

*Original research article***FACTORS INFLUENCING EARLY DETECTION OF BREAST CANCER AMONG WOMEN IN THIRUMAZHISAI AREA - A QUALITATIVE STUDY.**Aayisha Aathila¹, Pooja Mary Vaishali L², Angusubalakshmi R³, Gomathy Parasuraman⁴¹MBBS student, Saveetha Medical College and Hospital, Thandalam., ²Post graduate, ³Assistant Professor and ⁴Professor, Department of Community Medicine, Saveetha Medical College and Hospital, Thandalam.**Corresponding Author**

Dr. Pooja Mary Vaishali. L

Post graduate

Department of Community Medicine,
Saveetha Medical College and Hospital,
Thandalam, Chennai – 602105,

Email ID : poojavaishu4995@gmail.com

Contact number : 9655253626

Article infoReceived on 8th November 2023Accepted on 25th November 2023Published on 16th December 2023<https://doi.org/10.61986/ijpem.v1.i1.2023.10>**Abstract**

Introduction: Globally, Breast cancer is the fifth main cause of cancer mortality, with 6, 85,000 deaths. The prime reason for the rise in mortality rate is the failure of early detection of the disease and absence of early detection programs. The barriers to early detection of breast cancer are multifactorial. According to various other studies conducted in India, the most important barriers are fear of cancer and lack of knowledge about the disease.

Objectives: The aim of this study is to identify the barriers and facilitators for early detection of breast cancer among women in Thirumazhisai area. This study has not been conducted in Thirumazhisai area before hence the results of this study will help us understand the factors influencing the early detection of breast cancer among women in Thirumazhisai area.

Methods and Material: A qualitative study was done among women of reproductive age (15-49) group in Thirumazhisai area. In depth interviews were conducted by using a topic guide. The interviews were then translated to English from Tamil to the closest verbatim as spoken by the participants. The data is then coded in excel sheet and analyzed by using Colazzi Thematic Analysis. The codes are then classified into various themes and subthemes.

Results: Data was collected from 15 participants. The results showed lack of awareness, fear of diagnosis, financial constraints, shyness, negligence, myths and misconceptions about the disease as the major barriers for early detection of breast cancer. Facilitating factors mentioned by the participants included awareness creation, family support and policy changes like free of cost treatment.

Conclusions: This study demonstrated lack of awareness, fear of diagnosis, financial constraints, shyness, negligence as the major barriers to early detection of breast cancer. Hence measures like conducting screening programmes and awareness programmes, free of cost treatment, and BSE should be done to increase the early detection of breast cancer.

Key words: reproductive age group, breast cancer, early diagnosis

Introduction

Globally, Breast cancer is the fifth main cause of cancer mortality, with 6, 85,000 deaths¹. In India, the incidence rate is 25.8 per 100,000 populations and it caused a total of 90,408 deaths in

the year 2020². The prime reason for the rise in mortality rate is the failure of early detection of the disease and absence of early detection programs³. Over 70% of patients with breast cancer are diagnosed at stages 1 and 2 in developed

nations, and 20% to 60% of cases are diagnosed in beginning stages in low-to middle income nations⁴.

For the early detection of breast cancer, strategies like early diagnosis and screening are used. The early diagnosis is characterized by an approach to women with initial signs and/or symptoms of the disease, while screening refers to the search of unrecognized disease by means of application of a test or examination in an asymptomatic and apparently healthy population. Mammography (MMG) and clinical breast exam (CBE) are the fundamental breast cancer screening methods that favor early cancer detection, thus increasing the chances of treatment and cure and decreasing the mortality rate⁵.

The barriers to early detection of breast cancer are multifactorial. According to various other studies conducted in India, the most important barriers are fear of cancer and lack of knowledge about the disease. Other barriers include cost of screening, fear of anticipated surgery, inconvenience of screening, unavailability of awareness programmes, cultural beliefs and habits, social stigma and so on. Measures should be taken to facilitate breast cancer screening among women by introducing government policies like mandatory screening, conducting awareness programmes, providing incentive amounts and encouragement etc.

The aim of this study is to identify the barriers and facilitators for early detection of breast cancer among women of reproductive age. The study was conducted to assess the knowledge about breast cancer and to determine the factors influencing the early detection of breast cancer. Previously, studies were not conducted in Thirumazhisai area hence the results of this study will help us understand the perceived barriers and facilitators of breast cancer among women who belong to the study area.

Material and methods

Place of study: Urban field practice area of Saveetha medical college was included in this study.

Study population: This study was done among women of reproductive age group who agreed and gave consent to participate in the present study.

Study period: 6 months (January 2022-June 2022)

Study instrument: all the participants were interviewed and simultaneously audio recorded after acquiring the informed consent

Study design: This study is a qualitative study (key-informant interview).

Sample size: 15 women who belong to the reproductive age group were interviewed after receiving informed consent. Data was collected until data saturation was achieved.

Inclusion criteria: Women of reproductive age (15-49) in the study area who agreed and gave consent for being a part of the study.

Exclusion criteria: Women who were already diagnosed with breast cancer and those who were not willing to participate were excluded from the study.

Data collection procedure: In depth interviews were conducted with the participants using a topic guide. Basic socio-demographic details (name, age, occupation, marital status, education, socioeconomic status) followed by specific questions regarding breast cancer were collected. First, questions were asked to assess the knowledge about breast cancer (risk factors, signs and symptoms, treatment modalities available, diagnostic methods, BSE, prevention) then followed by questions about the factors involved in the early detection of breast cancer (barriers and facilitators) were collected. All the interviews were tape recorded, and each interview lasted for about 10-15mins.

Data analysis: All the data collected were analyzed simultaneously. The recorded word (verbatim) of the participants has been translated to English from Tamil to the closest verbatim as spoken by the participants. The data is then coded in excel sheet and analyzed by using Colaizzi Thematic Analysis.

The codes were then classified into various themes and subthemes.

Ethical consideration: The study was approved by the Institutional Ethics Committee (IEC) of tertiary medical hospital.

Results

Sociodemographic details

The study participants were all women aged between 15 to 49 years. Educational level of the participants showed that 4(26.67%) had completed primary school, 2(13.33%) had completed high school, 4(26.67%) had completed intermediate school and 5(33.33%) were graduates. Out of the 15 participants, 3(20%) were unmarried while the rest of the 12(80%) were married. Among the study population, 12(80%) were unemployed. As far as socioeconomic status is concerned, 8(53.33%) belonged to the lower middle class, 7(46.67%) belonged to the upper middle class.

Knowledge and awareness about Breast cancer

All the participants in this study have heard the term 'breast cancer'. Majority of the women considered breast cancer to be a 'deadly disease', which is mostly 'incurable', But some of the women believed that if found early it is still a curable disease. When asked about the source of information, the majority of them said TV, newspapers and social media. Only one participant came to know about the disease through an awareness programme conducted in her neighborhood.

Risk factors: Majority of the women mentioned that older women have higher chances of developing breast cancer. A 33-year-old woman said '*I think older women get the disease more compared to younger women. I don't know why exactly but that is what they say*' (Participant 2). Many women also woman '*I believe it is incurable. At the beginning it is present in the breast but later it spreads rapidly to different parts of the body*' (participant 14).

Breast self-examination (BSE): As for BSE is concerned most of them have heard about it, while

mentioned that family history of breast cancer is a major risk factor of the disease. For instance, A 28-year-old mentioned '*I have heard that if anyone in the family has the disease then we can also get the disease...*' (Participant 1). Other risk factors mentioned by the participants included cigarette smoking, improper breastfeeding, early menarche, and less physical activity.

Signs and symptoms: Almost all of the participants mentioned pain as the most common symptom of breast cancer. Other symptoms mentioned include presence of lump in the breast, discharge from breast, swelling in the breast. A 26-year-old mentioned '*Lump will be seen. Pain will be there while pressing the breast. Discharge from the breast will be present*'. Two participants were not aware of any of the symptoms of breast cancer.

Diagnostic methods: Majority of the participants didn't know about the diagnostic methods available for detection of breast cancer. While most of them answered x-rays and scans, few knew nothing about diagnostic methods available. For instance, A 28-year-old graduate said '*Don't know! I don't know how they will diagnose breast cancer. I have not heard about it or received information regarding this*' (participant 1). While one participant mentioned Mammogram as the test to detect breast cancer.

Treatment modalities: Most of the women told surgery and medications as the two treatment modalities available. One woman said '*surgery is done to remove the lump from the breast. Medicines will be given*' (participant 6). Some of the participants mentioned chemotherapy. For instance, A 45-year-old woman said '*When it is very severe, they remove the breast or only remove the lump then chemo is given*' (participant 14). Some believed it was incurable. This is mentioned by a 33-year-old

some have never heard about it for instance, A 22-year-old said '*No! not heard about BSE, never knew such a thing exists*'. Among the people who knew about it, only very few did the test and that too not regularly. They do the test only when they

remember about it or if they feel any discomfort in the breast. Nobody knew the proper steps of the examination. A 38-year-old homemaker said ‘*Yes! during the awareness programme they taught us about BSE. They demonstrated how to do the steps of BSE. They said doing BSE regularly can help in identifying breast cancer. I do it once in a while when I remember*’ (participant 5). Another 25-year-old said ‘*I know about BSE! It is a test that we do on ourselves to check for any pain or lump. It should be done regularly. It helps to detect breast cancer early. I don’t do it regularly because of my forgetfulness and lack of time as I am a working mom*’.

Factors influencing the early detection of breast cancer

According to the participants verbatim, the factors influencing early detection of breast cancer were grouped under 3 themes under (Table1).

Barriers of breast cancer

Lack of knowledge: Lack of knowledge is the most important barrier mentioned by most of the participants. Most of the participants feel that they have minimal knowledge about the symptoms of the disease and the danger it poses to the life of the women if not treated early. A 28-year-old graduate said ‘*Women don’t go to the hospital to get checked because they don’t have any symptoms and also, they are not aware of it. Some women due to lack of*

Negligence: Almost all of the participants agreed that negligence was an important barrier to early detection of breast cancer. Ignorance, carelessness, and pain bearing are all some of the important characteristics most women have in common. A 22-year-old said, ‘*Most of the women are ignorant about their health and show up to the hospital only when the symptoms are worst and unbearable. They give less priority to their health and mostly concentrate on the welfare of their family.*’ (Participant 9). *knowledge about the disease will not get checked even though if they have the symptoms*’ (participant 1).

Table1: Various factors influencing early detection of breast cancer among women – category wise

Themes	Categories	Codes
Individual Factors	Lack of knowledge	Inadequate knowledge about breast cancer
	Psychological state	Fear, shyness, negligence
	Lack of time	Working women find it difficult to manage time for check up
Cultural and financial factors	Financial constraints	Cost of screening Cost of transportation Cost of treatment
	Stigma	Family may avoid talking to them Neighbours talk bad about them
	Myths and misconception	Breast cancer is perceived as a punishment Breast cancer is incurable
Facilitating Factors	Role of family	Family should be supportive to the women
	Awareness creation	Pamphlets, Media, TV, Awareness programme
	Policy changes	Free of cost screening programme, Free of cost treatment, Schemes for reducing the cost of treatment

Psychological state

Fear: In the majority of the interviews conducted, women perceived fear as one of the most important factors that bars/stops women from going to the hospital. Most of the women consider breast cancer as a deadly disease which cannot be cured. For instance, a 40-year-old woman said, *'Most of the women are afraid to go to the hospital due to the fear of detection of the disease like 'what if they find out that I have the disease' 'what will I do?' 'That's it, my life is over! All these thoughts prevent them from going to the hospital' (participant 12).* Another 42-year-old woman said, *'Most of the women don't go for checkup because they fear the detection of breast cancer and moreover once if they find it, they think they are going to die and that breast cancer is cannot be cured'*

Shyness/hesitation: shyness was also mentioned by the participants. Women are too shy to talk about their symptoms to others. A 25-year-old said, *'.... Some women don't go to the hospital even if they have symptoms because they are too shy to talk about' (participant 7).* Another 42-year-old woman said, *'Most of the women in this area don't really care about their health. Most of the time they come to the hospital only when it is very serious. It is because they don't know the side effects of all these diseases' (participant 6).*

Lack of time: In this modern world, women are able to hold positions equal to men. Earlier days men were supposed to work and provide for their family, but now wife and husband take equal responsibility and provide for their family which has led to the formation of communal families. Due to the fact that women are now working, the participants feel that it is difficult for the working women to find time to go to the hospital for checkup. This was mentioned by a 25-year-old woman *'For a working woman like me, lack of time is the biggest barrier. After finishing up my work I am too tired to go to the hospital and moreover most of the time I forget about going to checkup because of my work.'* (Participant 7).

Financial constraints: Majority of the study population belonged to the lower middle class hence, they mentioned cost of treatment, screening and transportation as a major barrier. A 29-year-old woman said, *'Most of the women from my area are poor so if they get detected with breast cancer the cost of treatment is so high that they cannot afford it, so they don't get checked' (participant 11).* Another 33-year-old woman said, *'.... the cost of travelling and screening are high so they avoid going to the hospital' (participant 2).*

Stigma: Many participants mentioned that the social stigma about the disease itself will prevent the women from going to hospital. Women fear that her Family, friends and neighbors would ignore her and no longer talk to her. A 33-year-old mentioned this, *'most of the women won't tell their family because they are afraid that their family would not support her anymore or ignore her and not consider her a part of the family, people around her will talk bad about her' (Participant 8).*

Myths and misconceptions: Like any other disease, myths and misconceptions are also around breast cancer. In this study, the majority of the participants said pain is one of the important symptoms of breast cancer.

Myths like breast cancer is a punishment for all the sins committed by the women and it is incurable were mentioned by some of the participants. For instance, a 33-year-old mentioned that, *'I have heard people say that the disease is a form of punishment to the sins committed by the women in her present life or past life' (participant 8)*

Facilitating factors

Role of family: Family support to the women is very important for her to share things with her husband or any other family members. Two of the participants mentioned having a supportive family as a facilitating factor for early detection of breast cancer. A 22-year-old mentioned that, *'I think the family's support is important to women so that she can speak about her worries freely to her husband or anybody else in the family.'* (Participant 9).

Another 45-year-old said, 'If anybody who says they have a lump in their breast first the family has to talk to them and reduce their fear...' (Participant 14)

Awareness creation: Most of the women mentioned that women don't go to checkup because they lack the knowledge about the disease hence, mentioned about conducting awareness programmes to increase the knowledge about the disease. A 42-year-old mentioned that, *'Women should get to know about the disease which will motivate them to go get tested. So, conducting awareness programme is important'* (Participant 6) Other women mentioned about the importance of awareness about the hospitals near them, A 26-year-old graduate said, *'People don't know the hospitals around them so if they get to know the hospitals around them they will come and get checked.'* (Participant 4). Another 23-year-old said, *'Awareness should be given to women regarding the advantages of early screening.'* (Participant 13)

Apart from awareness programs, a lot of other participants mentioned spreading awareness through TV, pamphlets and social media. For instance, a 26-year-old mentioned, *'More advertisement regarding the hospitals has to be done. Pamphlets regarding the disease have to be distributed as much as possible to the local people. More about the disease should be talked about in social media and TV. Free treatment can be given....'* (participant 4)

Policy changes: A lot of the participants mentioned free of cost treatment as one of the important motivations for women. Other factors were free of cost screening; schemes to reduce the financial burden were mentioned by the participants. A 22-year-old said, *'....Government should come up with ways which can help reduce the financial burden on the patient'* (participant 9)

Discussion

This study was conducted to know about the perceived barriers and facilitating factors influencing the early detection of breast cancer

among women in Thirumazhisai area. The results of this study coincided with previously done research^{6,7,8,9}. Majority of the women in this study lacked knowledge regarding breast cancer and its treatment. Most of the women incorrectly considered pain as the most common symptom of breast cancer which was similar to the study done by Dey et al⁷. A study conducted in Kenya¹⁰, reported other symptoms like swelling, lump, discharge, itching and these symptoms were also reported in this study.

One of the major barriers mentioned was lack of knowledge about the dangers of the disease which leads to delayed presentation to the hospital^{7,11}. Compatible with the study on Turkish women¹², many women reported fear as an important barrier to early presentation to the hospital. Negligence was one another major barrier mentioned by the participants which was also reported in the study on Turkish women by Ersin F, Bahar Z¹³.

Financial constraints was one of the major barriers for early detection of breast cancer; a parallel result was found in other researches^{7, 9, 14}. Similar to the study conducted by de Cuevas RMA¹⁵, Gupta A¹⁶; stigma, myths and misconceptions were also reported in this study. Another study done by Nandhini C⁹, has also mentioned about Breast cancer being considered as a punishment for the sins committed by the women in her past life. Stigma associated with the disease prevents the woman from going to the hospital as she is afraid that her family, friends and neighbors would stop talking to her and ignore her. Furthermore, women also believe that her neighbors would start talking bad about her, this was mentioned in the study conducted by Nandhini C⁹.

As far as the facilitators are concerned, awareness creation about the disease was mentioned by the majority of the women¹¹. A Qualitative study conducted in tamilnadu⁸, mentioned family support and policy changes like free of cost treatment, screening as a major facilitator for early detection of breast cancer similar results were obtained in this study as well.

Conclusions

This study demonstrated the lack of awareness among women of reproductive age about the signs and symptoms, risk factors, diagnostic methods, treatment facilities of breast cancer. Lack of awareness regarding the disease and Fear were the most important barriers mentioned by most of the participants of the study. Other barriers mentioned included financial constraints, negligence, shyness, lack of time, myths and misconceptions and stigma. Facilitating factors mentioned were family support, awareness creation about the disease and policy changes like free of cost screening and treatment. Together by tackling the barriers and facilitating screening, the mortality due to breast cancer can be reduced to a great extent.

Recommendations

The results of this study revealed that lack of awareness as one of the major barriers to early detection of breast cancer hence measures like conducting awareness programs should be taken to increase the awareness among the general population. To overcome barriers like financial constraints measures like free of cost screening and treatment should be carried out by the government.

Limitations

Results cannot be generalized to the entire population. Majority of the participants did not open up.

Acknowledgements

We acknowledge all the participants for their support.

Funding

None

Conflict of interest

None declared

References

1. Sung, Hyuna, Jacques Ferlay, Rebecca L. Siegel, Mathieu Laversanne, Isabelle Soerjomataram, Ahmedin Jemal, and Freddie Bray. 'Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries'. CA: A Cancer Journal for Clinicians 71, no. 3 (2021): 209–49. <https://doi.org/10.3322/caac.21660>
2. Duggan, Catherine, Dario Trapani, André M Ilbawi, Elena Fidarova, Mathieu Laversanne, Giuseppe Curigliano, Freddie Bray, and Benjamin O Anderson. 'Globocan (2020), The Global Cancer Observatory, Fact Sheet, India, Dec.2020.' The Lancet Oncology 22, no. 11 (1 November 2021): 1632–42. [https://doi.org/10.1016/S1470-2045\(21\)00462-9](https://doi.org/10.1016/S1470-2045(21)00462-9).
3. Modeste, Naomi N, Vonna Lou Caleb-Drayton, and Suzanne Montgomery. 'Barriers to Early Detection of Breast Cancer among Women in a Caribbean Population'. Revista Panamericana de Salud Pública 5, no. 3 (March 1999): 152–56. <https://doi.org/10.1590/S1020-49891999000300003>
4. Hossaini F, Akbari ME, Soori H, Ramezankhani A. Perceived barriers to early detection of breast cancer in Iranian women: a qualitative content analysis. International Journal of Cancer Management. 2020 Sep 30;13(9).
5. Sousa, Tanielly Paula, Janaína Valadares Guimarães, Flaviana Vieira, Ana Karina, Marques Salge, and Nathalia Melo Costa. 'Fatores envolvidos na não realização dos exames de rastreamento para o câncer de mama', 2019. <https://doi.org/10.5216/ree.v21.53508>.
6. Lamyian M, Ahmadi F, Faghihzadeh S, Aguilar Vafaie ME. Barriers to and factors facilitating breast cancer screening among Iranian women: a qualitative study. EMHJ-Eastern Mediterranean Health Journal, 13 (5), 1160-1169, 2007. 2007.
7. Dey S, Sharma S, Mishra A, Krishnan S, Govil J, Dhillon PK. Breast cancer awareness and prevention behavior among women of Delhi, India: identifying barriers to early detection. Breast Cancer: Basic and Clinical Research. 2016 Jan;10:BCBCR-S40358.
8. Mahalakshmi, Selvam, and Sundaram Suresh. 'Barriers to Cancer Screening Uptake in

- Women: A Qualitative Study from Tamil Nadu, India'. *Asian Pacific Journal of Cancer Prevention: APJCP* 21, no. 4 (April 2020): 1081–87.
<https://doi.org/10.31557/APJCP.2020.21.4.1081>.
9. Nandini C, Roopakala N, Andanigoudar KB. Barriers to Early Diagnosis and Treatment among Breast Cancer Survivors: Qualitative Study in Tertiary Care Hospital, North Karnataka. *National Journal of Community Medicine*. 2022 Mar 31;13(3):190-4.
 10. Sayed, Shahin, Anthony K. Ngugi, Megan R. Mahoney, Jaameeta Kurji, Zohray M. Talib, Sarah B. Macfarlane, Theresa A. Wynn, Mansoor Saleh, Aryn Lakhani, and Esther Nderitu. 'Breast Cancer Knowledge, Perceptions and Practices in a Rural Community in Coastal Kenya'. *BMC Public Health* 19, no. 1 (2019): 1–13.
 11. Bodapati, Srikanthi Lakshmi, and Giridhara Rathnaiah Babu. 'Oncologist Perspectives on Breast Cancer Screening in India-Results from a Qualitative Study in Andhra Pradesh'. *Asian Pacific Journal of Cancer Prevention* 14, no. 10 (2013):5817–23
<https://doi.org/10.7314/APJCP.2013.14.10.5817>.
 12. Kissal A, Beser A. Knowledge, facilitators and perceived barriers for early detection of breast cancer among elderly Turkish women. *Asian Pac J Cancer Prev*. 2011 Jan 1;12(4):975-84.
 13. Ersin F, Bahar Z. Inhibiting and facilitating factors concerning breast cancer early diagnosis behavior in Turkish women: a qualitative study according to the health belief and health development models. *Asian Pac J Cancer Prev*. 2011 Jan 1;12(7):1849-54.
 14. Khazae-pool M, Majlessi F, Foroushani AR, Montazeri A, Nedjat S, Shojaeizadeh D, Tol A, Salimzadeh H. Perception of breast cancer screening among Iranian women without experience of mammography: a qualitative study. *Asian Pacific Journal of Cancer Prevention*. 2014;15(9):3965-71.
 15. De Cuevas RM, Saini P, Roberts D, Beaver K, Chandrashekar M, Jain A, Kotas E, Tahir N, Ahmed S, Brown SL. A systematic review of barriers and enablers to South Asian women's attendance for asymptomatic screening of breast and cervical cancers in emigrant countries. *BMJ open*. 2018 Jul 1;8(7):e020892.
 16. Gupta, A., K. Shridhar, and P. K. Dhillon. 'A Review of Breast Cancer Awareness among Women in India: Cancer Literate or Awareness Deficit?' *European Journal of Cancer* 51, no. 14 (1 September 2015): 2058–66.
<https://doi.org/10.1016/j.ejca.2015>.
 17. and urban contexts results from two health and demographic surveillance sites in Vietnam. *BMC Health Serv Res*. 2012; 12:1.
 18. Zhao QZJH, Yang S, Pan J, et al. The utilization of antenatal care among rural-to-urban migrant women in Shanghai: a hospital-based cross-sectional study. *BMC Public Health*. 2012;12.
 19. Ali SA, Dero AA, Ali SA, et al. Factors affecting the utilization of antenatal care among pregnant women: A literature review. *J Preg Neonatal Med* 2018;2(2):41-4

How to cite the article: Aathila A, Vaishali PM, Angusubalakshmi R, Parasuraman G. Factors influencing early detection of breast cancer among women in Thirumazhisai area - A qualitative study. *International Journal of Preventative and Evidence Based Medicine*. 2023;1(1):45–52.