

Breast Cancer Awareness, Attitude and Screening Practices Among University Students: Intervention Needed



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Abstract

Background: Breast cancer has become an important public health problem especially in Southeast Asia. This study intended to explore about knowledge of breast cancer symptoms and risk factors and self-reported practice of breast self-examination among the students of a public sector university of Pakistan.

Methods: This study was carried out in Bahauddin Zakariya University Multan, Pakistan from 3rd of July 2017 to 10th July 2017. Data was collected on a structured questionnaire covering demographic status, knowledge about symptoms and risk factors of breast cancer and practice of breast self-examination. Analysis was done by descriptive statistics and chi-square test where necessary.

Results: A total of 304 students contributed in the study. Average age of the participant was 22.6 ± 2 years. Over all more than 55% of the girls were aware of the risk factors. Only 25% of the female students recognized breast lump as the main symptom of the breast cancer. Many (37.5%) had no idea about the diagnostic modalities and 23% practiced breast self-examination.

Conclusion: finding of the study highlight that non-medical students of BZU only have only limited knowledge about breast cancer and there exists a wide gap between knowledge and practice of breast self-examination. Awareness campaigns and education programs should be intensified in order to bridge this gap.

Keywords: Breast cancer; Breast self-examination; Practice

Introduction

Breast cancer is by far the most common cancer among women and it constitutes 23% of all cancers, second only to lung cancer when both sexes are considered collectively. It is the principal cause of cancer related deaths in women comprising 14% of female cancer deaths [1]. Worldwide about one million women are diagnosed with breast cancer every year [2]. In Asia, Pakistan has the highest occurrence rate of breast cancer where about one in every 9 women has a chance to suffer from the deadly disease at some point in life [3]. It is an alarming situation as incidence in the neighboring country India with similar socio-cultural milieu of a young age at first child-birth and breast-feeding practices, is only 19/ 100,000 as compared to 50.1/ 100,000 in Pakistan. The main factors that enhance risk of breast cancer in women comprise some inherited genetic mutations, a personal or family history of breast cancer, and hyperplasia. Other risk factors are: late menopause, obesity

and hormonal therapy after menopause, use of oral contraceptives, nulliparity or having the first child after age of 30, exposure to radiation, or taking one or more alcoholic drinks per day [4].

While breastfeeding, physical exercise, and the maintaining a healthy body weight decrease the risk to some extent [5]. As breast cancer is a progressive disease, early diagnosis has a better prognosis yielding a better survival rate [6]. Mammography, clinical breast examination (CBE) and breast self-examination (BSE) are screening methods used for early detection [7]. Among these, annual mammography is considered to be the most helpful method for the diagnosis of breast cancer in its initial stage, when it is still a localized growth and therefore amenable to the treatment. In developed countries breast cancer mortality has declined due to regular use of screening mammography as a standard of care [8]. But mammography is not readily available to masses in a country

like Pakistan due to limited availability of the services, economic issues and illiteracy. BSE is appealing because it is noninvasive, performed by the patient herself and does not involve any cost. At present, the American Cancer Society suggests that women should be provided information about benefits and limitations of BSE and use BSE only if they have no symptoms of breast cancer or are not at a considerably elevated danger for the disease. In fact, BSE are mainly significant for younger women in whom mammograms are nearly vain as compared to older women [9].

Studies show that mean presenting age of breast cancer in Pakistan is lower as compared to western countries [10] and American Cancer Society recommends screening in women over the age of 20 [11]. But mostly the KAP studies in Pakistan have been carried out on women of higher age group [12,13]. Therefore, the rationale of this study was to evaluate female university students' knowledge of breast cancer and to discover their BSE practices with the intention of designing an education intervention to concentrate on knowledge and practice gaps.

Subjects and Methods

This cross sectional study was carried out in Bahuddin Zakariya University, Multan, Pakistan in July 2017. Young women studying in the University were included. Sample size was calculated using a confidence level of 95% and 5% confidence interval. The estimated sample size remained 377. Non probability convenient sampling method was used to recruit the students. A questionnaire was developed after review of the literature regarding symptoms, risk factors, and diagnosis and treatment options. It had 3 sets of questions about knowledge attitude and practice about breast cancer along with demographic data. The objective of the study was explained to the students and verbal consent was obtained from every participant.

Results

Out of 377 students approached for the study, 304 cooperated and filled the questionnaire. Response rate remained 80%. Average age of the participants was 22.6 ± 2 years. Majority (61.8%) belonged to rural areas and 40% respondent's mothers and 12% respondent's fathers were uneducated. The results about awareness of risk factors are summarized in Table 1 which shows that overall more than 55% of the girls were aware of the risk factors. Many (76%) recognized increased risk with advancing age, lack of breast feeding (54.6%), nulliparity (48.6%), obesity (53.2%), contraceptive pills (50.6%), early menarche (43%), late menopause (52%) and smoking (63.6%).

Table 1: Knowledge about Risk factors of Breast Cancer.

Knowledge about Risk factors	yes	%
Does the risk increases with age?	232	76.31579
Does the risk decreases with breast feeding?	166	54.60526
Does the risk increases with nulliparity?	148	48.68421
Does the risk increases with obesity?	162	53.28947
Is trauma to breast a risk factor?	210	67.80822

Does the risk increases with contraceptive pill?	160	50.68493
Does the risk increases with early menarche?	138	43.15068
Does the risk increases with late menopause?	158	52.05479
Does the risk increases with smoking?	190	63.69863

Levels of Knowledge about symptoms of breast cancer are illustrated in Figure 1 which depicts that 38% of the girls had no idea while 25% answered to breast lump, 17.7% to breast pain, 14.4% to ulcer on the breast, and 6% identified blood stained discharge from the nipple as an early symptom of malignancy. The awareness of study participants in relation to the diagnostic/screening modalities of breast cancer is represented in Figure 2 which reveals that a few (18.4%, n=56) of them knew about mammography, and 7.2% pointed to biopsy whereas 37.5% mentioned chest x-ray or blood examination as a tool of diagnosis. While considering the treatment of breast cancer, 62 (20.3%) study subjects pointed to surgery, 94 (30.9%) chemotherapy and 44(14.4%) radiotherapy. Rest of the participants (34.2%, n=104) could not identify any particular treatment modality.

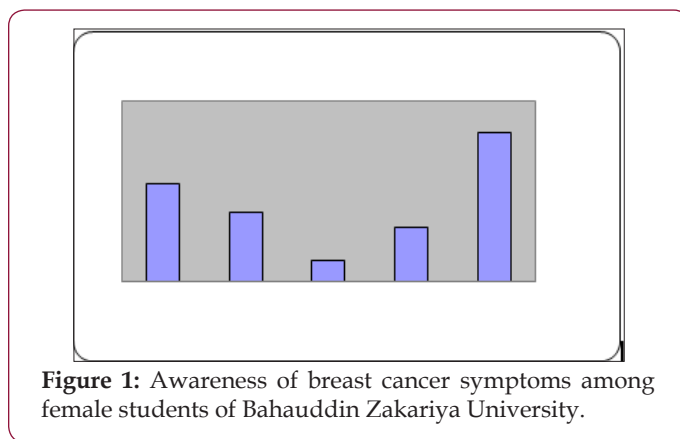


Figure 1: Awareness of breast cancer symptoms among female students of Bahauddin Zakariya University.

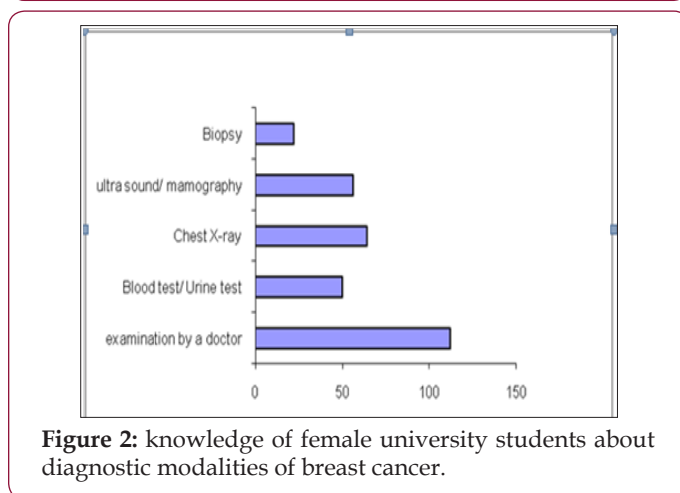


Figure 2: knowledge of female university students about diagnostic modalities of breast cancer.

Attitude

Majority (246, 80.9%) of the females intended to look for medical help in case of lump in the breast. Out of these, 52% (n=126) claimed to seek such help immediately, 38.6% (n=95) considered that it might be delayed for weeks while 9% (n=23) could wait for months.

Practice

A total of 132 out of 304(40.3%) students knew about BSE while remaining 172 said they have heard of it but did not know what exactly it meant for. Among the study participants, 23% (n=70) practiced it. According to women who did not practice it, lack of knowledge remained the main reason (44.6% n= 118). 104 (39.3%) women postulated the absence of breast complaint for not practicing BSE and remaining 42 (15.9%) thought it was not effective at all. Out of all, 58 (19 %) women reported to have undergone clinical examination of breast for some breast complaint and 42 (13.8%) were investigated at some time. A strong association was found between knowledge and practice of breast self-examination in this study. (Chi-square statistic 28.49, p value > 0.00001)

Discussion

Breast cancer knowledge of study participants was inadequate in various aspects though 100% of them were aware of the breast cancer. These levels are higher than that observed in similar studies from Pakistan [11] and Iran [14] where 83% and 64% of the study population was aware of the disease. Knowledge about risk factors remained more than the similar studies from Pakistan [15]. In our study more than 75% of the respondents were aware of the increasing risk of the disease with advancing age and more than 50% identified positive association of breast cancer with oral contraceptives, nulliparity, long reproductive age, and lack of breast feeding. Our results are better than the neighbouring country India where 35% of the study population was aware of the risk factors [16].

Regarding the knowledge about breast cancer's symptoms the study results show a startling dearth of knowledge among the university students. Only 25% of the girls perceived painless breast lump as a warning sign and even lower number could identify other symptoms. This is in a sharp contrast with studies from different regions of the world which show a positive association between level of education and awareness about the symptoms of the disease. One such study from a university in Ethiopia [17] postulated that 53.8% of the students were aware of the danger of a painless breast lump. Similarly, studies conducted in Dammam Saudi Arabia [18] and Sri Lanka [19] postulated that educated patients were well informed. Knowledge of BSE is significant for younger women as BSE education and observance can lead to health promotion behaviors, which form the basis for clinical breast examination and mammography screening later in life. But knowledge without implementation is of no use. In our study 43.5% of the students had heard about BSE, but only 23% practiced it. Similar trends are reported from other developing countries such as Nigeria where a study on female under graduate students observed that 87.7% of them knew about BSE but only 19% practiced it [20]. While a study involving female students from India showed much better (45%) results. However, an optimistic point in our results was a positive attitude of the young women with regard to seeking medical help in case of a lump in the breast.

Conclusion

Our findings indicate that a majority of female students in Bahauddin Zakariya University, Multan does not practice breast self-examination as a screening method for the early detection of breast cancer. Also, most of the students have never been to any health facility for the clinical examination of breast. The attitude of the students was observed to be somewhat in favour of BSE but the knowledge on BSE was usually inadequate which could have influenced the practice of BSE by these young women. Education campaigns utilizing the audiovisual media and other programs intended to create awareness about breast cancer symptoms and importance of early detection should be intensified in order to alter the attitude of young females in the study area towards the practice of BSE.

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