

Original Article

Knowledge and Attitude to Breast Self-Examination Among a Cohort of Medical Students in Nigeria

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Abstract

Background: Breast cancer is a leading cause of cancer mortality worldwide with a gloomy outcome especially in late presentation commonly seen in developing nations. Early detection through screening however improves the prognosis and patient survival. Breast self examination is a recognized and acceptable modality for screening breast cancers especially in resource scarce settings since early detection and treatment offers appreciable benefit to the patient. The objective of this study is to assess the knowledge, attitude and practice of breast self examination (BSE) among a group of potential healthcare givers.

Key Words

Breast,
self-examination,
medical students,
breast cancer,
prevention.

Methodology: This was a self administered questionnaire based study carried out on a class of final year medical students in a Nigerian Teaching Hospital.

Results: There were a total of 98 respondents aged between 24 and 39 years (mean = 27.4 years). There were 59 (60.2%) males and 39 (39.8%) females (M: F= 3:2). Ninety three (94.9%) respondents have heard of BSE with only 5% having adequate knowledge of BSE. Twenty nine (74.4%) of the female respondents practice BSE.

Conclusion: There is poor knowledge, attitude and practice of BSE among final year medical students of the Jos University Teaching Hospital.

Introduction

Breast cancer is a leading cause of cancer mortality amongst women worldwide with an estimated one out of every eight American women developing breast cancer in their lifetime.[1] In Nigeria, breast and cervical cancers are reputed to be the leading causes of cancer mortality [1] with an annual incidence of 33.3 per 100,000 women and is believed to be rising[2- 4].

Early breast cancer detection and treatment results in better prognosis and patient outcome.[3] The various screening modalities include: breast self examination (BSE), physician conducted examination, breast ultrasonography, mammography and recently, magnetic resonance imaging of the breast(MRI) result in early detection of the disease and improved management outcome [4]. Breast cancer is nevertheless still characterized by late presentation and poor outcome in many developing countries which lack institutionalized concerted effort at early detection.[5] The most commonly used screening modality is mammography but it is not readily available in most

centres in developing economies. BSE on the other hand presents a cheap, simple, non-invasive, non-professional dependent early breast cancer detection method which can be conducted by patients themselves within a short time.[5- 8]. Due to early age of breast cancer occurrence in Nigeria, coupled with the limited availability of mammograms, BSE is considered a worthwhile screening tool in line with the American Cancer Society recommendation despite the conflicting opinion regarding its value.[9]

Sources of information on BSE are many but women who receive personal instruction on BSE from a health care professional demonstrate greater knowledge and confidence with greater likelihood to practice routine BSE than those who become aware of the method from other sources. [10] This study was therefore undertaken to assess the knowledge, attitude and practice of BSE among final year medical students who constitute a group of potential health care givers.

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The questionnaires were self administered in the classroom a week to their final examination, when all lectures, tutorials and ward teachings had been concluded.

Data obtained were personal data and information on whether they have heard, practiced or been taught BSE (only females were allowed to respond to questions on the practice of BSE). They were also required to respond to the questions; who should teach BSE and whether they think BSE was important for breast cancer screening.

Data obtained was analyzed for simple means, percentages and standard deviations using Epi-info version 3.2.2 of April 2004.

Results

One hundred and ten questionnaires were administered with ninety eight respondents giving a response rate of 89%.The respondents ages ranged from 24 and 39 years (mean age= 27.4 ± 2.8 years).Fifty nine (60.2%) were males and 39 (39.8%) were females (M: F= 3:2). Ninety three respondents (94.9%) had heard about BSE but five (5.1%) had not. Ninety three respondents (94.9%) believed that BSE was important as a screening tool for breast cancer while 78 (80%) respondents believed that the ideal age for commencement of BSE is 20 years (Table 1).

Table 1: Age of commencement of BSE

Optimum Age (yrs)	No of respondents	Percentage (%)
10	7	7.1
20	80	81.6
30	7	7.1
40	3	3.1
50	1	1.1
Total	98	100

Only five (5.1%) respondents knew that BSE should be done standing up, lying down and in the shower (Table 2).

Table 2: Optimum Position for BSE

Optimum Age (yrs)	No of respondents	Percentage (%)
In front of the Mirror	70	71.4
In the shower	8	8.2
Lying down	15	15.3
All positions above	5	5.1
Total	98	100

Fifty six (57.1%) respondents knew that the optimum timing for BSE in pre-menopausal women is 7 to 10 days after the menstrual flow while the rest 42 (42.9%) believed BSE should be done before or during the menstrual flow. Twenty nine (74.4%) female respondents practiced BSE while 10 (25.6%) did not.

Discussion

The respondents' age range of 24 to 39 years is well within the recommended age for practicing BSE[3] and the male/female ratio of 3:2 of the study group is a reflection of male preponderance in the class and by extension the medical school. Our study shows that 93(94.9%) of the respondents have heard of BSE. By a cursory look, it would appear that majority of the group have heard of BSE, however it is quite disappointing that up to five (5.1%) respondents had never heard of the concept of BSE when considered against the backdrop that the group consists of potential health care givers in the final level of their training.. Likewise, 93 (94.9%) of the respondents are aware of BSE as a screening tool for breast cancer but are lacking in understanding of its details. Twenty (20.4%) respondents were completely ignorant of the ideal age of commencing BSE with 11 (11.3%) of the respondents specifying a higher age of commencement. This will obviously cause many early lesions to be missed since breast cancer occurs at a relatively earlier age in our setting. [10] Similarly, only about half of the respondents know the optimum time for BSE.

It appears that majority of the respondents have heard of BSE but not in details. Although breast cancer is not limited to females, majority of the cases of this disease occur in them. About a quarter of the female respondents in this report do not practice BSE. The practice of BSE amongst the female respondents in this study was higher than in the report by Jebbin and Adotey.[9]

Only 5.1% knew exactly how to perform BSE according to the recommendations of the American cancer Society [11]. It is quite worrisome that these potential care givers cannot reliably perform BSE on themselves. This is corroborated by the fact that less than a half of respondents had attempted teaching BSE to others. Five (5.1%) respondents knew that BSE should be done standing up, lying down and in the shower. This finding agrees with that of Jebbin and Adotey[9] who reported that only one doctor could correctly perform BSE.

Considering that nine out of ten cases of breast carcinoma are detected first by the patient, [10] it

becomes worrisome that even potential care givers (final year medical students) cannot reliably perform BSE on themselves. This is corroborated by the fact that less than a half of respondents had attempted teaching BSE to others. The practice of BSE among the female respondents in this study was higher than in the report by Jebbin and Adotey.[9] A simple guideline for BSE is provided in table 3

Table 3: Guidelines for breast self examination

1. ~~BSE should be performed regularly each month in the following manner:~~
 - a) Premenopausal women: 7-10 days from the first day of the period.
 - b) Post menopausal women: at a set time each month e.g. The first day of every month
2. **Look:**
 - a) Stand in front of a mirror and look at each breast separately. Note the size, shape, colour, contour and direction of your breasts and nipples.
 - b) Raise your arms over your head and look at your breasts as you turn slowly from side to side.
 - c) Press your hands on your hips and push your shoulders forward. Look at each breast separately.
3. **Feel:**
 - a) 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 and forth (up or down, circular or spoke style

- in a pattern covering all the breast area including the nipple.
- b) Extend the examination to the breast tissue in the underarm.
- c) Change your hand and repeat BSE on the opposite breast.

4. Lie down and raise one arm above your head. Examine your breasts as before, not omitting the underarm.
5. Change your arm and repeat BSE on the opposite breast.
6. Record your observations and mark your calendar for BSE next month.

In the developed countries where it is possible to detect early, impalpable breast carcinomas because of superior and sophisticated screening facilities, BSE has become obsolete⁵ more so because of the controversies surrounding interpretation of BSE. [12] In the developing nations, however, where there is paucity of even the simplest of equipments and where most patients present invariably with advanced tumours, BSE is still relevant.

In conclusion, this study reveals inaequate knowledge, attitude and practice of BSE among final year medical students. There is the need to adapt the training curriculum for doctors in developing countries to reflect preventive measures relevant to the region .Cancer in particular is fast becoming an epidemic in developing nations, provision of relevant oncological education and effective services therefore become crucial. It is by inculcating the practice of BSE that late presentation of breast cancer will be reduced.

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