



Awareness and current knowledge of women on breast cancer in Hyderabad, Telangana State

Shilpa Ch.^{*1}, Mahesh Kumar V. P.², Madhukar A.³

¹Department of Pharmacy Practice, KVK College of Pharmacy, Surmaiguda, Ranga Reddy - 501 512, Telangana, India

²Department of Pharmacy, Annamalai University, Chidambaram - 608 002, Tamil Nadu, India

³Department of Pharmaceutical Analysis and Quality Assurance, Avanthi Institute of Pharmaceutical Sciences, Ranga Reddy - 501 505, Telangana, India

Article History:

Received on: 01 Dec 2021

Revised on: 04 Jan 2022

Accepted on: 10 Jan 2022

Keywords:

Breast cancer,
Knowledge,
Awareness,
Screening,
Telangana State,
India

ABSTRACT

The purpose of the present study is to accomplish research objectives that are to assess the effectiveness of an awareness program on knowledge and attitude regarding breast cancer and screening technique among women. 105 women were selected living in the Hyderabad district, Telangana state, selected for the study by Simple random sampling technique between 13-70 years. Appropriate data collection is the most important and central part of any investigation, which provides necessary data for the study. We made a standard Structured knowledge questionnaire and attitudes scale containing 57 questions to assess women knowledge and attitude regarding breast cancer. The most significant and important part of any exploration is gathering significant data, which will give the information expected to respond to the inquiries brought up in the survey. We made a standard Structured information Questionnaire, and a disposition like a scale containing 57 inquiries was utilized to evaluate the information and demeanor of women with respect to malignant breast growth. We designed and developed an Informational booklet on knowledge and attitude regarding breast cancer and screening technique after pre-test knowledge and lacking attitude areas like Objectives, Breast Structure, Types of Cancer and Causes of Breast Cancer, Risk factors, Symptoms, Diagnosis, Prevention and Screening of breast cancer, Clinical Breast Examination, Mammography and Treatment. After data collection, analysis was done to determine the association between selected variables, computing co-efficient of correlation to find the relation between knowledge scores and attitude scores.



*Corresponding Author

Name: Shilpa Ch.

Phone: 8985177645

Email: shilpasunny44@gmail.com

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v13i2.191>

Production and Hosted by

IJRPS | www.ijrps.com

© 2022 | All rights reserved.

INTRODUCTION

Breast cancer is one of the most medical conditions and the main cause of death in ladies. The primary reason for the occurrence of breast cancer in India is the absence of an "organised national breast cancer screening programme".

There are over 200 different types of cancer, some of which are far more common worldwide than others are lung and breast cancer (12.3 % of total cancer cases), colorectal, i.e. the large Intestine cancer (10.6 %), Prostate cancer (7.5 %) and stomach can-

cer (6.1 %), according to the World Cancer Research Fund International Statistics [1].

The most recent review report released by the Indian Council for Medical Research (ICMR) and National Centre for Disease Informatics and Research (NCDIR) has revealed that more than half of breast cancer cases in Telangana state are detected at a late stage, which is a cause of significant concern [2].

When it comes to cancer in women's breast cancer cases, have seen an alarming rise over the past few years in Hyderabad and the remaining districts of Telangana. Most doctors believe that mammography is the best way to detect breast cancer at its nascent stage [3]. But still, it is not adopted widely In India and other parts of the world, despite its numerous advantages over other screening methods.

When it comes to mammography, doctors take it as the best technique to identify cancer, and it is expensive to give electronic pictures of the breasts, which can be upgraded by computer technology, stored on computers, and even communicated electronically in situations where remote admittance to the mammogram is required [4]. "This is especially valuable in cases of younger women with dense breasts to detect early subtle cancerous changes in the breast".

It additionally gives a 3D picture of the breast, which helps in better diagnose. As per Indian Council for Medical Research reports, 1.5 lakh new breast cancer cases in India, of which 70,000 succumb every year. In the absence of a cancer registry, experts in Hyderabad say the caseload could be equally alarming, especially when women avoid the assessment.

Ductal Carcinoma is the Initial alarming signal where malignant growth cells are found inside the milk ducts (the canals that allow milk to move from the milk gland to the nipple) in the breast but have not spread to the encompassing breast tissues or organs.

Stage Zero Breast Cancer is not life-threatening but can spread to the encompassing tissues if left untreated. In view of the presence of the cells under a microscope and on the rate with which they grow, it can be divided into low grade and high grade. It is doubtful for a low-grade DCIS to be an invasive breast cancer when compared to a high-grade DCIS. The treatment depends on the degree of the DCIS within the ducts and its grade [5].

DCIS is hard to identify as it does not have any side effects. "women must look out for a change in size, rash nearby the areola, a painless lump, blood-stained discharge from the nipple, swelling under

the armpit or a retraction of the nipple [6]. Women over 40 years old should have a mammogram at least once in two years for early detection.

As per the World Health Organization statistics, less than 5% of women undergo breast screening in India. The reasons are an absence of awareness about the importance of early detection and an organized nationwide breast cancer screening programme. It's probably to be nothing, but if there's something there, you'll have caught it in time to avoid further consequences [7].

The present study attempts to address some of these research gaps among women to reduce the prevalence of breast cancer and make them aware of it.

METHODOLOGY

Setting and Participants

This study was conducted in Hyderabad, the largest city and capital of the southern Indian state Telangana State. Hyderabad is located on the banks of the Musi River around artificial lakes. In 2014, the estimated population of Hyderabad was 8.7 million and ranked 4th most populous city in India. In 2018 the growth percentages pushed this number to over 9 million residents in the town. Primary health centers at the village level and government and private hospitals at the urban level are the primary health service providers.

This community-based cross-sectional study was conducted among women ages 13–60 who live in Hyderabad, Telangana State. The study aims to identify factors affecting breast cancer screening in urban women of Hyderabad and develop a comprehensive assessment to determine the awareness about breast cancer in women. This community-based study was divided into Six sections [8],

Section- I contained demographic information, Section-II knowledge & awareness levels before the educational intervention, Section-III Attitudes toward breast and breast cancer screening before educational Intervention, Section- IV Influences & motivation for screening, Section- V Knowledge & awareness levels after educational intervention, Section- VI Attitudes toward breast cancer screening after the educational intervention.

To assess the knowledge of women about breast cancer, a sample size of 105 participants selected randomly for the survey contained 57 questions regarding women's knowledge of breast cancer, screening, and the treatment of breast cancer. Written informed consent from each participant was taken before the study's initiation [9].

Table 1: Post-intervention Screening Knowledge Awareness Attitudes by Sociodemographic Characteristics

Characteristic	n (%)	Positive Screening Post-intervention	Negative Screening Post-intervention	Neutral Screening Post-intervention	χ^2	df	p
Total			105(100)				
Age Group (Year) (n=105)					3.2	4	0.5
13 - 30 Years	29(27.61)	18(17.1)	9(5.5)	2(1.9)			
31 - 60 Years	58(55.23)	29(27.6)	27(25.7)	2(1.9)			
Above 60 Years	18(17.14)	9(8.5)	7(6.7)	2(1.9)			
Education (n=105)					16.1	2	0.05
≤ Primary	19(18.09)	17(16.1)	0(0.0)	2(1.9)			
≥ Secondary	86(81.90)	39(37.1)	43(40.9)	4(3.8)			
Family income (INR/Month) (n=105)					16.5	2	0.05
< 10,000	16(15.23)	16(15.2)	0(0.0)	0(0.0)			
≥ 10,000	89(84.76)	40(38.1)	43(40.9)	6(5.7)			
Literacy (Hindi or Telugu) (n=105)					2.5	2	0.2
Literate	90(85.71)	50(47.6)	36(34.2)	4(3.8)			
Illiterate	15(14.28)	6(5.7)	7(6.7)	2(1.9)			
Screening history (n=105)					3.1	2	0.2
Ever Screened	23(21.90)	16(15.2)	6(5.7)	1(0.9)			
Never Screened	82(78.09)	40(38.1)	37(35.2)	5(4.7)			
Employment (n=105)					3.3	2	0.2
Employed	78(74.28)	38(36.1)	36(34.2)	4(3.8)			
Not Employed	27(25.71)	18(17.1)	7(6.7)	2(1.9)			
Individual Income (INR/Month) (n=60)					3.3	2	0.1
≤ 10,000	27(25.71)	18(17.1)	7(6.7)	2(1.9)			
> 10,000	78(74.28)	38(36.1)	36(34.2)	4(3.8)			
Marital Status					1.9	2	0.3
Married	59(56.19)	35(33.3)	21(20)	3(2.8)			
Widow/Divorced	46(43.80)	21(20)	22(20.9)	3(2.8)			

Table 2: Knowledge of Breast Cancer Among Respondents (N = 105)

Response	Pre intervention n(%)	Post intervention n(%)
Aware of breast cancer	43(40.96)	88(83.8)
Not aware of breast cancer	62(59.04)	17(16.1)
Aware of someone diagnosed with breast cancer	65(61.9)	65(61.9)
Not aware of someone diagnosed with breast cancer	40(38.0)	40(38.0)
Knowledge		
Any knowledge about breast cancer	43(40.96)	98(93.33)
No knowledge of breast cancer	62(59.04)	07(0.06)
Awareness of symptoms		
Lump in breast	15(14.2)	33(31.42)
Pain in breast	63(60)	52(49.52)
leeding/discharge through the nipple	14(13.3)	02(0.19)
Skin changes over the breast	5(4.7)	04(0.38)
Cyclical breast tenderness	0(0.0)	02(0.19)
Lump in axilla	8(7.6)	12(11.42)
Awareness of general risk factors		
Advancing age	19(18.09)	12(11.42)
Early menopause	8(7.6)	2(0.19)
Late menopause	27(25.7)	30(28.57)
Oral contraceptive pills	12(11.4)	8(0.76)
Obesity	39(37.1)	53(50.47)
HRT	0(0.0)	0(0.0)
Awareness about tests for diagnosis		
Mammography	5(4.7)	22(20.95)
Biopsy	21(20)	12(11.42)
CT/MRI	59(56.1)	62(59.04)
FNAC	17(16.2)	9(0.85)
Awareness about treatment of breast cancer		
Surgery	12(11.4)	43(40.95)
Medicine	64(60.9)	52(49.52)
Ayurveda/other allied traditional	29(27.6)	10(0.95)
Awareness about whom to consult		
Gynecologist	79(75.23)	90(85.71)
Family physician/primary care physician	23(21.9)	10(0.95)
Surgeon	3(2.86)	5(0.47)
Awareness about preventive factors		
Lifestyle medication	53(50.49)	70(66.66)
Good nutrition	16(15.23)	22(20.95)
Avoiding tobacco and alcohol	36(34.28)	13(12.38)

Table 3: Attitude towards Breast Cancer Among Respondents

Attitude towards breast cancer	Pre-intervention n (%)	Post-intervention n (%)
Response		
Willing to be screened	39(37.15)	68(64.76)
Not willing to be screened	58(55.23)	20(19.04)
Don't know	8 (7.62)	17(16.2)
Screened for any type of cancer	35(33.33)	41(39.04)
Not screened for any type of cancer	70(66.67)	64(60.96)
Outlook towards screening		
Positive	39(37.14)	74(70.47)
Negative	54(51.42)	23(21.9)
Neutral attitude	12(11.44)	8(7.63)
Place of screening		
Government hospital	22(20.95)	27(25.71)
Village health camp	9(8.58)	9(8.58)
Private hospital	4(3.80)	5(4.76)
Not screened	70(66.67)	64(60.95)
	Positive attitude: 37(35.24%)	Positive attitude: 56(53.33%)
	Negative attitude: 63(60%)	Negative attitude: 43(40.71%)
	Neutral/ uncertain attitude: 5(4.76%)	Neutral/ uncertain attitude: 6(5.96%)

Table 4: Comparison of Mean Pre and Post-test knowledge scores obtained on knowledge questionnaire

Attitude	Mean	Std. Deviation	Mean Difference	't' value
Pre-test	1.70	0.55	0.18	1.92
Post-test	1.52	0.60		

Data analysis

After the data collection procedure, data analysis was done using descriptive and inferential statistics—demographic data analysis using frequency and percentage. Mean, median, and Standard deviation of the pre-test and post-test knowledge and attitude scores 't' value to the significance of the difference between the group's mean pre-test and post-test knowledge and attitude scores—Chi-square test to determine the association between selected variables.

Computing co-efficient of correlation to find the relation between knowledge scores and attitude scores [10].

Measures of central tendency and standard deviation were calculated for the aggregate scores on knowledge. We examined the relationship between knowledge of breast cancer screening and demographic data using chi-squared tests. A p-value of <0.05 was considered significant.

RESULTS

Screening Prevalence

During my research work tenure, there were 297 women aged 13–70 years who visited Om Sai Hospital Hyderabad. Among them, 105 women participated in our study. The selection of participants was done after their consent. Table 1, Table 2, Table 3 and Table 4 represents the data regarding the Sociodemographic profile of recruited subjects.

DISCUSSION

The study is discussed in line with the objective, hypothesis, literature review concerning similar studies conducted by the researchers and conceptual framework. This helped the investigator prove that the findings were accurate, and the awareness program effectively improved the knowledge and attitude of women regarding breast and cervical cancer [11].

The present study assessed Ladies' knowledge and attitude related to breast cancer and conducted an awareness programme on it [12]. The results revealed that the majority of 58 {55.23%} respondents belong to the age group of 31-60 years and only 18 respondents in the age group of above 60 years. 86 {81.90%} respondent were completed secondary or more than secondary education (69.3%) [13].

Marital status of the majority of respondents, 59 (56.19%), was married, while a large number of participants, 46 (43.80%), have Widow/ Divorced status [14]. It was alarming that 82 participants out of the 105 never went for breast cancer screening. Maximum number, 74 of respondents had monthly income Rs. <10,000/-.

65 Respondents out of 105 had no personal history of breast cancer [15]. Only 65 respondents knew about breast cancer, while others did not know about breast cancer.

The study revealed that the mean knowledge score of pre and post-test in women represents a significant difference. Thus, it can be inferred that the awareness program effectively enhanced Ladies' knowledge regarding breast and cervical cancer and screening techniques [16, 17].

CONCLUSION

It concluded that breast self-examination could be used to create breast health awareness among women and female health workers. The awareness program effectively developed Ladies' positive attitudes regarding breast and cervical cancer and screening techniques.

Ethics and Consent

The study was conducted with approval from Om Sai Hospital's institutional review board (IRB Min. No-OMSAI/2019/006 dated 26.03.2019).

Declaration

All authors had full access to the data in the study. Ms Ch Shilpa has responsibility for the integrity of the data and the accuracy of the data analysis. All authors were responsible for the design, collection and management of the data.

ACKNOWLEDGEMENT

I would like to acknowledge the support of the management of Om Sai Hospitals, who gave me generous access to collect data. I am also grateful to offer my sincere gratitude to all the individuals who helped me with the completion of work.

Funding Support

The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest.

REFERENCES

- [1] F Z Francies, R Hull, R Khanyile, and Z Dlamini. Breast cancer in low-middle income countries: abnormality in splicing and lack of targeted treatment options. *American Journal of Cancer Research*, 10(5):1568–1591, 2020.
- [2] H M Rajan, S Mageswari, K Gayathri, S Satish, M Baluswamy, T Vijayapushpam, and R Vijayaprabha. Magnitude and pattern of various cancers from tertiary health care center registry: A study in three southern states of India. *Journal of Cancer Research and Therapeutics*, 17(2):336–339, 2021.
- [3] V Beral, M Alexander, S Duffy, I O Ellis, R Given-Wilson, and L Holmberg. The number of Ladies who would need to be screened regularly by mammography to prevent one death from breast cancer. *Journal of Medical Screening*, 18(4):210–212, 2011.
- [4] S Secginli and N O Nahcivan. Factors associated with breast cancer screening behaviours in a sample of Turkish women: a questionnaire survey. *International Journal of Nursing Studies*, 43(2):161–171, 2006.
- [5] NBCCEDP. Report of the National Breast and Cervical Cancer Early Detection Programme. *Centers for Disease Control and Prevention*, 21:63–75, 2015.
- [6] T B Bevers, B O Anderson, E Bonaccio, S Buys, M B Daly, and P J Dempsey. NCCN clinical practice guidelines in oncology: breast cancer screening and diagnosis. *Journal of National Comprehensive Cancer Network*, 7:1060–1096, 2009.
- [7] P K Dhillon, P Mathur, A Nandakumar, C Fitzmaurice, G A Kumar, R Mehrotra, and L Dandona. The burden of cancers and their variations across the states of India: the Global Burden of Disease Study 1990-2016. *The Lancet Oncology*, 19(10):1289–1306, 2018.
- [8] I Mitra, G A Mishra, S Singh, S Aranke, P Notani, R Badwe, and S S Shastri. A cluster-randomized, controlled trial of breast and cervix cancer screening in Mumbai, India: methodology and interim results after three

- rounds of screening. *International journal of cancer*, 126(4):976–984, 2010. 352, 2006.
- [9] R Sankaranarayanan, K Ramadas, S Thara, R Muwonge, J Prabhakar, P Augustine, M Venugopal, G Anju, and B S Mathew. Clinical breast examination: preliminary results from a cluster randomized controlled trial in India. *Journal of the National Cancer Institute*, 103(19):1476–1480, 2011.
- [10] K J Begum and A Ahmed. The importance of statistical tools in research work. *International Journal of Scientific and Innovative Mathematical Research*, 3(12):50–58, 2015.
- [11] N Sinha and A Sharma. A Cross-Sectional Study on Gender Differences and Influence of Social Media Engagement on Breast Cancer Knowledge among Delhi-NCR Population in India. *Indian Journal of Community Health*, 33(1):198–201, 2021.
- [12] N Gangane, N Ng, and M S Sebastian. Women’s Knowledge, Attitudes, and Practices about Breast Cancer in a Rural District of Central India. *Asian Pacific Journal of Cancer Prevention : APJCP*, 16(16):6863–6870, 2015.
- [13] R K Prusty, S Begum, A Patil, D D Naik, S Pimple, and G Mishra. Knowledge of symptoms and risk factors of breast cancer among women: a community-based study in a low socio-economic area of Mumbai, India. *BMC women’s health*, 20:1–12, 2020.
- [14] S Singh, J P Shrivastava, and A Dwivedi. Breast cancer screening existence in India: A non-existing reality. *Indian Journal of Medical and Paediatric Oncology*, 36(04):207–209, 2015.
- [15] G Divya, DG Pravallika Choudhary, J Karun Kumar, A Praveen, P N Smitha, and R Lakshmi. A Study to Assess Knowledge, Attitude and Practice on Breast Cancer among Women in Government General Hospital. *Asian Journal of Pharmaceutical and Clinical Research*, 14(2):60–65, 2021.
- [16] M Pydipalli and P K Roy. Assessment of knowledge and awareness of breast cancer among rural women in Telangana, South India. *International Journal Of Community Medicine And Public Health*, 8(7):3593–3593, 2021.
- [17] P Sodhani, S Gupta, J K Sharma, A Parashari, K Halder, V Singh, and A Sehgal. Test characteristics of various screening modalities for cervical cancer: a feasibility study to develop an alternative strategy for resource-limited settings. *Cytopathology : Official Journal of the British Society for Clinical Cytology*, 17(6):348–