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# A study of awareness and practices regarding breast cancer among women of self help groups in rural Puducherry.

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## ABSTRACT

**Background:** Breast cancer is a major cause of morbidity and mortality among females throughout the world. In India, the cancers are the third important cause of mortality and the cases of breast cancer are steadily rising in the recent decades. **Objective:** To study the awareness and practices about breast cancer among women of SHGs in rural Puducherry. **Materials and methods:** The community based cross sectional study with both quantitative and qualitative technique, was conducted in four villages which come under the field practice area of Rural Health Training Centre (RHTC), department of Community Medicine. Two Focus Group Discussion (FGD) was conducted with 8-12 participants in each group. Information from the SHG women regarding socio-demographic characteristics, awareness regarding breast cancer and practice of Breast self examination (BSE) was collected **Results:** Nearly half of the SHG women were in the age group of 25-40 years while only 46.4% of women found to have finished their higher secondary education. The SHG women were aware regarding lump (33.9%), pain (20.5%) followed by change in the size of the breast (14.7%). Majority of SHG members (97.6%) had not heard about mammogram as a method of screening method of Breast cancer. The awareness of BSE was about (20.08 %). Majority (90.8%) of the study population have not received demonstration on BSE. Only 14.8% of SHG women knew the importance of BSE in early diagnosis. The awareness and practice of BSE among these SHG women was quite less in the present study. Manual content analysis of FGD revealed that SHG women perceived increase in magnitude of breast cancer and lifespan depends on detection and treatment.**Conclusion:** Awareness of breast cancer, screening methods and practice of BSE were found to be less in SHG member women.

**Key Words:** Self help groups, women, breast cancer, BSE

## INTRODUCTION

Cancer is one among the cause for increasing mortality rates among both sex worldwide.[1,2]. Breast cancer is a major cause of morbidity and mortality among females throughout the world.[2] This represents about 12% of all new cancer cases and 25% of all cancers in women.[2] In India, the cancers are the third important cause of increasing mortality rate causing about 0.4 million deaths per annum.[3]

Persistent efforts in the United States have resulted in early diagnosis & decrease in the death rates due to breast cancer.[2] In India, the cases of breast cancer are steadily rising. Among the states of India, Karnataka, Kerala and Tamilnadu have a consistently higher age adjusted rates (AAR) in women compared to men cancer. Breast cancer incidence in Tamilnadu is about 32.6 % among all population-based cancer registries (PBCR).[4]

The lifestyle changes, lack of awareness, poverty and access to treatment facility in various regions are behind large number of deaths due to breast cancer in India. Most of the breast cancer patients seek medical advice when the disease is in advanced stage resulting in poor survival and high mortality rates.[5,6] Early diagnosis with a minimal expenditure of cost is possible by providing awareness regarding breast cancer, their symptoms, risk factors, protective factors and getting family support.[7,8]

Women of self help groups (SHGs) can play crucial role as potential resource persons for the dissemination of information related to different health issues to other women in the villages.[9] Thus present study was planned to study the awareness and practices regarding breast cancer among women of self help groups in rural Puducherry.

**Objectives:**

To study the awareness and practices about breast cancer among women of SHGs in rural Puducherry.

## MATERIAL AND METHODS

**Place of study:** The present cross sectional study was conducted in four villages which come under the field practice area of Rural Health Training Centre (RHTC), department of Community Medicine. The villages were Seliamedu, Seliamedu Pet and Kudiyarupupalayam and Aranganoor. During data collection, all SHGs were contacted personally with prior appointment and purpose of the study was explained. Later on, SHG members were contacted randomly from the study area to meet the required sample size.

**Study population:** SHG member women in the study area who were willing and gave consent to participate in the present study.

**Study period:** August – September 2016 (2 months).

**Study instrument:** A pre-tested questionnaire was used to interview SHG member women after obtaining their informed consent.

**Study design:** The present study was a community based cross-sectional study with both quantitative and qualitative technique (Focus Group Discussion).

**Sample size:** The sample size is calculated using OpenEpi version 3.01. A minimum sample size of 249 SHG women are required for the study considering prevalence of awareness about early sign of breast cancer as lump in breast or bleeding from nipple of breast (One of the major symptom faced by breast cancer patient) was 79.7% in a study by Gandhi PH from Bhavnagar Gujarat, India.[10], absolute precision as 5% and confidence levels as 95% (5% alpha error).

**Inclusion criteria:** Women who are member of SHGs in the study area and who were willing and gave consent to be a part of the study.

**Exclusion criteria:** Those SHG member women who went out of station at the time of study investigator's visit and who did not give consent for study were excluded.

**Data collection procedure:** The quantitative data was collected by study investigator by visiting the selected villages and meeting SHG member women randomly and interviewing them on one to one basis using a pre-tested questionnaire. Information from the SHG women regarding socio-demographic characteristics, awareness regarding breast cancer and practice of Breast self examination (BSE) was collected.

Qualitative data regarding awareness, perception regarding breast cancer, awareness of different diagnostic methods, source of information, barriers and facilitating factors for BSE has been collected in the form of focus group discussions (FGDs). For this purpose 2 FGDs till point of saturation (40-45 minutes each) have been conducted by the study investigator and facilitated by study guide trained in qualitative research. Each FGD had 8-12 SHG women who were willing to participate and were able to talk freely.

**Statistical analysis:** The quantitative data entry was done in Microsoft excel while analysis was done by using Microsoft excel and Statistical Package for the Social Sciences for Windows (SPSS Inc., Chicago, Illinois, USA) version 17.0. The data has been presented in the form of numbers, distribution and percentages in tables and figures. Suitable statistical test (according to nature and distribution of data, e.g. chi-square test) was applied to assess the significance of study findings. $p<0.05$ was considered as statistically significant. The content analysis of FGDs has been done manually. The independent variable includes age, respondent's education, family type and social-economic status etc. The dependent variables include the awareness and practices of SHG women regarding breast cancer.

**Ethical consideration:** After acceptance of study proposal by Indian Council of Medical Research (ICMR), New Delhi, the study protocol has been cleared by Institutional Research Committee (IRC). Later ethical permission has been obtained from Institutional Human Ethical Committee (IHEC) before conducting the present study. All individual information collected has been kept confidential by the researcher and study guide.

## RESULTS

The general characteristics like socio-demographic profile of the study participants, majority of them were belonging to Hindu religion and most backward (MBC) and schedule caste (SC). Nearly half of the SHG women were in the age group of 25-40 years while only 46.4% of women found to have finished their higher secondary education. Majority (57.6%) of the SHG women were homemakers and about 1/3$^{rd}$ (31.2%) of them were involved in farming and daily wage labour activities. The age of marriage was between 18-24 years in about 65.2% of SHG women while about quarter (24%) of them had marriage before 18 years and among them majority of the SHG women were belonging to family Class IV (31.6%) and Class III (30%) followed by class V (22.4%) as per modified B.G. Prasad Classification. The studies revealed that majority of the SHG women were having 1-2 children.

We found that SHG women (aware about breast cancer, N=156) were aware regarding different symptoms, risk factor and protective factors for breast cancer. The symptoms they know were lump (33.9%), pain (20.5%) followed by change in the size of the breast by 14.7% of SHG women. Nearly 1/3$^{rd}$ (28.8%) of the SHG women were not able to tell a single symptom of the breast cancer. Majority of SHG members (97.6%) had not heard about mammogram as a method of screening method of Breast cancer. Comparatively the awareness of BSE was higher about (20.08 %), but still (80.4%) have not even heard about the term BSE. It was noticed that only 12.8% of SHG women ever had attended any health education on breast cancer. Among these, the maximum number of (78.1%) sessions were hosted by doctors and remaining (21.8%) by ANMs. Discussion with family members about breast cancer was not done in majority (91.2%). of the study population. (Table 1)

According to the results derived from the above figure source of awareness about breast cancer is from TV in (49.3 %) which represents nearly half of the study population, then about (16%) have gained information from

**Table 1. Respondent's awareness regarding breast cancer**

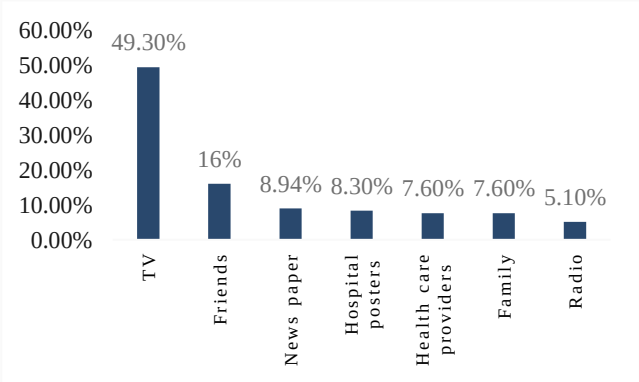
| Awareness | Number(n) = 250* | (%) Percentage |
|---|---|---|
| **Know about breast cancer ( N = 250 )** | | |
| Yes | 156 | 62.4 |
| No | 94 | 37.6 |
| **Symptoms occur in breast cancer (N=156)*** | | |
| Change in size | 23 | 14.7 |
| Pain | 32 | 20.5 |
| Lump | 53 | 33.9 |
| Change in shape of nipple | 0 | 0 |
| Discharge from nipple | 1 | 0.6 |
| Heaviness under armpit | | |
| Other | 2 | 1.2 |
| Don't know | 45 | 28.8 |
| **Risk factors for breast cancer (N= 156)*** | | |
| Contraceptive pill | 5 | 3.2 |
| Hormone therapy | 2 | 1.2 |
| Hereditary | 7 | 4.4 |
| Smoking | 29 | 18.5 |
| Age | 7 | 4.4 |
| Irregular menses | 6 | 3.08 |
| Infertility | 2 | 1.2 |
| Nutrition | 6 | 3.08 |
| Other | 7 | 4.4 |
| Don't know | 85 | 54.4 |
| **Protective factors for breast cancer ( N= 156)*** | | |
| Breast feeding | 69 | 44.2 |
| Nutrition | 5 | 3.2 |
| Exercise | 0 | 0 |
| Regular menses | 1 | 0.64 |
| Pregnancy before 40 yrs | 0 | 0 |
| Early marriage | 0 | 0 |
| Other | 4 | 2.5 |
| Don't know | 77 | 49.3 |
| **Diagnostic methods (N=156)** | | |
| Heard of mammogram | | |
| Yes | 6 | 3.8 |
| No | 150 | 96.2 |
| Heard about breast self examination (N=156) | | |
| Yes | 49 | 31.4 |
| No | 107 | 68.6 |
| **Session on breast cancer** | | |
| Yes | 32 | 12.8 |
| No | 218 | 87.2 |
| **Source of Information (N = 32)** | | |
| Doctor | 25 | 78.1 |
| ANM | 7 | 21.8 |
| Others | 0 | 0 |
| **Discussion with family members** | | |
| Yes | 22 | 8.8 |
| No | 228 | 91.2 |

their friends followed by newspaper and hospital posters (8.3%) and from doctor (5.1%) . (Fig.1)

**Table 2. Practice and perception of breast self examination**

| Breast self examination | Number(n) = 250* | (%) Percentage |
|---|---|---|
| **Received Demonstration on BSE (N= 250)** | | |
| Yes | 23 | 9.2 |
| No | 227 | 90.8 |
| **Source of Information (N= 23)** | | |
| Doctor | 19 | 82.6 |
| ANM | 3 | 13 |
| AWW | 0 | 0 |
| Friend | 0 | 0 |
| Others | 1 | 4.3 |
| **Practice of BSE (N=23)** | 12 | 52.1 |
| Yes | 11 | 47.8 |
| No | | |
| **Frequency of BSE (N=12) *** | | |
| Every day | 0 | 0 |
| Every week | 4 | 33.3 |
| Fortnightly | 2 | 16.6 |
| Monthly | 0 | 0 |
| Yearly | 2 | 16.6 |
| Often | 4 | 33.3 |
| **Importance of BSE in early diagnosis** | | |
| Yes | 37 | 14.8 |
| No | 211 | 84.4 |
| Don't know | 2 | 0.08 |
| **Role of early diagnosis and early treatment in Survival** | | |
| Yes | 112 | 44.8 |
| No | 137 | 54.8 |
| Don't know | 1 | 0.04 |

**Figure 1. Source of awareness about breast cancer**




It is notable that more than 3/4th that is (90.8%) of the population have not received demonstration on BSE. Among those women who have received demonstration they were taught by Doctor (82.6%), by ANM (13%) and by other means (4.3%). Among the women who has received demonstration (N=23) nearly (52.1%) practice but the rest (47.8%) do not practice. 33.3% of women practice BSE often and every week and 16.6 % of women do it fortnightly and yearly.

**Table 3. Association of Knowledge of Breast cancer and socio-demographic characteristics**

| General characteristics | Knowledge of breast cancer | | $X^2$ (P value) |
|---|---|---|---|
| | Yes N (%) | No (%) | |
| **Women's age** | | | |
| <25 | 9 (81.8%) | 2 (18.1%) | |
| 25-40 | 85 (70.8%) | 35 (29.1%) | 10.7964 (0.0127) |
| 41-60 | 54 (51.9%) | 50 (48%) | |
| >60 | 8 (53.3%) | 7 (46.6%) | |
| **Castes** | | | |
| OBC | 20 (62.5%) | 12 (37.5%) | |
| BC | 10 (71.4%) | 4 (28.5%) | 8.2526 (0.0409) |
| MBC | 72 (71.2%) | 29 (28.7%) | |
| SC/ST | 54 (52.4%) | 49 (47.1%) | |
| **Woman's education** | | | |
| Illiterate | 26 (38.2%) | 42 (61.7%) | |
| 1-10 | 31 (59.61) | 21 (40.38) | 28.519 (<0.00001) |
| 11-12 | 9 (64.2%) | 5 (35.7%) | |
| >13 years | 90 (77.5%) | 26 (22.4%) | |
| **Woman's occupation** | | | |
| Unemployed/ Homemaker | 98 (63.2%) | 57 (36.7%) | 0.1186 (0.7306) |
| Working | 58 (61%) | 37 (38.9%) | |
| **Mother's age at marriage (in years)** | | | |
| <18 | 43 (58.9%) | 30 (41%) | |
| 18-24 | 96 (61.1%) | 57 (37.2%) | 1.1155 (0.5724) |
| >=25 | 17 (70.8%) | 7 (29.1%) | |
| **Modified Prasad's classification of SES** | | | |
| Class I & II | 74 (57.8%) | 54 (42.1%) | 2.3527 (0.1250) |
| Class III, IV & V | 82 (67.2%) | 40 (32.7%) | |
| **Family type** | | | |
| Nuclear | 96 (61.5%) | 60 (38.4%) | 0.1313 (0.7171) |
| Joint | 60 (63.8%) | 34 (36.1%) | |

We tried to explore their perception on BSE. Only 14.8% of SHG women knew the importance of BSE in early diagnosis. Role of early diagnosis and its importance in early treatment and survival is known by (44.8%) of women. Early diagnosis as a key factor for cure of breast cancer is known by only (48.4%) of SHG women. (Table 2)

The study revealed that women's age, caste and educational level were associated with knowledge of breast cancer and the difference was statistically significant. Though women's occupation, age at marriage, socio-economic status and family type were not found to be associated with knowledge of breast cancer. (Table 3) The manual content analysis of FGDs is as mentioned in table 4.

**Table 4. Qualitative data analysis: Content analysis of Focus Group Discussions on Breast cancer**

| Category | Codes | Responses of the participants |
|---|---|---|
| **Perception on Breast cancer** | **Perception** | They think it occurs in people who don't show self-care, some think that its "**PANAKKAARA NOOI**" (disease of high society people). Breast cancer is a disease which occurs among women without any known reason. |
| | **Magnitude of problem** | Breast cancer incidence has increased, lack of knowledge among many people. |
| | **Thoughts on survival** | Time of death depends on detection and treatment. |
| **Approach** | **Action taken by women** | Women usually discuss with husband, mother, mother in law, & friends. |
| **Psychology** | **Psychologi-cal condition** | Women get depressed, and are worried about the future and thought whether their children be affected and also concerned about gossips in community. There is also fear of death among women with breast cancer & also people says that **"NAMMALA THAPPA NENAPANGA"** (people think bad about the diseased women). |
| **Health seeking pathway** | **Health care sought** | Women from rural area first consult to doctor at PHC doctor and some to private hospitals. But few may undergo naturopathy if they are not aware about seriousness of the breast cancer. Some women hesitate to open up their problems to male doctor. |
| **Responsibl-e factors** | **Causative factors** | Smoking (active/passive), lack of healthy diet , no proper breast feeding , irregular menstrual cycle , early menarche , eating chicken (Nonveg food) noodle , poor sanitation, addictions to Pan, Tobacco chewing , westernization |
| **Role of family** | **Attitude of family members** | Family members will support her morally and financially too. |
| | **Role Husband And Expectatio-n from Family** | They would expect support, "**AARUDHAL SOLLANUM"** (love & affection) and respect from family members as she gives to other members in the family. Women should be insisted and reminded for BSE. |
| **Manageme-nt of Breast Cancer** | **Early diagnosis & Early treatment** | Many women believe in early diagnosis & prevention. People verbalize it as "**KANDIPPA GUNAMAAGIDUM**"(The breast self examination can help in early diagnosis). Woman must report the doctor for change in breasts. |
| | **Treatment of Breast cancer** | The prompt treatment, Ayurvedam (Ayurveda) medicine, use of turmeric may help in early stage while surgery and other costlier modern treatment will help in later stage. |
| **Factors for BSE** | **Barriers for BSE** | Lack of awareness/interest results into failure to practice BSE. Also, "**NERAMILLAI ATHUKELLAM"**, (busy schedule) & over confidence may act as a barrier too. |
| | **Facilitatin-g factors BSE** | Husband and family support and privacy are main facilitating factors. |
| | **Practicing BSE** | Thoughts about "no risk-no need to practice BSE" if they are aware. |
| **Social restrictions** | **Restrictions followed** | They would avoid going to social gatherings, meeting people because of fear of disclosure about her health conditions. |

## DISCUSSION

The present community based cross sectional study was conducted among SHG member women regarding their awareness and practices for breast cancer. We enquired about their socio-demographic characteristics along with their awareness and practices pertaining to breast cancer and practice of BSE. This was necessary to see the current status of awareness among women as awareness is usually followed by change in behaviour in long run.

In the general characteristics like socio-demographic profile of the SHG women, majority of them were belonging to Hindu religion and most backward (MBC) and schedule caste (SC). Nearly half of the SHG women were in the age group of 25-40 years while 46.4% of

women found to have finished their higher secondary education. Similar study done by Shaista A et al from tribal area of Raigad, Maharashtra revealed that majority SHG women were Hindu from the age group of 21-35 years and were illiterate. This shows that women in South India are more educated than other part of India.[11] Majority (57.6%) of the SHG women were homemakers and about 1/3rd (31.2%) of them were involved in farming and daily wedge labour activities. The age of marriage is between 18-24 years in about 65.2% of SHG women About quarter (24%) of them had marriage before 18 years in the study area indicates about the early marriages were still prevalent and this issue has to be tackled separately. This can be done by involving religious leaders and other stakeholders in the community.

When asked about health decision taking person in the family, we found that 56.4% women themselves were taking decision while in 31.6% of cases, husband were playing important role in taking decisions. This might be because of better educational status among women in the study area. It is found that a woman become more confident and has a say in family if she is well educated. This supports the idea behind women empowerment though education.

It was found that majority (62.4%) of the SHG women were aware about breast cancer followed by cervical cancer (20.4%). It also shows that about 1/3rd (33.2%) SHG women could not tell about any cancer. Shaista A *et al* from Raigad, Maharashtra has found this awareness for breast cancer in about 93% of SHG women while Somdatta P *et al* reported it as 88% which is higher than our study findings.[11,12]

We also looked for their awareness on different symptoms, risk factor and protective factors for breast cancer. The symptoms they were aware, were lump in breast (33.9%), pain (20.5%) followed by change in the size of the breast by 14.7% of SHG women. It was very surprise to know that nearly 1/3rd (28.8%) of the SHG women were not able to tell a single symptom of the breast cancer. Whereas Somdatta P *et al* from AIIMS Delhi reported lump (42%) and pain (41%) as symptoms of breast cancer.[8] The lump (18.80%) and change in size of the breast (11.2%) as a symptoms of breast cancer have been documented by Shaista A *et al* from Raigad, Maharashtra.[11]

The source of awareness about breast cancer was from Television (TV) in (49.3 %), (16%) from their friends followed by newspaper and hospital posters (8.3%) and from doctor about (5.1%). Similarly TV was the common source of information to women in the study done by Shaista A *et al* and Somdatta P *et al*. Therefore, it is important to telecast such informative TV ads and health talk show more frequently on television.[11,12] The timings of telecasting such information must be convenient to women considering her free timing from daily routine work. Mass media, both print and electronic, social media should be unutilized for dissemination of health messages in the community. The different community based organizations can play important role in awareness programmes. Similar thought have been expressed by Gupta et al in their study conducted in Madhya Pradesh, India.[13]

About (97.6%) of SHG women from current study have not heard about mammogram which is one of the screening methods. Similar finding were reported by Shaista A *et al* and Somdatta P *et al*.[11,12] The facility of mammogram and cytology must be made available at district hospital so that detection of breast cancer at early stage can be made and better survival rate is achieved. Comparatively the awareness of BSE was higher about (20.08 %) in present study than reported by Shaista A *et al* and Somdatta P *et al*.[11,12]

The information regarding health education was found to be poor in study. The health care providers (HCPs) at public health facilities as well as private hospitals can play important role in providing health education on such issues. Demonstration of BSE can be included in activities done by HCPs. For this, all HCPs must be trained in BSE. Among the women who has received demonstration (N=23) nearly (52.1%) practice BSE. The awareness and practice of BSE among these SHG women was quite less in the present study. This might be because of the fact that majority of the study population were belonging to backward socio-economic class. SHG member's age, caste and education were found to associated with their knowledge about breast cancer. Similar results were documented by Veena *et al* among rural women.[14]

The breast cancer is very important health problem in present time. This must be discussed among women from all socio-economic class. Proper breast self examination can be taught to them by ANMs, Staff sisters and doctor by using audio-visual media and training. This will make them confident in practicing BSE. Health education session can be planned in health facility and or in the community too. Family members and school teachers can play important role in awareness programme.

**Conclusion:** Awareness of breast cancer, screening methods and practice of BSE were found to be less in SHG member women.

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