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ORIGINAL ARTICLE

Level of Knowledge about the Risk Factors of Breast Cancer in Local Population Presenting with Breast Lump

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ABSTRACT

Background: Breast cancer is the most common form of organ-specific cancer in females. It is responsible for 26% of all cancers that are newly diagnosed in women and 15% of all cancer-related fatalities in females.
Objective: To ass knowledge Level about the risk factors of Breast Cancer in local population presenting with breast lump
Methodology: This study was descriptive cross-sectional done at the Surgery department of Khyber Teaching Hospital, Peshawar. The study was conducted for a period of one year from January 2011 to December 2012. All the information's were documnted in the data collecting performa. Data was analyzed by SPSS version 14.
Results: In the current study, totally 210 female patients were enrolled. Only 10.4% of patients had a good knowledge of the risk factors for BC, whereas 35.3% had moderate knowledge and 54.2% had a poor understanding. Less than 50% of women responded positively when asked about the other risk factors, but 54.22 percent of them recognized that using oral contraceptives or hormone replacement therapy increased the chance of BC.
Conclusion: Among women, breast cancer has the highest incidence rate, and its prevalence is quickly increasing in low- and middle-income countries. According to this research, most of the risk factors for BC are unknown to the majority of women in our society. The high incidence of BC in our society is largely due to this lack of awareness of the risk factors.
Keywords: Level of Knowledge; Breast cancer; Risk factors

INTRODUCTION

Breast cancer (BC) is the most common form of organ-specific cancer in females. It is responsible for 26% of all cancers that are newly diagnosed in women and 15% of all cancer-related fatalities in females (1). Among women aged 20-59, breast cancer (BC) is the most common cause of cancer mortality (1). Around 182,460 instances of invasive BC were detected in the US in 2008, and it resulted in nearly 40,480 fatalities (2). There is a tenfold difference in the incidence of BC across various nations. This diversity is mostly caused by differences in lifestyle and ethnic and ethical context (3). In the United States, a woman's chance of having a BC increased from 1 in 13 in the 1970s to 1 in 11 in 1980 to 1 in 8 in 2004 (3).

Between 2002 and 2020, it is anticipated that both the incidence and death of breast cancer would rise by 50%. (4). One in every nine women in Pakistan (PK) will get breast cancer (BC). This is one of the highest rates in Asia. Compared to India (19/100,000), Pakistan has a higher incidence rate (50/100,000). (5). In contrast to the West, where it is more prevalent in old age (beyond 60 years), it is more frequent in Pakistan at a young age (6).

Major risk factors for breast cancer include being female, getting older, having a family history of breast cancer, having menstruation before the age of 11, having menopause before the age of 55, being a nulliparous woman, not having children, not breastfeeding, using hormonal replacement therapy, being black rather than white, having a higher socioeconomic position, not getting enough dietary iodine, eating a high-fat diet, drinking too much alcohol, being overweight, and being exposed to radiation.

Since 1990, the US has seen a steady decline in the number of women dying from BC (by 24% between 1990 to 2000 for women of age 30-79 years), because to advancements in earlier identification and better therapeutic options (7). In Pakistan, both the incidence and mortality of BC are increasing. Patients also show with metastases earlier than Western women do, and their illness is more aggressive, which results in a poorer prognosis. The US has a 5-year survival rate of 73%, compared to 57% in Pakistan (5).

In 2009, a survey was done among Health Care Professionals at Aga Khan Hospital Karachi evaluating their understanding of risk factors. Seventy-four percent of respondents agreed that rising age is a risk factor, as well as positive family history (96 percent), early menarche (64 percent), late menopause (68 percent), nulliparity (93 percent), oral contraceptives (61 percent), personal history of breast cancer (95 percent), and smoking (58 percent) (8). Yet another research found that just 35% of Nurses working at teaching hospital of Karachi were adequately knowledgeable about breast cancer risk factors (9).

This research aims to evaluate the level of awareness of breast cancer risk factors among women who report to a tertiary care hospital complaining of a breast lump. Early cancer identification is a key aspect in deciding the fate of BC in every population. The first step in achieving these objectives is raising public awareness among the affected community, educating them about BC, and establishing awareness programs. In order to accomplish all of these objectives, we must have a sense of the degree of BC knowledge in the local population. As a consequence of this research, we will have a better understanding of BC risk factors on a regional scale, and we will be in a better position to make recommendations to the appropriate authorities to initiate BC awareness programs, which will aid in early diagnosis and better therapy, leading to a best prognosis and a reduction in BC mortality and morbidity in the area.

MATERIALS AND METHODS

This study was descriptive cross-sectional done at the Surgery department of Khyber Teaching Hospital, Peshawar. The study was conducted for a period of one year from January 2011 to December 2012. Sample size was 201 by taking 25% poor knowledge proportion of nurses about risk factors of breast cancer (10), confidence interval of 95% and margin of error as 6% while using WHO calculator for sample size. Consecutive non-probability technique was used for sampling. All the female patients with age range of 20-65 presenting to outpatient department with breast lump were included. Patients with or without therapy who had BC that was histopathologically verified and health care professionals were not included in the study. Study was approved from the ethical committee and all the patients who presented with a breast lump as per operational definitions to the Department of surgery, Khyber Teaching Hospital, Peshawar, through emergency or outpatient department were included in the study. The purpose of the study was explained to the patients and they were assured that the study is purely done for data publication and research purpose. A written informed consent was taken from those who agreed. All patients were interviewed by the trainee herself under supervision of expert general surgeon fellow of CPSP and a well-trained nurse; questionnaire was easily elaborated in local language. All 15 questions received a yes/no response from the participants. On the

basis of their knowledge about breast cancer they were divided into three groups, Good (≥12 correct answers/15 questions), Average (7-11 correct answers/15) or Poor knowledge (≤ 6 correct answers/15). All the information's including were documented in the data collecting performa. Data was analyzed by SPSS version 14. For numerical variables, mean + SD were calculated. For categorical variables frequencies and percentages were calculated.

RESULTS

In the current study, totally 210 female patients were enrolled. The ages of the participants varied from 21 to 65 years, with 47.40 (SD of 12.14) years being the mean age. Patients were mostly in the middle and older stages of life, with 81.1% being over the age of 35. (table 1 and 2). Based on knowledge of participants about breast cancer, only 10.4% participants had good knowledge whereas 35.3% participants had average knowledge and 54.2% participants had poor knowledge. (Figure 1) 49.25% of women understood that becoming older is a risk factor for BC, whereas 54.22 % knew that using OCPs or HRT is linked to an increased risk of BC. About 45.27 percent of women knew that having a family history of breast cancer raised their own chance of developing the disease while 43.78% women knew that presence of cancer or a previously treated cancer in the ipsilateral or contralateral breast increases risk of developing BC a in women again whereas only 27.86% were informed of the truth that cancer presence elsewhere in the body is associated with increased risk of BC. 33.33% and 32.83% knew that early menarche and late menopause are risk factors for BC respectively. Only 19.40% women knew that there are certain genetic abnormalities that increase a women's risk of developing BC or BC can be familial. 27.86% women knew that those women who do not breast feed their babies have higher risk of getting a BC compared to those who do. 37.81% were aware that those women who never get pregnant have greater chance of getting a BC and 35.32% knew that those who give birth to their first child after 25 years of age are at increased risk to develop a BC compared to those who become pregnant or give birth to their first child at early age. 28.35%, 27.86%, 18.90% and 18.04% patients knew that exposure to heavy radiation; obesity, having high socioeconomic class and smoking are risk factors for the development of BC respectively. Response of the patients to each question is shown in table 3 while percentage of positive response regarding each question is shown in figure 2. Cross tabulation of age groups with level of knowledge is shown in table 4

Table 1: Age of the Study Population

	Parameter
Mean age in years	47.40
SD	12.14
Range	44
Maximum	21
Minimum	65

Table 2: Age Groups of the Patients

Age group	Number of patients	Percentage
20-35	38	18.9%
36-50	74	36.8%
51-65	89	44.3%
Total	201	100%

Table 3: Patients Knowledge of Each Risk Factor

Question	Yes	No
Increasing age	99	102
Positive family history	91	101
Smoking	37	164
Early menarche (before 12 years of age)	67	134
Late menopause	66	135
No breast feeding	56	145
First birth after the age of 25	`71	130
High socioeconomic class	38	163
Presence of or previously treated cancers	56	145
Hormone replacement therapy/OCPS	109	92
Obesity	56	145
Lack of pregnancy	76	125
Previous breast cancer	88	113
Genetic abnormalities	39	162
Heavy radiations	57	144

Table 4: Cross Tabulation of Level of Knowledge and Age Groups

	Level of knowledge		
Age group		Average	Bad
20- 35	05	13	20
36-50	07	25	42
51-65	09	33	47
Total	21	71	109

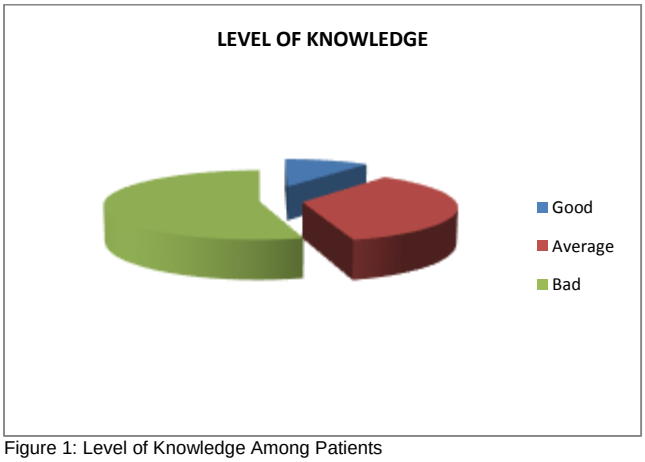

Figure 1: Level of Knowledge Among Patients

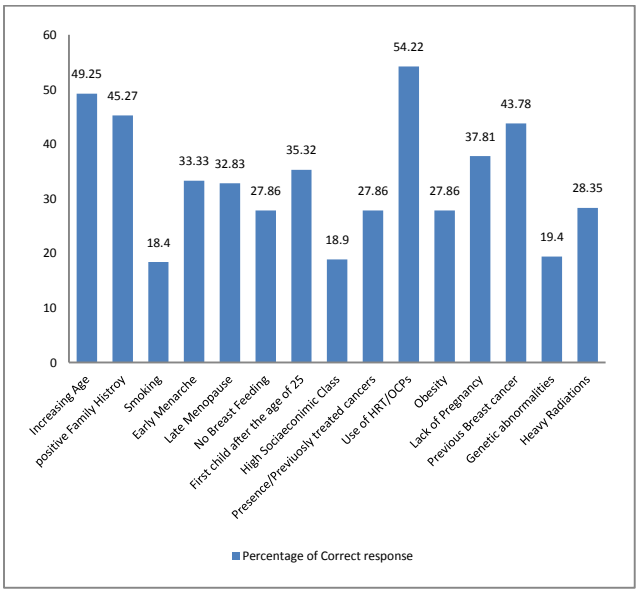

Figure 2: Percentage of Positive Response Among Patients

DISCUSSION

Breast cancer is the most common organ specific cancer in women. It is the leading cause of death in women between 20-55 years of age. Despite of its high prevalence the incidence of BC is falling in developed countries. 40,500 women died from BC in US in 2008 while in 2010 this figure fell to 40,000. On the other hand in developing countries like Pakistan incidence of BC is still rising. Pakistan has one of the highest incidence rates and one out of each nine women is likely to endure from BC in her lifetime.

Pakistan has incidence rate of 50/100,000 much higher than other Asian countries.

Breast cancer has a number of well-established risk factors. Risk factors like obesity, smoking, lack of pregnancy and breastfeeding, giving birth to first child late in reproductive life, use of HRT or OCPs etc are preventable. Better health education and awareness of BC risk factors in developed countries have played a major role in decreasing BC prevalence.

This research comprised 201 patients, whereas Ahmed F et al. did a comparable study on the understanding of BC risk factors among nurses at teaching hospitals in Karachi with 609 nurses (9). The participants' average age was 32+8 years. The average age in this research was 47.40 12.14 years. As in this research, Ahmed F et al. offered each subject 10 questions, three of which were crucial questions, and categorized their knowledge into excellent, fair, and poor categories based on correct replies (9). 40% of nurses properly answered at least one key question, scored between 8 and 10, and were classified as having fair knowledge. By contrast, 25% of nurses were unable to correctly answer either of the key questions, scored 7 or lower, and were classified as having poor knowledge. Of the nurses who successfully answered both key questions, 35% scored 11 or higher, indicating that they had excellent knowledge. Only 10.4% of the patients in this research had strong understanding of the risk factors for BC, compared to average and poor knowledge of 35.3% and 54.2%, respectively. It is possible to explain this discrepancy in awareness of BC risk factors. As Ahmed F et al. study only included nurses, all of whom had extensive medical training and experience; 67% of the nurses had cared for patients with BC at some point in their careers. However, since this research was done on the general public and not on nurses, female physicians, or other health care professionals, the vast majority of the study's participants were illiterate. Two of the three main questions posed by Ahmed F et al. were incorporated in our questionnaire (9). In this research, 35.32 percent of the respondents correctly answered the key question on the increased risk of BC in women who have their first child after the age of 30, compared to 50.22 percent of individuals. 57.8% of nurses correctly responded to the question about a woman's increased chance of acquiring BC if she had a first-degree relative who has the disease. Only 45.27% of the ladies in this survey were aware that having a BC increases a woman's chance of developing one. Again, the difference in educational background and professional experience might be used to explain this awareness gap. Despite significant knowledge gaps between the two research populations, there were several established but lesser-known risk variables that were generally understood by both study populations. In comparison to 54.22% in this survey, 49.6% of nurses agreed that using oral contraceptives raises a woman's risk of breast cancer. When asked whether obese or overweight women had a higher chance of having BC, 27.6% of women answered correctly, compared to 27.86% of women in this research.

Amin TT et al. carried out a comparable research among adult Saudi women in primary healthcare settings (11). The results that were noted are as follows. 35.7% of the 1315 women questioned were aware that a late menopause may raise a woman's risk of breast cancer. 40% of the women interviewed were aware that having your first child beyond the age of 30 can increase a woman's risk of breast cancer, and 35.2% of the women interviewed were aware that being overweight or obese might increase a woman's risk of breast cancer. In contrast to this survey, 32.83% of women understood that having children beyond the age of 25 increases a woman's chance of getting BC, whereas only 27.86% correctly identified obesity as a risk factor for BC. Both studies' knowledge of women is weak and comparable to each other, mostly because of the parallels in religion and culture between the two research groups, where women are less empowered and open discourse concentrating on such concerns is seen as going against religious and cultural standards. There was also substantial overlap in knowledge of the role of genetics in the development of breast cancer across the two investigations, with 49.9% of women aware of the link between OCPs and/or HRT and an increased risk of BC in comparison to 54.22% in this research (11).

Regarding the understanding of BC risk factors among Jordanian women, Jaradeen NK et al. performed a research in which 14 questions were posed to all 151 participants (12). As opposed to 49.25% of women in this survey, 55.6% of women were aware that a woman's risk of breast cancer rises with age. While 53.7% of Jordanian women were informed that a woman with breast cancer in one breast had a higher chance of acquiring breast cancer in the other breast, just 43.78 % of the women in this survey were aware of this risk factor. Compared to this research, where only 37.81% of women were aware that childless women had a greater chance of having BC, Jaradeen NK et al (12). These data demonstrated that Jordanian women knew a little bit more about well-known and widespread BC risk factors as compared to our community.

Researchers from Baghdad Medical College's Breast Cancer Research Unit surveyed university students, faculty, and administration in Iraq to assess their familiarity with BC risk factors and breast self-examination. They asked participants 20 questions covering a wide range of topics related to the disease (13). Overall, participant knowledge was substantially higher than what was shown in this research. Compared to 49.25% of males, 61.9% of women were aware that growing older is a risk factor for BC. In contrast to the results of this research, 55.3% of participants correctly answered the question stating that having no children increases the risk (13).

Ahmad S. et al. carried out a hospital-based research on the knowledge, attitude, and practise of 133 staff nurses about BC risk factors and screening techniques (14). They found that 69.2% of nurses recognised that having a family history of breast or ovarian cancer increased a person's chance of developing either kind of cancer. Only 18.84% of patients in this research were able to link smoking to the risk of BC, and only 43.78% were aware that a previously identified BC might raise the chance of a subsequent BC on the same or opposite side. Breastfeeding lowers the risk of BC, a fact that was known by 98.3% of nurses but only 27.86% of participants in this research were aware of. According to data gathered by Yousuf SA et al. from the Department of Nursing at King Abdulaziz University, 88% of students in their third and fourth years of study in the field of nursing are aware of breast cancer(15). The background medical knowledge and different educational levels may be used to explain these significant knowledge gaps, since the majority of patients in the overpopulated areas were illiterate due to the very low female education level in Khyber Pukhtonkhowa. There were certain restrictions, but this research gives a comprehensive picture of the women's knowledge about understanding of BC risk factors in our community. The findings of this institution-based research, which included only 201 women with breast problems, cannot be generalized to the whole population; instead, more extensive community-based investigations are needed. We were unable to stratify our findings by participant socioeconomic class, patient education level, and whether or not there was a family history of BC. Finally, despite the interviewer taking a very thorough approach, the majority of patients in our province had a predisposition to answer "yes" to every question, which may have significantly inflated their actual level of knowledge.

CONCLUSION

Among women, breast cancer has the highest incidence rate, and its prevalence is quickly increasing in low- and middle-income countries. According to this research, most of the risk factors for BC are unknown to the majority of women in our society. The high incidence of BC in our society is largely due to this lack of awareness of the risk factors. Women report their symptoms later than males do, and the most of BC patients have advanced stages when they are finally identified. Social and cultural limitations as

well as a lack of knowledge are a contributing factor. Large-scale awareness campaigns have to be started in order to reduce BC-related mortality and morbidity. Workshops for education and awareness should be organized, and women from all walks of life should be communicated.

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