

Awareness Regarding Breast Cancer, Perceptions and Compliance towards Mammography among Women Visiting Tertiary Care Hospitals in Rawalpindi

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ABSTRACT

Objective: To find out awareness about breast cancer, perceptions and compliance towards mammography in women reporting to tertiary care hospitals in Rawalpindi.

Study Design: Descriptive cross-sectional study.

Place and Duration of Study: Tertiary care hospitals in Rawalpindi Pakistan, from Nov 2021 to Apr 2022.

Methodology: A sample size of 120 women was calculated. Sampling technique was non-probability convenient sampling. The data collection tool consisted of demographic information, questions to assess awareness, perceptions and compliance towards mammography. Data were entered and analyzed in SPSS version 26.

Results: The survey was administered to 120 women in tertiary care hospital. The study showed that majority of population was well-aware of breast cancer. Out of 120, 104(86%) women believed that new breast masses should be evaluated at clinics. According to 113(94%) women breast cancer can be cured and 95(79.2%) had belief that breast cancer can be prevented. Forty-four (36.6%) women were non-complaint towards mammography having higher barrier scores. There was high significance of occupation ($p<0.001$), education ($p<0.001$) in terms of individual compliance towards mammography. Significant association was found among the participants who were compliant towards mammography with respect to occupation ($p<0.001$) and education ($p<0.001$).

Conclusion: Most of women were well-aware of breast cancer and were more likely to participate in breast health activities. Majority had good perception regarding breast cancer and sufficient knowledge. Lesser women were non-complaint having barriers towards mammography.

Keywords: Compliance, mammography, tertiary care hospital, self-breast examination.

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INTRODUCTION

Breast cancer is a serious health problem for the women and the entire community at large. Breast cancer is the most common cancer among women and one of the most important causes of death among them.¹ Paucity of early detection programs explain these poor survival rates, which results in a high proportion of women presenting with late-stage disease, along with lack of adequate diagnosis and treatment facilities.² In many lower middle-income countries, mammography is poorly accessible and/or unaffordable that the population is forced to rely on breast self-examination and clinical breast examination as the basic early detecting methods for breast cancer.³ Mammography is the only screening procedure proven to decrease deaths due to breast cancer.⁴ In Asia, highest rate of breast cancer is of Pakistan,⁵ this is likely to increase further in coming years.⁶ Mammography is related to a number

of socio-cultural and economic factors.⁷ However, Due to plethora of socio-cultural factors such as: age, employment status, lack of awareness, fear of surgery, and belief in traditional treatments, and spiritual healing, Pakistani Women opt for health care facilities at the last stage of cancer.⁸ In Pakistan, due to decrease of awareness, 89% of breast cancer patients are diagnosed at later stage and 59% at an advanced stage.⁹ Choice of treatment and early detection of breast cancer is limited by the fear of stigmatization and feminine sensitivity.¹⁰ In patients show hesitancy to undergo the mammography, physical barriers also become a source of psychosocial stress.¹¹

METHODOLOGY

The study was an analytical cross-sectional study. The women reporting to tertiary care hospitals in Rawalpindi were enrolled in the study. The study was conducted in six months from November 2021 to April 2022. The sample size was calculated by WHO sample size calculator and 120 were estimated. A non-probability convenient sampling technique was used.

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Inclusion Criteria: Women reporting to tertiary care hospitals in Rawalpindi and those willing to participate were enrolled in this study.

Exclusion Criterion: Women, those who were to be seen for an acute illness or who had a history of breast cancer and those not oriented in time, place or person were excluded from the study.

Survey questionnaire was compiled with the purpose to assess awareness, perceptions and compliance towards mammography qualitatively. The data collection tool we used to measure perceived benefits and barriers to mammography is Breast Cancer Screening Behaviours questionnaire created by Victoria Champion. The questionnaire consisted of three parts. Part-A consisted of questions about the demographic profile; collected the subjects' name, age, gender, occupation, marital status, education level and co-morbid conditions. Part B consisted of questions regarding awareness about breast cancer and documented prior experience of patients with breast cancer, personal experience with breast masses, and prior participation in breast health activities; and six queried perceptions around breast cancer knowledge. To ensure content and construct validity, the survey tool was designed on the basis of published literature on women's perception of breast cancer.¹² Responses to all questions were recorded as "yes" or "no". Part C was designed to check perceptions and compliance towards mammography.¹³ The variables of benefits and barriers to mammography were measured on a 5-point Likert scale with the following coding; strongly disagree is scored as (1); disagree is scored as (2); neutral is scored as (3); agree is scored as (4); and strongly agree is scored as (5). The benefits scale included six questions addressing women's perceptions of their benefits to participating in mammography. The barriers scale included five questions addressing women's perceptions of their barriers to participating in mammography. Data for research were collected by questionnaires. The participants were approached when they reported to OPD of tertiary care hospitals. Informed consent was taken and information kept confidential. Women who were to be seen for an acute illness or who had a history of breast cancer were not approached. The subjects received a brief explanation of the study from the student researchers and completed the questionnaire when they were sitting in the waiting room to see the physician. The questionnaire took an average of 5 to 10 minutes to complete. Data were entered and analyzed in SPSS version 26. Descriptive data was presented as frequency and percentages.

Statistical testing using Chi-square test was carried out with the level of significance set as $p < 0.05$. The data was presented by using tables and charts. The graphs of the results were drawn on Microsoft Excel.

RESULTS

The survey was administered to 119 women in tertiary care hospital. The study showed that majority of population was well-aware of breast cancer. Out of 119, 104(86%) women believed that new breast masses should be evaluated at clinics. According to 113(94%) women breast cancer can be cured and 95(79.2%) had belief that breast cancer can be prevented. However, only 48(40%) of women had ever done self-breast examination. One hundred and five (87.5%) women were well-aware that breast cancer is not contagious. Seventy-nine (65.8%) women believed that breast cancer can be detected in early stages by self-breast examination. Seventy-six (63.3%) women in this study were compliant with the recommended mammography. Forty-four (36.6%) women were non-complaint towards mammography having higher barrier scores. There was high significance of occupation ($p < 0.001$), education ($p < 0.001$) in terms of individual compliance towards mammography. Significant association was found among the participants who were compliant towards mammography with respect to occupation ($p < 0.001$) and education ($p < 0.001$).

Details are in Table-I. The mean age of the complaint participants was 26.89 ± 7.068 while of non-compliant was 31.20 ± 9.260 .

Table-I: Demographic Details of Complaint and Non-Compliant Group.

	Overall n (%)	Compliant n (%)	Non-Compliant n(%)	p-value n(%)
Age (Mean±SD)	28.48± 8.175	26.89± 7.068	31.20± 9.260	0.009
Marital Status				
Married	72(60.5)	40(52.6)	32(72.7)	0.02
Unmarried	47(39.5)	36(47.40)	12(27.3)	
Education Level				
Primary	9(7.6)	5(6.6)	4(9.1)	<0.001
Middle	28(23.5)	0(0)	28(63.6)	
Matric	8(6.7)	5(6.6)	3(6.8)	
FA/ FSC	6(5)	5(6.6)	1(2.3)	
Higher	68(57.1)	61(80.3)	8(18.2)	
Total	119(100)	76(100)	43(100)	
Occupation of Person				
Student	20(16.8)	19(25)	1(2.3)	<0.001
Housewife	37(31.1)	12(15.8)	25(56.8)	
Doctor	16(13.4)	15(19.7)	1(2.3)	
Teacher	15(12.6)	11(14.5)	4(9.1)	
Others	31(26.1)	19(76)	13(29.5)	
Total	119(100)	76(100)	46(100)	

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Married participants were more compliant 72(60.5%) than unmarried participants. Participants with higher education level were more compliant. According to occupation, student participants were most complaint whereas housewife participants were most non-compliant.

Participants were asked questions assessing their awareness regarding breast cancer. Most of women were well-aware of breast cancer and were more likely to participate in breast health activities. 94.2% believed that patients can be cured of breast cancer if they have it. 86.7% participants believed all new breast masses should be evaluated in a clinic or hospital. 92.5% did not believe that breast cancer was a punishment from God. (Details are given in Table-II).

in clinic similar to the rate 94% reported by another study conducted in Ghana. Ninety four percent of our sample thought that breast cancer can be cured if detected early which depict their correct knowledge about breast cancer which is similar to the rate 89% in another study. Main source of information on breast cancer were identified as mass media such as TV 43% and internet 23.9%.¹⁴

In our study, 42% women agreed that mammo-graphy decreases chance of dying from cancer while another study shows that 5-year survival rate was increased by 85% due to detection of breast cancer at earlier stages, whereas detecting it at later stages brought the survival rate down to 56%.¹⁵

Table-II: Awareness regarding Breast Cancer

	No		Yes	
	N	%	N	%
1.Do you know anyone who has had breast cancer	57	47.5%	63	52.5%
2.Have you ever had a breast mass you were worried about	99	82.5%	21	17.5%
3.Have you ever had a breast mass evaluated in a clinic or hospital	105	87.5%	15	12.5%
4.Have you ever been taught how to do a self-breast exam	63	52.5%	57	47.5%
5.Have you ever done a self-breast exam before	72	60.0%	48	40.0%
6.Do you perform self-breast exams once per month	41	34.2%	11	9.2%
7.Do you perform self-breast exams at least once per year	25	20.8%	27	22.5%
8.Do you have or have you ever had breast cancer	42	35.0%	10	8.3%
9.Can breast cancer be prevented	25	20.8%	95	79.2%
10.Is breast cancer a punishment from God	111	92.5%	9	7.5%
11.Can you catch breast cancer from someone else who has breast cancer	105	87.5%	14	11.7%
12.Can you find breast cancer yourself with self-breast exams	41	34.2%	79	65.8%
13.Are all breast masses that shouldn't be there breast cancers	95	79.2%	25	20.8%
14.Should all new breast masses be evaluated in a clinic or hospital	16	13.3%	104	86.7%
15.Can breast cancer travel to other places in the body	26	21.7%	94	78.3%
16.Can someone be cured of breast cancer if they have it	7	5.8%	113	94.2%

Questions assessing awareness regarding breast cancer were asked from participants. Most of women were well-aware of breast cancer and were more likely to participate in breast health activities. (Details are shown by Figure-1).

Participants were asked questions regarding perceptions and compliance. Percentages of their responses were calculated. Majority had good perception regarding breast cancer believing it not to be punishment by God. They had sufficient knowledge about its spread in body and being non-contagious. (Details are shown in Figure-2).

DISCUSSION

This study was carried out on 120 women (mean age=28) and explored that most of the women were well aware of breast cancer. Among participants, 86.7% thought that all new breast masses should be evaluated

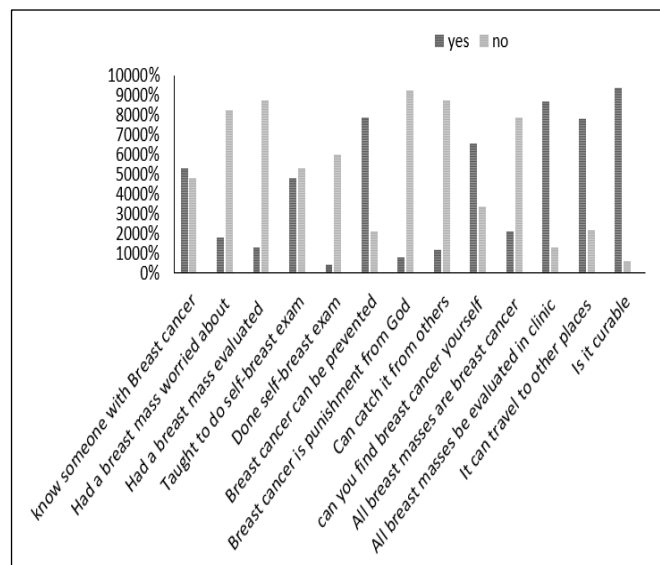


Figure-1: Awareness about Breast Cancer

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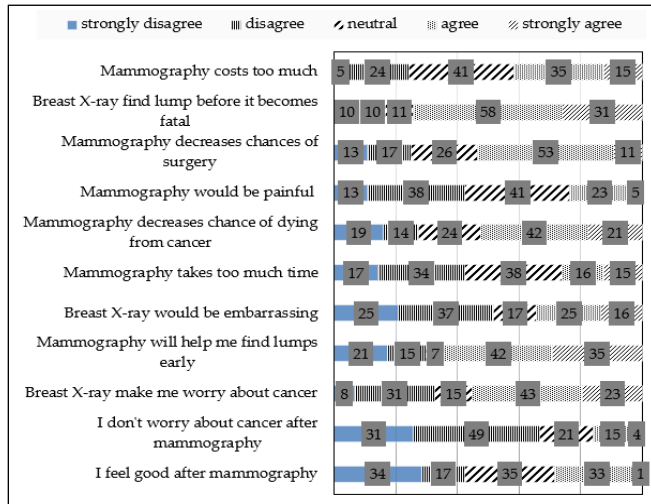


Figure-2: Perceptions and Compliance Towards Mammography

The compliance towards mammography reported in the study is 64%. For the rest 36%, the reasons for non-compliance were mainly modesty issues as it is regarded against culture. Our results are greatly associated with socioeconomic factors and educational status of women. Similarly, a study in America concluded that use of mammography is associated more strongly to education and to income than to age. Women who were teachers, doctors and students had correct perceptions about breast cancer as opposed to the housewives and those having education of matriculation or less. Religious views had far less impact on the breast cancer perception in our study. However, in another study the socio-cultural barriers were very significantly associated with compliance towards mammography.¹⁶

Women need to be encouraged to self-monitor in order to detect abnormalities in their breasts. However, our study found that 60% of women have not done self breast examination before despite having good knowledge about breast cancer risk factors which is consistent with the study done in Jordan. To encourage women to engage in regular self breast examination, educational interventions are urgently required.¹⁵ Instructions about self breast examination by a health provider may provide the optimal opportunity for improved proficiency in self-examination.¹⁸ Pakistan is a resource constraint country in which women if start self examination can increase the early detection through screening which leads to appropriate and timely treatment leading to decrease in morbidity and mortality rates in the country. Women with lower education should be delivered interventions tailored for them and

the benefits of mammography should be explained to women living in rural areas.¹⁹⁻²¹

There were some limitations to this study. The study sample taken was small and technique used was non-random. It could be possible that subjects participation in mammography was influenced by perceptions not considered in this study.

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CONCLUSION

Most of women were well-aware of breast cancer and were more likely to participate in breast health activities. Majority had good perception regarding breast cancer believing it not to be punishment by God. They had sufficient knowledge about its spread in body and being non-contagious. Majority of women who participated in the study were complaint towards mammography having benefits towards mammography. Lesser women were non-complaint having barriers towards mammography

Conflict of Interest: None.

Author's Contribution

Following authors have made substantial contributions to the manuscript as under:

AH: Supervision, Conception, Study design, analysis and Interpretation of data, Critically reviewed manuscript & approval for the final version to be published.

SFM: Co-supervision, Data entry, analysis and interpretation, manuscript writing & approval for the final version to be published.

AF: Critically reviewed, Drafted manuscript & approval for the final version to be published.

RS: Data collection, Entry and analysis of data, preparation of rough draft & approval for the final version to be published.

MAN:, HAT:, MIS: Data collection and entry & approval for the final version to be published.

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.

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