

KNOWLEDGE AND PRACTICE OF BREAST SELF EXAMINATION (BSE) & CLINICAL BREAST EXAMINATION (CBE) AMONG FEMALE WORKERS IN ABIA STATE UNIVERSITY TEACHING HOSPITAL ABA ABIA STATE, NIGERIA.

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Abstract

Background: Breast cancer is the commonest cancer affecting women worldwide. Early detection and subsequent treatment using both breast self-examination (BSE) and clinical breast examination (CBE) screening methods are known to reduce the morbidity and mortality due to this cancer.

Objective: To determine the knowledge and practice of breast self-examination (BSE) and clinical breast examination (CBE) amongst female workers in Abia State University Teaching Hospital, (ABSUTH), Aba.

Method: Hospital-based cross-sectional descriptive study was carried out amongst female workers in ABSUTH, Aba. Knowledge was assessed using knowledge scores computed for respondents using four parameters. Knowledge was classified as good or poor.

Result: 124 female workers (including health workers and support staff) participated in this study. The mean age of the respondents was 40.7 ±8.7 years. About 13% (16/124) of study participants admitted that they had relatives who had had breast changes/cancer.

While, 52.4% of respondents had good knowledge of BSE and CBE, 47.6% had poor knowledge. About 66.1% had practiced BSE in the past. Less than half (40%) of the participants knew about clinical breast examination (CBE). In addition, only 20% of those who knew CBE had done it in the past. Respondents that were health workers were more than 4 times more likely to have good knowledge compared to support staff Odds Ratio 4.86; 95% CI (2.2-10.8).

Conclusion: There is poor practice of CBE amongst these female workers, which undermines the efforts against early detection of breast cancer. We recommend greater awareness and education among the female workers to improve knowledge and practice of BSE and CBE.

Keywords: Breast cancer, breast self-examination, clinical breast examination, knowledge, practice.

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Background

Breast cancer is the leading type of cancer in women both in the developed and developing countries, with nearly 1.7 million new cases diagnosed in 2012^{1,2}. Worldwide as well as in Nigeria, breast cancer has been reported as the most common cancer in women and the second leading cause of death^{3,4}. It has been observed that women of African-American descent present in later stages of the disease with poorer outcomes than their Caucasian counterparts⁵. This same trend has been reported among Nigerian women^{6,7}. Meanwhile, early discovery of breast lumps through breast self-examination (BSE) is important for the prevention and early detection of this disease⁸. The American Cancer Society and The National Cancer Institute recommend periodical mammograms, clinical breast examinations, and monthly BSE, to detect breast cancer at an early stage^{9,10}.

Studies from developed countries show that attitude and orientation of healthcare providers are important determinants of use of breast screening programs^{11,12}. It has also been observed that for health workers to be effective as educators they must possess the appropriate knowledge, attitude and beliefs concerning the health behavior being promoted¹³. Various risk factors have been implicated in the causation of breast cancer, and these include; increasing age, hormone replacement therapy (HRT), high dietary fat, excessive alcohol consumption, smoking and family history among others⁵. A good knowledge of these risk factors by the health workers is very important in order to be well informed to teach others in their communities.

The recognized screening methods include; breast self-examination (BSE), clinical breast examination (CBE), and mammography. BSE as a screening method

is controversial but it has been reported that this makes women more "breast aware", which in turn may lead to earlier diagnosis of breast cancer¹⁴. However, the practice of any of these screening methods is dependent on the awareness about breast cancer. If this knowledge is poor among those who are regarded as health role models, there will be difficulty promoting these life saving methods.

This study was designed to evaluate the knowledge and practice of breast self-examination and clinical breast examination among female workers in a tertiary health institution in Aba, Abia State, Nigeria.

Materials and Methods

This was a cross-sectional, descriptive study carried out between August-October 2016 among female workers in the Abia State University Teaching Hospital, Aba, South east, Nigeria. ABSUTH is one of the two tertiary health institutions in Abia State, located in the commercial city of Aba in Abia State. The respondents were drawn from both medical and non-medical departments. A pre-tested self-administered questionnaire was used for data collection. It was divided into three sections to collect information on; socio-demographic characteristics of respondents, their knowledge, and practice of BSE and CBE. A total of 158 questionnaires were randomly administered after obtaining informed consent from all the respondents. One hundred and twenty-four (124) questionnaires were correctly filled and returned.

There were 4 knowledge indicators used to evaluate the respondents. Knowledge was scored on ten (10), two for the first three indicators and 4 for the last indicator. Respondents who scored between five (5) and 10 were considered to have good knowledge of BSE & CBE while scores between 0 and 4 had poor knowledge.

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Correct knowledge of CBE was defined as “having one’s breast examined at the hospital by a health worker” while other responses were taken as incorrect.

The data obtained were entered by the author(s) and analyzed using Statistical Package for the Social Sciences (SPSS) Version 20. Categorical variables were summarized in frequency distribution tables and numerical variables by mean and standard deviation. The Chi-square test was used to demonstrate relationships, similarities and differences between variables. Logistic regression was also done on variables that were significant on cross tabulation. The level of statistical significance was set at $p < 0.05$ and confidence level of 95%.

Ethical approval for the study was obtained from the Institutional Review Board of

Abia State University Teaching Hospital, Aba.

Results

One hundred and twenty-four female workers participated in this study. Table 1 below shows the socio-demographic profile of the respondents. The participants were aged between 20 and 69 years, with a mean age of 40.7 ± 8.7 years. The highest proportion was aged between 40-49 years. More than three-quarters (81.5%) of the respondents were married. Participants’ parity was distributed as follows: None (18.5%), 1-2 (23.4%), 3-4 (41.9%), >4 (16.1%). About 13% of study participants admitted that they had relatives who had had breast changes/cancer. Out of this proportion, breast cancer was diagnosed mostly in female relatives (81.8%).

Table 1: Socio-demographic Characteristics of respondents

Variable	Frequency(N)	Percentage (%)
Age		
20-29	15	12.1
30-39	35	28.2
40-49	51	41.1
50-59	22	17.7
60-69	1	0.8
Marital status		
Single	17	13.7
Married	101	81.5
Widowed	6	4.8
Occupation		
Health workers	76	61.3
Support staff	48	38.7
Duration of work		
<5 years	30	24.2
5-9	24	19.4
10-14	23	18.5
15-19	15	12.1
>20	32	25.8
Number of children		
None	23	18.5
1-2	29	23.4
3-4	52	41.9
>4	20	16.1

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Relatives with BRCA		
Yes	16	12.9
No	108	87.1
If Yes, how related?		
Male relatives	3	18.75
Female relatives	13	81.75

Table 2: Knowledge of BSE and CBE

Variable	Frequency (N)	Percentage (%)
BCA in men		
Yes	52	41.9
No	72	58.1
Do you know BSE?		
Yes	99	79.8
No	25	20.2
Do you know CBE?		
Yes	62	50.0
No	62	50.0
If yes, what is it?		
Correct(Having one’s breast examined at the hosp by a health worker)	49	39.5
Incorrect responses	13	10.5

Table 2 above shows ABSUTH workers’ knowledge of BSE and CBE. It was found that 58% of the women did not know that breast cancer could occur in men. About 80% of the respondents had a previous

knowledge of breast self-examination (BSE) while Half (50%) of the participants know about clinical breast examination (CBE), 40% of which could give the correct definition

Table 3: Practice of BSE & CBE

Variable	Frequency(N)	Percentage (%)
Ever practiced BSE?		
Yes	82	66.1
No	42	33.9
Ever done CBE?		
Yes	25	20.2
No	99	79.8
Freq of practice of BSE		
Weekly	16	12.9
Monthly	42	33.9
3 monthly	4	3.2
Yearly	3	2.4

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No regular interval	59	47.6
Ever had Breast lump?		
Yes	11	8.9
No	113	91.1
Who did you seek med attention from?		
Nobody	1	0.8
Doctor	8	6.5
Nurse	1	0.8
Self	1	0.8

Table 3 above is on practice of BSE and CBE. Approximately 66% of respondents had ever practiced BSE while half (33.9%) of them know the correct frequency of practice i.e. monthly. Only 8.9% of

participants admitted to ever having a breast lump while majority (6.5%) sought medical attention from a doctor. About 20% of respondents had practiced CBE before

Figure 1: Pie Chart showing the frequency of practice of BSE

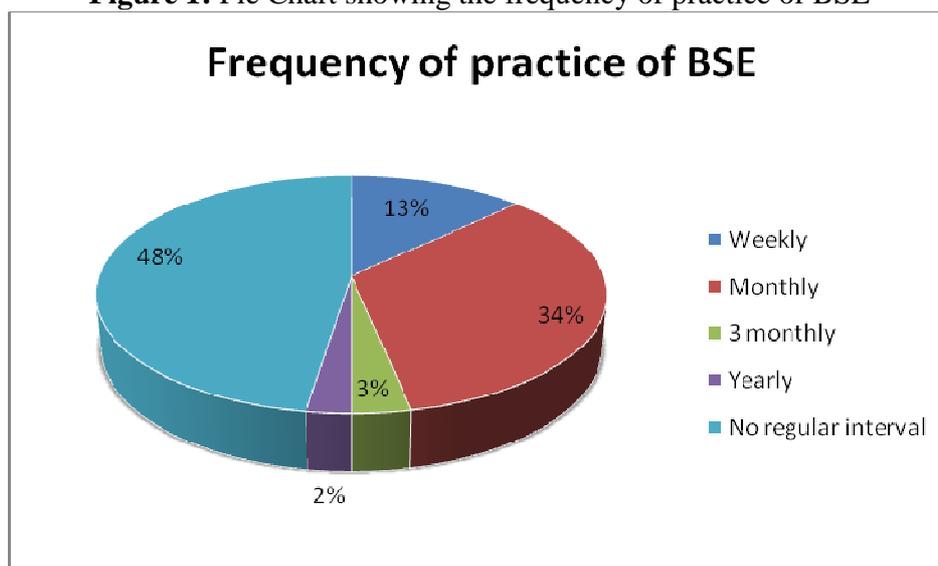


Table 4: Factors affecting knowledge of BSE & CBE among ABSUTH workers

Variable	Poor knowledge	Good knowledge	χ^2	P value
Age				
40 years and below	27(41.5)	32(54.2)	2.00	0.15
Above 40 years	38(58.5)	27(45.8)		
Occupation				
Health workers	29(38.2)	47(61.8)	16.01	<0.001*
Support staff	36(75.0)	12(25.0)		

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Duration of work in ABSUTH(in years)				
<5	9(30.0)	21(70.0)	10.654	0.031*
5-9	14(58.3)	10(41.7)		
10-14	17(73.9)	6(26.1)		
15-19	8(53.3)	7(46.7)		
>20	17(53.1)	15(46.9)		

Table 4 above shows the factors affecting knowledge of BSE & CBE among ABSUTH workers. There was no statistically significant difference between participants' age and marital status with knowledge of

BSE and CBE. There was however statistical significant difference between respondents' occupation and duration of work and their knowledge of BSE and CBE (P<0.001 and P=0.031) respectively.

Table 5: Predictors of knowledge of BSE & CBE

Variable	Odds ratio	p value	95% Confidence interval for Odds ratio	
			Lower	Upper
Occupation				
Health workers	4.862	<0.001*	2.183	10.828
Support staff	1			
Duration of work in ABSUTH				
<10years	2.022	0.056	0.983	4.157
≥10years	1			

Table 5 above shows the predictors of knowledge of BSE & CBE among ABSUTH workers. Health workers were 4.8 times more likely to have good knowledge of BSE and CBE than the support staff (OR=4.862, 95% CI: 2.183-10.828). Respondents who have worked for less than 10 years were 2 times less likely to have good knowledge of BSE and CBE than those who have worked for ≥10 years (OR=2.022, 95% CI: 0.983-4.157).

Discussion

The level of knowledge of breast self examination was relatively high (79.8%) among the study participants. This could be attributed to the fact that the participants worked in the hospital environment. There have also been previous campaigns in the past organized by the Medical Women's

Association of Nigeria, Aba zone. The above result is slightly lower than what was obtained in a study done among nurses working in Ebonyi State University Teaching Hospital, Abakaliki, which reported a knowledge level of BSE of 98%¹⁵. The result also differed from another study among nursing students in Lagos University teaching Hospital, which reported an awareness level of BSE of 93.7%¹⁶ and 94% reported from a study at Owo, Ondo State¹⁷. Also another study conducted in the US reported that 98% of the population knew about BSE but only 58% of them performed it¹⁸. Our result is however, very similar to the findings in an Iranian study among female workers that reported a 79.8% knowledge level of BSE,

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however, the performance was not so acceptable¹⁹.

This study reported that 66.1% of respondents had practiced BSE in the past, out of which 33.9% knew the correct frequency of BSE practice (monthly). The study by Gwarzo et al. found that fifty-seven percent (57%) of their study participants had ever practiced BSE while only 19% knew the frequency of practice²⁰. A slightly higher knowledge of the timing and frequency of BSE (41.2%) was observed in the study of nursing staff at Aminu Kano Teaching Hospital, Kano than was reported in this study, although 91.2% of them were practicing it²¹. While the study in the University of Buea, Cameroon reported a lower practice level of BSE (41%), those that knew the correct frequency of practice was similar to the findings in our study (37.3%)²². Also an Iranian study found that 39.5% of the participants performed BSE on regular monthly times¹⁹.

Our study showed that even though half of the respondents had good knowledge of clinical breast examination, only 20.2% had ever done it. This finding is in line with that of a study in the University of Buea, Cameroon among undergraduates, which reported that 19.9% of the respondents had ever been to any health facility to have their breast examined²². A previous study in Abia State University Teaching Hospital, Aba on CBE as a method of early breast cancer detection, reported a lower level of awareness among the respondents²³. A lower level of awareness of CBE among participants (13%) was also found in a study conducted in Abakaliki among market women²⁴. A significant number of women, 40%, had ever had a CBE as reported by Kiguli-Malwade et al²⁵.

This study showed that socio-demographic characteristics like age and marital status did not affect the level of knowledge of the participants. This was also the finding in the study at Kano²¹ and that done in Saudi

Arabia²⁶. Contrary to the finding in this study that there was statistically significant association between occupation (health workers) and duration of work and the level of knowledge of BSE, the study by Yakubu et al found no association between practice of BSE and years of service ($P=0.51$)²¹. Another study found a significant relationship between higher levels in work experience and BSE practice²⁷. In this study, health workers in ABSUTH were nearly 5 times more likely to have good knowledge of BSE and CBE when compared to the support staff. Similarly in Zaria, the researchers found that respondents in the health-related disciplines were 2 times more likely to know about BSE²⁰. Work status was also a significant predictor ($p=0.032$) of BSE performance in the study done among Saudi women²⁶.

About 13% of the respondents in this study agreed that they had relatives who had breast cancer/breast changes. More than three-quarter of them said the cancer was diagnosed in their female relatives (mother, sister, grandmother, aunt). In the study in Saudi, 22.9% of the women interviewed reported a family history of breast cancer in near relatives (mother, sister, daughter)²⁶. Both studies support the genetic predisposition of breast cancer occurrence.

A possible limitation of our study could be our inability to identify the reasons for poor practice of CBE. This we think may be due to factors like fear of detecting lumps in the breast, beliefs, embarrassment at having one's breast examined by a health worker or lack of understanding of the benefits of this cancer screening method.

Conclusion

There is poor practice of CBE amongst these female workers in this study, which undermines the efforts against early detection of breast cancer. We recommend greater awareness and education among the female workers to improve knowledge and practice of BSE and CBE. An improvement

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in their knowledge and practice will further enhance their role as health models in the community.

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