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A CROSS SECTIONAL STUDY TO ASSESS KNOWLEDGE AND ATTITUDE CONCERNING BREAST CANCER AND BREAST SELF EXAMINATION PRACTICE AMONG WOMEN

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ABSTRACT:

It is important to assess the existing knowledge and practices related to breast cancer and its screening in the general population in order to design and initiate effective health promotion strategies for protecting and reducing mortality against breast cancer. Women must have enough understanding and knowledge about breast self-examination and breast cancer to help them in conducting breast self-examination on a regular basis and to help in the early diagnosis of the cancer if they notice any changes in their breasts. So, this study aimed to evaluate the knowledge, attitude, practice of women in Thiruvananthapuram of South Kerala regarding breast cancer and breast self-examination. Data was collected from 233 women in age group of 20 - 60 years in Kerala. All women in the study were highly aware of the breast cancer risk factors. Majority 84.6% had good knowledge about breast cancer whilst, 15.4% of them had poor knowledge about breast cancer. 165 (73.1%) participants agreed as breast cancer is preventable. 209 (92.3%) participants were agreed that female above 20 years should practice breast self-examination frequently and 191 (84.6%) participants agreed that Breast self-examination should be made mandatory for all female. 217 (96.2%) participants agreed that female must be educated about breast self-examination. This study revealed a larger proportion of respondents have heard about breast cancer and breast self-examination but with adequate knowledge of the correct procedures of breast self-examination (BSE) thereby resulting into good attitude & practice of breast self-examination (BSE).

Introduction:

Breast cancer is the most frequently diagnosed cancer and the chief cause of cancer death among females. Early detection of breast cancer aids in early treatment and thereby reducing cancer related mortality. The screening methods for breast cancer include: breast self-examination, clinical breast exam and mammography. Mammography is the effective screening method as per WHO. (1)

Breast self-examination (BSE) is a screening method that people perform the procedures on their own in an attempt to detect early breast cancer. Breast self-examination is easy to perform and cheap but despite these the rate of practice of breast self-examination is low and varies in different countries. Studies have cited the reasons for the low practice of breast self-examination which is as a result of inadequate knowledge of breast self-examination, lack of time, lack of self-confidence in their ability to perform the technique correctly, fear of possible discovery of a lump, and embarrassment associated with handling of the breast. [2] Social changes such as delayed marriage, lower fertility, decreased span of breastfeeding and the lifestyle changes increase the risk of breast cancer. (3) Breast self-examination is often carried out once in a month, between the 7th and 10th day of the menstrual cycle, to detect breast cancer at the early stages of growth thereby ensuring a better prognosis when treated. Early detection of cancer improves the quality of life of patients and chance of survival. (4)

Inadequate knowledge about breast cancer is an important factor in preventing women from visiting screening facilities, engaging in BSE and delayed treatment and thus contributing to the high morbidity and mortality rates. (5) So females must have adequate knowledge on breast self-examination and breast cancer so as to conduct breast self-examination on a regular basis and thereby aid in early diagnosis of the cancer if there is any changes in the breast. (4)

This study is aimed to evaluate the knowledge, attitude, practice of women in Thiruvananthapuram of South Kerala regarding breast cancer and breast self-examination.

MATERIALS AND METHODS

This study was a cross-sectional observational study using a self-administered questionnaire. Population in this study was all women in age group of 20 - 60 years

in Thiruvananthapuram district of Kerala. Data was collected from 233 women in age group of 20 - 60 years, but only 226 responses were included in our study since 7 responses were incomplete. Participant must be in age group of 20 - 60 years. Women in age group of below 20 years and above 60 years were excluded from the study.

The questionnaire contains twenty two questions. It was divided into four sections to assess the knowledge and attitude regarding breast cancer and breast self-examination practice among women.

Demographics section was developed to describe characteristics of women and confirm inclusion criteria of sampling. This section includes three main questions about personal background, occupation, family history and sources of information gathered. This study assessed the knowledge regarding breast cancer and breast self-examination practice. This section includes 5 questions for the assessing knowledge of women.

Attitudes section examined women's agreement with breast cancer and breast self-examination practice statements. Seven statements were included in this section. A 5-point Likert scale: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree and 5 = strongly disagree was used to assess the respondents' attitudes towards breast cancer and breast self-examination practice.

Practice section aims to investigate practice of breast self-examination among women according to their knowledge and attitudes. In this section, 10 items were used to measure the practice of breast self-examination among women. Completed surveys were coded, reviewed for accuracy and entered into the Statistical Package for the Social Sciences (SPSS 13.0 and R Software 4.5.1).

ETHICAL CONSIDERATION

Written informed consent was obtained and clearance for the study was obtained from the scientific and ethical committee constituted in Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Neyyattinkara and Thiruvananthapuram.

RESULTS**Socio-demographic characteristics**

A total 233 women were contacted through mail, social media and friends and requested to fill out the questionnaire through the Google form. A total of 233

responses were collected, of which 226 responses were completed and used for analysis. Out of these respondents, 174 (76.9%) were students, 35 (15.4%) were employee and 17 (7.7%) were housewife. Majority of the participants 183 (80.8%) were single. 17 (7.7%) participants reported having history of breast cancer and 104 (46.2%) participants reported they were gathered information from internet. (Table 1)

Knowledge regarding breast cancer and breast self-examination practice

The results showed that there was highly aware about the breast cancer among women. All women in this study could not list one risk factor for breast cancer and majority responders mentioned positive family history and women who did not breastfeed as risk factors for breast cancer. Like the risk factors, participants were asked to list at least one symptom of breast cancer known of or they had heard of. Discharge from the breast or nipple, change in size of breast or nipple, lump in the breast and pain in the breast or nipple were the most listed as a major symptom of breast cancer. 53.8 % responded that self-breast examination is the best method for early diagnosis of breast cancer and it should be started from 30 years. Most of them 191(84.6%) reported that breast cancer can be cured if it is detected early. Only 35(15.4%) of them believed that breast cancer is not curable. Majority 84.6% had good knowledge about breast cancer whilst, 15.4% of them had poor knowledge about breast cancer. (Table.2)

Attitude regarding breast cancer and breast self-examination practice

The results shows that study participant has better attitude regarding breast cancer and breast self-examination practice.165 (73.1%) participants agreed as breast cancer is preventable and most of them (88.5%) agreed that early diagnosis of breast cancer increases the chance of recovery. Only 78 (34.6%) participants have positive attitude breast cancer is not related with personal hygiene.209 (92.3%) participants were agreed that female above 20 years should practice breast self-examination frequently and 191 (84.6%) participants agreed that Breast self-examination should be made mandatory for all females. 217 (96.2%) participants disagreed that breast self-examination is against my

religious/cultural belief. 217 (96.2%) participants agreed that female must be educated about breast self-examination.(Table.3)

Practice of breast self-examination

From the result it was evident that 53.8% of respondents perform BSE and the reason for not performing was they don't have any problem and was unaware of the need. 80.8% says that reason for performing BSE is to diagnose breast cancer at early stage.38.5% of participants perform BSE by feeling the breast with hand. 53.8% perform BSE annually. 76.9% of the participants see physician if there is any abnormality.(Table 4)

Socio-Demographic Details	Frequency(n=226)	Percentage (%)
Age		
o 20 – 30	217	96.2
o 31 – 40	9	3.8
o 41 – 50	0	0
o 51 – 60	0	0
Marital status		
o Single	183	80.8
o Married	35	15.4
o Divorced	0	0
o Widowed	8	3.8
Occupation		
o Employee	35	15.4
o House wife	174	76.9
o Student	17	7.7
History of breast cancer in family		
o Present	209	92.3
o Absent	17	7.7
Sources of information		
o Friends	52	23.1
o Family member	17	7.7
o Doctor	9	3.8
o Newspaper	9	3.8
o Television	35	15.4
o Internet	104	46.2
o Social campaign	0	0

Table 1: Socio-demographic details

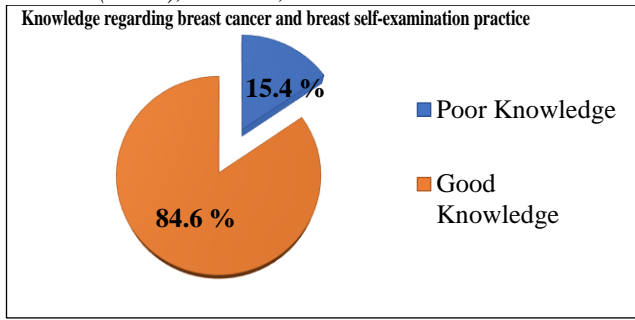


Figure 1: Knowledge regarding breast cancer and breast self-examination practice

Questionnaire	Frequency	Percentage
K4: Age at which BSE should be started	0	0
o From birth	104	46.2
o From 30 years	26	11.5
o From puberty	26	11.5
o After menopause	70	30.8
o From 20 years		
K5: Do you think that breast cancer can be cured if it is detected early?	191	84.6
o Yes	35	15.4
o No		

Table 2: Knowledge regarding breast cancer and breast self-examination

Questionnaire	Frequency	Percentage
K1: Risk Factors of Breast Cancer	113	50
o Positive family history	43	19.2
o Late menopause	26	11.5
o Unmarried or without children	104	46.2
o Non-lactating women (during lifetime)	35	15.4
o Old age	43	19.2
o Early menarche	78	34.6
o Consumption of fatty food	43	19.2
o Hormone replacement therapy	70	30.8
o Oral contraceptives	52	23.1
o Lack of physical exercise	35	15.4
o Obesity	96	42.3
o Smoking	52	23.1
o Exposure to radiation		
o Fatty diet		
K2: Signs of breast cancer		
o Inverted nipples	78	34.6
o Dissimilarity in size of breast or nipple	70	30.8
o Puckering or dimpling of breast size	78	34.6
o Pain in the breast or nipple	104	46.2
o Lump or thickening under armpit	96	42.3
o Discharge from the breast or nipple	130	57.7
o Change in size of breast or nipple	122	53.8
o Lump in the breast	130	57.7
K3: Best method for early diagnosis	0	0
o By using FNAC	43	19.2
o Mammography	122	53.8
o Self-Breast Examination	0	0
o Ultrasound	61	26.9
o By doctor		

Questionnaire	Frequency	Percentage
A1: Breast cancer is preventable		
• Agree	165	73.1
• Disagree	17	7.7
• Neither agree nor disagree	44	19.2
A2: Early diagnosis of breast cancer increases the chance of recovery.		
• Agree	200	88.5
• Disagree	9	3.8
• Neither agree nor disagree	17	7.7
A3: Breast cancer risk can be reduced by improving personal hygiene.		
• Agree	78	34.6
• Disagree	78	34.6
• Neither agree nor disagree	70	30.8
A4: Female above 20 years should practice breast self-examination frequently.		
• Agree	209	92.3
• Disagree	0	0
• Neither agree nor disagree	17	7.7
A5: Breast self-examination should be made mandatory for all females.		
• Agree	191	84.6
• Disagree	9	3.8
• Neither agree nor disagree		11.5
A6: Breast self-examination goes against my religious/cultural belief.		
• Agree	9	3.8
• Disagree	217	96.2
• Neither agree nor disagree		
A7: Female must be educated about breast self-examination.		
• Agree	217	96.2
• Disagree	0	0
• Neither agree nor disagree		

Table 3: Attitude regarding breast cancer and breast self-examination practice

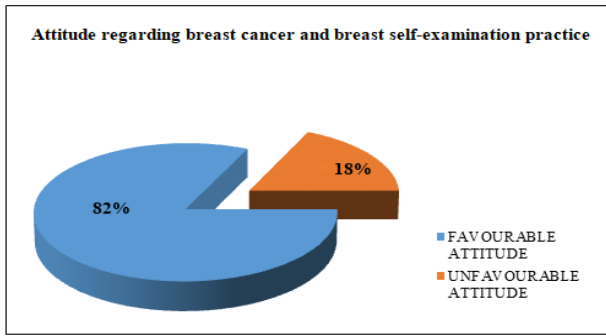


Figure 2: Attitude regarding breast cancer and breast self-examination practice

Questionnaire	Frequency	Percentage
P1: Do you practice breast self-examination:	122	53.8
○ Yes	104	46.2
○ No		
P2: If not, what is the reason		
○ Unaware of the need	70	30.8
○ Don't have any breast problems	70	30.8
○ Don't know how to do BSE	17	7.7
○ Don't think I should	17	7.7
○ Others	52	23.1
P3: What is the reason for performing BSE:	183	80.8
○ To diagnose breast cancer at early stage,if any	17	7.7
○ I have family history of breast cancer	26	11.5
○ I just feel like doing it.		
P4: How often do you perform BSE:	52	23.1
○ Monthly	9	3.8
○ Every 6 month	17	7.7
○ Annually	122	53.8
○ When it comes to my mind	9	3.8
○ Within 2-3 days after a session of menstruation	17	7.7
○ Few days before menstruation starts		
P5: When did you last done the BSE:	14	7.7
○ Between 3-6 months ago	14	7.7
○ Between 6 month – 1yr ago	104	46.2
○ Less than a month ago	8	38.5
○ More than a year		
P6: How do you perform BSE:	52	23.1
○ Inspecting the breast in the mirror	88	38.5
○ Feeling the breast with hand	0	0
○ Feeling the armpit with hand	78	34.6
○ During shower	8	3.8
○ On the bed lying down		

P7: What will you do if there is any abnormality in BSE:	26	11.5
○ Leave it to God and pray	174	76.9
○ See a physician	26	11.5
○ Do nothing		
P8: How you perform BSE in front of mirror:	35	15.4
○ Place hand on hip, press down & make the chest muscle tense	35	15.4
○ Raise the arm above/behind the head	9	3.8
○ Squeeze each nipple gently for any discharge	26	11.5
○ Start with arms at sides	121	53.8
○ All of the above		
P9: How do you perform BSE during shower:	43	19.2
○ Start by raising arm behind head	35	15.4
○ Use the pad of the hand to examine the breast	52	23.1
○ Use soapy hand to press firmly on the breast against the chest wall	96	42.3
○ All of the above		
P10: How do you perform BSE on bed lying down:	52	23.1
○ Place a pillow under the shoulder of the side to be examined	52	23.1
○ Use lip of the hand to examine the breast.	122	53.8
○ All of the above		

Table 4: Practice of breast self-examination

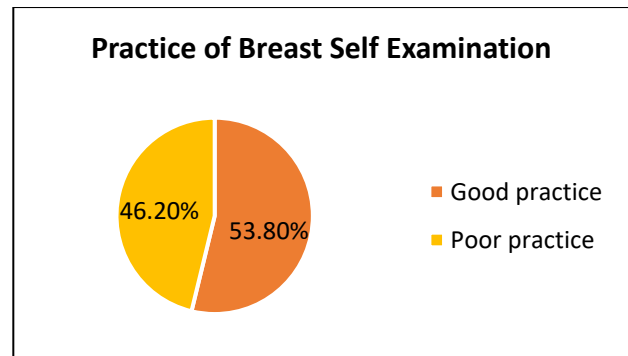


Figure 3: Practice of breast self-examination

DISCUSSION

Breast cancer is one of the leading causes of death as it is detected in the late stages in India. Lack of awareness regarding the risk factors and breast self-examination acts as the causing factor for late diagnosis. The results of this study suggest that the patients have good knowledge of breast cancer and know about the breast cancer signs and symptoms and self-examination procedures. This may be unsupported by Okabia et al.^[8] and Yerpude et al.^[9]. In our current study, the patients more were in the age group of 20–30 years 217(96.2). Age is also related to the level of awareness as described by Yerpude et al.^[9]. Among 226 patients, many people had known about the symptoms of breast cancer unsupported by Khadilkar et al.^[10]. Only 17 (7.7%) respondents have positive family history which is very less than the study done by Azubuike et al.^[11]

Our study suggest that most of respondents had good attitude that early diagnosis of breast cancer increases the chance of recovery, this findings were similar to the study of et Nehad J. Ahmed et al,^[6]and they were aware that breast cancer is preventable. In this finding, most of participants had a positive attitude towards breast self-examination, which is comparable with the study of Abay M et al,^[2]

In our study majority of participants (53.8%) practice BSE and only 3.8% of the participants perform it every 6 month it is similar to the results of study conducted by Chepkwurui Joyce et al.⁽¹⁾ where 41.4% of the participants had never done so and 32.6% of those who had ever practiced Breast Self-Examination reported that they last did it a month ago. Only 16.9% of this reported that they do BSE monthly while the practice among 33.7% respondents was depended on when they remembered to do it or whenever they felt unwell. In our study majority is aware of various BSE practices it is similar to the result of Aminah Allohaib et al.⁽¹²⁾ where 69.6% of participants knowing how to do a self-examination.

CONCLUSION

This study revealed a larger proportion of respondents have heard about breast cancer and breast self-examination but with inadequate knowledge of the correct procedures of breast self-examination (BSE) thereby resulting into poor attitude & practice of breast self-examination (BSE). This challenge therefore indicates an urgent need for continuous awareness and sensitization programs in the communities, as well as

the review of high school subject curriculum to include breast self-examination (BSE) teaching and practice & general sexual and reproductive health programs. There is need for the development of more efficient educational programs aiming at demonstrations of the correct procedures of breast self-examination (BSE) so as to enhance early detection of breast cancer and proffer prompt treatments to reduce the mortality rate of the breast cancer.

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AUTHORS' CONTRIBUTIONS

All the authors played an equal role in conception, data collection, data analysis, methods, results, article drafting, and final manuscript preparation under the supervision of our guide.

CONFLICTS OF INTEREST

The authors affirm no conflicts of interest, finance, or otherwise.

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