ORIGINAL ARTICLE

Knowledge, Attitude and Practices Towards Breast Cancer Screening Among Female Physicians from Tertiary Care Centre in Pakistan Policies

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ABSTRACT

Background: Breast cancer (BC) is the most commonly occurring cancer in women. It has second-highest mortality rate in developing countries. Screening helps in early diagnosis and timely treatment of breast cancer lead to a better prognosis.
Objective: The aim of this study was access the knowledge, attitude, and practice of breast cancer risk factors, diagnostic methods, and screening among females and female Physicians.
Methods: This cross sectional study was conducted from May 2022 to August 2022 in tertiary care hospital by using structured questionnaire. Questionnaire was based on three parts; knowledge, attitude and practice. Data was entered and analyzed on SPSS (Statistical Package of the Social Sciences) version 25. Descriptive analysis was done for categorical variables and Chi Square test was used for inferential analysis. The level of significance was 5%.
Results: Out of 220, 114(51.8%) were married, 157(71.4%) belonged to the 20-25years of age group, 146(67.7%) were graduated (house officers). Most of the respondents, 119(54.1%) were regular employee and the earning of 156(70.9%) respondents was above 150,000PKR. 203(92.3%) respondents had good knowledge of breast cancer. Overall, 180(81.8%), 79(35.9%), and 175(79.5%) respondents had undergone breast self-examination, clinical breast examination and mammography, respectively. 101(45.9%) indicated their discomfort in discussing about breast cancer. The significant correlation was found between KAP and risk factors of breast cancer with the p-value= 0.01, 0.00, 0.03 respectively.
Conclusion: Breast cancer screening still needs to be promoted to improve the attitude and practice among females and among young female physicians.

Keywords: *Breast Cancer, Knowledge. Attitude, Practice, World Health Organization.*

INTRODUCTION

Breast cancer (BC) is the most common malignancy in females and has the second-highest mortality rate in the United States.[1] The World Health Organization (WHO) reports that 7.6 million individuals worldwide lost their lives to cancer, with low- and middle-income nations accounting for roughly 70% of these deaths. Additionally, 30% of cancer cases are preventable. Pakistan has a significant cancer and other disease burden. According to data from the World Health Organization (WHO), Pakistan has a 26.76% breast cancer death rate. With an estimated 16,000 deaths annually, it is the tenth leading cause of mortality in the nation.[2]

A report published recently by Shaukat Khanum Memorial Cancer & Research Centre (SKMC & RC) has highlighted 45.9% of total cancers among women are originated from breast. Furthermore, it has been reported that 1 in 9 females in Pakistan would develop breast cancer later in life.[3,4] Karachi Cancer Registry, the only population based cancer registry in Pakistan, has reported breast cancer as the most common cancer that is 34.6% among women which is relatively higher. Due to the delayed presentation of breast cancer to a physician in Pakistan, there exists a conundrum over the high mortality rate associated with the disease. In over half of all cases, there was a delayed diagnosis in stages III and IV, along with a high incidence rate, according to a study by Ahmed et al. It is disappointing that women in

Pakistan frequently present with delayed signs of breast cancer.[5]

Breast cancer is caused by several synergistic causes. Important risk factors for breast cancer include genetics and family history. Reproductive variables like late menopause, early menarche, and late age at first childbirth are all linked to a higher risk of breast cancer. Compared to the general population, women who use hormone replacement therapy (HRT) and oral contraceptive pills (OCPS) are more vulnerable.

Lack of breastfeeding is also associated with increased risk of breast cancer.[6, 7] Diet, exercise, being overweight, and obesity are examples of lifestyle factors that affect the screening process for breast cancer.[8]

By effective screening, early diagnosis and treatment of breast cancer can be done, this will increase survival rate among women suffering from breast cancer. Thus, several programs of primary and secondary prevention[9] have been developed to reduce the incidence, especially mortality related to this disease.[10]

The American Cancer Society advises all women 40 years of age and older to have a mammogram every year in order to detect breast cancer early. Every three years, women in their twenties and thirties should have a clinical breast examination (CBE) as part of a periodic health assessment conducted by a health practitioner. Women in their twenties are recommended to perform a breast self-examination (BSE) once a month in low-resource situations.[6]

Other techniques for diagnosing breast cancer include a patient's medical history, physical assessment, and tests such as cytological and histological analyses. Breast lesions in females can manifest as breast edema, breast lump, nipple discharge, nipple retraction, dermatitis, or eczema of the areolar area (in Paget's disease), lymphadenopathy of the axilla, or breast pain. In cases of advanced malignant BC, hepatomegaly, ascites, and osseous deposits with bone pain and swelling are the metastatic signs. Breast self-examination (BSE), clinical breast examination (CBE), and mammography are used to detect breast lumps, which are the most prevalent manifestation of breast cancer.[11,12]

Multiple studies have been conducted in Pakistan, to assess the level of knowledge among women regarding breast cancer. Most of the studies found that women have never been screened for breast cancer or never have performed breast self-examination, and their understanding of breast cancer diagnosis and screening is inadequate. It was clear that women did not know how to evaluate a breast lump. Pakistani women had a positive attitude and a strong desire to learn more about the topic.[13,14]

Our study involves female physicians including post graduate residents and house officers (interns, HOs). These female physicians mostly work at primary and secondary healthcare level after training from tertiary care centers and are the first line healthcare workers to encounter women with suspected breast cancer. Therefore, it is critical that these female physicians have the necessary information, attitudes, and screening techniques to support early detection and community sensitization to breast cancer screening. The main objective of this study is to determine the level of knowledge, attitude and perception regarding breast cancer screening among female physicians working in tertiary care center.

METHODS

This is a descriptive cross-sectional study which was done from May 2022 to August 2022 at Lahore General Hospital (LGH), a 1200 bedded Tertiary Care Center in Lahore. All respondents were female physicians working at different positions in the Tertiary Care Center. A simple random probability sampling technique was used to get the calculated sample size (n=220) which was calculated with the G-power software. A predesign questionnaire was used for this research. The questionnaire had three parts: knowledge, attitude, and practice of breast cancer (BC). A verbal informed consent was obtained from every respondent. Information was gathered on socio-demographic characteristics; the participants were interviewed about age, educational qualification, occupation, marital status, and family income. All the female physicians working at different posts in Tertiary Care Center were included and all Male physicians working at different posts were not included in this study.

Version 25 of SPSS (Statistical Package of the Social Sciences) was used to enter and evaluate the data. Descriptive analysis was done for categorical variables and for inferential analysis, Chi-Square test was used. The level of significance was 5%.

RESULTS

Out of all respondents, 157(71.4%) were aged 20-25 years, 36(16.4%) were aged 26-30 years, 19(8.6%) were aged 31-35 years, and 8(3.6%) were aged above 36 years. 95(43.2%) were unmarried, 114(51.8%) were married, 3(1.4%) were divorced, and 8(3.6%) were widowed. Moreover, 146 (67.7%) respondents were graduates (house officers)

while 31(14.1%) identified themselves as postgraduate trainees, 25 (11.4%) were medical officers and 15(6.8%) were internees.

Among the study population, 119(54.1%) were regular employees, 66(30%) were contract employees, 24(10.9%) were ad-hoc employees, and 11(5%) had honorary jobs. Furthermore, most of the respondents, 156(70.9%) had an income more than 150,000 (PKR) per month, 30(13.6%) had an income of 100000-150,000 (PKR)per month, 24(10.9%) had a monthly income of 75,000-100,000 (PKR), and 10(4.5%) had less than 75,000 (PKR) as monthly income. (Table 1).

197(89.5%) out of 220 respondents said that they were aware of BC. Of them 175(79.5%) knew about mammography. 173(78.6%) respondents had awareness of screening techniques for BC. Of the respondents, 169 (76.8%) were aware of the therapy for BC, whereas 173 (78.6%) were aware of the screening methods. There was a slight increase in awareness (180.8%) regarding physical self-examination for breast cancer.

Table 1: Socio-Demographic Data of Respondents

Variables	n(%)
Age (years)	
20-25	157(71.4)
26-30	36(16.4)
31-35	19(8.6)
>36	8(3.6)
Marital Status	
Unmarried	95(43.2)
Married	114(51.8)
Divorced	3(1.4)
Widowed	8(3.6)
Education	
Graduates (house officers)	15(6.8)
Postgraduate trainees	25(11.4)
Medical officers	31(14.1)
Internees	146(67.7)
Occupation	
Regular employee	119(54.1)
Contract employee	66(30)
Ad-hoc employee	24(10.9)
Honorary employee	11(5)
Income(PKR)	
<150,000	10(4.5)
100000-150,000	24(10.9)
75,000-100,000	30(13.6)
>75,000	156(70.9)

Table 2: Awareness of Breast Cancer and its Early Detection Techniques

Awareness of Breast Cancer(BC)	n(%)
Awareness of BC	
Yes	197(89.5)
No	23(10.5)
Awareness Regarding Mammography	
Yes	175(79.5)
No	45(20.5)
Awareness Regarding Screening for BC	
Yes	173(78.6)
No	47(21.4)
Awareness Regarding Physical Self-Examination for BC	
Yes	180(81.8)
No	40(18.2)
Awareness Regarding BC Treatment	
Yes	169(76.8)
No	51(23.2)
Source of Information Regarding BC	
Friends, Family and Relatives	53(24.1)
Newspapers, Literature and Internet	55(25)
Health Care Professionals	112(50.9)

Also, 112(50.9%) respondents sought information from senior healthcare professionals, 55(25%) banked upon the internet and electronic media to get information, and 53(24.1%) followed by friends and family (Table 2).

Furthermore, 203(92.3%) respondents answered correctly when asked about breast cancer. Besides, 167 (75.9%) women knew about breast cancer screening. Besides, "Breast lumps" were reported by 24 women (10.9%) as the most common symptom of breast cancer, followed by abnormal mass growth by 12 women (5.5%), and multiple symptoms mentions by 148 women (67.3%).

Similarly, 173(78.6%) knew about physical self-screening and 170(77.3%) knew about mammography. Also, 168 (76.4%) appeared to know about the treatment of BC and 176(80%) had knowledge that BC can spread (metastasize) to other parts of the body.

And 36 (16.4%) women knew that family history is a risk factor. However, 145 (65.9%) participants were aware of more than one risk factor for BC. 129(58.6%) showed obesity increases the risk of BC (Table 3).

Table 3: Knowledge about Breast Cancer and Physical Self-Screening

Knowledge about breast cancer	n(%)
Do you know what breast cancer is?	
Yes	203(92.3)
No	17(7.7)
Do you know about breast cancer screening?	
Yes	167(75.9)
No	53(24.1)
Commonest symptom of breast cancer	
Lump is breast	40(18.2)
Breast pain	9(4.1)
Discharge from nipples	23(10.4)
More than one above stated symptoms	148(67.3)
Do you know what physical self-exam is?	
Yes	173(78.6)
No	47(21.4)
What do you know about breast cancer treatment?	
Yes	168(76.4)
No	52(23.6)
Does breast cancer metastasize to other body parts?	
Yes	176(80)
No	44(20)
Breast cancer risk factors	
Family history / Genetic predisposition	36(16.4)
Age	8(3.6)
Breast size augmentation cream	4(1.8)
Radiation/chemical exposure	12(5.5)
Hormonal irregularities	9(4.1)
Non-lactating mothers	6(2.7)
More than one above stated risk factor	145(65.9)
Does obesity increase the risk of BC?	
Yes	129(58.6)
No	91(41.4)

Out of all the respondents, 141 (64.1%) respondents never had breast cancer screening at a hospital or clinic themselves. However, 129 (58.6%) had a knowledge of how physical self-examination for BC is done at home. The respondents stated that the most frequent reason for getting a breast screening was fear of developing breast cancer i.e., 99 (45%)), which was followed by medical professional advice. 99 (45%), followed by advice from a healthcare provider, i.e., 40 (18.2%), and 28 (12.7%) had breast pain. It was found that out of 220 female physicians 163 (74.1%) themselves were low in knowledge about breast cancer and its early detective techniques.

Regarding the gender preference of healthcare providers among female physicians themselves, 167(75.9%) preferred a female doctor to oversee their breast screening. Besides, 153 (69.5%) women were comfortable discussing breast cancer with other doctors. However, 119(54.1%) did not feel embarrassed talking about breast cancer in society.

Table 4: Attitudes about BC and its Early Detection Techniques

Attitudes about BC and its early detection techniques	n(%)
Have you ever undergone breast screening at hospital or clinic?	
Yes	79(35.9)
No	141(64.1)
Reason to have breast cancer screening	
Fear of getting the disease	99(45)
Media awareness	20(9.1)
Health care professional's advice	40(18.2)
Pain in breast	28(12.7)
Advice of friend/ husband	7(3.2)
Breast cancer in the family	26(11.8)
Gender preference in health care provider undergoing breast screening	
Male	19(8.6)
Female	167(75.9)
No preference	34(15.5)
Comfort level during consultation about breast cancer with a doctor	
Yes	153(69.5)
No	67(30.5)
Have you performed physical self-examination for early detection of breast cancer at home?	
Yes	129(58.6)
No	91(41.4)
Have you felt embarrassed about talking about breast cancer in the society?	
Yes	101(45.9)
No	119(54.1)
According to you what is the main barrier in undergoing breast cancer screening?	
Culture / Conservative society	37(16.8)
Shyness / Fear of diagnosing the disease	106(48.2)
No facilities	48(21.9)
Lack of knowledge regarding detection techniques	29(13.2)
Do you think breast cancer has becoming a major problem of Pakistan?	
Yes	197(89.5)
No	23(10.5)
Advice regarding the breast cancer early detection	
Not to undergo breast screening and early detection	16(7.3)
Must undergo breast screening and early detection	186(84.5)
No comments	18(8.2)

In addition, 72(32.7%) believed that the biggest obstacle to getting a breast screening is not willing to talk about the issue; 34 (15.5%) believed that the lack of facilities is the primary obstacle; 29 (13.2%) said that lack of understanding of breast cancer is the greatest problem.

Furthermore, 197(89.5%) thought that breast cancer is a major health issue in Pakistan. 186(84.5%) respondents were advised to must undergo breast screening.

Table 5: Association of KAP with Respect to Age and Risk Factors of BC

	Age	**Risk factor**
Knowledge of Breast cancer	0.005	0.01
Attitude about Breast Cancer	0.000	0.01
Practice	0.004	0.03

*level of significance 5%

*chi-square test, p-value > 0.05(insignificant)

DISCUSSION:

The purpose of this study is to evaluate female physicians' knowledge, attitudes, and practices at tertiary care hospitals, as well as related issues. The majority of respondents (71.4%) in our survey were married (51.8%) and belonged to the 20–25 age group. This is brought up because raising awareness among younger women will benefit them for the rest of their lives, particularly in terms of early diagnosis and survival.[15,16] After a brief training period at tertiary care centers, the young female physicians will become dispersed throughout the nation and play a significant role in the early detection and screening of breast cancer. The purpose of this study is to raise awareness among the younger generation about the prevalence of breast cancer in our community and the value of early identification and screening for the disease in general.

Another significant factor influencing women's attitudes and behaviors around breast cancer awareness is education. The majority of the 146 respondents in our study—67.7%—were interns. Comparing educated women to the general population, they are probably far more aware of and knowledgeable about health-related concerns. However, it is concerning that educated young women in the nation have little to no knowledge of the illness and a low level of awareness of it. The knowledge gap among educated women demonstrates a glaring ignorance about breast cancer.[17] Despite the fact, working in medicine the newer generation of female doctors has little understanding of breast cancer and its screening procedures because they don't realize how serious the issue is, breast cancer is the most frequent cancer among Pakistani women.

Most of the respondents (70.9%) reported an income of more than PKR 75,000 PKR per month. Due to their increased access to healthcare services and information, women who live in metropolitan areas and have higher family finances are likely to know more about breast cancer. Low socioeconomic level is linked to breast cancer and influences the accessibility and quality of health-care[18]. According to the newer generation of female doctors, being well-paid means that you are better equipped to detect and treat breast cancer at an early stage. There will be a breast cancer patient in every two out of every five families due to the extremely high frequency of breast cancer in communities and families. Even though this is only a rough estimate of prevalence, the issue is extremely concerning and should not be ignored.

The majority of respondents (89.5%) were aware that BC is a disease, and more than three quarters of them have some understanding of detection tools, suggesting that respondents' awareness of the conditions was generally good results showed an overwhelming to be aware of breast cancer as a disease, their knowledge regarding detection techniques seemed good. (78.6%) as more than three quarters of respondents were knowledgeable about detection techniques. This can be judged by the fact that most of the respondents (79.5%) were aware of mammography as a way of screening breast cancer. Even though a larger percentage of respondents (81.8%) knew about breast self-examination (BSE), barely half of them appeared to practice it, which raises some concerns [19]. As practice of self-breast examination is limited among the young female physicians themselves then it is less likely that they will motivate others and propagate breast cancer screening in the community effectively as well.

According to a survey, healthcare professionals (HCPs) have good awareness of BC (50.9%).[19] In our study, 92.3% of participants knew about the risk factors and symptoms of breast cancer. The most prevalent symptom of breast cancer, according to respondents (18.2%), was a breast lump; however, pain, swelling or changes in skin color, or discharge from the nipples (10.4%) were not considered to be warning signs of the disease. This is probably going to cause low survival due to delayed detection.[20]

The inadequate knowledge of breast cancer risk factors was one of these studies' most concerning aspects. 16.4% of the respondents correctly identified family history. The participants' awareness of additional risk variables was

lacking. This suggests that these women are discouraged from seeking medical attention in a timely manner because they do not believe they could be in danger.[21]

In particular, among susceptible overweight women, greater awareness must be raised to educate women's knowledge of risk factors. Knowing the risk factors may encourage women to adopt healthy behaviors, such as maintaining a healthy weight, engaging in regular exercise, and getting frequent BSEs and screenings, which may reduce their risk of cancer.

According to our survey, 78.6% of participants are aware of physical self-examination. This is because those with high levels of self-efficacy were more knowledgeable and proficient in performing breast self-examination. According to a study, female employees at health facilities who felt confident enough to practice breast self-examination had 4.7 times higher probabilities of doing so than those who lacked this confidence.[22]

According to our results, 58.6% of respondents performed physical self-examination for early detection of BC. In contrast, research conducted in Jordan found that 45.5% of participants said they would check their breasts if it was in their best interests.[23]

It is important to bring up the subject of shyness and uneasiness when having a conversation regarding breasts and breast cancer. The majority of participants in our study (48.2%) reported feeling uncomfortable and embarrassed when talking about breast cancer. Despite the fact that the majority of responders (69.8%) denied experiencing embarrassed.[24]

Regarding breast cancer in society, more respondents (77.3%) indicated in a different question that they felt uneasy discussing breast cancer with a doctor; in our survey, however, (74.9%) felt at ease seeing a female doctor. Shyness and hesitation can have negative effects, thus it is critical to remove the cultural stigma associated with the phrase and remove social barriers that prevent early discovery. For this reason, all healthcare workers should be required to complete communication skills training programs as part of their basic education and continuing professional development. Due to the vulnerability of many patients and the sensitivity needed to recognize and treat issues like sexual worries faced by many women with gynecologic and breast cancer, effective communication is crucial in the context of cancer care.[25]

It is crucial to do studies such as this one that determine the awareness and knowledge of breast cancer among Pakistani female physicians. After receiving training, young female doctors might thus go to outlying regions to assist and enhance the caliber of already-existing awareness campaigns. An essential component of all early diagnosis and prevention programs is educating women about the illness. Therefore, teamwork is required. Collaboration between academicians, researchers, policymakers, advocacy groups, community workers, leaders, and health practitioners are necessary for this.[19] This study also sensitizes the higher authorities as well as young female physicians can become propagators of breast cancer awareness and screening initiatives all over the country.

CONCLUSION

This study shows that knowledge of female physicians working in tertiary care hospital have adequate knowledge regarding breast cancer screening however their attitude and perception towards, awareness of the problem and perception to deal with this problem is lacking. Breast In order to improve attitudes and behaviors among females, particularly young female physicians, breast cancer screening needs to be promoted. In general, the physicians had a moderate level of expertise on breast cancer. Regular sensitization campaigns, such as talks, symposiums, and screening programs, would inform and encourage health-care recipients to get screening exams on a regular basis, thereby detecting breast cancer early on. This would allow us to avoid the morbidity and death associated with breast cancer. Improving knowledge, modifying attitudes, and altering perceptions of young female physicians working in advanced facilities for limited period of time can have long term impact on community when they go back and work in peripheral parts of the country where major bulk of breast cancer patients get a delayed diagnosis and hence treatment, worsening the prognosis which leads to high morbidity and mortality in women with breast cancer in Pakistan.

LIMITATION OF THE STUDY

This study was conducted only on the PMDC doctors of tertiary care hospital. Larger sample size may be chosen for better generalizability of the results

CONFLICT OF INTEREST / DISCLOSURE

Nil.

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Nil.

ETHICAL APPROVAL

Given.

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