

# Evaluating Breast Self-examination Awareness Among Young Adult Women in Vaniyamkulam Panchayat to Create an Educational Booklet

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## Abstract

**Introduction:** Breast cancer ranks as the second most prevalent cancer worldwide and stands as the primary cancer type among women, both in developed and developing nations. It is estimated that around 25% of all cancer cases globally are attributed to breast cancer. Notably, there was a significant increase in breast cancer incidence from 2008 to 2012 on a global scale. **Methods:** The research utilized a quantitative methodology, employing a descriptive study design. A purposive sampling method was utilized to carefully select 50 participants for the study. Data collection involved demographic variables and a semi-structured questionnaire. The study was conducted on December 14, 2023, and data analysis utilized both descriptive and inferential statistics. **Results:** As we have assessed the level of knowledge regarding breast self-examination among early adulthood women in selected settings of Vaniyamkulam Panchayat, about 4 (8%) samples have adequate knowledge, 21 (42%) have moderate knowledge, 25 (50%) samples have inadequate knowledge about breast self-examination. **Conclusion:** The result obtained after the analysis found that knowledge regarding breast self-examination among early adulthood women of Vaniyamkulam Panchayat, revealed that maximum women had inadequate knowledge. Hence the researchers prepared an information booklet and distributed among the participants, anticipating that their knowledge about breast self-examination will be improved.

**Keywords:** Breast cancer, breast self-examination, knowledge, demographic variables, descriptive and inferential statistics

## INTRODUCTION

The frequency of breast cancer has surged by 20%, accompanied by a 14% rise in mortality rates.

Presently, breast cancer stands as the fifth most common cause of cancer-related deaths and is the primary contributor to cancer-related fatalities in women. It is the predominant cancer type among women, particularly in low- and middle-income countries. Breast self-examination (BSE) is a non-invasive screening method where women inspect their breasts for any irregularities such as lumps, distortions, or swellings. Despite the recognized benefits of BSE in early breast cancer detection, a large number of cases still present in advanced stages. Late-stage diagnosis significantly reduces survival rates among breast cancer patients, as tumor size upon diagnosis profoundly affects survival outcomes, even with effective treatment. Regular BSEs have demonstrated positive clinical outcomes among breast cancer patients [1–3].

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Becoming familiar with one's breasts and identifying any abnormalities is crucial. In several cultures, women may feel uneasy receiving BSE information from male healthcare providers. Therefore, female nurses play a vital role as role models in promoting accurate information and fostering positive attitudes about BSE. Regular performance of BSE by female nurses themselves is essential, as early detection of breast lumps through BSE significantly contributes to women's well-being.

Early detection is pivotal for favorable outcomes in breast cancer treatment, as breast cancer is manageable if detected and treated promptly. Early detection strategies encompass two approaches: early diagnosis and screening. Screening involves testing women to identify cancers before symptoms arise, typically conducted through mammography, clinical breast examination, and BSE. Although clinical breast examination and mammography are ideal for diagnosing breast cancer, accessing healthcare in numerous sub-Saharan African countries presents considerable obstacles. Consequently, BSE emerges as the most viable option in such settings due to its simplicity and accessibility anytime and anywhere. Hence, concerted efforts are necessary to enhance awareness and adoption of BSE among women. In this context, collecting reliable and representative data from all segments of the population is essential for devising evidence-based strategies to enhance women's health.

### **NEED FOR THE STUDY**

The occurrence of breast cancer is more prevalent among women aged 22 to 34 years. For these women, the effectiveness of BSE holds particular significance as it is the sole recommended early detection method. Research investigating the correlation between BSE habits and tumor stage has been undertaken. While most evidence supports its efficacy, some studies lack robust scientific methodologies. Conversely, negative findings often stem from studies with methodological and conceptual limitations, which should minimally affect assessments of BSE effectiveness.

### **OBJECTIVES**

1. To evaluate the understanding of BSE among women in early adulthood within selected areas of Vaniyankulam Panchayat.
2. To create an informational booklet on BSE tailored for women in their early adult years.

### **REVIEW OF LITERATURE**

A cross-sectional study was conducted among girls in Qassim University's medical and non-medical colleges in January 2017, with a sample size of 365 females aged 18-55 years, with a mean age of 20.3 years. Only 11% of the study individuals had a positive family history of breast cancer, according to the findings. In terms of knowledge about BSE, 95.8% of medical students had heard of it, compared to 93.3% of non-medical students, and only 49.7% of medical students had previously performed it, compared to 35.71% of non-medical students [4].

The Health Belief Model (HBM) is a framework utilized to examine behaviors related to health and incorporate principles of behavioral health. Developed by psychologists in the 1950s, the model was initially designed to understand the factors influencing women's decisions to engage in preventive health measures, such as cancer screenings and flu vaccinations. It has since been utilized to analyze practices and attitudes related to breast cancer screenings, including BSE and mammography, among various groups, notably those guided by organizations like the American Cancer Society [5].

A cross-sectional investigation took place in a rural region of Trichy, involving a collective of 200 female participants. Findings revealed that only 26% of the women were familiar with BSE. Additionally, only 18% of the participants reported ever having performed a breast check, with merely 5% doing so regularly. The study identified age and educational level as significantly influencing awareness of BSE. The research highlights the insufficient levels of both awareness and implementation of BSE among women. Hence, initiatives aimed at enhancing awareness and promoting regular practice of BSE through health education programs are imperative [6].

In a study by Dinegde et al. [7], it was found that while a quarter of participants had attempted BSE at some point, only 47 (13.1%) women regularly performed it. Comparable results were documented in research conducted in Malaysia, Tamil Nadu, Cameroon, Iran, and Nigeria. Additionally, these results align with research from Ethiopia, which indicated that only a small proportion of people regularly conducted BSE.

In contrast, research from northern and southern Ethiopia showed that 37% and 45.6% of participants, respectively, engaged in BSE, figures that are somewhat higher than those in the current study. Moreover, previous studies from Iraq and Ghana reported even higher rates, with 48.3% and 80% of individuals, respectively, practicing BSE regularly. These discrepancies may be influenced by the involvement of health and social workers in these regions [7].

## **METHODOLOGY**

### **Research Approach**

The researchers employed a quantitative methodology in the study, as the objective was to evaluate the understanding of BSE among young adult women (aged 22–34 years) in specific locations within the Vaniyamkulam Panchayat.

### **Research Design**

Research design selected for this study is a non- experimental descriptive study design.

### **Research Variables**

Knowledge regarding BSE among women of 22–34 years of age.

### **Demographic Variables**

Age, sex, family history, source of previous knowledge regarding abnormalities in BSE, habit.

### **Accessible Population**

The study focused on women aged 22 to 34 years residing in the Vaniyamkulam Panchayat as the target population.

### **Sample Size**

The sample size of the present study was 60 women of age 22 to 34 years at Vaniyamkulam Panchayat who fulfill the inclusion criteria.

### **Sample Technique**

The sampling method used in this study was non-probability convenience sampling.

## **DEVELOPMENT OF DESCRIPTION OF TOOL**

### **Semi-Structured Questionnaire**

A semi-structured questionnaire was used for the study conducted on December 14, 2023 at ward 4 of Vaniyamkulam Panchayat.

- *Section A:* Demographic variables
- *Section B:* Level of knowledge

## **ANALYSIS OF RESULTS AND INTERPRETATION**

The finding based on the descriptive and inferential statistical analysis tabulated as follows:

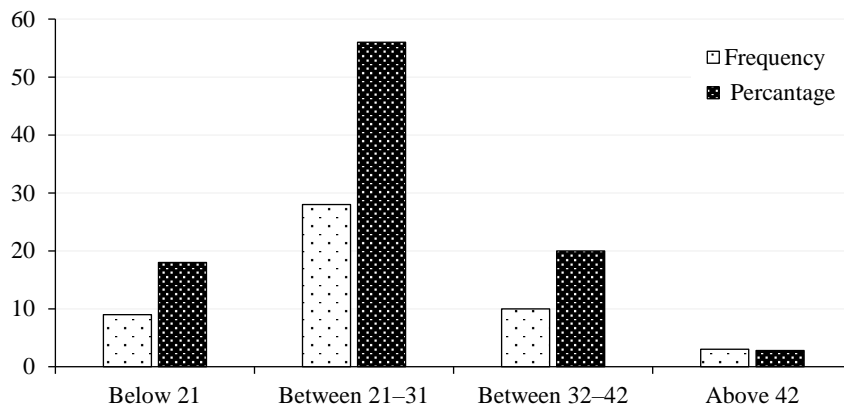
### **Section A**

Table 1 displays the frequency and percentage distribution of young women in the early adulthood stage based on demographic factors. The aim is to evaluate their awareness of BSE in specific locations within the Vaniyamkulam Panchayath are, intending to create an informative booklet on the subject.

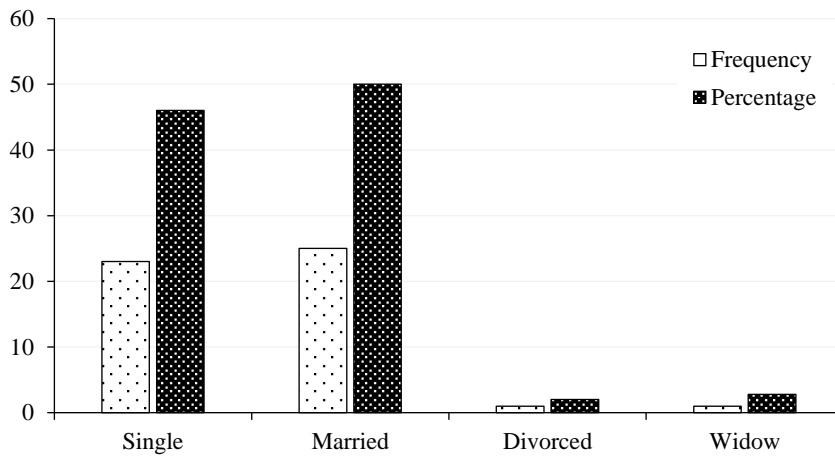
**Table 1.** Frequency and percentage distribution of young women in the early adulthood stage based on demographic factors.

Demographic variables	Frequency ( <i>n</i> )	Percentage
<i>1. Age</i>		
<21 years	9	18%
Between 21–31 years	28	56%
Between 32–42 years	10	20%
>42 years	3	6%
<i>2. Marital status</i>		
Single	23	46%
Married	25	50%
Divorced	1	2%
Widow	1	2%
<i>3. Level of education</i>		
Less than 12th standard	8	16%
Greater than 12th standard	9	18%
Graduation	23	46%
Postgraduation	10	20%
<i>4. Number of deliveries</i>		
0	26	52%
1	6	12%
2	17	34%
>2	1	2%
<i>5. Family history of breast cancer</i>		
Yes	4	8%
No	43	86%
I don't know	1	2%
Maybe	2	4%
<i>6. Family history of other cancer</i>		
Yes	2	4%
No	46	92%
I don't know	1	2%
Maybe	1	2%
<i>7. Exercise</i>		
Regularly	9	18%
Not regularly	13	26%
Sometimes	17	34%
Never	11	22%
<i>8. Prior knowledge of breast self-examination</i>		
Yes	34	68%
No	16	32%
<i>9. If yes, knowledge source</i>		
Health professionals	27	54%
Multimedia	10	20%
Friends	5	10%
Others	8	16%

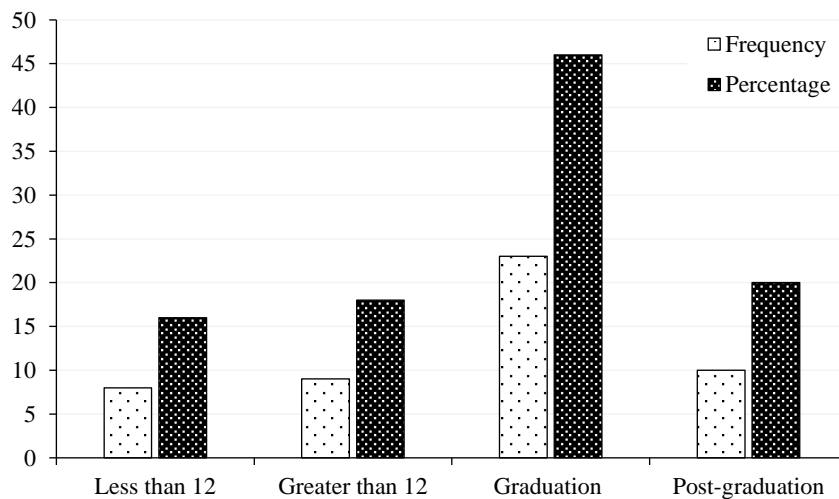
Figure 1 shows that more than half of the samples 28 (56%) were from the age group of 21–31 years, 10 (20%) were from the age group of 32–42 years, 9 (18%) were from age group of below 21 years and 3 (6%) were from the age group of above 42 years.



**Figure 1.** Distribution of samples according to their age.



**Figure 2.** Distribution of samples according to their marital status.



**Figure 3.** Distribution samples according to level of education.

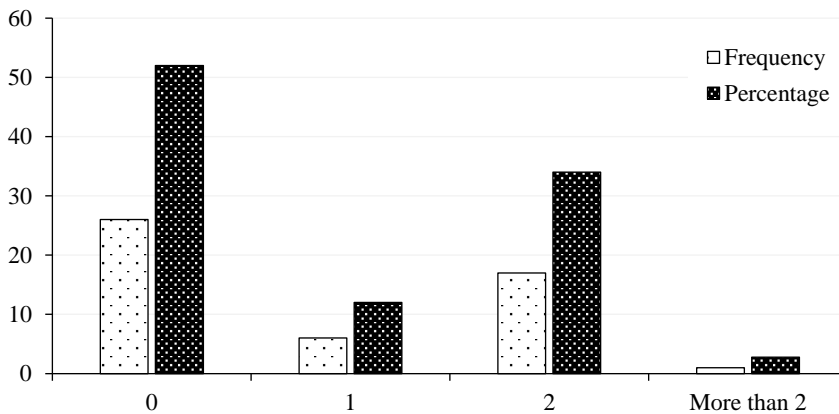
Figure 2 shows that half of the samples 25 (50%) were married women, 23 (46%) were single women, and 1 (2%) each were widowed or divorced.

Figure 3 shows that slightly less than half of the samples 23 (46%) were graduates, 10 (20%) were postgraduates, 9 (18%) studied more than 12th standard, and 8 (16%) studied less than 12th standard.

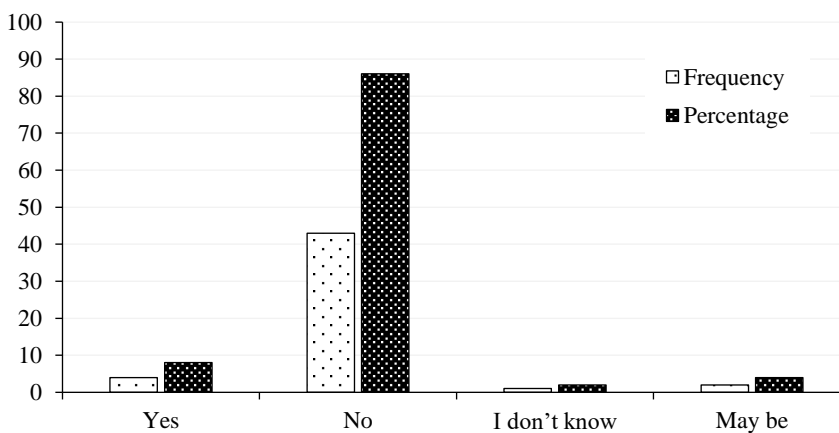
Figure 4 shows that more than half of the sample 26 (52%) were women with 0 delivery, 17 (34%) were women with 2 deliveries, 6 (12%) were from women with 1 delivery, and 1 (2%) was from a woman with more than 2 deliveries.

Figure 5 shows that more than half of the samples 43 (86%) had no history of breast cancer and 4 (8%) reported history of breast cancer.

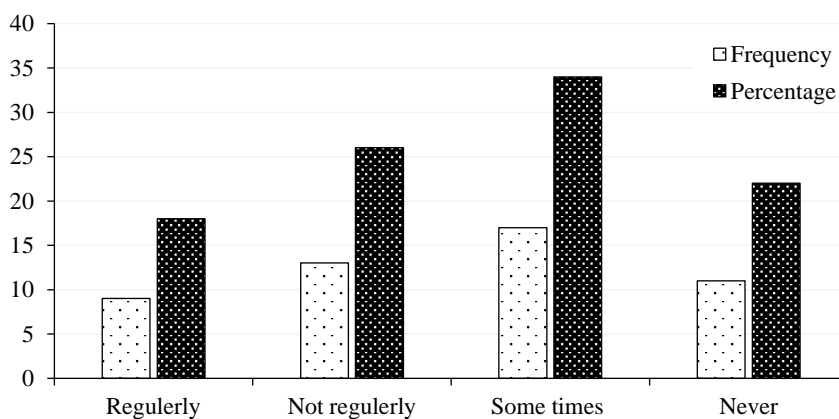
Figure 6 shows that less than half of the sample 17 (34%) exercised sometimes, 13 (26%) did not regularly exercise, 11 (22%) never performed exercise, and 9 (18%) women regularly exercised.



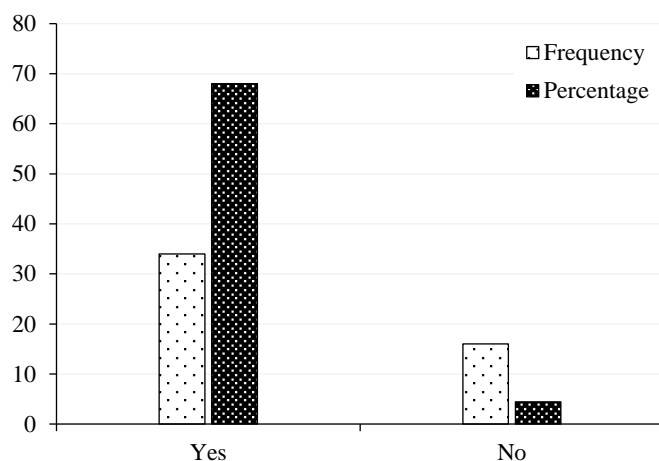
**Figure 4.** Distribution of sample according to number of deliveries.



**Figure 5.** Distribution of samples according to family history of breast cancer.



**Figure 6.** Distribution of samples according to exercise.



**Figure 7.** Distribution of samples according to prior knowledge of breast self-examination.

Figure 7 shows that more than half of the samples 34 (68%) were having prior knowledge of BSE and 16 (32%) were having no prior knowledge of BSE.

### Section B

This section had questions related to knowledge regarding BSE. It consists of multiple-choice questions with four responses. Each correct response carries 1 mark and wrong response carries 0 mark. Total score was 11. Assessment of knowledge level regarding BSE among early adulthood women (22–34 years) was done.

Table 2 shows that half of the young adult women, totaling 25 (50%), possess insufficient knowledge about BSE. Meanwhile, 21 (42%) have a moderate understanding, and only 4 (8%) demonstrated adequate knowledge of the practice. The data were analyzed using both descriptive and inferential statistical techniques. The analysis was carried out in accordance with objectives. The knowledge score of BSE among early adulthood women was moderate. The mean score was 4.3 out of 11. The data shows highest percentage (50%) of the early adulthood women had inadequate knowledge regarding breast self-examination, 42% of peoples have moderate knowledge and 8% had adequate knowledge. This shows that on the whole the knowledge level of BSE among early adulthood women was inadequate [8–12].

**Table 2.** Frequency and percentage distribution of samples according to their level of knowledge regarding breast self-examination.

Level of knowledge	Range	Frequency	Percentage
Adequate	9–11	4	8%
Moderate	6–9	21	42%
Inadequate	≤5	25	50%

### DISCUSSION AND CONCLUSION

The current study was designed to assess the knowledge about breast self-examination among early adult hood women in selected settings of Vaniyamkulam Panchayat. Due to the nature of the problem, one-group knowledge testing was conducted using a semi-structured knowledge questionnaire in order to achieve study objectives. Data were gathered from young adult women, highlighting the significance of BSE as a cost-effective, straightforward, and non-invasive means of early breast tumor detection. Consequently, understanding and regular application of this technique could serve as a crucial safeguard against the serious health risks associated with breast cancer. The study's outcomes may motivate nurse researchers to explore additional avenues concerning awareness of BSE. Enhancing the effectiveness

of this research can be achieved through further replication and validation of the study. After assessing the knowledge of the women, to make them aware about BSE, an information booklet was made, which was distributed among them. This will be beneficial to the society in gaining knowledge about BSE and the women will implement the procedure of BSE regularly. By this practice, breast cancer can be detected in the early stages.

## REFERENCES

1. Ibnawadh SK, Alawad MA, Alharbi SS, Alduwaihi NA, Alkowiter FS, Alsahy AE. Knowledge, attitude and practice of breast self-examination among females in medical and non-medical colleges in Qassim University. *J Health Spec.* 2017; 5 (4): 219–224.
2. Mayo Clinic. Breast Self-Exam for Breast Awareness. [Online]. Available at <https://www.mayoclinic.org/tests-procedures/breast-exam/about/pac-20393237> [Accessed on July 17, 2014].
3. Gao DL, Hu YW, Wang WW, Chen FL, Pan LD, Yuan Y, Yu LD, Qian F. Evaluation on the effect of intervention regarding breast self-examination for decreasing breast cancer mortality. *Zhonghua Liu Xing Bing Xue Za Zhi.* 2006; 27 (11): 985–990. In Chinese.
4. Thomas DB, Gao DL, Ray RM, Wang WW, Allison CJ, Chen FL, Porter P, Hu YW, Zhao GL, Pan LD, Li W, Wu C, Coriaty Z, Evans I, Lin MG, Stalsberg H, Self SG. Randomized trial of breast self-examination in Shanghai: final results. *J Natl Cancer Inst.* 2002; 94 (19): 1445–1457. doi: 10.1093/jnci/94.19.1445.
5. Gary G. Needs and Capacity Assessment Strategies for Health Education and Health Promotion. 4th edition. Burlington, MA, USA: Jones & Bartlett; 2011.
6. Kumarasamy H, Veerakumar AM, Subhathra S, Suga Y, Murugaraj R. Determinants of awareness and practice of breast self examination among rural women in Trichy, Tamil Nadu. *J Midlife Health.* 2017; 8 (2): 84–88. doi: 10.4103/jmh.JMH\_79\_16.
7. Dinegde NG, Demie TG, Diriba AB. Knowledge and practice of breast self-examination among young women in tertiary education in Addis Ababa, Ethiopia. *Breast Cancer.* 2020; 12: 201–210. doi: 10.2147/BCTT.S279557.
8. Med Scape. Breast Cancer Guidelines: Breast Cancer Screening. Pharmacologic Interventions for Breast Cancer Risk Reduction, Lymph Node Biopsy and Dissection. [Online]. June 1, 2016. Available at <https://emedicine.medscape.com/article/2247407-overview?form=fpf> [Accessed on July 17, 2014].
9. Nyström L. How effective is screening for breast cancer? *BMJ.* 2000; 321 (7262): 647–648. doi: 10.1136/bmj.321.7262.647.
10. Mendelsohn S. *A Woman's Breast Self-Exam Journal.* Bloomington, IN: Trafford Publishing. 2003.
11. Hallal JC. The relationship of health beliefs, health locus of control, and self concept to the practice of breast self-examination in adult women. *Nurs Res.* 1982; 31 (3): 137–142.
12. Alsaif AA. Breast self-examination among Saudi female nursing students in Saudi Arabia. *Saudi Med J.* 2004; 25 (11): 1574–1578.