



A STUDY ON ATTITUDE TOWARDS AND PRACTICE OF BREAST SELF EXAMINATION AMONG FEMALE STUDENTS IN TELANGANA, INDIA.

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Abstract:

Introduction: Breast Cancers are the most common cancers among women. Thus, early detection and proper intervention is essential. Regular breast self examination (BSE) is one among the three most recommended screening tests. BSE is an easy, non-invasive and self monitoring procedure.

Consequently, this study was done with an aim to determine attitude towards BSE, evaluate number of females who used BSE and among them who did so correctly, and to create awareness about breast cancers.

Methods: Questionnaire based, cross-sectional descriptive study conducted for a period of 2 months with a study population of 381 female undergraduate students.

Results: Majority of respondents believed that BSE was an important tool to diagnose breast cancers (95.5%) and that early diagnosis by BSE would result in successful prevention and control (89.8%).

Mere 17.6% stated that they performed regular BSE. Among them, conducting BSE with shoulders straight and hands on hips (60.3%), in lying down position (64.7%), standing position (67.6%) and during bath (61.8%) was done by many.

Conclusions: Most of the respondents showed a positive attitude towards BSE but the practice of BSE was found to be poor. Majority of the practicing women used the right technique.

Spreading awareness about the benefits and misconceptions about BSE would aid in improving practice of BSE.

Key words: Health Behavior; Health promotion; Preventive Medicine; Public Health.

Introduction:

Breast Cancers being the most common cancers among women lead to high morbidity and mortality. Thus, early detection and proper intervention is essential. Regular breast self examination (BSE), clinical examination and mammography are the three most recommended screening tests⁽¹⁾. Unlike clinical examination which requires the services of a specialist doctor and hospital visits, and mammography and scans which are reliant on technology and expensive; BSE is an easy, straightforward, trouble-free, non-invasive, non-hazardous, and self monitoring procedure which women can perform on themselves in utmost privacy.

By performing BSE, women become familiar with both the appearance and feel of their breast and therefore can detect any changes in their breasts as early as possible⁽²⁾. Many studies have established a connecting link between performance of BSE and early detection of breast cancer⁽³⁾. There is also evidence that most of the early breast tumors are self-discovered⁽⁴⁾. Studies have also found that BSE can be an important way to find cancer in young women⁽⁵⁾.

Consequently, this study was done to

i. Determine attitude towards BSE,

ii. Evaluate number of females who used BSE and among them who did so correctly,

iii. Create awareness about breast cancers - risk factors, causes, signs & symptoms and preventive and control methods.

Methods

Questionnaire based, observational, cross-sectional descriptive study conducted for a period of 2 months. Study population includes female undergraduate students in the age group of 18-24 years from various professional colleges. Any female faculty, staff, employees and others were not included in the study.

Four hundred and seven female students volunteered to take part in the study. Out of 407, twenty six respondents were excluded finally as their questionnaires were either incomplete or not filled properly. Thus, the effective sample size was 381.

The study protocol and questionnaire were presented to the Institutional Ethics Committee (IEC) first and prior approval was obtained before embarking on the study.

Consent forms in the 3 common languages, were used to obtain written concurrence from those students volunteering to take part in the survey. That the individual particulars if any would be kept totally confidential was explained to the students beforehand.

After collecting the filled questionnaires, groups of female students were quickly counseled on the important facts about breast cancers and the need for them to be aware about the same from a young age. They were informed on the correct procedure and encouraged to practice BSE. They were also motivated to spread awareness among women in their homes, neighborhood and acquaintances.

The collected data was compiled, formatted, and analyzed using requisite statistical tests/software like Microsoft Excel and IBM SPSS statistics 2015.

Results

Attitude towards BSE and breast cancer:

Almost all (95.5%) respondents believed that BSE was an important tool to diagnose breast cancers. Majority

(89.8%) felt that, early diagnosis by BSE would result in successful prevention and control. Though around 73% said that they would not avoid BSE just for the fear of detecting a lump, a more positive attitude was found when it came to discussing with a doctor and family/friends, in case of such apprehensions (86.9 and 85.3%).

Outlook towards minimizing various risk factors, like lack of diet control and regular exercise (81.6%), obesity (74.0%) and alcohol and smoking (76.1%), was observed to be satisfactory.

More than 85% stated that they were willing to connect with women suffering from breast cancers and help them get their lives back on track. Most, i.e. 81.4% were willing to make the underprivileged aware about BSE. Seven out of ten were interested in reading up about BSE & breast cancer, discussing about the subject matter with family / friends and finding out about the latest in cancer advancements respectively. Results are summarized in Table 1.

Table 1: Respondents' Attitude towards BSE & Breast cancers

Questions	Yes (%)	No (%)
1 Do you think BSE is an important tool to diagnose Breast cancers?	95.5	4.5
2 Do you think diagnosing cancers by BSE, early on, results in successful prevention and control?	89.8	10.2
3 Do you feel it is very embarrassing / uncomfortable to perform BSE?	40.7	59.3
4 Do you think it is not necessary to do BSE regularly?	38.3	61.7
5 Is it best to avoid BSE due to fear of detection of lump etc.?	26.8	73.2
6 In case you have such fears, would you consult your family/friends?	85.3	14.7
7 In case you have such fears, would you consult a doctor?	86.9	13.1
8 Do you feel lump detection by BSE leads to needless and costly medical procedures?	34.4	65.6
9 Do you think that there are other better and more confirmatory methods to screen and diagnose Breast cancers?	71.4	28.6
10 In case someone has the possibility of being diagnosed with Breast cancer, is her family to blame entirely?	18.9	81.1
11 Regular exercise and diet control helps such a person?	81.6	18.4
12 If obese/overweight such a person has to reduce weight?	74.0	26.0
13 Do you think avoiding alcohol and smoking helps such a woman?	76.1	23.9
14 Do you think timely medical intervention cures a woman completely?	76.1	23.9
15 Do you think that Breast cancer ultimately leads to death?	49.6	50.4
16 Would you read up about BSE & Breast cancer from books, net, etc?	76.1	23.9
17 Would you find out about the latest in Breast cancer advancements?	69.8	30.2
18 Would you discuss about BSE & Breast cancer with family / friends?	72.2	27.8
19 Would you make the underprivileged aware about BSE?	81.4	18.6
20 Would you connect with women suffering from Breast cancers and help them get their lives back on track?	85.6	14.4
21 Would you donate for organizations helping women with Breast cancers?	85.6	14.4

From the above results it can be stated that, most of the respondents gave BSE its due importance in detecting breast cancers early on and had an optimistic attitude towards gaining more information as well as helping edify others.

Practice of BSE:

In this section, participants were instructed to first mark a YES or a NO for Question no. 1. If their answer was a NO, they were requested not to answer the rest (Questions 2-21) as those would not be applicable to them.

Out of the 381 respondents, few i.e. 68 (17.6%) answered YES and majority i.e. 313 (82.4%) answered NO. The percentage for Questions 2 - 21 were calculated only for

those 68 entries, rest 331 was kept aside for this section. The results obtained are tabularized in Table 2.

Out of the 68 who performed regular BSE, about 40 (58.8%) did so at least once a month on a specific date & time; and the encouraging aspect was that many of the girls knew the proper technique of BSE. Conducting BSE with shoulders straight and hands on hips (60.3%), in lying down position (64.7%), standing position (67.6%) and during bath (61.8%), was done by many.

Redness, soreness, rash, or unusual swelling of the breasts, any unusual discharge from the nipple, changes in size and shape and for dimpling, puckering, bulging of the skin was checked for by maximum among those who performed BSE (88.2- 91.2%).

Table 2: Practice of BSE among participants

Questions	Yes (%)	No (%)
1 Do you do regular BSE? (n=381)	17.6	82.4
2 Do you perform BSE at least once a month on a specific date & time?	58.8	41.2
3 Do you start by looking at your breasts, in front of the mirror w/o any garments on?	75.0	25.0
4 Do you keep your shoulders straight and hands on your hips?	60.3	39.7
5 Do you inspect breasts by raising your arms also, later?	77.9	22.1
6 Do you feel your breasts lying down, after this?	64.7	35.3
7 Do you use your right hand to feel left breast & vice versa?	76.5	23.5
8 Do you perform the procedure in a circular motion, covering the whole breast, and both breasts?	76.5	23.5
9 Do you also feel the underarm areas on both sides?	80.9	19.1
10 Do you use only light pressure while feeling the breasts?	72.7	27.3
11 Do you also use firm and deep pressure later on?	64.7	35.3
12 After feeling them in a lying position, do you feel your breasts in sitting/standing position again?	67.6	32.4
13 Do you look for changes in size and shape of the breasts?	88.2	11.8
14 Do you look for any dimpling, puckering, bulging of the skin?	88.2	11.8
15 Do you also look for any redness, soreness, rash, or unusual swelling of the breasts?	91.2	8.8
16 Do you try to note any change in position /inversion of the nipple(s)?	80.9	19.1
17 Do you try to look for any unusual discharge from the nipple(s)? (watery, milky, or yellow fluid or blood)	89.7	10.3
18 Do you also try and look for enlarged lymph nodes during BSE?	82.4	17.6
19 Do you prefer BSE during a bath, when skin is wet and smooth?	61.8	38.2
20 If during BSE you detect any abnormality, will you report to a specialist doctor w/o any delay?	88.2	11.8
21 Will you take every opportunity to make others aware about BSE and its usefulness?	95.6	4.4

It can be concluded that practice of BSE is abysmally low among the female undergraduate students included in the present study and among those who did there was lack of proper technique.

Discussion

Attitude towards BSE:

In the present study, it was found that only about 40% felt embarrassed / uncomfortable to carry out BSE, as compared to more than 70% who felt that BSE would make them feel embarrassed, unpleasant and funny in the study done in Malaysia⁽⁶⁾.

In the current study, majority agreed that BSE was an important means to diagnose breast cancer and approved

that early diagnosis of cancers by such self examination resulted in its successful prevention and control. Whereas, 38.3% felt that it is not necessary to do BSE regularly, around 27% and 34% though it was best to avoid BSE due to fear of detection of lump and that the same would result in needless and costly medical procedures. Likewise, in the study done among women in suburban area in Terengganu, 69.2% felt that all women should do BSE, 71% stated that they are interested to do BSE and 76.5% stated that they care about their breasts. In the same study 79.2% felt that doing BSE is a waste of time and 55% felt that that it was uncomfortable to do BSE once a month. Around 70 out of 100 preferred to avoid BSE due to worry of the diagnosis of breast cancer ⁽⁶⁾. In a study by Muluken Azage et al it was noted that 92.7% believed that breast cancer was a killer disease, and that 81.3% felt that early detection of breast cancer made it treatable ⁽⁷⁾.

On an encouraging note most subjects (76.1%, 69.8%, 72.2%, 81.4%, 85.6% and 85.6%) here, stated that they would read up about BSE & breast cancer from appropriate books, net etc, find out about the latest in cancer advancements, discuss about BSE & breast cancer with family /friends, make the underprivileged aware about BSE and connect with women suffering from breast cancers and help them get their lives back on track, respectively. Whereas, 67.5% were interested in probing for information regarding BSE from the internet, magazine and newspaper a similar 63.7% stated that they would discuss that with friends, in the study done by Rosmawati ⁽⁶⁾.

In this study, 81.6% felt that regular exercise and diet control helps, 74.0% believed that obese/overweight person has to reduce weight and 76.1% stated that avoiding alcohol and smoking helps. In comparison, in a publication by Makanjuola O.J e al among women in rural community, dieting (40%), exercise (55%), vaccination (60%) etc were stated as perceived methods of preventing breast cancer ⁽⁸⁾.

It can be concluded that most of the respondents in the current study displayed a sanguine attitude towards BSE and breast cancer, and expressed adequate curiosity in reading and updating about BSE and breast cancer. Even in the study done in Malaysia, high attitude score was obtained ⁽⁶⁾. Attitude was found to be fair in a study done in Tamil Nadu, India ⁽⁹⁾.

Practice of BSE:

Mere 17.6% stated that they performed BSE regularly, in this study. Similarly, only 14.4% stated that they practiced BSE once a month in a study carried out among Health extension workers in Ethiopia ⁽⁷⁾.

Out of the practicing respondents in this study, 58.8% stated that they performed BSE at least once a month on a

specific date & time, and that they started by looking at breasts in front of the mirror (75.0%), keeping shoulders straight and hands on the hips (60.3%), inspecting their breasts by raising arms (77.9%), examining while lying down (64.7%), and using their right hand to feel their left breast & vice versa (76.5%). Using a circular motion to swathe the whole breast (76.5%), looking for any dimpling, puckering, bulging of the skin (88.2%), looking for any redness, soreness, rash, or unusual swelling of the breasts (91.2%), looking for change in position /inversion of the nipple (80.9%), looking for any unusual discharge from the nipple (89.7%) etc were the other steps practiced. In the same way, a study by Saadoon F Al-Azmy et al obtained the following results - 65.1% stated that they examined breasts at the end of their menstrual periods (65.1%), looked at breasts in mirror with arms at sides (54.1%), examined breasts in front of mirror with arms raised over head (67.0%), looked at breasts in mirror with hands on thighs (26.6%), while lying down (36.7%), used the opposite hand to examine the breast (76.1%). Examining breast in a circular clockwise motion moving from outside in (55%), feeling for lumps, hard knots or thickening (75.2%), looking for swelling, dimpling of skin or changes in nipple (68.8%), and finally squeezing the nipple to look for any abnormal discharge (79.8%) etc were the other steps practiced ⁽¹⁰⁾.

Respondents were asked if they would report to a specialist doctor without any delay in case of detection of any abnormality while performing BSE. Majority (88.2%) replied in the affirmative. In contract to this, only 22% were ready to go to public healthcare providers in another study ⁽⁶⁾.

On the whole, it was seen that practice of BSE is found to be low in the current study. Even in various studies carried out by NH Nik Rosmawati et al, Muluken Azage et al, Roy Rillera Marzo et al and others, the actual performance of BSE was found to be low down ^(6, 7, 11). In almost all the studies, the practice score is low in spite of reasonably good knowledge about breast cancer and BSE and positive attitude, as in this one.

Thus, with this study, we can affirm that, proper education about the correct method and time of performing BSE will surely encourage more young and other age group women to practice BSE and help in early detection of breast cancer resulting ultimately in its timely prevention and control. Repeatedly, spreading the facts through various mass media platforms like radio, T.V, internet, print etc will surely help in educating the unknown.

Limitations

The study was done only over a period of 2 months and only among female undergraduate students in professional courses in outskirts of a big capital city. Moreover, the age group was restricted to 18-24 years. It was heavily skewed

towards those belonging to urban, educated and more or less well to do backgrounds. It was cross sectional one time survey with no means and time for follow up.

Hence, a certain amount of "recall or memory bias" as well as "selection bias" were there in the study.

Though empowering the female college goers was done in a quick fashion using didactic methods like short lecture-demonstrations and use of power point slides in some colleges, and group discussions in small batches of 6-12 in others.

Implications

This study focused on the approach towards BSE among undergraduate students and aimed to find out their attitude towards BSE and the practice of the same.

It was expected that this study would improve the knowledge and attitude towards BSE and in turn help improve the practice of the same. Being aware and empowered with knowledge, these students could assist in educating other women around them, thus helping those unaware. An overall increase in the knowledge, attitude and practice of BSE in the society, would eventually facilitate early detection of breast lumps/cancers and increase survival rates of those afflicted.

This study could act as a reference for relevant departments/authorities in planning some of the future awareness programs and seminars. It could prompt others to carry out more studies on the subject matter and other related areas.

Conclusion

To conclude, most of the respondents showed a positive attitude towards BSE. They also showed interest in reading, learning and educating others about BSE and breast cancer. Practice of BSE, was found to be poor. However, most of the practicing women used the right technique

Practice of BSE could be improved by properly educating young college girls about the right technique, date and time of performing BSE. Spreading awareness about the benefits and misconceptions about BSE, would certainly aid more and more girls to perform BSE regularly, thus helping largely in early diagnosis of breast cancer. Lecture-demos, group discussions, panel discussions, seminars and small workshops could be organized on a regular basis, to facilitate the same.

Further research regarding breast cancer and BSE, its practice among women with family history of breast cancer, its practice among breast cancer survivors, etc. can be taken up in future.

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Author Contribution

Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Visualization, Writing – original draft preparation: SBR. Supervision: JPA. Writing – review & editing: SBR & JPA.

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