



Awareness and Knowledge of Self-Assessment Tools for Breast Cancer among Female Students in Lahore, Pakistan

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Abstract

Background: The objective of this study is to create awareness about breast cancer among female students or other female population by evaluating their knowledge and perception towards the disease

Methods: A Questionnaire bases study was conducted on 110 female students of University on Central Punjab, Lahore.

Results: The results showed the insufficient knowledge of breast cancer among large number of female university students. About 53.6% students were well informed about meaning of breast self-examination (BSE) and only 39.1% female students were aware of steps involved in breast self-examination.

Conclusion: Overall, the students had limited knowledge of risk factors and sign and symptoms of breast cancer

Keywords: Cancer, females, low middle income country

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Introduction

Breast Cancer is a lethal and rapidly increasing type of cancer, which becomes a leading cause of death among women all over the world thus its awareness among the masses is a need of an hour(1). Women above age of 45 years are at risk but mortality rate is higher in younger females due to delay in diagnosis (2, 3). According to WHO report, 1.15 million females annually diagnosed with breast cancer with 0.5 million ends up in death(4). In Pakistan, due to delay in diagnosis and lack of awareness of knowledge and self-assessment tools of breast cancer, situation is becoming worse day by day (5). Study reveals that every 1 in 9 women is diagnosed as victim of breast cancer (6).

Certain factors like having pregnancy at age of 30 or not at all, undergone hormonal replacement therapy,

having menopause after 55 or gaining weight after menopause and consumption of progesterone or estrogen increases the risk of breast cancer(7). Apart from these, some life style factors like consumption of more fat and products of nuts, seeds, berries and soybean also increases the risk of breast cancer as these products contains phytoestrogens that cause early menarche, delay menopause and increases estrogen levels(8, 9). For women age 45 to 54 years, American College of Surgeons (ACS) favors annual screening and for women equal to 55 years and older, biennial screening is recommended and use of Radiologic methods (like digital mammography, ultrasonography and MRI) are considered effective in high risk patients(10, 11).

Breast Self-Examination (BSE) is recommended every 1 to 3 years from age 20-39 and annually after age of 40 by American College of Obstetrics and Gynecology

(ACOG) level C recommendations. It has 5 steps. Step 1 includes observation of change in appearance of breast and nipple. Step 2 is same as step 1 but with raised arm. Step 3 includes the observation of any discharge from nipples. Step 4 includes the examination of any abnormality in breast. Step 5 is the repetition of step 4 but while taking shower when skin is wet and done while sitting or standing(12).

Methodology

A cross sectional, questionnaire based, descriptive study was conducted on 110 female students of University of Central Punjab, Lahore, Pakistan to analyze the awareness and knowledge of breast cancer and its self-assessment tools. Female students (with the age range 18-26 years) that were non-smokers and willing to participate in present study were included, while those who were smokers or not willing to participate were excluded from the study.

Results

Table 1. Demographic Characteristics

	Frequency(n)	Percentage (%)
Age group		
15-18	23	20.9
19-22	70	63.6
23-26	16	14.5
>26	1	9

Table 2. Attitude of students regarding various attributes

Attributes	Yes	No
History of breast cancer	20.9%	79.1%
Self-examination is significant	37.3%	62.7%
Feel confident while observing	47.3%	52.7%
Would consult doctor	43.6%	56.4%

Among 110 female students 20.9 % had history of breast cancer in their families. Among all participants 62.7% considered it does not have any significance.

About 52.7% of female students responded they feel shy while doing self-breast examination. More than half of the female students responded that they would not consult a doctor if found a lump (56.4%).

Table 3. Knowledge of breast cancer and breast self-examination among students

	How often you examine your Frequency (n)	Percentage (%)breast
Daily	32	29.1
Weekly	47	42.7
Monthly	18	16.4
Yearly	13	11.8

Female students' knowledge regarding risk factors

Obesity	28	25.5
Breast feeding	33	30.0
Menarche	11	10.0
Oral contraceptives	32	29.1
Null parity	3	2.7
Child above 30 years	3	2.7

Knowledge of female students regarding sign and symptoms

Change in size	26	23.6
Lump	38	34.5
Skin changes	15	13.6
Nipple discharge	11	10.0
Rash	3	2.7
Nipple changes	7	6.4
Pain or discomfort	6	5.5
Swelling under armpit	4	3.6

Knowledge regarding breast self-examination

Feeling of breast	18	18
Palpitation	21	21
Visual inspection	12	12

All of above 59 59

Table 4. Knowledge regarding number of steps

	Frequency(n)	Percentage (%)
3	52	47.3
5	43	39.1
7	15	13.6

The practice of female students regarding examining their breast is shown in this table. Most of the female students 42.7% examine their breast weekly, about 29.1 % examine daily and percentage of female students who examine monthly is 16.4% and 11.8% examine yearly. Previously, a survey was done by BOULO and his co-worker in University of Egypt and results showed that (63.4%) more than half of the students had the knowledge of BSE. Only 8.8% of participants answered and correctly recognized the appropriate period to execute BSE. Lack of interest and limited knowledge were the main factors for above mentioned behaviors(13).

Results concerning the knowledge of the risk factors of breast cancer were variable, 25.5% and 29.1% knew about obesity and oral contraceptives as risk factor respectively, however 10% were aware that menarche is a risk factor, only 2.7% knew about null parity and child over 30 years. The most common and false risk factor responded by participants was breast feeding (30%). The percentage of female students who were aware of change in size as a symptom of breast cancer were 23.6%. Majority of female students 34.5% answered lump as a symptom of breast cancer 13.6% and 10% considered skin changes and nipple discharge as a symptom of breast cancer. Minority of female students 2.7% answered rash as a sign of breast cancer. Nipple changes were answered by 6.4% female students. The remaining female students 5.5% and 3.6 % answered pain or discomfort and swelling under armpit as a symptom of breast cancer. A same kind of study was conducted among female university students of Egypt. According to the done in Egypt , different percentage of students linked the symptoms, like change in shape/or retraction of nipple and bloody nipple discharge and lump ,with breast cancer (13)

The knowledge regarding the meaning of breast self-examination among female students was satisfactory. 53.6% students were well informed about meaning of breast self-examination. According to another study, young females of Turkey are not well aware of BSE

and less than half 37.9% females had the knowledge of BSE(14).

Response of female student shows that only 39.1% female students were aware of the steps involved in breast self-examination. Female students' response regarding the time period of their monthly cycle at which a woman should do breast self-examination were satisfactory. 30.9% female students answered after menstruation a woman should do breast self-examination. A similar study was done previously by H.L. HOWE in Western New York according to which only 9 per cent stated that the pads of the finger tips should be used to do the examination and only 38 per cent knew it should be done following the menstrual period. Lack of correct responses to the more specific questions resulted in a lower score on the knowledge index(15).

Conclusion

This study highlighted the need of a breast cancer awareness campaign and also emphasized on the importance of early detection and reporting of breast cancer. Measures should be taken to increase both knowledge and awareness on breast cancer, its risk factors, signs and symptoms and breast self-examination tools for early detection and eradication of this disease in adolescent females.

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Awareness and Knowledge of Self-Assessment Tools for Breast Cancer among Female Students in Lahore, Pakistan

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