

AWARENESS, KNOWLEDGE TOWARDS BREAST CANCER, BREAST SCREENING AND EARLY DETECTION TECHNIQUES AMONG WOMEN IN PAKISTAN

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ABSTRACT

Objective: To document the awareness and knowledge of women towards breast cancer, breast screening and early detection techniques. **Design:** Cross-sectional survey. **Period:** From December 2017 to March 2018. **Setting:** Rural community Lahore. **Methods:** Comprised women of Reproductive age group (15-49) years. The survey used breast cancer inventory as a research instrument after piloting and validation. SPSS 20 was used for data analysis. **Results:** Of the 652 respondents, 652 (61.3%) were aged 15-30 years 474 (72.7%) were single. Also, 362(55.5%) respondents were graduates, it was found that 223 (34.2%) women had low knowledge regarding breast cancer and its early detection techniques. **Conclusion:** There was a dearth of knowledge regarding breast cancer among the participant.

Keywords: Breast cancer, Pakistan, Women, Awareness, Knowledge, Attitudes.

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INTRODUCTION

Cancer is a cluster of diseases, including abnormal growth of cells with dormant to invasive or spread to other body parts. Cancers are opposite to benign tumors, which do not spread to other body parts. Tissues of breast are composed of milk glands, known as lobules and the ducts, which joins the lobules to the nipple. Rest of the composition of breast comprises of lymphatic, connective, and fatty tissues. Cancer of breast is extensive type of cancer in the world. Globally, breast cancer has a potential risk for the health of females. Every year, the diagnosed cases of breast cancer are about one million.¹ Breast cancer is an unexceptional type of cancer among women and according to the 2008 GLOBOCAN of WHO it is guessed that over 1.38 million females are affected.² Each category of people, children and women, poor and rich, the old and young, is posed by cancer. In Pakistan, It is being an

economic burden and social stress for families. Pakistan is an economically struggling country and commonly, people live in rural areas. Rural population in Pakistan has no formal health infrastructure. Illiteracy among women is also a main factor for breast cancer as females in such areas have no knowledge about personal hygiene. On gender-based discrimination, in Pakistan, commonly females have no adequate approach to the medical opportunities. By gender, females comprise more than half of the population. In Pakistan, 1 in 9 women has become the patient of breast cancer at some stage of life.³

Pakistan is on top among other Asian countries for having cases of breast cancer. A Young females present at early stage of breast cancer that has negative effect on prognosis. As breast cancer is an inherited disease, transmit from mother to daughter, resulting in a great number of

breast cancer patients among women of rural areas every year.⁴ In United States, Africa, and Nigeria, breast cancer that is most habitual type of cancer has second top ranked death rate. Its worldwide occurrence has also second highest rate. Likewise in Asia, Oman has the top death rate of breast cancer and accounts for 32% of the total cancers in women with an incidence rate of 45 per 100,000 Iran accounts for 25% of total cancers in women.⁵

Consequently, it is tremendous occurrence in both developed and developing countries. Less knowledge and cultural constrains are considered as main components in later stages of breast cancer.⁴ Pakistan, in Asia is at top for incidence of breast cancer and bears increased economic burden. In Asia Most commonly occurring cancer in women is breast cancer. World Health Organization (WHO) reported 26.76% mortality rate with breast cancer in Pakistan. Moreover, Pakistan lacks healthcare agency for statistics of cancer. Before the inauguration of Shaukat Khanum Memorial Cancer Hospital and Research Centre SKMCH & RC, only Karachi Cancer Registry (KCR), was the recognized population-based registry. The KCR from 1995 to 1997 surveyed. 34.6% of the total cancer incidence among females was breast cancer.⁶

Presently, a survey published by SKMCH & RC, assembled data from December 1995 to December 2009 and concluded that (45.9%) among all cancer of women is to be cancer of breast. Moreover, it was presented that 1 in 9 females in Pakistan will develop breast cancer later in her life.^{4,7} Therefore, by taking two authentic evidences, it can be concluded that in Pakistan occurrence rate of breast cancer is high. A study conducted by Ahmed et al.⁸ it was resulted that along with high occurrence rate, women in Pakistan with breast cancer, mostly 50% of total cases, present at stage III and IV,⁸ This may be due to the lack of knowledge among Pakistani females related to the disease as well as

self-assessment methods to diagnose breast cancer at home.⁶ Numerous studies conducted in various areas of Pakistan, checking the level of women's knowledge regarding breast cancer. Approximately all studies showed that the women have insufficient knowledge and had never self-examination of breast.^{9,10} Some other factors like cultural norms, conservative societal and religious beliefs do not allow people to talk openly about breast cancer.¹¹

In Pakistan, WHO officials report that it is difficult to openly use word 'breast'. And good to use the term 'cancer of woman' rather than breast cancer.¹² In conclusion, insufficient national data on breast cancer, inexpert health care system and societal taboos are main factors to deal when assessing breast cancer in Pakistan. Islamabad and Karachi comprises of highly educated people from all ethnicities of Pakistan.¹³ Till now a single study has been conducted in Karachi to record the knowledge, attitude and practice regarding breast cancer in urban women. Study was not representative for whole population as it was conducted on small scale. The questionnaire was not comprehensive and participant's response was not included, however low knowledge among urban population was concluded.¹⁴ Present study was planned to catalogue the knowledge and attitudes of Pakistani females towards breast cancer, breast examination and early diagnosis techniques. In contrast to previous study, our study used a well-developed, pretested and validated questionnaire, like breast cancer inventory (BCI).¹³ To get information from study subjects.

MATERIALS & METHODS

Study Design

The design of this study was cross sectional. Convenient sampling technique was used for this study.

Setting

Study was conducted in a rural community of Lahore.

Study Duration

Data was collected from December 2017 to March 2018.

Inclusion Criteria

Women of Reproductive age group (15-49) years were included. Women are willing to participate in this study

Exclusion Criteria

Less than 15 years age and more than 49 years of age were excluded from the study

Sample size

Data was collected from 652 respondents.

Ethical Consideration

Individual consents taken from the study participants. All participants were given informed consent, and privacy should maintain during the interview process.

Research Tool

A Close ended survey questionnaire regarding Awareness, Knowledge towards Breast Cancer, Breast Screening and Early Detection Techniques was used. For better understanding develop these questionnaires in Urdu language. All questionnaires were completed and data collected from home to home.

Data Analyzes

Data was analyzed by using Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics presented as percentages and frequencies

RESULTS

Among 652 participants, (61.3%) number were aged as 15-30 years 474(72.7%) were single. Also, 362(55.5%) study subjects were graduates, as shown in table 1.

Age	Frequency %	Marital Status	Frequency %	Education	Frequency %
Between 15- 30 Years	400(61.3%)	Single	474(72.6%)	Below Matric	102(15.6%)
Between 31- 40 Years	180(27.9%)	Married	167(25.6%)	Intermediate	188(28.8%)
Between 41- 49 Years	70(10.7%)	Divorced	11(1.68%)	Graduation	362(55.5%)

Among 652 subjects number (94.2%) responded their awareness about breast cancer. Though, only 327 (50.2%) participants were familiar to mammography. Furthermore, 360 (55.2%) were cognizant of screening tests for BC while 344 (52.8%) participants were familiar to the treatment of BC. Physical self-examination for BC awareness was slightly high, i.e. 404 (62%). 157 (24.0%) participants also searched internet and electronic media to get information, leading to 379 (58.1%) respondents getting information from newspapers and literature, illustrated in table 2.

Awareness of Breast Cancer	Frequency %
Awareness regarding Breast Cancer	
Yes I am aware of it	614(94.2%)
My awareness is not adequate/not aware	38(5.82%)
Awareness regarding Memography	
Yes I am aware of it	327(50.1%)
My awareness is not adequate	319(48.9%)
Not aware	6(0.92%)
Awareness regarding physical examination for Breast Cancer	
Yes I am aware of it	404(61.9%)
My awareness is not adequate/not aware	248(38.0%)
Awareness regarding Breast Cancer Treatment	
Yes I am aware of it	344(52.7%)
My awareness is not adequate/not aware	308(47.2%)
Source of information regarding Breast Cancer	
Friends, Colleagues	116(17.8%)
Newspaper, Literature	379(58.1%)
Internet and electronic media	157(24.0%)

Additionally, 652 (94.2%) participants responded correct answer regarding breast cancer. 244 (37.2%) respondents answered 'breast lumps' as most the common symptom of BC, proceeding 137(21%) females who disclosed breast pain. Except, 360(55.2%) respondents were known about screening of BC. Likewise, 404 (62%) were cognizant about the physical self-screening and 327 (50.2%) respondents about mammography. And 400 (61.3%) participants disclosed positive family history as a risk factor and 445 (68.3%) participants were familiar that BC can spread to other body parts. In contrast, 296 (45.4%) subjects showed obesity was not a precipitating factor of BC and 451 (69.2%) had never physical self-



screening for BC. Although, 201 (30.8%) females were familiar to perform physical self-examination for BC at home, mentioned in table 3.

Knowledge regarding Breast Cancer and Physical Screening	Frequency %
Do You Know Breast Cancer is	
Correct Answer	614(94.1%)
Wrong Answer	38(5.82%)
Most common symptoms of Breast Cancer	
Breast Lumps	244(37.4%)
Pain in Breast	137(21.0%)
Abnormal mass growth/ cyst	18(2.76%)
Discharge from Nipples	8(1.22%)
Swelling and redness around nipples	11(1.68%)
Axial lymph node enlargement	6(0.92%)
Irregularity in breast shape/ alteration in skin color of areola	9(1.38%)
More than above stated symptoms	4(34.2%)
I donot know	215(32.9%)
Do You know What breast cancer screening is	
Correct answer	360(55.2%)
Wrong answer	292(44.7%)
Do You Know what clinical breast exam	
Correct Answer	404(61.9%)
Wrong Answer	248(38.0%)
Do You know what memography is	
Correct Answer	327(50.1%)
Wrong Answer	325(49.8%)
Risk Factors for Breast Cancer	
Family History/genetic Predisposition Age	400(61.3%)
Use of cream to augment breast size	150(23.0%)
Exposure to radiations/Chemicals	20(3.06%)
Horomonal Disturbances	12(1.84%)
Non Breast feeding Mothers	12(1.84%)
Female gender	13(1.99%)
More than above stated risk Factors	8(1.22%)
37(5.64%)	
Can Breast cancer spread to other parts of body	
Yes it can	445(68.2%)
No it can not spread	207(31.7%)
Does overweight/obesity increased risk of breast cancer	
Yes it can increase the risk	296(45.3%)
No it cannot	356(54.6%)
Do you know how to perform physical screening of breast at Home	
Yes	201(30.8%)
No	451(69.1%)

Participants were scored on the basis of their knowledge for answers. Among total score of 22, mean score of 12.01±5.56 was secured, with 0 minimum and 22maximum score. 223 (34.2%) females were explored to have low knowledge about breast cancer and its early diagnosis

techniques, as shown in table 4.

Score Range	Score Interpretation	Frequency %
Between 0-7	Very Low Knowledge	165(25.3%)
Between 8-13	Low Knowledge	223(34.2%)
Between 14-18	Adequate Knowledge	155(23.7%)
Between 19-22	Excellent Knowledge	109(16.7%)

DISCUSSION

In present study most of the participants no. (61.3%) presented with 15-30 age group and were unmarried to (72.7%). This is important to mention because increasing understanding among young females can strongly be helpful regarding early detection and survival.

In contrast, deficit of recognition among younger females makes them vulnerable for detection of early stage of breast cancer. Results of present study have anticipation to be helpful for processing of understanding programs regarding young women. Perception and understanding related to disease differs among various communities. Distinctive racial thinking impact the health seeking practices, particularly in relation to breast cancer. Such ethnic faith affects safeguard behaviour like routine checkup and self-examination.¹⁵

Educational level is also an important factor of attitudes and behaviors about understanding of present disease. In current study, mainly respondents (62.7%) were students and among them more than half (60.9%) were graduates. As compared to an ordinary person highly educated females have more understanding of health related concerns. Though low awareness and insufficient understanding related to breast cancer among young educated women of urban areas is a point of attention. Low level of knowledge regarding disease of discussion recommend prominent deficit of recognition and knowledge among society.^{16,17} In community breast cancer prevalence is increased which is

indication of having patient among 2-5 families in a community. From the finding of breast cancer prevalence in the society of participants, it is alarming situation if one in two respondents come up with breast cancer. Finding of current study showed that much of the study subjects (94.2%) were familiar with cancer as disease, though their understanding related to diagnosis of breast cancer were insufficient. This can be estimated from finding that about (50.2%) of respondents were having the recognition of mammography, a diagnostic test for breast cancer. Little more than half of participants (55.2%) were aware of diagnosis of breast cancer. However moderately increased number of respondents (62%) have understanding of self-examination of breast, it is alarming that only half of respondents were used to do breast self-examination (BSE).

Consequently, attempt should be made for publicity of different diagnosis techniques and other precautionary measures for breast cancer.¹⁸ Current results makes the role of electronic and social media prominent invasion of recognition related to disease, only one thirds proportion of participants no. (34.4%) answered that they consult on internet and electronic media to get information about breast cancer leaded by little number of participants 310 (23.8%) consult their health care personals for queries. Even that to consult them is highly productive in order to get clear facts about breast cancer, it may difficult to alter the negative recognition regarding breast examination or provide complete understanding about examination techniques that may be achieved through face-to-face workshops. Although, understanding through electronic and social media are much fruitful when combined with community-based seminars.¹⁹ Awareness about the risk factors and symptoms of breast cancer were explored to be less in the current study. Most reported symptom was breast lump, though swelling or changes in skin color and discharge from nipples were not found to be

dangerous symptoms for breast cancer. This is point of attention because insufficient knowledge about symptoms negatively impact the examination behaviour. Furthermore it is alarming that deficient understanding of symptoms will put the females in failure to identify major symptoms of breast cancer. And this will lead to late diagnosis and ultimately less recovery.²⁰ Understanding regarding breast screening was also poor among respondents. Only more than half of the participants were familiar about breast screening, likewise half (50.2%) knew about mammography. Healthcare providers and media should point out the importance of theses diagnosis methods while making understanding of disease. Furthermore, more than half of participants were familiar to breast examination, regardless (55.2%) of the respondents were also aware that how to perform it. This is point of attention to motivate and educate the females to implement breast self-examination. By conducting such awareness seminars at college and university level young girls could be educated and there may be early detection of disease which could help in their later life.²¹

One most terrifying factor of the present results was least perception about risk factors breast cancer. Every fifth respondent (61.3%) had positive family history of breast cancer. Among participants knowledge about remaining risk factors was also insufficient. This indicates that these females have perception that they could not be vulnerable for having disease of discussion and ultimately would have no courage for in time medical care. Immense knowledge must be introduced to women to increase their level of understanding regarding risk factors particularly, fatty and older women who are more prone to have breast cancer. Understating of risk factors will encourage the women to pick healthy life style like maintain body weight, routine breast self-examination that may reduce the risk of having breast cancer.²¹

The respondents were also inquired about their attitude about breast cancer and its early diagnosis methods. About half of females (49.5%) trusted that breast screening was helpful for early detection of breast cancer and the most ordinary reason for having breast screening was fear of having breast cancer. Although attitude regarding early diagnosis needs to be spotlighted and breast cancer mainly impacted by understanding different techniques. The earlier responses fore grounded, lack of recognition among females about breast cancer. Almost one fourth of females (22.7%) indicated deficit understanding about diagnosis methods as foremost hindrance in undergoing the disease. It deserves to be highlighted here, the drawback of hesitation and embarrassment regarding consultation of breast and disease.²² Health care executives must safeguard the young females by making understanding of breast cancer, its risk factors, routine breast examination and breast self-examination. Accomplishment about breast cancer education among young girls may lead to everlasting advantages through early diagnosis and consequently better survival, lower the economic burden and disease burden. Awareness seminars must be organized by executives and health professionals for females of all age categories, ethnicities, socio-economic status, and educational levels. Present study specially debates factors as risk which are known and unknown for females in Pakistan. Electronic media could be an important source to publicize knowledge about different factors of risk and identification methods.²³

Moreover, spread of data is not only essential motive of struggle, rather could also highlight to make a battle against stigma and misperceptions related to cancer and particularly identification and treatment cancer of breast. Publically combating breast cancer and attempt to decrease stigma, would encourage stimulate women having breast cancer to get professional care. Therefore, understanding of breast cancer must

be adapted in our society. Regarding the issue of discussion, local volunteers and community health workers can have an important part in lowering female's hesitation and nervousness in getting breast related care.²⁴ Like current study, researches that recognize breast cancer understanding among Pakistani females can play a vital role to enhance the standard of present understanding programs. Knowledge regarding the disease is an influential role of all early identification and precautionary steps. All health professionals, media persons, executives, leaders and community workers also researchers and teachers must work together in this concern.¹⁹

One of the supremacy of present study was that it consisted of suitable sample size which was more than enough. Furthermore, study used a localized research instrument called breast cancer inventory, which obtained data with greater rate of response. The research tool had validity in local population. Conversely, one constrain of the study was that it was self-reporting type which may lead to a skipped danger of misclassification.

CONCLUSION

There was a scantiness of understanding related to the cancer of breast among Pakistani females, particularly, young girls, which is a panic situation. Till now breast cancer is wrapped with hesitation, discomfort and shyness. Knowledge about cancer of breast must be sensitized to the cultural of Pakistani. Present research can benefit to raise the standard of current knowledge programs.

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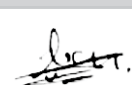


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