n.d.). In Ethiopia, 59.2% of the study participants were found to have a positive attitude toward BSE, whereas a moderate attitude was reported by Nde et al. in Cameroon. Faronbi & Abolade; and Olowokere et al. in their studies in a rural setting in Nigeria reported a poor attitude toward BSE (Faronbi & Abolade, 2012) It therefore can be postulated that women from rural settings may have a poorer attitude to BSE, harping on the need for more enlightenment among the rural dwellers.

Analysis of the relationship between the attitude of respondents and demographic characteristics in this study showed that the percentage of positive attitudes increased as women got older from 17.5% in the 15-19years age group to 86.7% in the 35-39 years age group (p-0.0001). Family history and educational level also had a statistically significant relationship with positive attitudes toward BSE, however there was no statistically significant relationship with marital status. Asmare et al. in a recent community-based study in Northwest Ethiopia also found a positive correlation between educational level and attitude towards BSE.(Asmare et al., 2022) They showed that Women's College and above was one of the significant factors for the attitudes of breast self-examination, women's College and above was about 4 times AOR:4.18, (95% CI: 1.59–10.92), and secondary school was about 3 times [AOR: 2.80, 95% CI: (1.25–6.29)] more likely to have a positive attitude toward BSE than women who are illiterate. This was also consistent with the studies done in Libya , and Turkey (Karahan, 2019; Ziuo et al., 2018).

Regarding the practice of BSE, this study revealed poor practice, as few (23.6%) had ever practiced BSE while four hundred and sixty (76.4%) respondents had never done BSE. Only Eight (5.6%) of those who had ever performed BSE performed BSE monthly, fifteen (10.6%) weekly, and six (4.2%) annually. Most of the literature from sub-Saharan Africa has been authored in tandem with the poor practice of BSE. In their systematic review, Udoh et al. reported that 15 of the 19 studies that reported on the practice of BSE reported poor practice.(Udoh et al., 2020) The few that reported high practice rates also reported higher educational levels among their participants, which could be a contributory factor.

The recommendation of the America Cancer Society(*Basic Facts About Breast Health*, n.d.) that every woman above 20 years of age should undergo BSE every month is practiced by Only Eight (5.6%) out of those who had ever practiced BSE, while fifteen (10.6%) practiced BSE weekly and six (4.2%) performed BSE annually. This study also elucidated that Few (4.9%) of respondents who practiced BSE could correctly describe the steps of

BSE, whereas 95.4% could not. Furthermore, 5.6% of the respondents who had ever practiced BSE had good practice scores, whereas 94.4 had a poor practice score for breast self-examination. Similar abysmal poor practice is found in similar studies from the sub-region.

Oluwatosin et al. observed in their survey conducted among rural women that none (0.0%) of the respondents were noted to be performing breast self-examination monthly, as recommended by the American Cancer Society.(Oluwatosin, 2006)

This study further demonstrated a relationship between good practice and age, marital status, educational level, and family history of breast cancer. The older the respondents were, the higher was the percentage of good practice scores. Single respondents had a higher percentage of good practice scores. Moreover, respondents with postsecondary education had the highest percentage of good practice scores among the other educational levels, whereas those with a family history of breast cancer had a higher practice score than those without a family history. These findings are not different from those of most African studies. Okyere et al. recently found that the odds of performing BSE were higher among those who were separated from their spouses [AOR = 1.36, 95% CI: 1.03, 1.80], Women with secondary [AOR = 2.44, 95% CI:1.78, 3.35, $p \leq 0.001$] or higher education [AOR = 3.39, 95%CI:2.24, 5.14] had higher odds of performing BSE. Women aged 20–49 years had a significantly higher likelihood of performing BSE.(Okyere et al., 2023) It can be deduced that women who have formal education have a better appreciation and understanding of health awareness information regarding the benefits of and processes involved in performing BSE . Compared with women with no formal education, those who have gained some formal education have access to different sources of health information, including television, Facebook, WhatsApp, and YouTube. This has a tendency to increase the perceived self-efficacy of women in performing BSE and hence higher odds of BSE practice. The positive relationships between good practice and increasing age may be explained by the fact that the risk of developing breast cancer increases with age. Therefore, as women age, they become aware of their risk of developing the disease and are therefore more likely to perform BSE to facilitate the early detection of any breast anomalies.

CONCLUSION AND RECOMMENDATION

CONCLUSION

Breast cancer is currently the most common cancer worldwide and is responsible for one of the highest death rates among malignancies. The developing world has seen some of the worst outcomes characterized by late presentation.

BSE is a feasible modality for the early detection and diagnosis of BC in Africa and other developing countries without sufficient mammography screening programs.

This cross-sectional study conducted at UDUTH Sokoto among women attending ANC showed that respondents had good knowledge of BSE; however, their attitude and practice were unacceptably poor.

Age, marital status, education level, and family history of BC were important determinants of knowledge, attitude, and practice of BSE among respondents in the study. There was a statistically significant difference in the knowledge of respondents attending ANC UDUTH according to age, education level, and family History.

APPENDIX A

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