

# Awareness and Practice of Breast Self Examination among Doctors and Nurses in Punjab and Sindh

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## Abstract

**Objective:** to assess awareness and practice of breast self examination, USG and mammography among female doctors and nurses.

Study Design: cross sectional study

**Place and Duration:** the study was carried out over a period of three months i.e., Jan 1<sup>st</sup> 2012 to March 31<sup>st</sup> 2012 at Jinnah hospital & Allama Iqbal Medical College Hospital Lahore, JPMC Karachi and Government Sindh Qatar hospital Karachi.

**Methodology:** a total of 300 predesigned proformas were distributed among female doctors and nurses and 282 were returned back.

**Results:** out of the 282 respondents, 61.7% were doctors and the 38.3% were nurses. Maximum number of participants was within age group of 20-30 years (58.9%). A total of 63.5% of the participants were married and almost half of these married ladies were having parity of 2-4.

Regarding personal surgical history, 5 cases had fibro adenoma in past while one have had breast cancer successfully treated. Family history of Breast cancer was positive in 12.7%. Out of those with positive family history, 17 (6%) were 1st degree relatives of the participants.

Majority (89%) of study group was aware of the importance of BSE. The main source of information was during medical education, books and literature in 83.3%, while doctors were a source of information in just 16.7% of cases. However, despite this level of awareness, only 51.7% practiced BSE. It is important to note that among the group who did not practice BSE, 4 (1.4%) gave a positive family history of breast cancer. Eight participants (2.8% of the total) had undergone ultrasonography. Mammography was carried

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out in 4 (1.4%). No personal investigation was performed despite positive family history of breast cancer in 20 (7%) respondents and family history of ovarian cancer in 1(0.35%) respondent. The ratio of dissemination of knowledge by respondents to their patients or relatives was found to be only 63.5% and this was done mainly by doctors.

**Conclusion:** In spite of awareness, the practice of BSE was found quite low in this study.

**Key words:** BSE, USG, Mammography, Doctors and Nurses.

## Introduction

Breast cancer is a global health concern and a leading cause of morbidity and mortality among women, both in developed and the developing nations.<sup>1</sup> Women in Pakistan are included in the same category.<sup>2,3</sup> In fact the incidence of breast cancer is on rise in Pakistani women and one in every 9 females is affected in her life time.

Generally the mortality rate due to breast cancer is high in developing countries due to diagnosis of this disease in advanced stage.<sup>4</sup>

Pakistani women have an additional risk by being presented at relatively younger age.<sup>3</sup> The risk factors include personal or family history of breast cancer (most important), obesity, early menarche, late menopause, use of hormones and radiation exposure.<sup>1,5</sup>

So the best strategy is to detect it at an early stage and then timely treatment.<sup>6</sup> Breast self-examination (BSE), clinical breast examination, ultrasonography and mammography is recommended and commonly used screening tools.<sup>7</sup> Even though mammography is still regarded as single best diagnostic tool in the early diagnosis of breast cancer, it is not recommended as a first line screening method. BSE remains best suited, noninvasive and readily available tool for early detection of breast cancer. In developing countries like Pakistan, BSE seems to be a realistic approach to cover mass population.<sup>8</sup> Multiple studies have concluded that women, who regularly perform BSE,

present with smaller neoplasm and rare involvement of axillary lymph nodes.<sup>9</sup> However lack of awareness of this disease and the screening methods including BSE is the major limitation to get benefit of these screening modalities.<sup>10</sup> So increasing the awareness about breast cancer and the significance of regular monthly BSE reduces the obstacle to diagnosis and treatment.<sup>11</sup>

Health care providers are supposed to have an optimum updated knowledge about breast cancer and different screening strategies. They can play a vital role for dissemination of the knowledge and information to their patients and the general public.

The aim of this study was to ascertain the level of awareness and the personal practice of medical and paramedical staff about BSE and utilization of Breast USG and mammography.

## Methodology

this cross sectional study was carried out over a period of three months. The subjects were doctors and nurses working in hospitals of Punjab and Sindh. A predesigned self-administered questionnaire was distributed to female doctors and nurses. The questionnaire included demographic data, specific risk factors like personal or family history of breast, genital tract or colorectal cancer, respondent's own awareness and practice regarding BSE.

The questionnaire was distributed in person requesting an early response and questionnaire was then collected back. SPSS version 21 was used to analyze the data.

## Results

Total 300 questionnaires were distributed among doctors and nurses working in teaching hospitals of Lahore and Karachi and 282 were returned back. Almost 61.7% of respondents were doctors and the rest 38.3% were nurses (table I).

Job Status	Number	Percentage
Doctors	174	61.7%
Nurses	108	38.3%

Maximum no of participants were between the age group of 20-30 years (58.9%) (Table II). A total of 63.5% of the participants were married and almost half of these (58.2%) were having parity 2-4 (table II).

Age	Number	Percentage
20- 30 years	166	58.9%
31-35 years	44	15.6%
> 35 years	72	25.5%
<b>Marital Status (n= 282)</b>		
Married	179	63.5%
Unmarried	103	36.5%
<b>Parity (n= 165)</b>		
Para 1	42	25.5%
P2- P4	96	58.2%
> P4	27	16.3%

Regarding personal history, 5 cases underwent surgery for breast fibro adenoma while one had breast cancer successfully treated.

Family history of different malignancies is shown in Table III. Breast cancer was noted in almost 12.7% of families out of which 17 (6%) were 1st degree relatives. Ultrasonography was carried out in 8 (2.8%) participants and mammography in just 4 (1.4%) (Table IV). No investigation was performed by 20 (7%) respondents despite positive family history of breast cancer and by 1(0.35%) participant having family

history of ovarian cancer. This shows carelessness and noncompliance to the standard guidelines despite adequate knowledge and awareness.

Type of malignancy	Number	Percentage
Breast		
1st degree relative	17	6%
2nd degree relative	16	5.7%
Uterine cancer	3	1.06%
Ovarian cancer	1	0.35%
Colon cancer	2	0.7%
Liver cancer	2	0.7%
Lung cancer	4	1.4%
Cancer of pancreas	2	0.7%

Investigation	Number	Percentage
Ultrasonography	8	2.8%
Mammography	4	1.4%

Table V shows the level of breast cancer and BSE awareness. Majority (89%) of study group was aware of BSE. Surprisingly 4 (1.4%) doctors were not aware of it. The main source of information was books and literature in 83.3%, while doctors were a source of information in just 16.7% of cases.

Awareness	Number	Percentage
Aware	251	89%
Unaware	31	11%
<b>Practice</b>		
Doing BSE	146	51.7%
Not doing	136	48.3%

Despite this level of awareness, only 51.7% practiced BSE, while the rest 48.3% did not practice it (Table- V). This noncompliance with BSE was either due to casual attitude or busy schedule. It is important to note that among the group who did not practice BSE, 26(9.2%)

were doctors and out of these 4 (1.4%) had family history of breast cancer.

The ratio of dissemination of knowledge by respondents to their patients (63.5%) or relatives (63.5%) was again not up to the mark and this was done mainly by doctors (Table- IV).

<b>Table IV. Role of doctors and nurses to educate their patients and relatives (n=372)</b>		
<b>Target group who were given BSE information</b>	<b>Number</b>	<b>Percentage</b>
Relatives	193	68.4%
Patients	179	63.5%

## Discussion

The incidence and death due to breast cancer is increasing in our country like other developing countries.<sup>12,13</sup> Health care providers can play a key role not only to create awareness but also to implement screening strategies like BSE, breast USG and mammography.<sup>14</sup> So it is expected that they should have a higher level of knowledge, attitudes and practice (KAP) in the field of healthy behaviors.

Surveys show that performing regular BSE can decrease the rate of breast cancer by 3.1%.<sup>15</sup>

A wide knowledge application gap has been observed across the globe between the knowledge and the actual practice of BSE. The same trend was observed during our study. Our results regarding awareness about BSE among medical and paramedical staff are equivocal. Although majority (89%) knew the importance of initial breast cancer screening by BSE, the overall practice was low (i.e. only 51.7%).

The practice of BSE remains low and variable in different nations. Among the health care providers, around 90.3% performed BSE in Sao Paulo<sup>15</sup>, while in Turkey 28% of the nurses and 32% of physicians did not practice BSE.<sup>16</sup> Similarly in Iran most of the female health care workers (63-72%) did not practice BSE.<sup>17</sup>

A similar local study by Parvez et al<sup>18</sup> was carried out among nurses and doctors of services hospital, Lahore more than a decade ago. Our results reveal that the level of knowledge is comparable (89% compared to theirs that was 92%) but practice of BSE is higher in our respondents (51.7% as compared to their 30%). Similarly the practice of BSE was better in our study as compared to another study by Mahmoodi et al which was again a decade old.<sup>17</sup> Over the years the practice of BSE has improved though not as it should be. A recent study on Jordanian students by Suleiman AK revealed that the awareness of their study population was 35% and BSE was practiced by just 11%.<sup>19</sup>

In our study population the practice of BSE was very low as compared to that revealed by a study from Singapore (51.7% vs 94%). This study was carried out among public health nurses, regarding knowledge and perception of breast cancer screening.<sup>20</sup> Another study by Ibrahim NA et al, found that 83% of female doctors were in habit of doing BSE once a month and only 8% of them had mammogram for screening.<sup>21</sup>

Another significant point noted in this study was that despite strong family history of breast cancer many respondents did not bother to practice BSE or to have a mammogram. This just highlights their casual behavior and/or lack of core knowledge about aggressiveness of this cancer and its' related morbidity and mortality

However there is controversy as regards the use of regular BSE as a screening tool. It can raise anxiety. Though American Cancer Society no longer recommends it<sup>17</sup>, but in countries like Pakistan due to lack of infrastructure and cost issues of other screening tools, BSE becomes an important strategy.<sup>22</sup>

Thus this study emphasizes the importance of continuous medical education for all medical and paramedical personnel customized to their level. It is important to keep them updated about important

medical issues so as they can play a better role as public educators. There is need for continuous medical education programs aimed at improving knowledge and of breast cancer among female health care providers.

**Recommendations:** BSE is to be used as primary screening tool in low resource settings like Pakistan and breast USG and mammography reserved for high risk cases and for those found to have a lump or suspicious on BSE.

## Conclusion

The level of awareness is acceptable but the practice of BSE is quite low. So the medical personnel need to first themselves comply with the practice of BSE and also raise awareness and offer clear and specific instructions on practice of BSE. Once suspected having a lump, diagnostic work up should be done and breast cancer ruled out or diagnosed and managed as quick as possible.

## References

1. Dundar PE, Ozmen D, Ozturk B, Haspolat G, Akyildiz F, Coban S, et al. The knowledge and attitudes of breast self-examination and mammography in a group of women in a rural area in western Turkey. *BMC Cancer*, 2006; 6: 43.
2. Bhurgri Y, Kayani N, Faridi N, Pervez S, Usman A, Bhurgri H et al. Patho epidemiology of breast cancer in Karachi '1995-1997'. *Asian Pac J Cancer Prev*, 2007; 8: 215-220.
3. Sohail S, Alam SN. Breast cancer in Pakistan-awareness and early detection. *J Coll Physicians Surg Pak*, 2007; 17: 711-712.
4. Coughim SS and Ekwueme DU. Breast cancer as a global health concern. *Cancer Epidemiol*, 2009; 33(5): 315-318.
5. Lee EO, Ahn SH, You C, Lee DS, Han W, Choe KJ, et al. Determining the main risk factors and high risk groups of breast cancer using a predictive model for breast cancer risk assessment in South Korea. *Cancer Nursing*, 2004; 27: 400-406.
- 6- Sadler GR, Dhanjal SK, Shah NB, Shah RB, Ko-C, Anghel M, et al. Asian Indian women: knowledge, attitudes and behaviors towards breast cancer early detection. *Public health Nurs*, 2001; 18: 357-363.
7. Fung S. Factors associated with breast self examination behavior among Chinese women in Hong Kong. *Patient Educ Couns*, 1998; 33: 233-4.
- 8- Park K. In Park's text book of preventive and social medicine. 17<sup>th</sup> ed. Banarsidars Bhanot publishers Jabalpur, India. 2002; 285-286.
9. Gupta SK. Impact of a health education intervention program regarding BSE by women in a semi urban area of Madhya pradesh India. *Asian Pac J Cancer Prev*, 2009; 10(6): 1113-1117.
10. Badar F, Faruqui ZS, Ashraf A, Uddin N. Third world issues in breast cancer detection. *J Pak Med Assoc*, 2007; 57:137-1340.
11. Stager JL. The comprehensive breast cancer knowledge test: Validity and reliability. *J Advan Nurs*, 1993; 18: 1133-1140.
12. Fletcher SW, Elmore JG. Clinical practice Mammographic screening for breast cancer. *N Engl J Med*, 2003; 348: 1672-1680.
13. Ravdin PM, Cronin KA, Howlader N, Berg CD, Chlebowski RT, Feuer EJ, et al. The decrease in breast cancer incidence in 2003 in the United States. *N Engl J Med*, 2007; 356: 1670-1674.
14. Smigal C, Jemal A, Ward E, Cokkinides V, Smith R, Howe HL, et al. Trends in breast cancer by race and ethnicity: Update 2006. *CA Cancer J Clin*, 2006; 56: 168-183.
15. Pompei LM, Mattos CS, Ferreira HG, Pescuma R, Fernandes CE, et al. Knowledge, attitude and practice of breast self examination in a female population. *San Sao Paulo. Breast*, 2008; 17:270-4.
16. Cavdar Y, Akyolcu N, Ozbas A, Oztekin D, Ayogu T and Akyuz N. Determining female physicians' and nurses' practices and attitudes towards breast self examination in Istanbul, Turkey. *Oncol Nurs Forum*, 2007; 34(6):1218-1221.
17. Haji Mahmoodi M, Montazeri A, Jarvandi S, Ebrahimi M, Haghighat S, Harirchi I. Breast self examination: Knowledge, attitudes and practices among female health care workers in Tehran, Iran. *Breast J*, 2002; 8: 222-225.
18. Parvez T, Anwar M. Knowledge, attitudes and preventive practices for breast cancer. *JCPSP*, 2001; 11: 363-366.
19. Suleiman AK. Awareness and attitudes regarding breast cancer and Breast self examination among female Jordanian students. *J Basic Clin Pharm*, 2014; 5(3):74-78.

20. Chong PN, Krishnan M, Hong CY, Swah TS. Knowledge and practice of breast cancer screening amongst public health nurses in Singapore. *Singapore Med J*, 2002; 43: 509-516.
21. Ibrahim NA, Odusanya OO. Knowledge of risk factors, beliefs and practices of female health care professionals towards breast cancer in a tertiary institution in Lagos, Nigeria. *BMC Cancer*, 2009; 9:76.
22. Canadian Task Force on preventive health care. Preventive health care, 2001 update: Should women be routinely taught BSE to screen cancer? *CMAJ*. 2001; 164:1837-1846.