

Original Research Article

Breast cancer among young girls: a KAP study conducted in Lahore

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ABSTRACT

Background: Breast cancer is the second most frequently occurring malignant tumour. It's a progressive disease hence gradually developing into more fatal form from very small lesion. Knowledge and awareness about risk factors, symptoms and screening methods reduces the mortality and morbidity.

Methods: A cross-sectional study was conducted in Lahore. Data was collected anonymously on self-administrated questionnaire regarding awareness and knowledge about risk factors, presentations of breast cancer and screening practices about breast self-examination (BSE), clinical breast examination (CBE) and mammography.

Results: A total of 400 females participated in this study. 34% had heard of BSE, 30% of CBE and 29.5% of the mammography. Only 21.8% had ever performed BSE and 14% had ever received CBE. On enquiring the reasons for not performing BSE 29% did not know how to do it and 14.3% indicated embarrassment as the cause of not performing CBE. Regarding the source of information internet was identified as the most popular one (64.8%) followed by breast cancer campaigns (58.5%). Participants had inadequate knowledge about risk factors and its presentations. There is much lack of information about mammography but participants were aware of the age (35-40years) to start this screening procedure.

Conclusions: Our studies revealed lack of awareness and knowledge with regard to breast cancer and its screening methods. There is utmost need to enhance the awareness and encouraging the performance of BSE, CBE and mammography among females from very young age to reduce its incidence.

Keywords: Breast cancer, Awareness, Screening practices

INTRODUCTION

Breast cancer is a major health problem globally.¹ It is the second most frequently occurring malignant tumor.² According to World Health Organization (WHO) globally 1.4 million women are diagnosed with breast cancer. According to world cancer research fund internationally 1.7 million cases were diagnosed in 2012 worldwide.^{3,4} Incidence rates vary nearly four-fold across the different world regions, with rates ranging from 27 per 100,000 in Middle Africa and Eastern Asia to 92 in Northern America.⁵ The probability of developing breast

Cancer in females from birth to death is 12.3 (1 in 8) and from birth to 49 years is 1.9 (1 in 53).⁶

Breast cancer is a disease that is progressive, in that it gradually develops into its dangerous and fatal form from a very small lesion, hence early detection and subsequently, early treatment leads to a better prognosis therefore decreasing mortality and morbidity.⁷ The value of early detection and diagnosis of breast cancer is further evidenced by the fact that the relative survival rate of breast cancer is higher in younger women provided they are able to identify anomalous breast changes that may be malignant.⁸

Women mostly have knowledge of only few presentations but not aware of understanding many other symptoms. Knowledge about breast cancer risk factors vary among marital and educational status.³ Well-educated women have greater knowledge and understanding as compared to less educated women.²

Three kinds of screening methods are present: breast self-examination (BSE), clinical breast examination (CBE), and mammography. BSE is a simple procedure unlike CBE and mammography which needs doctor's visit, it is done by women at their homes by their own. It is non-invasive and takes only 5 minutes.^{1,9} CBE is physical examination done by doctors to find the abnormality. In Mammography low energy X-rays are used as a screening method of any abnormal change.¹

The breast cancer diagnosed in late stages due to lack of public awareness has poor outcome of treatment. The survival chance of diagnosed breast cancer from stage 1 and 2 is 85% while it is only 10% in the late diagnosis that is stage 4. Early warning signs and regular screenings of breast can help in early detection and treatment of disease.¹⁰

A family history of breast cancer, and genetic mutations are seen to be the main factors which amplify the risk of development of breast cancer in women⁷ although risk factors for developing this disease may be genetic, hormonal, sociobiological, physiological, environmental, high cholesterol diet, obesity, lifestyle, early menarche, late menopause, nulliparity, late first child and no breastfeeding.^{2, 5, 11}

Women living in developing countries like Pakistan have scarce knowledge about breast cancer and its screening methods hence the purpose of our study was to know the level of information about the disease, so that different measures could be taken to enhance the knowledge and prevent the mortalities and morbidities. Therefore, the objectives of our study were to assess the level of knowledge regarding risk factors and preventive measures, assessing the practices and level of awareness about different screening methods of breast cancer among the young college girls in Lahore, Pakistan.

METHODS

Settings

4 girl's colleges of Lahore, Pakistan.

Study duration

8 months, February 2016- September 2016.

Study design

Cross-sectional study.

Sampling design

Non-probability convenient sampling.

Sample size: 400.

Inclusion criteria

Women aged 14-35 years, who were willing to participate in the study.

Exclusion criteria

Women aged ≤ 14 and ≥ 35 and those who were not willing to participate in the study.

Data collection tool

Self-administrated questionnaire, consenting students filled it at their will and convenience. Questionnaire returned anonymously.

Data analysis tool

SPSS version 20

Data presentation

Data represented in the form of frequency tables, bar graphs & pie charts.

Ethical consideration

Study participants were informed about the study and its purpose. A written consent was taken from those who were willing to participate in the study. Researchers assured that the data collected would be confidential and used only for purpose of the study.

RESULTS

Our study included data from the female students belonging to the four recognized institutions of Lahore, Pakistan (Table 1).

46% of the participants had the knowledge that family history in breast cancer is a major risk factor (Table 2).

32% and 13% of participants agreed that use of deodorants and talcum powder contribute to formation of breast cancer (Table 2).

Among the preventive measures, Regular exercise is most popular preventive measure (52%) followed by Low fat diet (41%), breast feeding (37%) (Figure 1).

35.5% of our sample had no knowledge about the presentation of breast cancer, 34.8% knew that the breast

size and shape is affected and 29% knew that breast cancer presents as lump (Figure 2).

Table 1: Sociodemographic profile.

	Frequency	%
Mean age	19.11±2.33 years	
Marital status		
Single	394	98.5
Married	6	1.5
Education status		
Intermediate	139	34.5
Undergraduate	243	60.8
Postgraduate	18	4.5
Family Income (monthly)		
Less than 50,000/=Rs.(PKR)	204	51.0
More than 50,000/=Rs.(PKR)	196	49.0
Age of menarche		
9-13 years	212	53
14-18 years	188	47
Family history of breast cancer		
Yes	56	14.0
No	344	86.0
Total	400	100

Table 2: Knowledge of the risk factors.

	Frequency	%
Family history	184	46.0
Radiations	141	35.3
Chemicals	114	28.5
Oral contraceptives/oestrogen replacement therapy	42	10.5
Stress	76	19.0
Tightfitting undergarments	132	33.0
Broiler chicken diet	100	25.0
High cholesterol diet	71	17.8
Obesity	51	12.8
Inability to conceive	19	4.8
Late menopause	41	10.3
Multiple sex partners	71	17.8

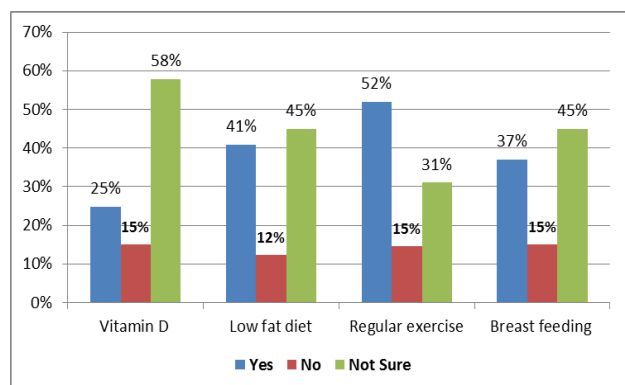


Figure 1: Knowledge of preventive measures of breast cancer.

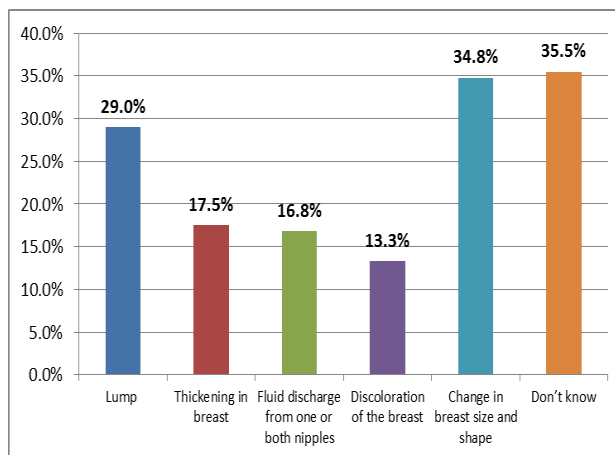


Figure 2: Knowledge regarding presentation of breast cancer.

34.3% attendees had heard of BSE, 30.3% of CBE, 29.5% about the mammography and 29.8% did not know about any of the screening procedures. Only 21.8% had ever performed BSE and 14% had ever received CBE.

Regarding the source of information about breast cancer internet was identified as the most popular one (64.8%) followed by breast cancer campaigns (58.5%) and equal percentage (42%) of participants mentioned friends and relatives, television and health professionals as source of information.

Table 3: Reasons for not performing the BSE.

Reasons for Not Performing the BSE	Respondents (n=400)	
	Yes (%)	No (%)
Never heard of it	79 (19.8)	321 (80.3)
Don't know how to do	116 (29)	284 (71)
Not important	22 (5.5)	378 (94.5)
Too busy/forgetfulness	61 (15.3)	339 (84.8)
Fear	53 (13.3)	347 (86.8)

On enquiring the reasons for not performing BSE 29% mentioned 'did not know how to do', 19.8% had 'never heard of it'.

Table 4: Reasons for not performing the CBE.

Reasons for not performing the CBE	Respondents (n=400)	
	Yes (%)	No (%)
Never heard of it	125 (31.3)	275 (68.8)
Embarrassed	57 (14.3)	343 (85.8)
Not important	39 (9.8)	361 (90.3)
Too busy/forgetfulness	76 (19)	324 (81)
Confidentiality	64 (16)	336 (84)

When asked about reasons for not performing CBE, 31.3% mentioned 'never heard of it', 16% had confidentiality issues and 14.3% stated embarrassment as a factor.

When enquired about the frequency of performance of BSE, 33.3% females had performed on monthly basis, 20.7% mentioned 'every 6 months' and 28.70% never had it.

There was much lack of information about mammography only 26% of the participants exactly know that what mammography is, but majority (57.5%) of the participants were aware of the age (35-40 years) to start this screening procedure.

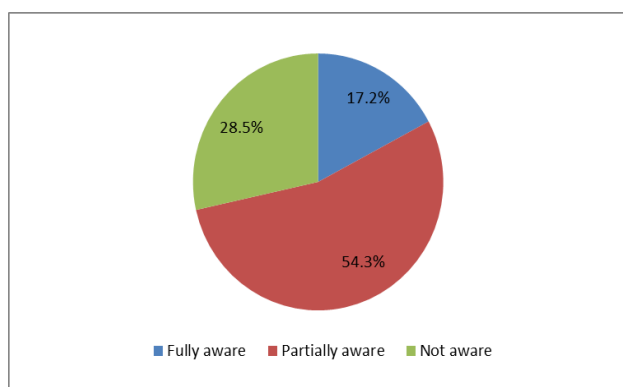


Figure 3: Overall awareness on screening methods of breast cancer.

54.3% girls were partially aware regarding the screening methods and only 17.2% were fully aware.

DISCUSSION

Breast cancer is becoming a major health issue in many countries including Pakistan. About 1 million women per year are being diagnosed with this cancer.¹² In Asia, Pakistan has highest breast cancer incidence and it keeps on increasing day by day as it escapes early detection due to lack of awareness regarding disease presentation and screening programs. In Pakistan 1 in every 8th women experiences breast cancer. Studies revealed that every year 40,000 women die of breast cancer.¹³

In our study, 34% reported to have heard of BSE, 30% have heard of CBE, 29.5% about mammography and 29.8% 'never heard' of any of them. The results regarding BSE are replicative of the findings documented by a study conducted in Iran. 54.3% of the female students in our study graded their overall awareness regarding screening methods as sub-optimal.

Interestingly, our results unfolded the most popular source of information regarding screening methods was internet (64.8%) followed by breast cancer awareness campaigns (58.5%) contrary to the study earlier conducted in Rawalpindi Medical College, Pakistan (2009) which stated relatives, friends and neighbors (69.2%) as the major source of information.¹⁴ This signifies the widespread use of internet for seeking health information and the increasing impact of breast

cancer awareness campaigns over the years in creating awareness in developing countries like Pakistan.

In present study, despite 34% participants were aware of BSE only 21.8% ever performed it. A similar study from Malaysia reported that only 19.6% claimed to ever-practiced BSE despite the fact that 78.4% participants were aware of BSE.¹⁵ In contrast, a previous study (2010) that surveyed Pakistani women revealed that 46% of the women performed BSE.¹⁶ Our study also revealed, 33.3% performed BSE on monthly basis and 17.3% performed BSE on yearly basis. In comparison, another study in Korea showed monthly performance of BSE was 13.2% although 87% women were aware of BSE.¹⁷

Our study showed 25.8% of the students ever received BSE guidance from a doctor which correlates with the findings showing majority female students (29%) responded to 'don't know how to do' when reasons for not performing BSE were assessed. The other findings 'too busy' and fear of breast cancer were consistent with the study conducted in Klang Valley, Malaysia.¹⁸

In addition only 14% of the female students ever received CBE and similar results stating 15% women received CBE were reported by a previous research in Pakistan.¹⁶ However, another study in UAE showed almost half (49.4%) female respondents received CBE.¹⁹ This huge difference between the results of studies of UAE and Pakistan can be linked to socio-cultural differences between the countries, as our report indicates (14.3%) females mentioned embarrassment as the cause of not receiving CBE.

Our research showed evident lack of knowledge regarding mammography screening. 26% of the female students stated mammography correctly as X-ray scan of the breast, 34% of the respondents answered correctly regarding mammography as an important diagnostic tool in early treatment and diagnosis whereas studies in Jordan and Nigeria documented 76.1% and 76.6% women responded correctly respectively.^{20, 21} On the other hand female were well aware of the appropriate age to start mammography as 35-40 years and 57.5% responded correctly which was higher than the results stated by research in Nigeria as 49.7%.²¹

Present study revealed, family history (46%) and radiation exposure (35.3%) were identified as major risk factors for breast cancer. On the contrary, study conducted in India, identified women who never breastfeed (59.2%) and family history (58.0%) as the major risk factors.²²

Regarding use of personal items' association with breast cancer, knowledge of participants was minimal. Furthermore, half of the participants indicated low fat diet and regular exercise as major preventive measure. Henceforth, there is urgent need to motivate the

population to seek health knowledge and reduce the risk factors.

Although "change in breast size and shape" was the most indicated presentation of breast cancer by students, results revealed participants had inadequate information about other signs and 35.5% of the respondents did not know of any of the warning signs. Study conducted in Saudi Arabia identified that most common known warning signs were painless lump, nipple discharge and skin changes while among Nigerian women 32% of attendees indicated breast lump as a warning sign and half of the women did not know the warning signs.^{23, 24}

Variables such as age, education status and a family history of breast cancer showed to have a significant relationship with increased level of awareness and practices of BSE and CBE.

Majority of the students stated early diagnosis can help in early treatment and reducing death rates (79% and 77.5% respectively), similar results were observed in a study in Malaysia (Redhwan).¹⁵

To conclude, findings of our study revealed that knowledge of breast cancer and its screening methods is sub-optimal in Pakistani women. It is of utmost significance to raise the women's level of understanding about the disease's presentation to promote their participation in screening procedures and early detection of cases by health professionals. Breast cancer burden can be decreased by running different awareness campaigns and health education by health care personnel. Sufficient knowledge can also help the women to overcome their fear about breast cancer and increase their participation in regular screening procedures thereby decreasing the mortality and morbidity.

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