

A Quasi Experimental Study: Effectiveness of A Structured Teaching Programme On Breast Cancer Awareness and Practice On Breast Self-Examination Among House Keeping Staffs in A Private Medical College, Puducherry

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ABSTRACT

Background: Breast cancer is the most common malignancy of women worldwide. Educating the women about the risk of breast cancer and encouraging to perform Breast Self-Examination constitutes a first step towards early detection of breast cancer. **Objective:** 1) To assess the knowledge and Practice about Breast cancer before and after intervention. 2) To evaluate the effect of structured teaching program among housekeeping staffs. 3) To compare and analyze the effectiveness of intervention among housekeeping staffs. **Materials and methods:** A Quasi-experimental study was conducted among female housekeeping staffs (no-76) in a private medical college, Puducherry. They were divided as study and control group based on their shift basis. After pre-test, Structured teaching program was conducted only for the study group(n=38) which includes awareness, knowledge, practice of BSE, risk factors and preventive measures of breast cancer. Data was collected using the pre-tested and pre-designed questionnaire adopted from breast module of cancer awareness measure (b-CAM). The Study group participant's data was compared with the control group(n=38) data, at 1st week and 4th week after intervention. **Result:** The participants in the study group showed lack of awareness & practice on BSE during pre-test (20.5%). Also, the result of this study highlights the positive impact of the structured teaching program in post-test (83.8%) evaluation, which was statistically as well as clinically significant. **Conclusion:** This structured teaching program empowered them to create awareness among their family and their community about the importance of early detection of breast cancer.

Key word: Breast cancer, Breast self-examination practice, hospital staff, teaching program

INTRODUCTION

Breast cancer is the most common malignancy of women worldwide associated with high levels of mortality and morbidity. It has been reported that one in eight women will develop invasive breast cancer during her life time. It is the first cause of death among women with 40-45 years old¹.

The incidence of breast cancer is expected to cross 2 million by the year 2030 in worldwide². Global prevalence of breast cancer is 19.3 per 1,00,000 women and in India 25.8 per 1,00,000 women and mortality is 12.7 per 1,00,000 women³. In 2018, 1, 62,468 new cases and 87,090 deaths were reported for breast cancer in India⁴. Breast cancer incidence rates within India display a 3-4-fold variation across the country, with the high rates observed in the northeast and in major metropolitan cities such as Mumbai and New Delhi. Reasons for this

variation include differences in demographic like educational status, reproductive factors related to age at first child and number of children, dietary factors and lifestyle behaviours which includes Tobacco smoking and alcohol use⁵.

The WHO (World Health Organization) has suggested two components for early detection: i) Educating the people about the early signs of cancer and about the screening programme. ii) Screening programme like BSE, Mammography and Clinical Breast Examination are helpful to identify cancer before signs are recognizable⁶.

In India, most of the patients reporting at the late stage of the disease. This late stage of reporting the disease is due to lack of awareness about breast cancer

and breast cancer screening methods. Breast Self-Examination (BSE) should be done at the same time in both the breasts once in a month to differentiate suspicious lumps and bumps⁷. BSE is a procedure performed by an individual to physically and visually examine herself for changes in breast. BSE is an important component of health promotion and maintenance. Even though, BSE is easier and simple most of the people are not practicing regularly⁸. The American Cancer Society recommends that women who are 20 years and above should practice BSE once in a month⁹.

In the Indian context, educating the women about the risk of breast cancer and encouraging the women to perform Breast Self-Examination constitutes a first step towards early detection of breast cancer, so that women would be able to assess their risk towards Breast Cancer and to take proper treatment. This reduces the mortality rate of breast cancer¹⁰.

MATERIAL AND METHODS

A Quasi experimental study was conducted in Sri Lakshmi Narayana Institute of Medical Sciences for the period of two months. The study sample was housekeeping staffs(n=76) working in Sri Lakshmi Narayana Institute of Medical Sciences which was a convenient sampling and we divided them into two groups: study group(n=38) and control group(n=38) based on shift basis. Those who were in night shift were taken as control and those who were in day shift were taken as study group. Inclusion criteria of this study is women of age group between 20 and 50yrs. Exclusion criteria of this study included women who already had a history of breast cancer and women who have already attended the breast cancer awareness programme.

Study group:

On day 1, Introduction of the study was given to test group women. Pre-test was conducted by using Structured Interview Schedule which includes socio demographic variables, knowledge on BSE, practice and risk factors. On day 2, Intervention was given using power point presentation, charts and video which includes Introduction of breast cancer, risk factors of breast cancer, Breast Self-Examination and Practice, Prevention and early reporting of abnormal findings to the accessible health care facility (Duration of intervention- 1hour).

After one week of the intervention, the post-test I was assessed using the same structured interview schedule. After four weeks of intervention, post-test II was conducted using the same structured interview schedule to the study participants.

Control group:

On day 1, introduction of the study was given to the control group women. Pre-test was conducted by using structured interview schedule which includes Socio

demographic variables, knowledge on BSE, practice and risk factors. No special intervention was conducted to these control group women. After one week, the post-test I was assessed using the same structured interview schedule and after three weeks from the post-test I, post-test II was conducted to the control participants.

After post-test II, control group also received awareness of Breast Cancer and Breast Self-Examination for their benefit and those data was not analyzed for our study. The total score of each participant was computed by summing the number of correct answers and the score of pre and post-test of both groups was compared.

Study tool:

Structured interview schedule adopted from Breast Module of Cancer Awareness Measure (Breast- CAM), Cancer research United Kingdom, 2010 and socio demographic profile were self-administered.

RESULTS

A total number of 76 female housekeeping staffs selected and their demographic and personal variables are presented in table 1.

Table 1 Sociodemographic characteristic in the intervention and control group

Variable	IG N=38	CG N=38	Chi square value	P value
Age in yrs				
<40 yrs	22(57.9%)	26(68.4%)	0.9	0.34
>40 yrs	16(42.1%)	12(31.6%)		
Marital status				
Married	31(81.6%)	34(89.5%)	0.95	0.32
Widow	7(18.4%)	4(10.5%)		
Education				
Illiterate	13(34.2%)	3(7.9%)		
Primary	5(13.2%)	9(23.7%)	8.65	0.07
Middle school	8(21.1%)	8(21.1%)		
High school	11(28.9%)	16(42.1%)		
Secondary School	1(2.6%)	2(5.3%)		
Type of family				
Nuclear	34(89.5%)	30(78.9%)	8.69	0.01
Joint	3(7.9%)	0(0.0%)		
Three generation	1(2.6%)	8(21.1%)		
Socio economic status*				
SES 1 to 3	17(44.73%)	20(52.63%)	0.47	0.49
SES 4 and 5	21(55.26%)	18(47.36%)		

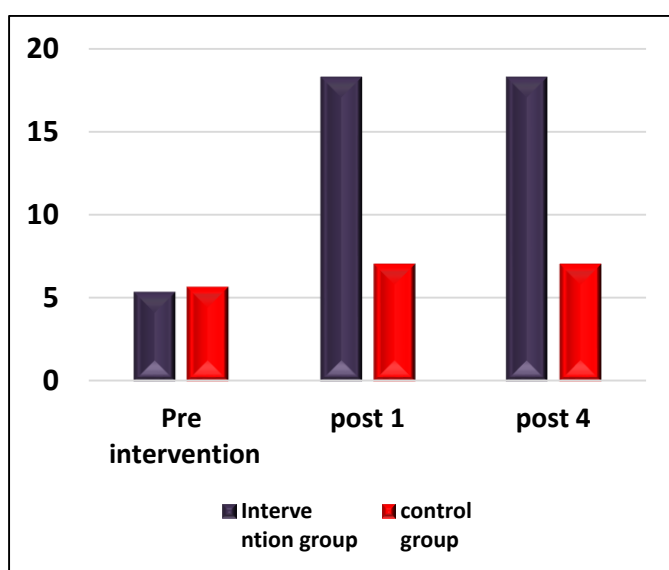
*BG Prasad's Socioeconomic status scale 2019

In this study, most of the participants are in the age group of less than 40yrs(63.2%) and 36.8% are more than 40yrs of age. 85.5% of them are married and 14.4% of them are widow. The thing to notice in the demographic profile of

TABLE 2 Between groups comparison of knowledge and practice scores for breast cancer screening tools for intervention groups and control groups

Variable	Score/Time	Intervention group	Control Group	Independent t test	pvalue
		Mean± SD N=38	Mean± SD N=38		
Overall knowledge score	Before intervention	5.37±2.63	5.63±2.69	0.43	0.66
	Post 1 week	18.29±3.07	7±3.33	15.33	<0.001
	Post 4 week	18.29±3	7±3.33	15.33	<0.001
BSE score	Before intervention	0.08±0.27	0.03±0.16	1.02	0.31
	Post 1 week	7.89±2.12	0.47±1.92	15.93	<0.001
	Post 4 week	6.66±2.13	0.47±1.92	13.25	<0.001

FIG:1 Comparison of overall knowledge score before & after intervention (post 1 week & 4 week)



this participants regarding this study is 35.5% of the participants studied high school only and 21% are illiterate. 51.3% of the participants belong to the 4 and 5 SES of BG Prasad's scale respectively.

Overall knowledge score was calculated by summing the number of correct responses, with possible scores ranging from 0 to 21. Each correct response was worth 1 point. The Breast Self-Examination score was calculated by summing the number of correct responses with possible values ranging from 0 to 10 Each correct response was worth 1 point.

In this study, most of the participants didn't even heard about the breast cancer, so no one knows how to perform breast self-examination. The participants in the study and control group, both showed lack of awareness of breast cancer and practice on BSE during pre-test, which was 20.5%. Also, after intervention, the result of the study showed positive impact in post-test (83.8%) evaluation. The result of the study is statistically as well as clinically significant. Since, two of our house keeping staffs did breast self-examination and they found a lump in their breast, so they went and showed in the surgery

department for further investigation. Hence, this study is significant clinically also. In Table 2 and Fig1 we can see the overall knowledge score and Breast self-examination score pre intervention, post intervention 1week and 4 weeks in both Intervention group and control group.

DISCUSSION

Breast cancer is the most common malignancy of women worldwide. Educating the women about the risk of breast cancer and encourage them to perform breast self-examination constitutes a first step towards early detection of breast cancer (Alteri et al¹², 2013). The aim of the present study is to create awareness and to evaluate the knowledge and practice of BSE after intervention among female housekeeping staffs.

The findings of the present study before intervention indicated that most of the participants had insufficient knowledge about breast cancer and knowledge and practice about breast self-examination. Most of them told they don't have enough time to practice and they won't notice until it becomes serious, so they don't want to know about it. They don't know the importance of breast cancer and breast self-examination.

Similar study was conducted by Swati et al¹³ among nursing students(n=80) in rural area of Haryana, in the study, most of the subjects (88.75%) did not perform BSE because majority of them don't know how to perform and most of them told they don't have any complaint in breast and 8.75% mentioned that being afraid of being diagnosed with breast cancer.

Mukupo et al¹⁴ in his study, he found that 95% of the participants did not perform BSE. The most common reason given by them was due to lack of knowledge and it was not important to perform breast self-examination. Amal bakr et al¹⁵ abo conducted a health education program among nursing students, he found that 80% of the participants showed lack of awareness about breast self-examination in pre-test evaluation.

On contrast to our study, Trask et al¹⁶, 2008, who reported that 72.1% of the participants reported having knowledge of breast self-examination.

Even though, breast cancer is not preventable, early detection of breast cancer and proper treatment can increase the chance of women survival having breast cancer. This can be achieved only by educating and encouraging the women to perform BSE and induce them about the importance of breast self-examination (National cancer Institute, 2006)¹⁷.

In this study, there were a significant positive correlation between knowledge and practices on BSE of the participants in both pre and post-test evaluation. Similarly, in a study conducted by Dunder et al¹⁸ in Western turkey, it was found that presence of knowledge about breast cancer had a positive effect on performing BSE. Our study was in contrast with Balogun & Owoaje findings, they have reported that there was no association between level of education of participants and practice of BSE.

Conclusion: This study concluded that the house keeping staff's knowledge and practice regarding Breast cancer and BSE were insufficient in pre-test. After structured teaching programme, they gained sufficient knowledge. So, One of the vital roles of health care personnel is to educate the public regarding breast cancer and breast self-examination. This structured teaching programme could be an instrumental in creating an awareness among housekeeping staffs and it may also have empowered them to create awareness to her family and her community about the importance of early detection of breast cancer and to take proper treatment

REFERENCES

1. Cancer treatment centers of America (2014): Breast cancer information, available at <http://www.cancercenter.com/> . Accessed on 19 December 2018.
2. Jemal A, Bray F, Melissa MC, Jacques F, Elizabeth W, Forman D, Global cancer statistics. CA Cancer J Clin 2011;61:69-90.
3. Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, et al., Estimated Cancer Incidence, Mortality and Prevalence worldwide in 2012. 2012 v1.0 (IARC CancerBase No. 11).
4. National Institute of Cancer Prevention and Research, Breast cancer information available at www.cancerindia.org.in . Accessed on 21 December 2018.
5. National Cancer Registry Programme. National Centre for Disease Informatics and Research and Indian Council of Medical Research. Three year report of population bases cancer registries 2009-2011 National Cancer Registry Programme. National Cancer Registry, 2013.
6. Thomas DB, Gao DL, Self SG, Allison CJ, Tao Y, Mahloch J, et al. Randomised trial of BSE in Shanghai: methodology and preliminary results. J Natl Cancer Inst 1997;89:355-65.
7. Filippi M.K, Ndikum-Moffor F, Braiuca S L, Goodman T, Hammer T L, James A S, Choi W S, Greiner K A , Daley C M. A study to assess the breast cancer screening.
8. Breakthrough breast cancer.2007. New survey shows need for simple 2 week wait for breast referrals and better education around breast awareness. Available at : www.breakthrough.org.uk/who_we_are/mediacentre/newsurveyshow.html/ . Accessed on 21 December 2018.
9. Knowledge and Practice of Breast Self-Examination among female undergraduates in South-Eastern Nigeria, American Journal of Public Health Research,2015;1(3):1134-1141.
10. Anderson BO, Braun S, Lim S. Early detection of breast cancer in countries with limited resources. *Breast J*, **9**, 51-9.
11. Linsell L, Forbes L, Burgess C, Kapari M, Thurnhan A, Ramirez A (2010). Validation of a measurement tool to assess awareness of breast cancer. *European Journal of Cancer*,46, 1374-1381.
12. Alteri R., Barnes C et al.,(2013): Breast Cancer facts & figures 2013-2014. Atlanta: American cancer society.
13. Swati., Poonam Sheoran et al.,: Awareness and ability regarding BSE: a interventional study in rural haryana, ICV(2015): 78.96 Impact factor(2015):6391 id:NOV164557
14. Mukupo, breast cancer knowledge and BSE practice among rural and urban women in Zambia Africa Journal of Nursing and Midwifery 2007: 09(1)
15. Amal bakr abo El-Ata et al., effect of a health education program about breast cancer and BSE on the knowledge and practices of female employees. *Journal of health , medicine and nursing* ISSN 2422-8499, vol 23,2016
16. Trask, P.; Pahl , L. and Begeman, M.(2008): Breast self examination in long term breast cancer survivors, *Journal of cancer survivorship*, 2(4), 243-252
17. National Cancer Institute (2006): Clinical trial summary from the National Cancer Institute's PDQ, U.S. National Library of Medicine :3 (3):P. 1-12, <http://www.google.com>
18. Dunder P.E., Ozmen D., Ozturk B., Haspolat G., Akyildiz F., et al., (2006): The knowledge and attitudes of breast self examination and mammography in a group of women in a rural area in western turkey. *BMC Cancer*. 24; 6:43

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