SHORT REPORT

KNOWLEDGE AND PRACTICE OF BREAST-SELF EXAMINATION AMONG FEMALE UNDERGRADUATE STUDENTS OF AHMADU BELLO UNIVERSITY ZARIA, NORTHWESTERN NIGERIA

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Abstract

Background: Carcinoma of the breast is an important public health problem in Nigeria and studies have reported low levels of awareness and practice of breast self examination as an important method of prevention. Breast self examination is a cost-effective method of early detection of cancer of the breast especially in resource poor countries. We assessed knowledge and practice of breast-self examination (BSE) among female undergraduate students of Ahmadu Bello University Zaria, Nigeria.

Method: In this study, knowledge and practice of BSE were examined among 221 female students aged 16 – 28 years old studying at Ahmadu Bello University Zaria using self administered questionnaires.

Results: It was found that despite nearly three quarter of the respondents (87.7%) had heard of BSE, only 19.0% of them were performing this examination monthly. Regarding the sources of information about BSE among respondents, media was found to be most common followed by health workers accounting for 45.5% and 32.2% respectively. Regular performance of BSE was significantly correlated with duration of stay in the University ($X^2 = 81.9$, df = 3, *P* < .05) and family history of breast cancer ($X^2 = 17.4$, df = 2, *P* < .05).

Conclusion: We observed a disparity between high levels of knowledge of BSE compared to a low level of practice. Public health education using the media could significantly reduce the knowledge- practice gap and early detection of breast lump.

Key words: Breast-self examination, breast cancer, health education

Résumé

Fond: Le carcinome du sein est un problème important de santé publique au Nigéria et les études ont indiqué les niveaux bas de la conscience et la pratique de l'examen de conscience de sein comme méthode importante d'empêchement. L'examen de conscience de sein est une méthode rentable de dépistage précoce du cancer du sein particulièrement dans les pays pauvres de ressource. Nous la connaissance et pratique évaluées de l'examen de sein-individu (ESB) parmi les étudiants d'étudiant préparant une licence féminins de l'université Zaria, Nigéria d'Ahmadu Bello.

Méthode: Dans cette étude, la connaissance et la pratique de l'ESB ont été examinées parmi 221 étudiants féminins âgés 16 - 28 ans de étudier à l'université Zaria d'Ahmadu Bello en utilisant les questionnaires administrés par individu.

Résultats : On l'a constaté qu'en dépit presque de de trois quarts des répondants (87.7%) avait entendu parler de l'ESB, seulement 19.0% d'entre eux exécutaient cette revue mensuelle d'examen. Concernant les sources d' informations sur l'ESB parmi des répondants, des médias se sont avérés plus terrain

communal suivi du personnel sanitaire expliquant 45.5% et 32.2% respectivement. L'exécution régulière de l'ESB a été sensiblement corrélée avec la durée du séjour à l'université (X^2 = 81.9, DF = 3, p < 0.05) et antécédents familiaux du cancer du sein (X^2 = 17.4, df=2, p <0.05).

Conclusion: Nous avons observé une disparité entre le niveau élevé de la connaissance de l'ESB comparée à un niveau bas de la pratique. L'éducation de santé publique employant les médias a pu de manière significative réduire l'espace de pratique en matière de la connaissance et le dépistage précoce du sein morceau.

Mots clés: Examen de sein-individu, cancer de sein, éducation sanitaire

Breast Self Examination (BSE) is an important, cheap and easy method for early diagnosis of breast cancer. Carcinoma of the breast is an important public health problem with its associated high morbidity and mortality.[1] Current reports indicates that cancer of the breast is the commonest malignancy in females affecting more than a million females annually,[2] with an increasing incidence as the women presumably adopt a western life style.[3] The black woman, believed to be at higher risk than her white counterpart, seem to develop her lesion at an earlier age,[4] present with a bigger mass and late for treatment.[5,6,] The life time risk of breast cancer is about 10% for white women and 7.3% for black women. It reduces life expectancy of the population at risk especially those between thirty to fifty years. It has been predicted that some 3.5% of this women will die from breast cancer.[7] In Nigeria, cancer of the breast has overtaken carcinoma of the cervix in hospital incidence. In a preliminary survey report from population based epidemiological study conducted by Adebamawo, the prevalence of breast cancer in Nigeria is 116 cases per 100 000 women per year.[2]

Low level of awareness has been reported among Nigerians.[8] Similarly the awareness of risk factors and early warning signs of the disease among different groups were below average.[9,10] Early diagnosis of has a positive effect on the prognosis as well as limits the development of complications and disability. Furthermore, it increases life quality and survival. In some studies studies, it has been reported that women who carefully examined their breasts could find small masses of breast cancer and their prognosis became better. For example, in a study carried out by Philip et al., 54.0% of 304 patients with newly diagnosed breast cancer claimed to practice BSE.[11] In this study, it was found that those who performed BSE had reported their symptoms to health personnel sooner than the other subjects. In addition, in a meta-analysis of 12 studies including the study mentioned above, Hill et al. reported that there was good evidence of the benefit of encouraging women to practice BSE.[12] This study was undertaken to assess the knowledge and practice of BSE among female undergraduate students of Ahmadu Bello University Zaria, Nigeria.

Materials and Methods

This cross-sectional study was carried out between April and May 2005 to determine the knowledge and practice of BSE among female students of Ahmadu Bello University Zaria. Nigeria, residing on the main campus. Participants were selected using a systematic random sampling from the list of students who reside in the hostel. This list was used as sample frame. A structured and pretested questionnaire consisting of mainly closed ended questions about socio-demographic characteristics knowledge and practice of BSE was applied by interviewing during the hostel visits. Informed consent was sought from all the respondents as well as permission from the students' affairs division of Ahmadu Bello University Zaria. The technique of BSE is briefly described below:

1. Look

Stand in front of a mirror and look at each breast separately. Note the size, shape, color, contour and direction of your breasts and nipples. Raise your arms over your head and look at your breasts, as you turn slowly from side to side. Press your hands on your hips and push your shoulders forward. Look at each breast separately.

2. Feel

Stand in front of a mirror and start BSE just below the collar bone. Use the left hand for the right breast. Moisten the pads of your three middle fingertips with body lotion. Apply firm pressure and make small circles as you go back or forth (up or down, circular or spoke style) in a pattern covering all the breast area including the nipple. Extend the examination to the breast tissue in the underarm, change your hand and repeat BSE on the opposite breast. Lie down and raise one arm above your head. Examine your breasts as before, omitting the underarm. Change your arm and repeat BSE on the opposite breast

3. Note

Record your observations and mark your calendar for BSE next month.

Students who knew at least two of the three steps that been described in this document were considered to be sufficiently informed about BSE and

defined as "knows BSE" .Respondents who reported that they perform BSE monthly or more often were defined as "performs BSE". Data obtained at the survey was checked and entered into a database on a personal computer. The data was validated manually for errors and analyzed using Epi – info version 6.4 software package. Qualitative data was presented as percentage; quantitative data was described using mean and standard deviation and range as appropriate. The significance of association was tested using X^2 test at $p \leq .05$ was considered as significant.

Results

A total of 221 respondents were interviewed. The mean age of the respondents was 21 years ±2.97 with age range of 16 to 28 years. One hundred and sixty of the respondents (72.4%) were single and the average age at menarche was 13.4 ± 1.2 years (Table 1).

Among the respondents studied, 188 (85.1%) of them have heard of breast self examination and media was the major source of information (45.5%), while health workers accounted for 21.8% and the least common source was relations accounting for 3.9% (Table 2). However, monthly performance ratios were significantly higher in those who were educated by health personnel.

Concerning the practice of BSE, 126 (57%) of them had ever practiced breast self examination, 37.3% correctly describes it and only 71 (32.1%) of them currently practice it. Some of the reasons mentioned by the respondents for not practicing breast self examination were forgetfulness, lack of time and belief that there is no problem with their breast. Only 19.0% of the respondent practice BSE every month (Table 3). Respondents in the health related disciplines were two times more likely to know and three times more likely to practice BSE than other respondents.

One hundred and ninety five of the respondents (88.2%) are not aware of ideal age of starting breast self examination, as only 11.8% were aware of the ideal age for starting breast self examination. Two respondents (0.9%) reported that they have detected a breast lump while 6 women (2.4%) had one relative who have been diagnosed with breast cancer.

Regular performance of BSE was significantly correlated with duration of stay in the University, students who have spent more years in the university were more likely to practice BSE ($X^2 = 81.9$, df = 3, $p < .05$). Similarly the practice of BSE was higher among those family history of breast cancer, this was also statistically significant ($X^2 = 17.4$, df = 2, $p < .05$).

Table 1. Age distribution of 221 respondents

Age (years)	No. (%)
<18	4 (1.8)
18 – 19	27 (12.2)
20 – 21	81 (36.6)
22 – 23	42 (19.0)
24 - 25	49 (22.2)
>25	18 (8.1)
Total	221 (100)

Table 2. First source of information about breast self examination among 178 respondents

Source of information	No. (%)
Television	46 (25.8)
Radio	38 (21.3)
Health worker	36 (20.2)
Print media	35 (19.7)
Friends	16 (8.9)
Relations	7 (3.9)
Total	178 (100)

Table 3. Frequency of breast self examination (BSE) among 221 respondents

Frequency of BSE	No. (%)
Weekly	22 (9.9)
Monthly	42 (19.0)
Quarterly	48 (21.8)
Yearly	29 (13.3)
Never	56 (25.3)
When I wish	24 (10.9)
Total	221 (100)

Discussion

The survey revealed that there is wide gap between knowledge and practice of BSE. Similar studies have documented this gap in knowledge and practice of BSE. For example, in a study conducted by Chie et al in Taiwan, they found out that only 8.4% of 3040 randomized sampled women had been performing BSE monthly.[13] In a two series study carried out in İzmir by Aydemir et al., they first found out that the level of knowledge of BSE was 24.5% while the level of practice was found to be 1.5%. In their second study, the percentage of women who knew BSE was 53.7% while 39.0% were performing it. Indeed, the ratios that have been found in the latter are much greater than either in the former and in our study. Our findings clearly demonstrate that practice of breast self examination is poor in the study population and is consistent with other studies in Nigeria.[14, 15]

In conclusion, this wide gap between knowledge and practice could be reduced in the study area through a rational public health education with well-defined strategies. In addition, further studies are recommended to explore the reasons in the differences between knowledge and practice of BSE and should include the women folks in the general population especially those who live in the rural areas where the bulk of the disease is and access to information may still be a challenge.

References

1. Maurer F. A peer education model for teaching breast self-examination to undergraduate college women. Cancer Nurs. 1997; 20:49-61.
2. Forbes JF. The incidence of breast cancer. The global burden, public health considerations. Journal of Oncology. 1997; 24(supplement. 1):20-35.
3. Ruiz-Ramos M. Viciana Fernandez F. The trends and geographical distribution of breast cancer mortality in Andalusia (1976-1995). Aten Primaria. 1997; 20:299-304.
4. Newman LA, Alfonso AE. Age related differences in breast cancer stage at diagnosis between black and white patients in an urban community hospital. Ann Surg Oncol. 1997; 4:655-662.
5. Adebamawo CA, Ajayi OO. Breast Cancer in Nigeria. West Afr J Med. 2000; 10:179-191.
6. Edino ST, Ochicha O, Alhassan S, Mohammed AZ, Ajayi OO. Clinico-Pathological Review of Breast Cancer in Kano. Nigerian Journal of Surgery. 2000; 7:70-75.
7. Adebamawo CA, Adekunle OO. case-controlled study of the epidemiological risk factors for breast cancer in Nigeria. Br J Surg. 1999; 86:665-668.
8. Baines CJ. Breast Self Examination. Cancer. 1992; 69:1942.
9. Ncarubara RG. control of Breast cancer using health education. East Afr Med J. 1999; 76:661-663.
10. Michielutte R, Diseker R, Hayes D. Knowledge of cancer, a cross cultural comparison among students in the U.S. and U.K. Int J Health Educ. 1979;2:42-48.
11. Philip J, Harris G, Flaherty C, Joslin CAF. Clinical measures to assess the practice and efficiency of breast self-examination. Cancer. 1986; 58:973-977.
12. Hill D, White V, Jolley D, Mapperson K. Self examination of the breast: Is it beneficial? Meta-analysis of studies investigating breast self examination and extent of disease in patients with breast cancer. BMJ. 1988; 297:271-277.
13. Chie WC, Cheng KW, Fu CF, Yen LL. A study on women's practice of breast self-examination in Taiwan. Prev Med. 1993; 22:316-324.
14. Uche EE. Cancer Awareness among a Nigerian population. Trop Doct. 1999; 1:39-40.
15. Nwagbo DF, Akpala CO. Awareness of breast cancer and breast self examination among women in Enugu urban Eastern Nigeria. Journal of College of Medicine. 1996; 1L: 34-36.