Original Article

# KNOWLEDGE AND PRACTICE OF BREAST SELF EXAMINATION AMONG ANTENATAL ATTENDEES PRESENTING TO A TERTIARY CARE HOSPITAL IN KARACHI, PAKISTAN.

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**ABSTRACT**

**Background:**

Breast cancer is considered to be a disease of both the developing as well as developed countries and diagnosis can be made at an early stage by using breast self-examination (BSE).

**Objective:**

*To* ***assess knowledge and practice of breast self examination among*** **antenatal attendees presenting to a tertiary care hospital**

**Methods:**

This cross-sectional study was conducted at Outpatient Department of Gynecology and Obstetrics at Jinnah Postgraduate Medical Centre, Karachi, from 15th January, 2010 to 20th October, 2010. One hundred and fifty females presenting as antenatal attendees (excluding those with breast complaints) were selected and interviewed. Pre tested, structured questionnaire, containing (open and closed ended) questions, along with demographic profile was used to gather data which was analyzed using SPSS.

**Results:**

Mean age of participants was 28.3 years with range of 15-50 years. Majority were educated (78.7%) with average of matric education. The mean duration of marriage was less than five years; Most were Muslims (92%), and Urdu speaking (66.7%) with average of 2 children and livings in a joint family. Most of the respondents (80.0%), had heard of breast cancer and breast self-examination. Twenty three percent knew the early symptoms of breast cancer and 83.3%% knew that early detection increases chances of survival. Nine percent of the respondents gave the view that breast self-examination should start at less than 19 years while 15.3% said that it should start after 19 years of age and 76% don't know about it at all. The respondents also gave opinion that breast self-examination should be performed (weekly (13.9 %), some monthly (76.3%) and some yearly (9.8%). Most of the respondents (66.7%) are of the opinion that BSE can be performed at any time in the month while 16.7% have view that it should be done on every fifth day of menses with another 16.7% attendees who don't know its timing.

One hundred and thirty two (88.0%) of the antenatal attendees don't know about the breast self-examination while 18 (12.0%), knew about it. The level of awareness of breast self examination was highest (29.0%) among those aged 15-29 years and was lowest among those more than 30 years ($p = 0.064$). (Table2). The women who had secondary education had more knowledge about breast self-examination while those who had primary education had low level of knowledge. ($p = 0.069$). ) Among the participants who had knowledge about BSE, (15.3%) knew the exact age to start for BSE,(66.7.0%) responded that it can be carried out at any time during a month, only 16.7.0% said that it should be done during menses. Ninety four percent knew that BSE can be done with their own hands with out any help. Fifty four percent do it during bath and 33.3% while lying on a bed. Similarly, 66.7% had knowledge that a lump can be found during exam along with 5.6% looking for color change in skin of breast and 27.8% can expect both the signs.

**Conclusion:**

Most of the antenatal attendees had very poor knowledge, and almost no practices of BSE

**Keywords:** Breast self-examination, breast cancer, antenatal attendees

## INTRODUCTION

Breast cancer is considered to be a disease of both the developing as well as developed countries. It is the leading type of cancer in women[1] Breast cancer is the most common cancer in pregnant women, with a prevalence of 1–3 per 10,000 pregnancies[2] The evidence is there to suggest that there may be a transient increase in breast cancer in the first three or four years after a pregnancy[3,4] . Some evidence suggests that there is an increased risk of breast cancer in women who have spontaneous or induced abortions[5]. The available data does not show that pregnancy can be a reason of breast cancer or can help in its progression. It is evident that the diagnosis of breast cancer in pregnancy and lactation is difficult due to the physiological changes in the breast tissue during these conditions. There is delay in detection, diagnosis and treatment of breast cancer in women having pregnancy or in lactation phase. Due to this, women having pregnancy-associated breast cancer have larger tumor size, more metastasis and disease in more advance stage than in their counterparts without pregnancy. A complete breast examination at the first prenatal visit by an expert can help to diagnose these patients early[6,7.] However, some studies had suggested that pregnancy-associated breast cancer may have a poor prognosis, regardless of disease stage. Another study reported that lactation can also be associated with worse prognosis, after adjusting for nodal status, tumor size, and age[7]. Similarly, a woman who during pregnancy took synthetic form of estrogen has a slightly higher risk of developing breast cancer[8] There is evidence that screening for breast cancer has favorable effect on mortality from breast cancer[9] Even though mammography is still regarded as single best diagnostic tool in the early diagnosis of breast cancer it is not routinely performed in Pakistan due to multiple factors like lack of awareness, high cost, availability of equipments and lack of experts for the procedure. In this situation, Breast self-examination still remains one of best suited and available tool for early detection of breast cancer. Different studies showed that women who practice BSE monthly with correct method are able to find a lump in its stage and this early diagnosis has been found to have a positive influence on management to have a better survival rate[10,11].

In developing countries like Pakistan, BSE still seems to be only approach to cover mass population because it is not only a cheap but easy method[12.]

The objective of this study was therefore to assess knowledge and practice of breast self-examination among antenatal women who were attending an antenatal clinic in a tertiary care hospital and to identify associated factors with it. This may be useful in making recommendation with regards to health education of pregnant women concerning BSE.

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## RESULTS

Mean age of attendees was 28.3years. Most of them (78.7%) were educated with average education of matric, 21.3% had no formal education. Most of the females were living in a joint family with average of 13 persons in a family. The average children of a family were 2 children. Ninety two percent were Muslims and majority (66.7%) was Urdu speaking.

### Social and Demographic Characteristics:

A total of 150 antenatal attendees were interviewed and their social and demographic characteristics are presented in Table 1. The mean age of the respondents was 28.3 years (range was 15-50 years). Of these, 103 (68.7%) were aged between 20 and 29 years. Seventy six (50.7%) was married for less than five years with 1-2 children. Fifty two (34.7%) had secondary education and fourteen (9.3%) had intermediate with thirty (22.0%) primary and thirty-three (22.0%) with no formal education. (Table 1).

**Awareness and Practice of Breast Self Examination:**

**Among Antenatal Attendees:**

Table 2 shows the level of breast cancer and breast self-examination awareness of the respondents. Majority, 80.0% had heard of breast cancer and breast self-examination. Twenty three percent knew the early symptoms of breast cancer and 83.3% knew that early detection increases chances of survival. Nine percent of them have opinion that breast self-examination should start at less than 19 years while 15.3% were of the view that it should start at over 19 years of age and 76% did not know about it at all.

Some of the participants were of the view that breast self-examination should be performed (weekly (13.9 %), some monthly (76.3%) and some yearly (9.8%). Most of the women (66.7%) are of the view that BSE can be performed at any time in the month while 16.7% have opinion that it should be done on every fifth day of menses with another 16.7% who did not know its timing at all.

One hundred and thirty two (88.0%) of the antenatal attendees were not aware of breast self-examination while 18 (12.0%), were aware. The knowledge of breast self examination was highest (29.0%) among those aged 15-29 years and was lowest among those more than 30 years (p = 0.064). (Table2). The women who had secondary education had more knowledge about breast self-examination while those who had primary education were the least knowledgeable (p = 0.069). (Table 2)

**Table-1 Socio-demographic characteristics of respondents**

| | ***n*** | ***%*** |
|---|---|---|
| Age group(years)(n=150) | | |
| ,20 | 13 | 8.7 |
| 20-29 | 103 | 68.7 |
| 30-39 | 30 | 20 |
| 40-50 | 4 | 2.7 |
| Total | 150 | 100 |
| Level of Education(n=150) | | |
| None | 33 | 22 |
| Primary | 30 | 22 |
| Middle | 16 | 10.7 |
| Metric | 52 | 34.7 |
| Intermediate | 14 | 9.3 |
| Graduate | 5 | 3.3 |
| Total | 150 | 100 |
| Duration of Marriage(Years)(n=150) | | |
| <5 | 76 | 50.7 |
| 5-9 | 42 | 28 |
| 10-14 | 13 | 8.7 |
| 15-20 | 13 | 8.7 |
| >20 | 6 | 4 |
| Total | 150 | 100 |
| No of Children(n=150) | | |
| No child | | |
| 1-2 | 22 | 14.7 |
| 3-4 | 75 | 50.7 |
| 5-6 | 31 | 20.7 |
| >6 | 16 | 10.7 |
| Total | 6 | 4 |
| | 150 | 100 |

**Table-2 awareness of Breast- Self Examination by Age and Level of Education in Antenatal Attendees**

| Characteristics | Awareness of BSE | | n=150 |
|---|---|---|---|
| | Yes(%) | No(%) | P-value |
| Age Group(years) | | | |
| <20 | 2(15.4) | 11(84.6) | |
| 20-29 | 14(13.6) | 89(86.50 | 0.064 |
| 30-39 | 2(6.70 | 28(93.3) | |
| 40-50 | 0(0) | 4(100) | |
| Total | 18(12.0) | 132(88.0) | |
| Level of Education | | | |
| None | 1(3.1) | 144(96,90 | |
| Primary | 1(3.3) | 89(86.5) | 0.069 |
| Middle | 4(25.0) | 12(75.1) | |
| Matric | 22(42.3) | 30(57.70 | |
| Intermediate | 7(50.0) | 7(50.0) | |
| Graduation | 2(66.7) | 1(33.3) | |

Most of the attendees, 55.6% preferred to carry out breast self-examination in the bathroom while 33.3% performing it when lying on the bed. Those who have carried out breast self-examination 94.4% carried it out by her while some (5.6%) preferred it to be done by a doctor/nurse. Sixty seven percent attendees check lump, 5.6% change in breast skin color and 27.8% for both signs while doing this procedure. The attitude of the women upon finding a positive sign is 55.6% will seek medical help, 33.3% will tell her spouse and 11.1% would like to share these information with her mother. (Table3)

| **Table- 3 Antenatal Attendees Knowledge and Practice of BSE** | |
|---|---|
| **Variable** | **% of correct answers** |
| Q1:Have you ever heard of breast cancer | 80% |
| Q2:Can you identify early symptoms of breast cancer | 23.30% |
| Q3:early diagnosis improve outcome of treatment | 83.30% |
| Q4:Have you ever heard of SBE | 12.00% |
| Q5:at what age BSE should start | |
| <19 | 8.70% |
| >19 | 15.30% |
| Don't know | 76% |
| Q6: How often it should be performed | |
| weekly | 13.90% |
| monthly | 76.30% |
| yearly | 9.80% |
| Q7:At what time BSE should be done | |
| Anytime in month | 66.70% |
| on every 5th day of menses | 16.70% |
| don't know | 16.70% |
| Q8:BSE can be done during | |

| | |
|---|---|
| Bath | 55.60% |
| Lying in bed | 33.30% |
| Don't know | 11.15 |
| Q9:How do you do BSE | |
| By palpating with finger(self) | 94.40% |
| By nurses and doctors | 5.60% |
| Q10:What do you check in BSE | |
| Lump | 66.70% |
| change in colour | 5.60% |
| Both | 27.80% |
| Q11: When you identify an abnormality in breast. What would you do | |
| Tell mother/mother in law | 11.10% |
| Tell spouse | 33.30% |
| consult doctor/nurse | 55.60% |

## DISCUSSION

Breast self-examination (BSE) provides an inexpensive method for early detection of breast tumors, thus knowledge and consistent practice could protect women from severe morbidity and mortality due to breast cancer[13.]

This study assessed the knowledge and practice of breast self-examination among antenatal attendees in tertiary care hospital in Karachi. As no data available of studies in antenatal attendees, we are comparing our study to similar studies in different groups of women. A small percentage of the women (12.0%) had knowledge about BSE .This Is much lower than 85.5% of women studied in Port Harcourt and 50% of those studied in South Africa[14,15.] The knowledge is however equals to 11.9% of women in China who were aware of BSE[16.] The reason for this difference may be the fact that 98% of women studied in Port Harcourt were highly educated while 90.1% of the women participated in the study in China belong to a rural area.

In our study, level of education of attendees and their awareness of breast self-examination showed a direct association with each other. Women with higher education were found to have more knowledge about BSE. This is same as in studies carried out in student nurses in Saudi Arabia and health workers in Iran[17,18.] In our study, a small percentage of women reported about practicing BSE, this is higher than women in study in United Emirates, South Asia and Brazil[19, 20, 21.]

The results of our study showed that participants had rather poor knowledge of breast cancer and BSE. This may be one of the reason of late reporting and diagnosis of breast cancer patients. Poor practice of BSE seen (1.3% to 2.9%) in over 70% of women attended a well person's clinic program[22]. This low level of knowledge was found to be directly associated with early detection of signs of breast cancer (23.3%), age of starting BSE(15.3%), method and position of performing BSE and the most suitable time to perform BSE(16.7%) but 66.7% women see breast lump as a warning sign for breast cancer. We can compare these finding with a study conducted in Nigeria about awareness of cancer. The study showed only 33%recognized breast lump as a warning sign and the knowledge of methods of early detection was also very low[23.] Another study in Turkey revealed very poor knowledge of participants about BSE. In this study only 13.5 % knew about the proper time of BSE, 21.8% know about the frequency of BSE and 26.6% know the correct method of BSE[24.]

The main factor responsible for this ignorance of breast cancer is lack of education along with the attitude of society which still regard it a shameful secret. More vigorous efforts are

needed to aware the masses about open discussions regarding this critical issue. For example in Egypt, religious leaders now speak out in favor of breast cancer awareness and screening, making it clear to husbands that their wives must be examined regularly[25.]
Another issue about the gap between knowledge and practice can be addressed by making public friendly awareness programs and applying them at gross root levels. This awareness program should be run on consultation clinics along with the referral services available to all the clinics. It would be better if these programs collaborated with practical and consultation session and effective referral pathway for the special cases as going to be practiced in middle-income countries in South America, Eastern Europe and Asia[25.]

## CONCLUSION

Our study indicates that the knowledge of the participants as well as practice of BSE were poor in the study population. The factors which were found to be responsible for this are lack of education and awareness about correct method of BSE, signs and symptoms of breast cancer and lack of support from parents, spouse or friends regarding this. However, knowledge, attitude and practices of BSE can be promoted by running an effective awareness campaign and by removing and splitting the barriers at societal level. Health care professionals needed to be involved in convincing the public especially the high risk women. Similarly, the community, family members especially the spouse and in-laws should be involved in the program to enhance the commitment regarding breast cancer among women along with general population.

### Recommendation:

Further studies are needed to have an accurate view of the gaps on knowledge of breast cancer and breast self-examination. This will help to achieve a higher level of commitment and better attitude towards breast self examination in women of child bearing age which will result in an early diagnosis and management of breast cancer in this group of population.

## REFERENCES


1. Dündar EP, 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. BREAST CANCER, PREGNANCY,AND BREASTFEEDING *This document was developed by the Breast Disease Committee and approved by Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.*
3. Alberktsen G, Heuch I, Kvale G.The short term and long term effect of a pregnancy on breast cancer risk: a prospective study of 802457 Norwegian women. Br J Cancer 1995;72(2):480-4.
4. . Newcomb PA, Storer BE, Longnecker MP, Mittendorf R, Greenberg ER, Willett WC. Pregnancy termination in relation to risk of breast cancer. J Am Med Assoc 1996;275(4):283-7.
5. Schecter A, Ryan JJ, Papke O. Decrease in levels and body burden of dioxins, dibenzofurans, PCBS, DDE, and HCB in blood and milk in a mother nursing twins over a thirty-eight month period. Chemosphere 1998;37(9-12):1807-16.
6. Chang YT, Loong CC,Wang HC, Jwo SC, Lui WY. Breast cancer and pregnancy. Chung Hua I Hsueh Tsa Chih Taipei 1994; 54(4):223-.
7. Petro-Nustas W, Mikhail BI. Factors associated with breast self-examination among Jordanian women. Public Health Nurs 2002;19:263-71.
8. Pregnancy and Breast Cancer Risk - National Cancer Institute. This fact sheet describes what is known about the relationship between pregnancy and breast cancer risk. It also describes breast cancer risk factors that *www.cancer.gov/cancertopics/factsheet/Risk/pregnancy.*
9. *Certain GK. Motivational factors in Breast self examination Cancer Nurs 1989:12;250-6.*
10. Petro-Nustas W,Mikhail BI. Factors associated with breast self examination

among Jordian women. Public Health Nurs.2002;19;263-71.
11. Harvey B.J., Miller,A.B., Baines,C.J., and Corey, P.N. Effect of breast self-examination techniques on the risk of death from breast cancer. CMAJ 1997; 157(9), 1205-1212.
12. Park K. In Park's Textbook of Preventive and Social Medicine. 17th edition. Banarsidars Bhanot Publishers Jabalpur, India.2002: 285-286.
13. Franek GA,Nowak-Kapusta ZE and Cabaj M. Breast Cancer prophylaxis among nurses.Wiad lek.2004; 57 Suppl: 82-84
14. Jebbin NJ and Adotey JM. Attitudes to knowledge and practice of breast self-examination (BSE) in Port Harcourt. Niger J Med. 2004; B(20):166-17
15. Pillay Al. Rural and Urban South African women's awareness of cancers of the breast and cervix .Ethn Health.2002; 7(2): 103-114.
16. Li B, Report on reproductive health survey.China Popul. Today 1999; 16(3): 2 – 9.
17. Alsaif AA. Breast self-examination among Saudi female nursing students in Saudi Arabia Saudi Med J.2004; 25(11): 1514 - 1518.
18. Haji Mahmoodi M, Montazeri A, Jarvandi S, Ebrahim M, Haghighat S and Harirchi I. Breast self-examination: Knowledge, attitudes, and practices among female health care workers in Tehran,Iran. Breast J.2002; 8(4): 222 - 225.
19. Bener A, Alwash R, Miller CJ, Denic S and Dunn EV. Knowledge, attitude and practice related to breast cancer screening; a survey of Arabic women J Cancer Educ.2001; 16(4): 215 – 220.
20. Choudry UK, Srivastava R and Fitch MI.Breast cancer detection practices of South Asian women. Knowledge, attitudes and beliefs. Oncol Nurs Forum.1998 ;25(10): 1693 -1701.
21. Odusanya O O. Breast cancer: knowledge, attitude, and practices of female school teachers in Lagos Nigeria. Breast J. 2001; 7(3): 171 – 175. *Annals*
22. Hisham AN and Yip CH (2004). Overview of breast cancer in Malaysian women: a problem with late diagnosis. Asian J Surg, 27, 130-3.
23. Uche E (1999). Cancer awareness among a Nigerian population.Doct, 29, 39-40.
24. Karayurt Ö, Özmen D, Çetinkaya A (2008). Awareness of breast cancer risk factors and practice of breast self examination among high school students in Turkey. BMC Public Hlth, 8, 359.
25. Coughlin SS and Ekwueme DU (2009). Breast cancer as a global health concern. Cancer Epidemiol, 33, 315-8.

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A SUCCESSFUL MAN IS ONE WHO CAN LAY A FIRM FOUNDATION WITH THE BRICKS OTHERS HAVE THROWN AT HIM.

***DAVID BRINKLEY***

I'VE FAILED OVER AND OVER AND OVER AGAIN IN MY LIFE AND THAT IS WHY I SUCCEED.

**MICHAEL JORDAN**