

The knowledge regarding Breast Cancer, its risk factors, and screening practices among women from Islamabad, Pakistan

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Author's Contribution

¹ Conception of study

^{3,4} Experimentation/Study conduction

² Analysis/Interpretation/Discussion

^{1,2} Manuscript Writing

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Abstract

Introduction: Breast Cancer is the rising Public health problem of the world. Pakistan is bearing a high disease burden not only in Asian countries but in the whole world. Pakistan ranks highest in Breast cancer and accounts for almost 34.6% of female cancers. The incidence of the disease in Asian countries is quite different from that in Western countries regarding age i.e. (40-50 years.) while (60-70 years) in Western countries. This study was based on assessing the knowledge regarding breast cancer, risk factors, and screening practices to determine the barriers in the path of the community to seek medical care.

Materials and Methods: A cross-sectional study was done between October to December 2019 on 310 females participants of ages from 25 to 70 years, residents of Islamabad, the capital of Pakistan, and knowledge was assessed by applying a self-responding questionnaire.

Results: Using SPSS version 23 and chi-square tests, the results showed that 87.7% of participants knew about the prevalence of Breast Cancer. Whereas, 90.3% of the females with the disease are not aware of their illness and show a strong association (p -value is less than 0.05) between knowledge regarding breast cancer and screening tests.

Conclusion: The study concluded that 90% of socio-cultural barriers are in the path of access to medical facilities and 90% of participants believed that the non-availability of female doctors in health facilities is a big barrier to access to health. Access to medical facilities should be made easy by promoting health education and removing the fear of results, making small health facility units.

Keywords: Breast neoplasms, Risk factors.

Introduction

Breast Cancer is the most common cancer of females in the whole world. Globally, it is not only the most common cancer in women but also the leading cause of death in females. Raising awareness of breast cancer is particularly important to help the females at risk for this particular disease.¹ It is the second most common cancer in the whole world affecting the female population. Its incidence is expected to rise to 2-million in 2030 due to the rapidly growing population in developing countries. Approximately 25% of cases are diagnosed in Asia.² The best approach to decrease the burden of breast cancer is its prevention.

In Pakistan, Breast Cancer is the most common cancer affecting females and becomes more aggressive as it usually presents in the 3rd and 4th stages. The incidence in Pakistan is 2.5 times higher than in neighboring countries like Iran and India.³ Screening practices like breast self-examination, can decrease the burden of disease.⁴ According to our socioeconomic conditions, the only easy way to detect breast cancer at an early stage is to create awareness among the women and promote knowledge to pass through all those barriers which are obstacles for most of the developing countries. These barriers are lack of knowledge, attitudes, and practices, also the socio-cultural obstacles which may lead to delay in diagnosis and initiation of treatment.⁵

This study aimed to assess the present knowledge of women from Islamabad regarding this deadly disease-early signs, its risk factors, and knowledge about self-examination considering breast-cancer.

Materials and Methods

Study Design: A cross-sectional study design was chosen.

Study Area: Urban and Rural areas of Islamabad.

Study Duration: The duration was only for 2 months between October to December 2019.

Study Population and Selection of Participants: The study was done in Islamabad involving female participants 25-70 years of age from urban and rural areas. These participants were chosen by their interest and consent.

Data collection tool: A structured survey questionnaire was designed according to the regional cultural values of urban and rural areas of Islamabad and Cronbach alpha was checked.

Ethical issue: The research study was started after taking approval from the Health Services Academy in the form of an institutional review board and a letter in hand from IRB. Taking these female participants' identities as anonymous and confidential and informed consent was signed.

Analysis of Variance: A descriptive measure with a Chi-square test was applied to assess the association of variables with each other.

Results

a. Knowledge about the Prevalence of Breast Cancer:

Knowledge about the prevalence of Breast Cancer showed that 87.7% of women knew about the fact that Breast Cancer is the most common cancer of females in Pakistan while 90.3% knew that most of the females are not aware of their illness (p-value 0.000), and 67.4% also knew the fact that annually large number of females die of BC annually in our country.

b. Knowledge about the risk factors of Breast Cancer:

The highest percentage of participants (70%) didn't know the risk factors (p-value less than 0.05); like the history of lump, obesity, poor physical activity, and radiation exposure as the associated factors of Breast Cancer. See figure-1 of the bar graph below.

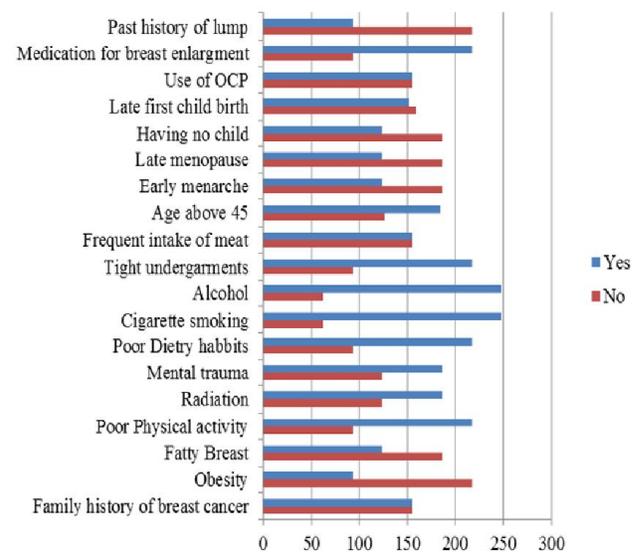


Figure 1: Knowledge about the Risk Factors of Breast Cancer

c. Knowledge about the early signs of Breast Cancer:

The knowledge about the breast lump as an early sign was present in almost every female participant, changes in the nipple were also known but the asymmetry of the breast, skin changes, and pain were not known.

See figure-2 of the bar-graph below:

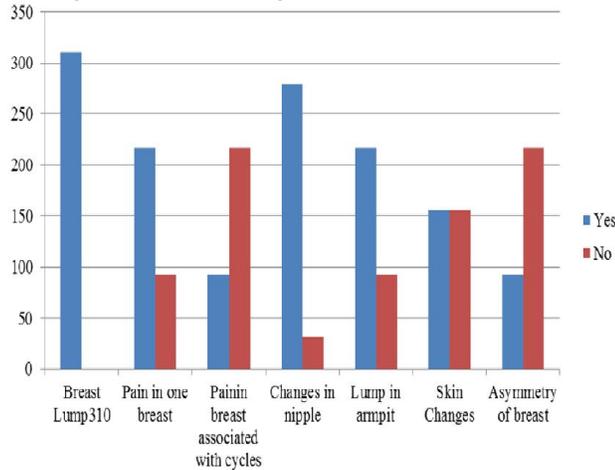


Figure 2: Knowledge about early signs of Breast Cancer

d. Knowledge about the Self-Screening Practices:

The below table representing knowledge regarding Breast Self-Examination (BSE) and only 10% practiced it occasionally. Chi-test was 45.739 (p=0.000).

Table 1: Knowledge about the Self-Screening Practices

Variable	Characteristics	Frequency	Percentage
Practice of breast-self-exam(BSE)	Never Heard of it	155	50.0
	Heard of it but don't practice	124	40.0
	Heard of it and practice it occasionally	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 family history of breast cancer	62	20.0

Discussion

One study was done in Kirkuk University Iraq 2012 about the Knowledge, Attitude, and Practices towards

Breast Cancer and BSE. This study focused on the same objectives as were chosen in my study. The sample size was 304 in this study in which 256 were females and 48 were males. The mean age of participants was 23.8 years.⁶ In contrast, this study involved 310 participants and all were females as compared to the above-mentioned study. The mean age was 32 years. During my data collection process, it was also observed that females were not giving special attention to the questionnaire; however, most of them knew the high incidence rate in Pakistan.

There was another study done in Turkey among Turkish Nursing students in 2014. The female students were 270 in number, mean age was (21.6 years). Among these students, 81.6% had enough knowledge about BC and 63.7% of them performed BSE. The majority of female students during their academic education period were found knowledgeable.⁷ If compared with the results of this study, it shows age above 45 years is a risk factor, 59% participants replied (yes) while 40% replied (no), early menarche 40% again replied (yes) while 60% of the participants didn't know that it is a risk factor. In the case of late menopause and having no children as risk factors, 60% of the participants didn't know. On the other hand, most of the participants i.e. 70% didn't know the risk factors like history of lump, obesity, poor physical activity, radiation exposure as the associated risk factors for Breast Cancer. Another unique factor i.e. frequent intake of meat was also not known to the participants as the risk factor for BC. The overall results regarding risk factors are showing that sufficient knowledge regarding BC was deficient in women of Islamabad city in Pakistan as compared to women of other countries.

Moreover, one study was done in Riyadh at Family Medicine Department in Security Forces Hospital, it was also a cross-sectional study, the sample size was adult women of age 18-55 years, while the women of the present study were 25-70 years. The results of their study revealed that; Out of 384 participants, 57% were aware that lump or thickening in the breast could be a sign of breast cancer and 68% knew bleeding or discharge from the nipple as an alarming sign of breast cancer. Fortunately, 291 women (75.8%) have good knowledge about breast cancer risk factors, and only 93 women (24.4%) have poor knowledge. Regarding knowledge about the screening of breast cancer, 60.9% knew breast self-examination.⁸ However, the outcomes of the present study reveals that the knowledge about self-screening practices (BSE); 50% never heard of it, 40% have heard but don't practice it, and 10% have

heard and practice it occasionally. Besides, questioned about the exact timings of BSE; 60% replied a positive answer and 40% replied negatively.

In 2016, a cross-sectional study was done in Bahawalpur to assess the knowledge of women regarding Breast Cancer, it concluded that participants had a severe lack of awareness regarding risk factors, personal history of breast cancer ($p=0.005$), employment status ($p=0.040$), no associations were found with marital status, level of education, residence and family history of BC.⁹ On the other hand the present study concluded a strong association with residence, educational status, and employment status ($p=0.000$).

Another study was conducted in Abbottabad in 2011 among the staff nurses of Ayub Teaching Hospital. The results of that study showed poor knowledge of nurses regarding risk factors, knowledge about the BSE was also not proper, 133 respondents were there, 86 (66.16%) had performed BSE, among those who never performed BSE, 52% didn't perform it due to fear of finding some bad.¹⁰ Nine years later, the same factors were assessed in this present study and it showed that BSE is still not common in practice among our females from Islamabad as 50% of participants even never heard.

Conclusion

In short, 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.

Limitations

There were some limitations observed during the research process, due to the narrow time period, the sample size of only 310 was gathered. The questionnaire would have involved the questions from female participants about the basic information of males regarding their thinking towards the health of their female family members but this information was not included in the study.

Recommendations

The barriers which are present in the path of our community in the form of financial issues, traditions,

poor knowledge of screening practices, poor access to health facilities should be removed in the future so that to decrease the incidence of BC in our country which is expected to rise in next twenty years all over the world. Awareness campaigns at grass root level should be done, the social media involving TV, mobile phone messages, social networks should be activated so that to monitor regularly the awareness programs to develop healthy habits. Today we need robust community sensitization programs regarding screening practices as our females are quite aware of knowledge regarding Breast Cancer but they show poor response in seeking medical advice due to socioeconomic and cultural problems.

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