Full Length Research Paper

Breast self examination among secondary school teachers in South-South, Nigeria: A survey of perception and practice

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Breast cancer continues to claim the lives of hundreds of women all over the world inspite of the existence of simple to perform procedures that could ensure the early detection of breast changes. The study aimed to assess the practice and perceptions towards breast self examination (BSE) among secondary school teachers in Benin City. A cross-sectional study was conducted in July, 2010 among 300 female secondary school teachers in a selected local government area in Benin. An interviewer administered structured English language questionnaire was used for data collection. Data analysis was done using statistical package for social sciences (SPSS) with level of significance set as $p < 0.05$. All (100.0%) had heard of BSE, 79.3% had ever practised (BSE), of which19% performed BSE monthly and 6% knew all steps in the procedure of BSE. Main source of information was the broadcast media. Ignorance of the usefulness of BSE was the most common reason given for not doing BSE. Nonetheless, attitude towards BSE was good for 80% of respondents. There is need for aggressive awareness campaigns among secondary school teachers that will focus on filling knowledge gaps and providing opportunities for guided practice.

Key words: Breast cancer, breast self- examination, practice, screening, teachers.

INTRODUCTION

In Nigeria, cancer of the breast has overtaken carcinoma of the cervix in hospital incidence, with the prevalence described as 116 cases per 100,000 women per year (Bray et al., 2004; Chan et al., 2009; Gwarzo et al., 2009). Early detection plays an important role in reducing morbidity and mortality and theoretically, a 95% survival rate could be achieved if diagnosis was made at an early stage of the disease (Tavatiari et al., 2009). Studies have shown that over 90% of breast lumps are detected by women themselves, stressing the importance of breast

self examination (Onyije et al., 2010). Mammography has limited application in Nigeria, where facilities and expertise are largely unavailable, therefore, breast self examination if properly carried out remains the most cost effective method for the early detection of breast cancer (Chioma and Asuzu, 2007; Onyije et al., 2010; Saludeen et al., 2009).

Despite the growing campaign on breast cancer awareness in Nigeria, the practice of breast self examination (BSE) continues to vary widely among women. Female

Table 1. Demographic characteristics of respondents (n = 300)

Variable	Frequency (%)
Age (years)	
20 – 29	51(17.0)
30 -39	79 (26.3)
40 -49	91 (30.3)
50 -59	76 (25.3)
60 - 69	3 (1.1)
Religion	
Islam	7 (2.3)
Christianity	293 (97.7)
Educational level	
National certificate of education	90 (30.0)
1st degree	193 (64.3)
2nd degree	17 (5.7)
Marital status	
Single	61 (20.3)
Married	127 (72.3)
Divorced	8 (2.7)
Widowed	24 (4.7)

women. Female school teachers form a group that are often neglected in breast cancer research. Available literature reveal that teachers have a poor practice of BSE, both in technique and timing, often in the light of a fair knowledge of breast cancer (Jarvandi et al; 2002; Nur, 2010; Odunsanya, 2001). In a cross sectional study to determine the knowledge, attitudes and behaviours of female teachers related to breast cancer and breast examination in Southern Turkey, more than half of them did not practise BSE and only 12.5% of them practised BSE regularly (Nur, 2010). Another study carried out among female secondary school teachers in Ilorin West Local Government Area of Kwara State, Nigeria revealed that 187 (54.8%) of the respondents had done BSE before, 49.0% were still practising it as at the time of the study, about 70% practised BSE once monthly, 12.5% thrice monthly, 3.1% twice yearly and 12.5% once a year. About 40% of the teachers knew the correct BSE procedure, while 36.5% did not know about the procedure at all (Kayode et al., 2005). The objective of the study was to assess the perceptions and practice of BSE among secondary school teachers in Benin City, Edo state.

MATERIALS AND METHODS

The study was carried out in Oredo, an urban Local government area of Edo state, Nigeria. The study population comprised all female teachers in government owned secondary schools in the study area. Sample size was computed using the formula for prevalence study in a population of less than 10,000 (Araoye, 2004). The value for p was set as 39%, being the proportion of women who practiced BSE in Port-Harcourt, from an earlier study (Jebbin and Adotey, 2004), level of accuracy d was taken as 5% and margin of error z as 1.96 with a non-response rate of 10%. A minimum sample size of 254 was calculated and increased to 300 to enhance validity. Stratified random sampling with proportional allocation was used to select participants from a list of all female teachers in government owned secondary schools within the LGA. In the selected schools, the required quota of teachers was obtained by simple random sampling. Ethical approval was obtained from the University of Benin Teaching Hospital Ethic committee. Written institutional and individual informed consent were obtained and data collected using an interviewer administered structured pre-tested questionnaire that focused on socio-demographic variables of the teachers, perception and practice of BSE. There were 4 variables to determine knowledge of BSE including purpose, frequency, timing in relation to the menstrual cycle and knowledge of the steps of BSE. A score of two (2) was awarded for each correct answer and zero (0) for each wrong answer, with possible maximum score of 8. A score of 2 was graded poor knowledge, 4 as fair knowledge, 6 and 8 as good knowledge. There were 4 questions for practice of BSE. Each response on practice was scored as two (2) if correct and zero (0) if wrong. Total possible score for each respondent was 8. A score of 6 and 8 were designated as good practice and less than the score of 6 as poor practice. There were 4 questions to assess attitude to BSE, with a maximum possible score of 8. A total score of 2 was poor attitude and 4 to 8 as good attitude. Data analysis was done using SPSS version 16. Descriptive data were presented as frequency tables and cross-tabulations performed using chi-square test, with level of significance set as $p < 0.05$ to examine for associations between variables.

RESULTS

Three hundred teachers participated in the survey. Mean age of respondents was 41.0 ± 9.9 years. The major ethnic groups of the respondents were Bini 109 (36.3%), 293 (97.7%) were Christians and 127 (72.3%) married. The majority 193 (64.3%) were university first degree holders (Table 1). All respondents (100.0%) had heard of breast self examination, with main source as being the broadcast media (45.3%) (Figure 1). Two hundred and fifty four (84.7%) knew the purpose of BSE, 248 (82.7%) knew that BSE should be started as early in life, 25 (8.3%) were sure BSE should be performed monthly. Only 6 (2.5%) could correctly mention all steps in the procedure of BSE. Overall knowledge of BSE was poor for 140 (46.6%), fair for 122 (40.7%) and good for 38 (12.7%) of respondents. Educational level was positively associated with knowledge (p = 0.025). Sixty two (21.7%) respondents had never performed BSE, for the remainder, mean age of commencement of BSE was 30.2 ± 9.8 years. Only 24 (10.1%) of the remaining 238 examined their breast regularly monthly. Forty-nine (32.6%) out of 150 pre-menopausal respondents examined their breasts anytime in the menstrual cycle, 45 (30.0%), 34 (22.7%) and 22 (14.7%) after, before and during menstruation, respectively. Of the 88 respondents that were post menopausal, majority 81 (92.0%) examined their breast anytime during the month, while only 7 (8.0%) did their
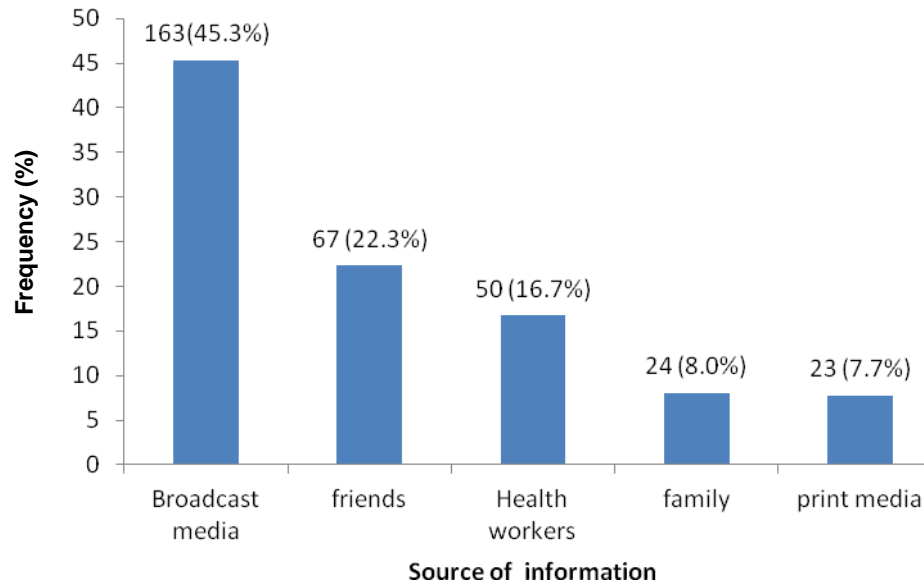
Figure 1. Primary source of information on BSE.

Table 2. Respondents' perception of BSE (n = 300).

Perception of BSE	Frequency (%)
BSE improves early breast cancer detection	
Yes	283 (94.3)
No	17 (5.7)
BSE difficult to perform	
Yes	70 (23.3)
No	230 (76.7)
Willingness to discuss results of BSE with health professional	
Yes	271 (90.0)
No	29 (10.0)
Willingness to teach BSE	
Willing	288 (96.0)
Not willing	12 (4.0)

examinations on the same date of any month. Practice was graded as poor for 213 (89.3%) and good for 25 (10.7%). Practice of BSE was positively associated with level of education (p = 0.029) and not with any other demographic variable. Eighteen (7.6%) of those who had ever practised BSE discovered a lump for which 14 (77.8%) sought medical care from a doctor, 1 (5.6%) sought the services of a traditional medical practitioner and 3 (16.6%) preferred to wait and observe the lump. Forty nine (16.3%) of 300 respondents felt susceptible to breast cancer, 70 (23.3%) thought it a difficult procedure to perform by one's self, 270 (90.0%) felt willing to discuss the findings from breast self examination with a health care provider, 288 (96%) expressed willingness to teach others about BSE (Table 2). Overall, attitude to BSE was good for 240 (80.0%) of the respondents and poor for 60 (20.0%). Attitude was significantly (p = 0.019) associated with practice such that those who had a good attitude had good practice (Odds ratio 2.12, 95% CI = 1.05; 4.17) (Table 3).

DISCUSSION

The incidence of breast cancer is increasing worldwide and even more rapidly in societies that hitherto enjoyed a low incidence of the disease, such as developing African

Table 3. Association between educational level of respondent and perception with practice of BSE (n = 300).

Item	Practice of BSE		Total	p value
	Yes. n (%)	No. n (%)		
Educational status				
NCE	63 (70.0)	27 (30.0)	90 (100.0)	0.029
1st degree	160 (82.9)	33 (17.1)	193 (100.0)	
2nd degree	15 (88.2)	2 (11.8)	17 (100.0)	
Perception				
Good	197(82.8)	43 (17.2)	240 (100.0)	0.019
Poor	41 (69.4)	19(30.6)	60 (100.0)	
Total	238 (79.3)	62 (20.7)	300 (100.0)	

countries (Jarvandi et al., 2002; Kayode et al., 2005). Regular BSE in a resource poor country like Nigeria has more potential to detect early breast cancer than any other technique so far (Adesunkanmi et al., 2006). The study focused on the knowledge and practice of BSE among teachers in Benin city. The mean age of respondents in this study (41 years) is comparable to the mean age of breast cancer patients in studies conducted in Ibadan (43 years) (Adebamowo and Adekunle, 1999) and Nnewi (44 years) (Anyanwu, 2009) both in Nigeria. Thus, they represent a vulnerable population in need of BSE. Encouragingly, all respondents had heard of BSE, with the television as the most popular source, a finding also noted in other studies (Dandash and Al-Mohammed, 2007; Drakshyami and Venkata, 1994). The less common involvement of health care workers in the dissemination of information regarding BSE has also been noted in previous studies (Gwarzo et al., 2009; Saludeen et al., 2009) and requires urgent intervention, as understandingly, they are custodians of knowledge in this respect. The incompleteness of information received from the media is reflected in the poor knowledge of BSE found in this study.

Although a number had ever performed BSE, only 19% examined their breast once a month and 30% did so just after menstruation, as recommended. This finding of poor technique of performance has been reported in previous studies (Demirkiram et al., 2007; Nur, 2010; Parsa et al., 2008). The tendency to miss out on breast changes is therefore higher, because regular BSE enables familiarity with the breast and easy recognition of changes. The fact that less than 30% of those who found lumps did not seek medical attention highlights the need for aggressive campaigns to highlight the dangers of late presentation and further research into the barriers of assessing medical care, as over 90% expressed their willingness to discuss their findings with a health profes-sional. The good attitude towards BSE is encouraging and shows that if adequate attention was given to teaching these teachers about BSE, they would indeed be willing to make it a regular practice.

Conclusion

From the study, most of the respondents were found to be aware of BSE, with the television as the source of information for the majority, though few had good knowledge of BSE. The attitude of teachers to BSE was good and although a large number practiced BSE, they did so incorrectly. It is needful for secondary school teachers to be re-educated both in theory and practical demonstrations on BSE, to clear gray areas in knowledge and improve practice. Health care workers should be more involved in the dissemination of BSE information and information passed on through the mass media should be screened for completeness.

Conflict of interest

None declared.

REFERENCES

Adebamowo CA, Adekunle OO (1999). Case-controlled Study of the Epidemiological Risk factors for breast cancer in Nigeria. Br. J. Surg. 6(5):665–8.
Adesunkanmi AR, LawalOO, Adelusola KA, Durosimi MA (2006). The severity, outcome and challenges of breast cancer in Nigeria. Breast 15(3)**:**399-409.
Anyanwu SN (2000). Breast cancer in Eastern Nigeria: A ten year review. WAJM 19(2):120–5.
Araoye OM (2004). Research methodology with statistics for health and social sciences, 2nd ed. Nathadex publishers, Ilorin.
Bray F, McCarron P, Parkin DM (2004). The changing patterns of female breast cancer incidence and mortality. Breast Cancer Res. 6:229-39
Chan X, Zheng Y, Zheng W, Gu K, Chen Z, Lu W, ShuXO (2009). The effect of regular exercise on quality of life among breast cancer

survivors. Am. J. Epidemiol. 170:854-62

Chioma C, Asuzu SRN (2007). Knowledge, attitude and practice of self breast examination among the female students of the University of Ibadan, Nigeria. Pakistan J. Soc. Sci. 4(3):400-2.

Dandash KF, Al-Mohaimeed A (2007). Knowledge, attitudes and practices surrounding breast cancer and screening in female teachers of Buraidah, Saudi Arabia. Int. J. Health Sci. 1(1):76-86.

Demirkiran F, Balkaya NA, Memis S, Turk G, Ozvurmaz S, Tuncyurek P (2007). How do nurses and teachers perform breast self-examination: are they reliable sources of information? BMC Public Health 7:96.

Drakshyani DK, Venkata RP (1994). Teachers' knowledge and practice of breast self examination. Indian J. Med. Sci. 48(12):284-7.

Gwarzo U, Sabitu H, Idris SH (2009). Knowledge and practice of breast self examination among female undergraduate students of Ahmadu Bello University, Zaria, North-Western Nigeria. Ann. Afr. Med. 8:55-8.

Jarvandi S, Montazeri A, Harirchi I, Kazemnejad A (2002). Beliefs and behaviours of Iranian teachers towards early detection of breast cancer and breast self-examination. Public Health 116(4):245-49.

Jebbin NJ, Adotey M (2004). Attitude to knowledge and practice of Breast self examination (BSE) in Port Harcourt. Niger. Med. 13(2):166-70.

Kayode FO, Akande TM, Osagbemi GK (2005). Knowledge, attitude and practice of breast self examination among female secondary school teachers in Ilorin, Nigeria. Eur. J. Sci. Res. 10(3):42-7.

Nur N (2010). Breast cancer knowledge and screening behaviour of the female teachers. Women Health 50(1):37-52.

Odusanya OO (2001). Breast cancer: knowledge, attitudes and practice of female school teachers in Lagos, Nigeria. Breast J. 7(3):171-5.

Onyije FM, Zenebo VC, Oboma YI (2010). Knowledge and practice of breast cancer self examination among female students in tertiary institutions in Nigeria. Continental J. Biomed. Sci. 4:75-82.

Parsa P, Kandiah M, Mohd ZNA, Rahman HA (2008). Knowledge and behaviour regarding breast cancer screening among female teachers in Selangor Malaysia. Asian Pac. J. Cancer Prev. 9(2):221-7.

Salaudeen AG, Akande TM, Musa OI (2009). Knowledge and attitudes to breast cancer and breast self examination among female undergraduates in a state in Nigeria. Eur. J. Soc. Sci. 7(3):157-165.

Tavafiari SS, Hasani L, Aghamolaei T., Zare S, Gregory D (2009). Prediction of breast self examination in a sample of Iranian women: an application of the health belief model. BMC Women's Health 9:37.