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ORIGINAL ARTICLE

AWARENESS OF BREAST SELF-EXAMINATION IN WOMEN OF ISLAMABAD CAPITAL, PAKISTAN

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ABSTRACT

Background: In Pakistan, Breast Cancer is the most common cancer affecting females and becomes more aggressive as it usually presents in 3rd and 4th stages. Screening practices like breast self-examination, clinical breast examination and mammography can decrease the burden of disease. The objective of this study was to assess the awareness about breast self-examination and the screening practices regarding breast cancer.

Materials & Methods: A community based cross sectional study was done from November 01, 2020 to January 30, 2021 in rural and urban areas of Islamabad organized by Community Medicine Department Islamabad Medical and Dental College. Sample size was 310, all females above 25 years and less than 70 years whether married or unmarried were included in the study. The data collection tool was six section based proforma. Analysis was done by using SPSS version 23. Chi-square test was used to calculate the p-value, and p-value of <0.05 was set as significant.

Results: Out of 310 females, with a mean age of 32 year, 50% of the participants never heard of breast self-examination (BSE) while 40% of the participants heard about that but had never practiced it and 10% practiced it occasionally with significant p-value of 0.001. Knowledge association with demographic variables like literacy rate, marital status and living area was also assessed and the difference was found significant, having p- valve less than 0.05.

Conclusion: Knowledge regarding BSE was there in community however, screening practices were deficient and it needs special attention.

KEY WORDS: Female; Breast cancer; mammography; disease burden; Mass screening; self-examination.

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INTRODUCTION

In females breasts cancer is the commonest all over the world and is the leading cause of mortality in female gender. Among Asian countries, Pakistan ranks highest in Breast cancer and accounts for almost 34.6% of cancers in females. In Pakistan, Breast Cancer is the most common cancer affecting females and becomes more aggressive as it usually presents in 3rd and 4th stages. Therefore it needs high awareness about this dangerous disease.[1]Breast Cancer in poor nation accounts for 12.7% of deaths in females. Breast lumps detection through breast self-examination (BSE) is important for the prevention and early diagnosis of this illness if done in early stages. Also the population-based screening programs are useful to control the disease and reduce mortality. The female should be encouraged for Clinical breast examinations (CBE), periodical mammograms and monthly breast self-examination (BSE) so as to notice breast lump in initial phase. This may in turn increase the survival rate. But lack of knowledge, information, awareness and illiteracy regarding breast screening are major causes of missing the management of breast cancer in early stages.[2]

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In our country, it presents in late stages, and is more aggressive to treat and leads to high mortality in females. Therefore all females should be educated about various screening processes.[3] In Asian countries; the incidence of breasts cancer is quite different from that in Western countries regarding age. In Asian people it occurs at early age (40-50 yrs.) as compared to western countries (60-70yrs). In Pakistan in Breast cancer accounts 34.6%of total female cancers.[4]

There are three common screening techniques for breast cancer like, breast self-examination, physical examination by physician and mammography.[5] Early detection of breast cancer can play a major part in decreasing the morbidity and mortality in females and is a great concern for woman's health.[6] Screening awareness and improved treatments has decreased the mortality in breast cancer patients over the last two decades.[7] Although there are some concerns regarding these screening methods in developing countries, but still they have important role in detecting large number breast cancers in early stages.[8] Many females have little awareness and knowledge about these screening methods and also don't know about any risk factors regarding breast cancer.[9] The health care providers have a great impact in society, so their knowledge of breast cancer, screening and risk factors can be utilized in this regard.[10]

The objective of this study was to assess the awareness about breast self-examination and risk factors regarding breast cancer. The significance of this study would be knowing knowledge regarding prevalence and risk factors in the study population and then to advise breast self-examination as a screening practices.

MATERIALS AND METHODS

A community based cross sectional study was done from November 01, 2020 to January 30, 2021 in Community Medicine Department Islamabad Medical and Dental College. Approval was taken from Hospital ethical review committee and informed consent was taken from all participants. The samples were taken in various parts of Islamabad city covering both rural and urban localities on convenience sampling model. All females from 25-70yrs age were included in the study. The sample size was 384 calculated from the population of Islamabad through Online sample calculator, but due to shortage of time and resources, only 310 participants were covered. People not willing to participate were excluded from this study. It was assured that their names on the proforma were optional and complete confidentiality will be maintained and no one will have access to data except the researcher.

The data was collected by filling a questionnaire from the participants. The proforma was designed, it was pre-structured, pilot testing was done on 90 participants.

The data collection tool was six section based proforma. The first section was about demographic profile (age, residence, educational status, employment status, marital status, age at marriage and the family history of breast cancer.). The second section included information regarding knowledge of Breast tumor's prevalence. The third section was about the information regarding the risk factors of Breast tumor and it include twenty 20 risk factors, which were drawn from the previous studies and has association with Breast Cancer . The forth section involved knowledge about the early warning signs and seven variables were entered in this section. The fifth section was about Practice Regarding Breast Screening i-e practice of Breast Self-Examination. The last (sixth) section was about Barriers towards Clinical Breast Examination, it involved the obstacles which were in observation and they are the main barriers of our community.

After data collection, it was coded and Analysis was done by using SPSS version 23. Data entry process was completed and Descriptive Analysis was performed along with selection of Chi-square tests to calculate the p-value, a value of <0.05 was selected as significant. The sample size was calculated from population pyramid of Pakistan 2019, showing that about 22.3% of population accounts women between the ages of 25yrs to 70yrs i-e about 456, 17,937 among the total population of Pakistan (204,564,744). Then the population of Islamabad in 2019 was 1095064 and the women population of the city was calculated from the figures which were about 244199. By using open epi sample size calculator with 95%confidence level and 5% margin of error a sample size of 384 was calculated.

RESULT

There were total 310 participants in this study, all were female. Table 1 shows the association of knowledge with various demographic variables.

This table shows strong association of variables specially the educational status with significant p-value. Information regarding the Screening Practices are shown in Table: 2.

The graph shows that regarding Breast Self-Examination, 50% of the participants never heard of it, 40% of the participants heard but had never practiced it and 10% practiced it occasionally.

Table 1: Knowledge association with demographic variables

Parameter	Questions	awareness about BSE& Screening procedures		Chi-square value	p-value
		Yes (%)	No (%)		
Living place	Urban	62(40.0)	93(60.0)	12.400	0.000
	Rural	93(60.0)	62(40.0)		
Marital status	Married	27(45.0)	33(55.0)		
	Unmarried	128(51.2)	122(48.8)	0.744	0.388
Literacy	Illiterate	3(42.9)	4(57.1)	16.254	0.001
	Secondary	45(70.3)	19(29.7)		
	Graduate	90(47.6)	99(52.4)		
	Post Graduate	17(34)	33(66)		
working Status	Working	102(49.5)	104(50.5)	0.058	0.810
	Non-Working	53(51)	51(49)		
History of BC in family	Positive	89(74.2)	31(25.8)	45.739	0.000
	Negative	66(34.7)	124(65.3)		

Table 2: Information regarding the Screening Practices

Parameters	Questions	Numbers	(%)
Practice of BSE	Never listened of it	155	50.0
	Listened of it but don't do it	124	40.0
	Listened of it and do it on off	31	10.0
BSE should be done 5-7 days after menstrual cycle.	Yes	186	60.0
	No	124	40.0
Practice of USG and Mammography	Never did it	248	80.0
	Conduct due to positivity of breast tumor	62	20.0

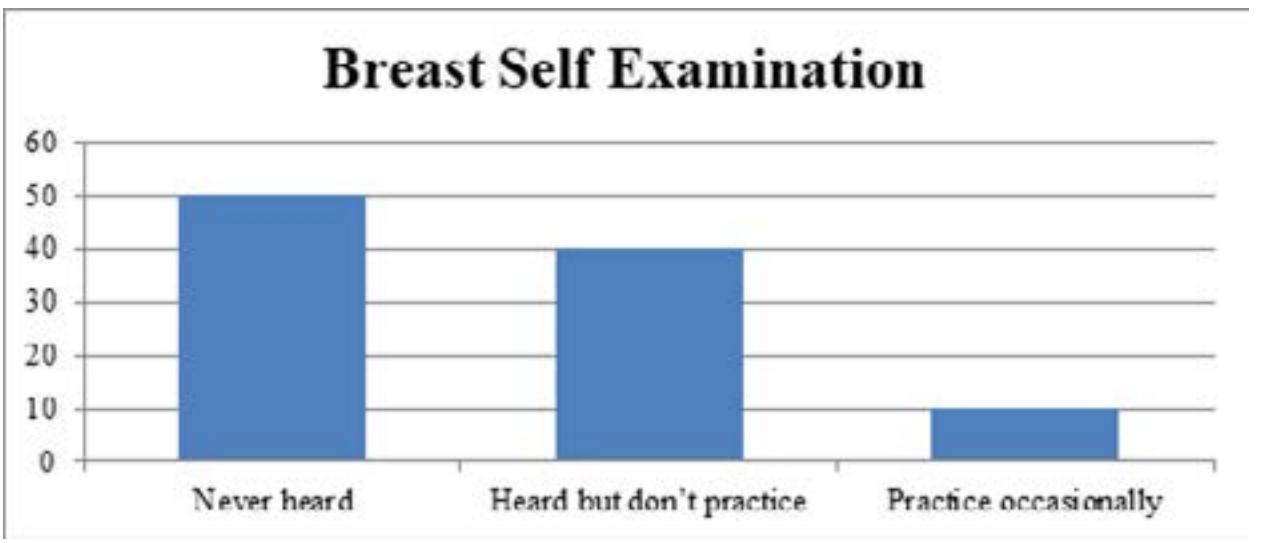

Figure 1: Graphical presentation of Knowledge about the Breast self-examination.

DISCUSSION

Various studies explained the importance of BSE, and recommended that women practicing self- examination regularly were more likely to find tumors and they picked up the swelling even of very small size as noted by Wang L et all.[11] This study also included 310 female participants and the data is comparable to our study, with a mean age of 32 years. It was also observed in our study that females knew the high incidence rate in Pakistan, but were not interested to participate in the study. One interesting research was done through Computer systems such as BOADICEA (The Breast and Ovarian Analysis of Disease Incidence and Carrier Estimation Algorithm) and BRCAPRO (risk estimator for Breast and ovarian tumors) to evaluate BRCA 1/2 mutation and it play an important role in deciding whether to perform genetic test.[12]

There is another study which was done in Turkey in 2014 about the Breast Cancer awareness among nursing school students. In this study there were 270 participants, having mean age (21.6+- 2.09). Among them 81.6% had good knowledge about BC and 63.7% of them practiced BSE. The majority of participants during their study period were found to have good level of knowledge.[13] In our study, when asked about age and breast cancer correlation, majority 59% were found aware regarding older age, but on the other hand majority(60%)were unaware about that in early age group. As far as knowledge about screening practices (BSE) is concerned, 50% never listened of it, (40%) have heard but don't do it, (10%) have awareness and practice it on and off. When questioned about the exact schedule of BSE,(60%) replied a positive answer and (40%) replied negatively .Regarding ultrasonography and mammography,62 (20%) participants have gone through due to positive family history of Breast Cancer in the family while 248(80%) never did it.

An Australian study was done in 2018 on 40,000 forty thousand women, a cohort of 4.3yrs and it was based on Breast Cancer Risk assessment tool named Gail Model (GM).It predicted 612 invasive BC compared with 564 observed cancers.[14] There is another study which was done on awareness about the BC in Saudi Arabia and 200 adult females were chosen. Among them, 79% participants heard about BSE, regarding warning signs, breast lump was the most frequently identified symptom (50.5%) replied.[15] If this study is compared with local studies done in Pakistan, we can gather some new information. In 2016, a cross-sectional study was done in Bahawalpur to assess the knowledge of women regarding Breast Cancer.

A study conducted in Ayub Teaching Hospital Abbottabad by Ahmad et-all [3]in 2011 among the staff nurses of that institute having same objectives to our study. The awareness about risk factors and screening procedures was assessed and it showed poor results among nurses about risk factors, awareness about the BSE was also not satisfactory, about 133 participants were there,86 (66.16%) had practiced BSE ,among those who never done BSE, 52% didn't perform it due to fear of observing some bad information's.

CONCLUSION

The knowledge regarding prevalence and risk factors was present in the study population but the knowledge regarding screening practices was deficient and needs attention and involvement of authorities to promote it in a way that females should practice it and don't fear to access health facilities.

Recommendations and Way forward:

The authorities should focus two areas in this case

1. Male members of the society should be involved so that they support their partners in their health issues.

2. Females should be empowered by giving jobs, trainings to provide health education, awareness regarding their rights and setting small health units covering rural areas and improving their economic conditions in order to achieve harmony and health.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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AUTHORS' CONTRIBUTION

The following authors have made substantial contributions to the manuscript as under:

Conception or Design:	SYK, SKA
Acquisition, Analysis or Interpretation of Data:	SYK, SKA, SF, SK, AS, RK
Manuscript Writing & Approval:	SYK, SKA, SF, SK, AS, RK

All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.