

Awareness Regarding Breast Cancer a Global Health Problem - A Study amongst Adult Women in Karachi

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Abstract

Objective: To determine the level of knowledge regarding breast cancer amongst women and their practice of breast self-examination.

Methods: A Knowledge, Attitude and Practice (KAP) study was conducted in the community of Gulshan Town, Karachi, during July 2013 to June 2014 through non-probability convenient sampling technique after taking written consent. The sample size of 560 was calculated by using World Health Organization (WHO) calculator. All women aged 20-40 years were included except those who had breast cancer and any type of swelling in the breast. Data was collected through semi-structured questionnaire. Data was entered and analysed on SPSS 16. For descriptive statistic mean \pm SD and frequencies were calculated.

Results: A total of 559 women participated. Mean age of women was 30 ± 1.5 years. About 84% females were married, 37% attained education in universities and 71% were housewives. Around 34% women thought that frequency of breast cancer was present in one out of every 9 women, while, 60% said breast cancer is a genetic disease. Those who said breast cancer is not accompanied by painful swelling were 61%. While 79% women said a swelling in the breast is not always breast cancer and 64% said that mastectomy is the only treatment of breast cancer. The women who said that use of contraceptives was closely associated with breast cancer were 69% women, 83% thought breast feeding decreases the risk of breast cancer while 45% women did not know what precautions to take against breast cancer. Only 40% women said consumption of fruits and vegetables decreases the incidence of breast cancer. Regarding awareness of the breast self-examination, 56.9% responded negatively.

Conclusion: The study concluded that overall knowledge regarding breast cancer was low. The practice of breast self-examination in this cohort of subjects was only 40%. We recommend public awareness regarding the risk and screening modalities for breast cancer, and breast self-examination be emphasised using mass media.

Keywords: Breast cancer, awareness, breast self-examination, women, early detection of cancer.

IRB: Approved by Pakistan Islamic Medical Association.

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Introduction

Breast cancer (BC) is a morbid disease widespread in both developing and developed nations and is the second prominent reason for cancer-related morbidity globally¹. It is the commonest cancer detected in women universally², around 1.38

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million fresh cases were detected in 2008 and it is predicted that 1.7 million cases will be detected by 2020³. While the maximum stated frequency of breast cancer is in industrialised countries, a rising rate and lesser survival from breast cancer in poor nations⁴ has been observed. The reason for developing countries being involved is causal elements such as decreased knowledge about breast cancer, along with ever increasing, existing infectious disease which leads to epidemics and hence, use up the existing health resources of poor nations lead-

ing to a reduced approach to general health care of the nation as a whole^{5,6}.

Women's knowledge and views about breast cancer and its treatment may contribute considerably to medical help-seeking attitude. Knowledge deficiency may lead to a delayed presentation with advanced stages when little or no benefit will be derived from any form of therapy^{7,8}. Several studies have been carried out globally to evaluate the knowledge level of breast cancer. A study from Ethiopia reported that overall knowledge regarding breast cancer was appropriate⁹. A cross-sectional survey was conducted with 10,242 undergraduate university students (mean age 20.7 ± 2.9 years) from 25 universities in 24 countries across Asia, Africa and the Americas. Using anonymous questionnaires, the awareness of links between breast cancer and heredity, diet, overweight, exercise, alcohol use, smoking and stress were assessed and results indicated that the knowledge was low¹⁰.

The incidence of breast cancer is treading the path of decline which can be attributed to efficient and abundant mammography programs¹¹, however; the occurrence of breast cancer is on the rise in our country. It is estimated that the frequency of breast cancer is 1 per every 9 women in Pakistan¹². It has also been indicated in studies that breast cancer in Pakistan subjects the victim to a more aggressive attack and is presenting in women at a younger age than in the Western world¹³. More than 70% of the cases detected are too advanced for successful treatment and, thus, late detection may be attributed to the large death rate among breast cancer patients. Early recognition and timely treatment have been cited as ideal prognosis¹². It is depressing that though breast cancer is widely treatable in its early stages, patients may present at a late stage when treatment is compromised. Thus, it is urgently required that the women of the country be familiar with the concept of self-diagnosis. The methods used for detecting breast cancer include self-examination, clinical examination in addition to a mammogram to protect its progression into its later stages multimodality (surgery, chemo-

therapy, radiation) approach is the best-suggested prognosis for cancer breast. The common obstacles encountered in less resourceful countries like Pakistan to overcome this problem are competing for health-care priorities, late detection (as stated earlier as well as the lack of infrastructure¹². Little is known about general breast cancer awareness, prevention, and early detection practices among women from Pakistan. This baseline knowledge is essential to the development of culturally and linguistically appropriate educational programs that promote understanding of and attention to evidence-based, lifestyle-directed breast cancer prevention interventions, breast health awareness, and early detection and treatment.

The aim of this study was to assess breast cancer knowledge among Pakistani women regarding associated risk factors, early detection and treatment. The ultimate goal of the work was to inform the development of effective breast cancer educational resources for Pakistani women aimed at removing barriers to evidence-based prevention and early detection interventions.

Patients and Methods

This Knowledge, Attitude and Practice (KAP) study was conducted in a community, at Gulshan Town for the period of one year from July 2013 to 2014. A sample size of 559 was calculated through WHO sample size calculator by using the proportion of 27% with 95% C.I and 5% margin of error. Ethical approval for this study was obtained from Institutional Review Board. Women (n= 559) were selected through non-probability convenient sampling technique. All women aged 20-40 who wished to participate were included after taking written consent while those who were diagnosed cases of breast cancer and swelling in breast or breast lump were excluded. Information regarding socio-demographics, breast cancer occurrence, risk factors, symptoms, treatment and prevention was gathered through semi-structured questionnaire by face-to-face interview. Data was entered and analysed on SPSS 16. For descriptive statistic mean, SD and frequencies were calculated.

Results

A total of 559 women participated in this study. The mean age of study participants was 30 ± 1.5 years. Overall 84% were married, 37% attained education up till post-graduation level, and 71% were housewives.

Table 1 shows the knowledge regarding breast cancer occurrence, risk factors, prevention and treatment, about 34% women stated frequency of breast cancer is 1 out of every 9, 60% said breast cancer is not a genetic disease, while 40% believed that breast cancer can be hereditary. Nearly 60% said breast cancer is not accompanied by painful swelling, 79% women said a swelling in the breast is not always breast cancer and 64% said that mastectomy is the only treatment available for breast cancer. About 69% women said that use of

contraceptives is closely associated with breast cancer, 83% thought that breast feeding decreases the risk of breast cancer, while 45% women did not know what precautions to take against breast cancer and only 40% women said consumption of fruits and vegetables decrease the frequency of breast cancer.

Discussion

Participants, in general, seemed to possess inferior knowledge regarding breast cancer, and often giving incorrect replies. A larger portion of women did not know about the frequency of breast cancer and believed that cancer is not a genetic disease. Nearly one-third of the study participants believed a painful swelling to always indicate breast cancer. Overall the knowledge regarding breast cancer was alarmingly low.

In this study, we found that majority of the study participants were lacking in knowledge regarding breast cancer. Similar results have been reported by the study from Southern Punjab where knowledge level was found poor however knowledge regarding the prevalence of breast cancer was more than 70% which are inconsistent with the findings of our study¹³. Another study which was conducted in Iran where 44%¹⁴ had adequate knowledge about breast cancer and a study from India¹⁵ reported more than 70% scored good knowledge level.

Our statistics indicate a mixed to average response to most queries regarding the characteristics of breast cancer and do not indicate an overall favourable state of affairs. The level of knowledge found in our sample was somewhat lower than those found in studies from Pakistan¹⁶ and Bangladesh¹⁷ both of which were however conducted with healthcare professionals. This is attributed to the fact that this study is community-based study; hence it may represent the general population knowledge level.

Education plays an important role in creating health-related issues awareness and promotes health in a community. In this study majority of the

Table 1. Awareness regarding Breast cancer among study participants

Characteristics	Frequency (n= 559)	Percentage (%)
Frequency of breast cancer		
1 out of 3	109	19.51
1 out of 9	188	33.63
1 out of 100	169	30.23
1 out of 1000	93	16.63
Genetic disease		
Yes	225	40.25
No	334	59.75
Swelling in thebreast		
Yes	116	20.75
No	443	79.25
Painful swelling		
Yes	215	38.46
No	344	61.54
Use of contraceptives		
Yes	386	69.06
No	173	30.94
Mastectomy		
Yes	363	64.22
No	186	35.78
Breast feeding decreases cancer		
Yes	466	83.36
No	83	14.64
Measures of decreasing incidence of cancer		
Sitting in sunlight	56	10.01
Use of fruits and vegetables	223	39.90
Exercise	28	5.01
Don't know	252	45.08

study participants were educated and attained higher education but their knowledge regarding breast cancer was inappropriate. Results from a study conducted in Turkey are consistent with the present study which showed that education is not a single factor required to create awareness among general population regarding breast cancer education but health promotional campaign are much needed to improve the health status of a community¹⁸.

The percentage of participants which were aware regarding breast self-examination (BSE) was considerably low with more than half being oblivious to its practice and effect. The percentage of practice and awareness regarding BSE in our study was considerably better than that in another Pakistani Lahore-based study¹⁹. However, the results regarding BSE in our sample were lower in comparison to a Singaporean study²⁰ and Yemen study²¹ centred on university students but were similar to the figure reported in a Malaysian study²².

In this study majority of the study participants did not know about the preventive methods against the attack of breast cancer there is sensed an urgent need for widespread awareness. A number of studies have revealed that increasing women's awareness of breast cancer declines the problems to diagnosis and treatment^{23,24}. Thus, steps should be urgently taken to encourage the same.

Health care professionals, in particular, should be stressed upon to contribute to the cause of increasing awareness as they are largely responsible for breast cancer prevention in patients by performing measures like clinical breast exams. Focus on the abolishment of social barriers through the involvement and education of spouses, families and communities regarding BSE could well improve its practice amongst susceptible women²⁵.

According to a Sudanese study conducted amongst medical students, BSE physical examinations skills are a crucial part of regular curriculum²⁶.

Limitations of the study included firstly, it was a KAP study so causal association could not be assessed. Secondly, this was conducted in the single town of Karachi so results cannot be generalised over the entire population.

Conclusion

Breast cancer is a public health problem in Pakistan but this study suggested that overall knowledge regarding breast cancer in Pakistani women was alarmingly low. There is thus a dire need for awareness pertaining to this topic in Pakistan and programs and campaigns should be introduced for the same. Media campaign regarding self-examination should be launched to promote the awareness among females.

There is need to conduct health promotional campaigns focusing mainly on primary preventive measures and self-examination of the breast. Further large community-based studies are recommended to get widespread data from Pakistan representing all socio-economic strata.

Conflict of Interest

Authors have no conflict of interests and no grant/funding from any organisation for this study

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