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Original Article

Knowledge, attitude and practice of a Pakistani female cohort towards breast cancer

Sara Ijaz Gilani, Muhammad Khurram, Tooba Mazhar, Sarah Tabir Mir, Sana Ali, Sofia Tariq, Asif Zafar Malik
Rawalpindi Medical College, Rawalpindi /Holy Family Hospital, Rawalpindi.

Abstract

Objective: To note knowledge, attitude and practices of females towards breast cancer.

Methods: This KAP study was carried out at Holy Family Hospital, Rawalpindi from January to May, 2009. One thousand randomly selected adult females presenting as patients (excluding those with breast complaints) and their accompanying attendants were inducted and interviewed. Pre tested, structured questionnaire, containing 34 (open and closed ended) questions, along with demographic profile was used to gather data which was analyzed using SPSS version 13. Chi square test was applied at 5% level as test of significance.

Results: Mean age of participants was 32.39 ± 10.47 years. Majority were married (88%), housewives (88%), and urban dwellers (75%) with average household income of Rupees 3000-6000 (33%). Majority (82.9%, n=829) had heard of breast cancer. Further questions were asked from these females.

More than 50% participants were aware of cancer's relationship with increasing age, lack of breast feeding, painless lump, obesity, and smoking. Except for breast lump, over 50% participants had knowledge about breast cancer symptoms. >50% subjects had knowledge about diagnostic modalities, treatment and its relation with outcome. Majority (>90%) had positive attitude and intended to see a doctor immediately if they ever felt a breast lump, but had poor (28.3%) practices regarding breast self examination.

Conclusion: Majority of study participants had limited knowledge, poor practices, but positive attitude towards breast cancer (JPMA 60:205; 2010).

Introduction

Breast cancer is the most frequent malignancy of women. It is the leading cause of female cancer related mortality.[1] Breast cancer rates are increasing in developed as well as developing countries. Prognosis and survival rates of breast cancer are better in developed countries due to early diagnosis and treatment.[1] In countries with limited resources, majority of females present with advanced or metastatic breast cancer leading to poor outcome.[2] Screening programmes based on routine mammography are not readily available in developing countries. Breast Health Global Initiative (BHGI) proposes breast cancer awareness and breast self examination (BSE) as a means of early breast cancer detection in developing countries.[2]

Pakistan spends 2.4-3.7% of GDP on health.[3,4] Breast screening facilities are limited. Clinical screening for breast cancer is availed by 9.5% of urban and 4.8% of rural females. Radiological facilities in this regard are present for 2.5% of urban and 0.7% of rural females.[5] Majority of Pakistani breast cancer patients present late.[6] Lack of awareness and low socioeconomic status are major reasons for late presentation.[7]

In our socioeconomic setup the only feasible solution to promote early detection of breast cancer is to create 'breast cancer awareness' among female population. Apart from lack of knowledge, it is equally important to consider other social and cultural barriers which delay help seeking.[8] This is only possible, if we know the present level of knowledge, attitudes and practices of our female population towards breast cancer. The currently available data is limited to some sections of the society and related to few aspects of the disease. This study was planned to note the knowledge of women about 'risk factors, symptoms, diagnosis, and treatment modalities of breast cancer', their attitude regarding 'breast lump, treatment seeking behaviour, and mastectomy' and to know about practice of 'breast self examination, and breast clinical examination' in females.

Materials and Methods

This KAP study was conducted at Holy Family Hospital, Rawalpindi from January to May, 2009. One thousand females, both patients and accompanying attendants, aged ≥ 15 years presenting to outpatient departments (OPD) or being treated as in patients were included. Stratified random sampling technique was used for this purpose. For out-patient females, OPD registers were used as sampling framework and every 4th patient and accompanying attendant were selected. For in-patient females, admission registers were used as sampling framework and every 4th patient and accompanying attendant were selected. Subjects presenting with signs and symptoms

suggestive of breast disease were excluded. Subjects were also excluded if they were critically ill, or were being treated in intensive care units, casualty department, or labour room.

Pre-tested, structured questionnaire, containing 34 open and closed ended questions, along with demographic profile was used to gather data. The questionnaire had three sets of questions about knowledge, attitude and practices regarding breast cancer. Its design was based on existing literature on risk factors, symptoms, detection methods and treatment of breast cancer.

Five trained medical students gathered data by face to face interview after taking informed consent from the subjects. The interviewers were instructed not to give hints or influence answers. Each interview lasted on average about 20 to 30 minutes. At the end of interview session, queries of the participating females were answered. Additionally they were informed about importance of early help seeking in case of a breast lump.

Data obtained was entered and analyzed employing Statistical Package for Social Sciences (SPSS version 13). Descriptive statistics were calculated. To look for associations between variables like age, education, occupation, socioeconomic status and family history of breast cancer with the knowledge, attitude and practice of breast cancer Chi square test was applied at 5% level of significance. P value $\leq$ 0.05 was considered significant.

Results

Mean age of participants was 32.39 ± 10.74 years. Majority (88.6%) were married, 34.3% were illiterate with no formal education. Most of the females were house wives (88.8%) and had urban residence (75.6%), 32.9% female's monthly household income was Rupees 3000-6000. Details of socio-demographic profile are given in Table-1.

Table-1: Socio-demographic characteristics (n and %).

Marital Status		Occupation	
Married	886 (88.6%)	Housewife	888 (88.8%)
Single	114 (11.4%)	Employed	112 (11.2%)
Education		**Monthly income Rs.***	
Illiterate	343 (34.3%)	< 3000	149 (14.9%)
Upto Matric	473 (47.3%)	3000-6000	329 (32.9%)
Upto Graduate	171 (17.1%)	6000-10,000	288 (28.8%)
Post graduate	13 (1.3%)	>10,000	234 (23.4%)
Residence			
Urban		756 (75.6%)	
Rural		244 (24.4%)	

*Rs- Rupees.

Knowledge:

Majority (82.9%, n=829) of females had heard of breast cancer. Further questions were asked from these 829 females who had heard of breast cancer. Responses of these females to questions focused on risk factors for breast cancer are detailed in Table-2. Regarding knowledge about symptoms of breast cancer; 54.6% (n=453) females answered to breast lump, 44.7% (n=371) to breast pain, 7% (n=58) to ulcer on breast, 4.5% (n=37) to bloody discharge from nipple, and 19.2% (n=159) to don't know.

Table-2: Response about breast cancer risk factors questions*.

Knowledge	Number & %
Is breast cancer hereditary?	253 (30.5%)
Does breast cancer risk increase with advancing age?	562 (67.7%)
Does breast feeding decrease risk of breast cancer?	623 (74.9%)
Is painless breast lump a risk factor for breast cancer?	673 (81.1%)
Is first childbirth at age more than 30 years a risk factor?	374 (45.1%)
Is nulliparity a risk factor for breast cancer?	310 (37.3%)
Is obesity a risk factor for breast cancer?	448 (53%)
Is menarche below 11 years a risk factor for breast cancer?	300 (36.1%)
Do oral contraceptive pills increase the risk of breast cancer?	277 (33.4%)
Is trauma to breast a risk factor of breast cancer?	653 (78.7%)
Is breast cancer contagious?	243 (29.3%)
Is breast cancer caused by magic and evil spirits?	183 (22%)
Is smoking a risk factor for breast cancer?	628 (75.7%)

*Those who agreed with statement.

A total of 31.6% (n=262) of the 829 females had no idea about diagnostic modalities for breast cancer, 32.9% (n=273) pointed to clinical examination by doctor, 13.3% (n=110) to ultrasonography, 8.1% (n=67) to blood tests/chest X-ray/urine examination etc, 5.3% (n=44) to mammography, 5.1% (n=42) to fine needle aspiration/biopsy, and 3.1% (n=26) to breast self examination.

In all, 84.9% (n=705) of the 829 study participants believed that there was some treatment of breast cancer. Of these 705 participants, 42.4% (n=299) identified surgical treatment for breast cancer, 24.3% (n=172) some allopathic treatment with medicines, 9% (n=64) radiotherapy, and 1.8% (n=13) identified alternative medicine (hakim, homeopathy, spiritual healing) as treatment modality. Rest of the participants (40.7%, n=287) could not identify any specific treatment modality. Most (88%, n=730) of the females agreed over need for early detection of breast cancer and believed that it can improve outcome.

Attitude:

Majority (94.7%, n=780) of the 829 subjects said that they would consult a doctor in case of a breast lump. 2.4% (n=20) said that they would do nothing. 1.9% (n=19) said that they would go for alternative treatment like homeopathy or spiritual healing. The rest of 1.2% (n=10) did not give any response.

Out of the 780 respondents who claimed to seek medical help, 91.2% (n=712) showed the intention to seek help immediately i.e., within days. 6.7% (n=53) considered that it might be delayed for months, and 1.9% (n=15) considered that it can be delayed for years.

According to study subjects common reasons for delay in consulting a doctor for breast problems are; affordability and accessibility to doctor (15.5%, n=129), shyness or unavailability of female doctor (13.1%, n=109), family problems (5.9%, n=49), fear of cancer (5.5%, n=46), carelessness of patient (4.8%, n=40) and that lump would cure on its own (4.2%, n=35). 13.9% (n=116) of the females gave other reasons (e.g. the belief that it has no cure, opposition from husband) and the remaining (51.5%, n=427) gave no response.

Practice:

A total of 28.3% (n=235) women knew about breast self examination (BSE) and of these 97.4% (n=229) practiced it. Out of the 600 females who did not practice BSE, main reason was lack of knowledge (46.1%, n=277). 22% (n=132) of the females said that they do not perform BSE as they don't have a breast complaint, 21.8% (n=131) thought that there was no need for BSE. The rest (10%, n=60) gave other reasons.

In all 12.7% (n=105) females had undergone breast examination by a doctor. Of these (n=105), 56.1% (n=59) had clinical breast examination when they had a breast complaint, 16.1% (n=17) during pregnancy, 3.8% (n=4) for infertility work up and 20% (n=21) for other reasons. The practice of regular breast examination was noted in 3.8% (n=4) females. Breast screening investigations usage was reported by 4.6% (n=38) females. Of these (n=38), 36.8% (n=14) had undergone mammography while 21% (n=8) underwent biopsy, 2.6% (n=1) had ultrasonography and 39.4% (n=15) claimed that they had other investigations for breast but could not name them.

Family history:

Family history of breast cancer was reported by 13.4% (n=111) of the females. Of these, 37.8% (n=42) had an aunt or grandmother who suffered or died of breast cancer, and 18% (n=20) females' mother, sister or daughter had breast cancer, while 29.7%'s (n=33) cousin had breast cancer. Rest (14.4%, n=16) had some other relative affected by breast cancer.

Source of information:

Main source (69.2%, n=575) of breast cancer information for study participants were relatives, friends and neighbours. Others included; media i.e., television, radio, news paper, books and magazines (33.9%, n=282), and health care providers i.e., doctor or nurse (7.2%, n=77).

Determinants of knowledge, attitude and practice towards breast cancer:

In order to know determinants of knowledge, attitude and practices regarding breast cancer, key study questions were compared with socio-demographic profile. Details in this regard are given in Table-3.

Table-3: Socio-demographic profile and answers to key KAP questions.

Characteristics	Have you heard of BC*?		Is BC hereditary?		Lump is symptom of BC?		Is BC treatable?		Do you know BSE+?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Illiterate	252	9	79	173	115	137	190	62	66	186
Educated	577	80	174	404	338	240	515	63	169	409
P value	**0.0001**		**0.72**		**0.001**		**0.0001**		**0.37**	
Rural	183	61	56	127	88	95	149	34	38	145
Urban	646	110	197	450	365	282	556	91	197	450
P value	**0.0001**		**0.72**		**0.046**		**0.132**		**0.01**	
Family History			36	75	71	40	99	12	35 200	76
No History			217	502	382	337	606	113		519
P value			**0.63**		**0.03**		**0.179**		**0.419**	
++≤ 6000 Rs#	364	114	124	241	174	191	300	65	87	278
>6000 Rs	465	57	129	336	279	186	405	60	148	317
P value	**0.0001**		**0.053**		**0.0001**		**0.05**		**0.011**	
**< 40 years	615	127	191	425	325	291	530	86	154	462
≥ 40 years	214	44	62	152	128	86	175	39	81	138
P value	**0.98**		**0.57**		**0.074**		**0.133**		**0.0001**	
Housewife	736	152	221	515	398	338	621 84	115	207	529
Employed	93	19	32	62	55	39		10	28	66
P value	**0.96**		**0.42**		**0.416**		**0.203**		**0.73**	

*BC- Breast cancer, +BSE- Breast self examination, ++ Monthly household income, # Rs- Rupees, **Age of Subjects.

Discussion

Breast cancer knowledge of majority of study participants was limited in most aspects. Although they practiced BSE infrequently their attitude regarding breast lump was positive. Majority (83%) of our study participants

had heard of breast cancer. Our figures are higher compared to regional countries. In an Indian study 56% and in Iranian study 64% females were aware of breast cancer.[9,10]

According to Pakistani data; family history, less parity, and lack of breast feeding are important risk factors for breast cancer in Pakistani females.[11,12] Fifty percent of women in a study from Karachi knew that breast cancer runs in families.[13] In a study conducted at Rawalpindi, 12.25% females were aware of breast lump as clinical feature of breast cancer.[14] In an Indian study, 51% participants knew about at least one clinical feature and 35% were aware of risk factors for breast cancer.[9] A study carried out in Saudi Arabia showed that >50% female teachers have limited knowledge about breast cancer and its screening.[15] In an Iranian study 44% respondents considered painless lumps as breast cancer symptom.[10]

More than 50% of our study participants who knew of breast cancer were aware of cancer's relationship with increasing age, lack of breast feeding, painless lump, obesity, and smoking. Awareness about other risk factors was however poor. Apart from breast lump, <50% participants had knowledge about breast cancer symptoms. Similarly >50% subjects had knowledge about diagnostic modalities, treatment and its relation with outcome.

Overall positive attitude about breast cancer was noted in this study. Our results are more encouraging than results from Saudi Arabia and Nigeria.[15,16] Fifty percent participants in Saudi study had pessimistic ideas about curability of breast cancer, while 29% agreed to screening for early detection.[15] Most of the attitudinal responses in Nigerian study were rated poor to very poor.[16]

Poor response to breast cancer practice questions were noted in this study. Less than 3% Indian females go for breast cancer screening.[17] Thirty-seven percent females in Iranian study practiced BSE, 17% did it regularly, while 64% did not know how to perform BSE.[10] In a Saudi study, 43.4% females practiced BSE.[15] In a Nigerian study 34.9% females conducted BSE.[18]

Main source of participant information in this study were relatives, friends, and neighbors. This seems responsible for various misconceptions noted in this study i.e., trauma as cause of breast cancer, evil spirits as etiological agents, spiritual healing, and that lump will cure on its own etc. Contrarily, mass media was commonest source of information in Iranian study.[10] Misconceptions noted in our study are infrequently noted if source of related information is mass media or health care providers. Health care providers as source of information in this study were comparatively less.[10]

Breast cancer awareness significantly correlated with education status, urban residence, and monthly income >Rs. 6000/-. Breast lump as symptom of breast cancer additionally correlated with family history as well. Consideration that breast cancer is treatable correlated with educated status and higher income. Doing BSE correlated with urban residence, higher income, and age >40 years. These results are comparable with related studies.[18,19]

Conclusion

Knowledge of BC and BSE practices are highly deficient in this study population. However, there is generally a positive attitude which provides a fertile ground for awareness dissemination in order to improve knowledge and practices.

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