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Research Article

**BREAST CANCER AWARENESS IN RURAL AREAS OF PAKISTAN**<sup>1</sup>Huma Kazmi, <sup>2</sup>Sehrish Sharif, <sup>3</sup>Tahira Shaheen<sup>1</sup>Charge Nurse, DHQ Teaching Hospital Sargodha, Email ID: humamehdikazmi@gmail.com<sup>2</sup>Charge Nurse, Government Maternity Hospital Gulyana Kotli Bajar,

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**Abstract:**

**Background:** Breast cancer is still most commonly occurring of all cancers in the females with an incidence of 1.8 million and 8 million deaths reported in 2013. [31] Unfortunately more than 90,000 patients are being diagnosed annually in Pakistan mostly in the terminal stage. [32] The only way forward for its early detection depends on the women education regarding etiology, risk factors and prognosis associated with early screening.

**Methods:** A cross-sectional survey was conducted in DHQ Teaching Hospital Sargodha during January 2019 to June 2019 using stratified random sampling. A total of 104 female patients were enrolled using a self-structured questionnaire. Knowledge of breast cancer risk factors was categorized into good, fair and poor categories.

**Results:** Only 7 percent of patients possessed good knowledge about the risk factors. This included the ones who were involved in the cancer care of their friends/family members, underwent breast self-exam or attended a surgical/gynaecological OPD for breast tenderness/antenatal visits.

**Conclusion:** Our study highlighted the fact that there is an evident lack of knowledge prevailing in the rural segments of our society about the risk factors associated with the breast cancer. Only 7 percent females from the rural areas of Pakistan possessed adequate knowledge. Early identification of the danger signs and initiation of timely interventions can reduce the morbidity and mortality associated with the breast cancer. Therefore, it is recommended that extensive public awareness campaigns should be encouraged to outreach the females of rural population especially and educate them regarding self-breast examination, benefits of early screening and diagnosis.

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**INTRODUCTION:**

Breast cancer spans the most common occurrence among women worldwide [1]. Asian African have witnessed rapid rise in the annual incidence rates of breast cancer than rest of the world in the last two decades [2]. Karachi Cancer Registry reported breast cancer at the rate of 34.6% among females with an annual incidence rate being 69.1 per 100,000 during the years 1998–2002, which is the highest of its time in Asia [3]. Similar results were found in Lahore [4].

Pakistan faces a high burden of breast cancer disease mostly presenting during the advanced stages >50% cases in stages III and IV [7-8]. Regular clinical breast examination and mammography of women according to the internationally accepted guidelines can not only halt the progression and but also cure majority of the cases [5,12]. However, there are no national screening programs for breast cancer in Pakistan. Therefore, educating the women about the risk factors constitutes a first goal towards early detection of breast cancer, so that women would be able to assess their risk and take relevant measures.

The important source of imparting breast cancer knowledge to women are the health-care workers, educational institutions and media. Among the healthcare professionals, female nurses are considered fit for this purpose. In Pakistan a substantial number of nurses are women [14] and due to socio-cultural restraints, women patients are reluctant to go to male health care providers for problems such as breast diseases [5].

The nurses can play an important role in educating women through specially designed educational programs in the clinical setting, as well as, through community outreach strategies. In addition, they also comprise an important source of information within social circle [15]. Since the nurses can play an influential role on the behavior of our women, they need to be knowledgeable themselves about breast cancer risk factors and the significance of early detection through screening programs.

Developing countries showed diverse results ranging from poor to good knowledge about breast cancer. [16]

[17] [18]. The aim of this study was to objectively assess the level of knowledge regarding risk factors of breast cancer and to evaluate factors associated with this knowledge among female patients attending surgical OPDs of DHQ Teaching Hospital Sargodha.

**METHODS:**

A cross-sectional survey was conducted in DHQ Teaching Hospital Sargodha during January 2019 to June 2019. The target population comprised of female patients of the reproductive ages resident of the rural areas as per their ID cards presenting in the surgical outpatient departments of DHQ Teaching Hospital Sargodha. Inclusion criteria comprised all female patients possessing at least basic level of qualification to read and write the questionnaire. Previous diagnosed or treated patients were excluded to reduce study bias.

Through stratified random sampling patients were selected and a self-structured questionnaire was drafted in local language to record the responses. Prior proper demonstration was given regarding the instructions. Confidentiality and privacy was maintained at every step.

The knowledge assessment tool included five questions from the Stager's Comprehensive Breast Cancer Knowledge.

Respondents who did not answer any key item correctly can get a maximum score of 7 and were labeled as having "**poor knowledge**"

Those who answered only one key question correctly cannot score greater than 10. Accordingly scores from 8 to 10 were classified as "**fair knowledge**".

The category "**good knowledge**" comprised of scores **11 to 15** and corresponds to respondents who answered at least two key items correctly.

Formal permission was taken from ethical review committee of the institution.

Data was analyzed by SPSS version 21.

**Table 1: Sociodemographic Data of the Participants (n = 100)**

Variables	Numbers (%)	Mean (SD)
Age (years)		34.5±5.5
<b>Qualification</b>		
Primary	56 (56)	
Secondary	31 (31)	
Higher Secondary and above	13 (13)	
Ever attended a breast cancer patient	18 (18)	
Ever performed clinical breast exam on a patient	06 (6)	
Ever observed a clinical breast examination	17 (17)	
Family history of breast cancer	7 (7)	
Friends and colleagues history of breast cancer	13 (13)	
Self-perceived knowledge of breast cancer	23 (23)	
Interested in breast cancer education	16 (16)	

**Table 2: Scores assessing knowledge of breast cancer risk factors with percentage of correct responses against each item**

Items	True	Score	Correct response %
1. Breast cancer can spread from one person to another	No	1	12
2. Compression from a tight bra can over time cause breast cancer	No	1	16
3. Obesity can increase the risk of developing breast cancer	Yes	1	21
4. <b>*Late marriage and late child bearing &gt;age of 30 years is more likely to cause breast cancer</b>	Yes	3	40
5. Oral contraception increase a woman's risk of breast cancer	Yes	1	42
6. Physical pressure on the breast may cause breast cancer later in life	No	1	22
7. Most breast lumps are cancerous	No	1	62
8. <b>*A woman, who has a first blood relative with breast cancer, is at higher risk of developing breast cancer</b>	Yes	3	72
9. Breast feeding decreases the chance of breast cancer	Yes	1	83
10. <b>*Breast cancer can be a result of a curse/evil eye/magic spell</b>	No	2	19
<b>Total</b>		15	

A total of 104 females were approached out of which 100 completed and returned the response sheet.

The knowledge assessment tool included five questions from the Stager's Comprehensive Breast Cancer Knowledge Test (general knowledge sub-scale) [20]. Five additional questions were formulated by the principal investigator based on international and national literature sources considering the local dynamics. The knowledge assessment tool is reported in Table 2. Content validity [21] was established by the expert opinion of surgical team of the institution.

In the assessment tool, three items were identified as key items on the basis of their relative importance. The three key items comprised of knowledge regarding family history of breast cancer [22], late age at first pregnancy [23] and myths about curse/evil eye/magic spell being a contributory factor towards breast cancer. The first two are documented risk factors for breast cancer and were awarded a score of 3, the last is common prevailing myths regarding disease development are in the Pakistani society [24] and was given a score of 2. The remaining seven items were given a score of 1. The total score ranged from 0 to 15, which was categorized into good, fair and poor categories on the basis of the three keys items as follows:

- Respondents who did not answer any key item correctly can get a maximum score of 7 and were labeled as having "**poor knowledge**".
- Those who answered only one key question correctly cannot score greater than 10. Accordingly scores from **8 to 10** were classified as "**fair knowledge**".
- The category "**good knowledge**" comprised of scores **11 to 15** and corresponds to the ones who answered at least two key items correctly.

### RESULTS:

The mean age (standard deviation) of the respondents in our sample was  $34.5 \pm 5.5$  years. Seventy-eight percent of the participants had attained primary level of school education (Table1).

7 percent of the respondents in our sample possessed good knowledge, 23% had fair knowledge while 70% had poor knowledge of breast cancer risk factors. 12% of the respondents in our sample correctly identified breast cancer as a non-communicable disease, 83% knew that breast feeding is not causative of breast cancer and 19% answered that evil eye has nothing to do with breast cancer. However, only about 21% of the

nurses knew that in some women being overweight increases the risk of developing breast cancer.

### DISCUSSION:

Breast cancer is one of the leading diagnoses of breast in lump among all neoplasms among Pakistani female. [6] Studies have identified a rising trend in breast cancer cases particularly at a younger age. [7] and warrant brass track measures and legislations to combat this epidemic. One of the approaches is to educate the rural population attending the hospitals for any reason to rule out any danger signs and get screening done so that timely interventions can be ensued.

Our study estimated that 7% of the respondents attending the surgical OPDs of DHQ Teaching Hospital Sargodha possessed adequate knowledge of breast cancer risk factors. Females who attained a higher level of education or who have had a prior experience of looking after a sick breast cancer relative or family member scored better in the evaluation process.

The knowledge of breast cancer risk factors among the local population of Pakistan is on the lower side and reflects the scenario of other developing countries [16,17]. In spite of rigorous efforts towards improving medical education in the developed countries, it has been realized that healthcare professionals including nurses are not adequately educated about cancer risk factors, risk assessment and cancer prevention [27].

Breast cancer risk factor awareness among nurses is imperative so that they can recommend and refer the suspected patients for appropriate screening with a high risk stratification, especially in the Pakistani setting where screening is not a routine practice.

The chances of 5 year survival in women affected with breast cancer highly depends on the stage of cancer at the time of diagnosis rather than tumor characteristics. An early detection can lead to cost effective treatment and better prognosis. [14] A study conducted by Majeed and colleagues has advocated the role of radiography such as mammography in early detection of breast cancer. [15]

### CONCLUSION

Our study highlighted the fact that there is an evident lack of knowledge prevailing in the rural segments of our society about the risk factors associated with the breast cancer. Only 7 percent females from the rural areas of Pakistan possessed adequate knowledge. Early identification of the danger signs and initiation of timely interventions can reduce the morbidity and mortality associated with the breast cancer. Therefore,

it is recommended that extensive public awareness campaigns should be encouraged to outreach the females of rural population especially and educate them regarding self-breast examination, benefits of early screening and diagnosis.

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