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RESEARCH ARTICLE

A Quasi Experimental Study to Assess the Effectiveness of Planned Nursing Intervention on Knowledge and Practice Regarding Breast Cancer and Breast Self Examination among Women in Selected Area at Salem

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Abstract: The women in rural area lacked knowledge regarding breast cancer and breast self-examination (BSE). The study was designed to investigate the effectiveness of planned nursing intervention to enhance knowledge and practice regarding breast cancer and breast self-examination among women in selected area at Salem. Breast cancer as a group of malignant diseases that commonly occur in the female breast than in the male breast. Breast cancer is one of the commonest causes of death in many developed countries in the middle age women and is becoming frequent in the developing countries.
Keywords: Breast cancer, Breast self-examination, Quasi experiment

Introduction

Breast cancer is the most common female malignancy and commonly associated with high levels of morbidity and mortality. It has become one of the curable chronic diseases. Progress is evidenced by people's knowledge about the disease and the means to prevent it. In 2012, 1.7 million women were diagnosed with breast cancer and there were 6.3 million women alive who had been diagnosed with breast cancer in the previous five years (Harvey BJ, 1997). Most of the total deaths from the disease are accounted for in the developing world. The low survival rates in less developed countries may be explained mainly by lack of early detection programmes, lack of adequate diagnosis and treatment facilities which results in a high proportion of women presenting with late stage disease it. According to the American Cancer Society report every three minutes (Reddy, 2005), a woman in the United States is diagnosed with breast cancer. The breast cancer cases in rural women were 15% (Smith, 2006). Women should begin practicing BSE at the time of their 1st gynecologic examination, which usually occurs in their late teens or early 20s. Optimal timing for BSE is 5 to 7 days after menses begins for premenopausal women and once monthly for postmenopausal women (Soyer M.T et al., 2007). The poor availability and accessibility of health care services to rural area coupled with non-affordability are some of the major factors which interfere with the early detection and treatment of breast cancer. Besides this, the women have to bear the triple burden of home, work and children, so they tend to neglect their health and postpone meeting the doctor till symptoms start troubling them.

The American Cancer Society (2008) [9] recommends an option breast cancer risk factors awareness and breasts self-examination for early detection of breast cancer. It benefits women in two ways. Women become familiar with both the appearance and the feel of their breasts and detect any change in their breast as early as possible. Breast self-examination makes women more "breast aware" which in turn may lead to an earlier diagnosis of breast cancer (Siahpush and Sigh, 2002) [10]. The rationale behind extending breast self examination practice as a screening test is the fact that breast cancer is frequently detected by women themselves without any other symptoms (Levshin, Fedichkina and Droggachih, 1998).

Materials and Methods

Statement

A Quasi Experimental study to assess the effectiveness of planned nursing intervention on knowledge and practice regarding breast cancer and breast self examination among women in selected area at Salem.

Need of the Study

The knowledge of Breast Self-Examination among women in Quassim region. 300 females were selected and interviewed. Result showed 69.7% of the participants had never heard of Breast Self Examination. Study revealed, the level of awareness of the females of Question region regarding Breast cancer, Breast Self Examination is not adequate, and a health education program should be introduced. (Jahan S et al , 2006)

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Objectives

1.To assess and compare the pre-test and post test level of knowledge regarding breast cancer and breast self-examination within Experimental group.2. To assess and compare the pre-test and post test level of knowledge regarding breast cancer and breast self-examination between Experimental group and control group.3. To assess and compare the pre-test and post test level of practice regarding breast cancer and B.S.E within Experimental group.4.To assess and compare the pre-test and post test level of practice regarding breast cancer and breast self examination between Experimental group and control group.5. Find the association between pretest level of knowledge regarding breast cancer and breast self examination with their selected demographic variables.(Age, Religion, Educational status and Number of children in family)

Hypothesis (Level Of Significance P<0.05)

H_1 : There is significant difference between pretest and post test level of knowledge regarding breast cancer and breast self examination within experimental group. **H2:** There is significant difference between pretest and post test level of knowledge regarding breast cancer and breast self-examination between experimental group and control group. **H_3** –: There is significant difference between pretest and post test level of practice regarding breast self-examination within experimental group. H4 –. There is significant difference between pretest and post test level of practice regarding breast self-examination between experimental group and control group. H_5 – There is significant association between the pretest level of knowledge on breast cancer and breast self examination with their selected demographic variables. (Age, Religion, Educational status and Number of children in family). H_5(a) – There is significant association between the pretest level of knowledge on breast cancer and breast self-examination with their age. H5 (b) - There is significant association between the pretest level of knowledge on breast cancer and breast self-examination with their religion. H_5(c) - There is significant association between the pre test level of knowledge on breast cancer and breast self examination with their educational status. H5(d)- There is significant association between the pre test level of knowledge on breast cancer and breast self-examination with their number of children.

Methods

After receiving written permission from the concerned authority, the data collection for their study was done from 05.03.2018 to 03.04.2018 at Karipatti, Salem. Initially the researcher was written permission from the concerned authority after explaining the procedure and purpose of the study. By using non-probability purposive sampling technique 60 samples were selected. Among which 30 samples were allotted to control group and remaining 30 were allotted to experimental group. The researcher introduced herself to the samples and explained the purpose of the study. Informed written consent was obtained from the samples. Data collection was done first for the control group then for the experimental group. The data was collected between 11 am to 6 pm. On first day each sample in control group the demographic variables and pre test were collected from using semi structured interview questionnaire. Post test was done on the 30th day with same questionnaire (Isara, 2011). Each sample in experimental group the demographic variables were collected from samples by using semi structured interview method. On the same day planned nursing intervention was demonstrated to each sample, and post test knowledge was conducted by interview methods and practice was done by demonstration used her own model on 30th day. Discussion was done for 10-15 minutes doubts were clarified.

Results and Discussion

Out of 60 women, most of the participants gained knowledge about breast cancer and developed skill in doing BSE. In the pre-test 26(87%) of women possess inadequate knowledge, 4(13%) had moderately adequate knowledge regarding breast cancer breast self-examination in experimental group. In the post test nearly 1(3.4%) possesses adequate knowledge, 25(83.3%) possess moderately adequate knowledge and 4(13.3%) possess inadequate knowledge in experimental group. The statistical analysis of post test shown significantly increase in the level of knowledge which indicates planned nursing intervention was effective. In relation to effectiveness of planned nursing intervention in experimental group the pre test mean score was 24.5 and the post test mean score was 32.3 and hence the calculated 't' value is 0.257 was highly significant which shows improvement in knowledge at P<0.05 level. In the pre test 26(86%) women possess inadequate knowledge and 4(14%) had moderately adequate knowledge regarding breast cancer and breast self examination in control group. In the post test nearly also there was no changes in the values in control group. The statistical analysis of post test showed there is no significant increase in knowledge. In relation to effectiveness of planned nursing intervention, the pre test mean score was 9.73 and the post test mean score was 26.4, calculated 't' value was 3.77, which was significant in experimental group and there is improvement in practice of women. There is no significant association between the pre test level of knowledge with their selected demographic variable.

The study was done to assess the effectiveness of structured teaching programme regarding breast cancer and breast self-examination among women in selected area at Salem. A pretest post test experimental research design was used for the study. A total number of 60 women were selected for the study by using simple random sampling technique. structured teaching programme was conducted to the experimental group regarding definition, causes, prevention of breast cancer. After seven days the post test was conducted by using the same questionnaire. Pre test and post test was conducted in control group without any intervention. The knowledge has been increased in evidence of post test score in experimental group compare to control group.

Findings

Highest frequency and percentage distribution of samples based on their demographic variables between experimental and control group showed that in age group of 36-40 years was 30% and 33.3% in Control group was 46-50 years. In Educational status no formal education was highest it was showed 40% and 66.7%. For marital status 46.7% and 36.7% was came under married. Religion showed that 60% and 63.3% was Hindu. Occupation showed under home maker was 43.3% and 33.3%. Number of children showed 36.7% and 33.3% who had one child. According to family members been diagnosed of breast cancer showed that under the category no was 83.3% and 86.7% and wearing an underwear bra increase the chances of getting breast cancer was 50% in both group and sample observed in demonstrating breast self examination showed that 43.3% and 50% under category was none.

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Table.1.Comparison between Pretest and Post Test Level of Knowledge Regarding Breast Cancer and Breast Self-Examination within Experimental Group.

In experimental group pre test level of knowledge was inadequate in 26 (87%), moderately adequate was knowledge 4(13%), no samples had adequate knowledge and the post test level of knowledge was inadequate for sampl 4 (13.3%) samples, moderately adequate knowledge was 25(83.3%) and adequate knowledge was 1(3.4%)

n=30

S.NO	Groups	Mean	SD	df	Table value	Paired 't' value
1.	Pre Test	24.5	14.78	29	2.05	0.257*
2.	Post Test	32.3	8.96			

***Significant at P<0.05**

The table 1: reveals that in experimental group pre and post test knowledge mean were 24.5 and 32.3. The data underwent statistical analysis and the obtained calculated paired 't' value was 0.257, which is lesser than table value at 0.05 level of significance.

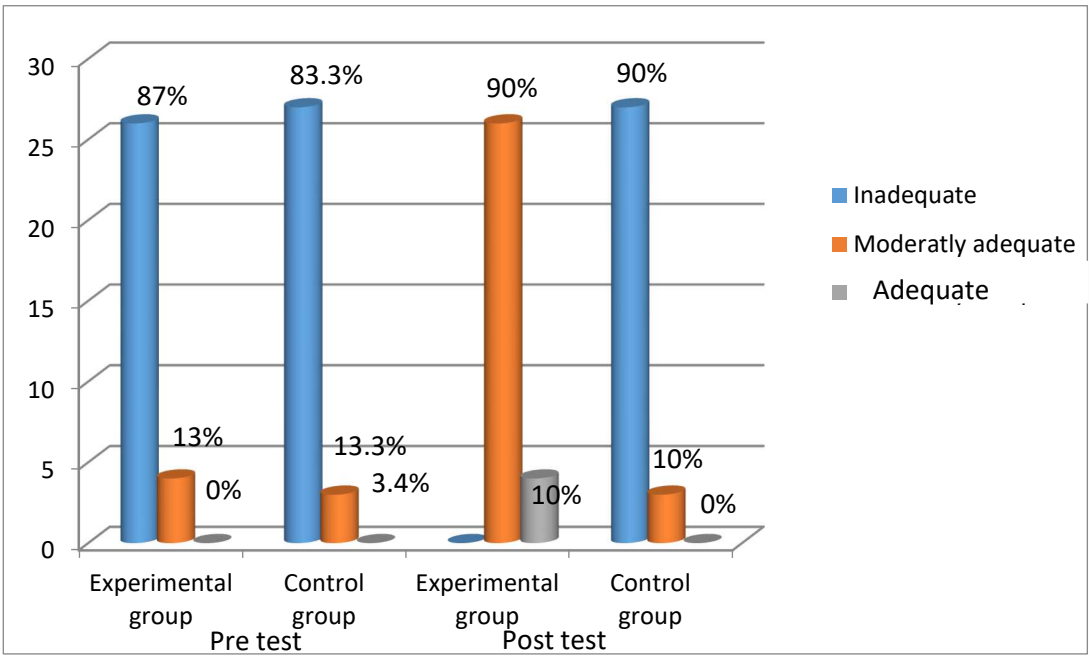

Figure 1: shows that total percentage of pre test and post test level of knowledge regarding breast cancer and breast self examination between experimental group and control group

Table.2.Analysis and Comparison of Pre-Test and Post Test Level of Knowledge Regarding Breast Cancer and Breast Self-Examination between Experimental Group and Control Group.

The level of knowledge in pre test shows inadequate in knowledge 26(87%), moderately adequate knowledge in 4(13%), and no one in adequate knowledge, in the post test level of knowledge inadequate knowledge was 4 (13.3%), moderately adequate knowledge was 25(83.3%), and adequate knowledge 1(3.4%). In control group both pre and post test were inadequate knowledge 27(90%), moderately adequate knowledge 3(10%).

n=30+30

S.NO	Group	Test	Mean	SD	df	Table Value	Unpaired 't' Value
1.	Experimental	Pre Test	24.5	14.8	58	2	
2	Control	Pre test	18.96	41.76			0.68 *
3.	Experimental	Post test	32.3	8.96	58	2	
4.	Control	Post test	18.96	41.76			0.22 *

*** Significant at p <0.05**

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The table 2: Reveals that in experimental and control group, pretest mean score were 24.5 and 41.76, post test mean of experimental and control group were 32.3 and 18.96. The data underwent statistical analysis and the obtained't' calculated value was 0.68 and 0.22, which was lesser than the table value at 0.05level of significance.

Table.3.Analysis and Comparison of Pre-Test and Post Test Level of Practice Regarding Breast Cancer and Breast Self-Examination within Experimental Group.

In experimental group pre test level of practice was inadequate 27 (90%), moderately adequate was 3(10%), no samples had adequate and in post test level of practice, inadequate was 2 (7%) , moderately adequate was 28(93%) .

n=30

S.NO	Groups	Mean	SD	df	Table value	Paired 't' value
1.	Pre Test	9.7	17.63	29	2.05	3.77*
2.	Post Test	26.4	14.15			

***Significant at P<0.05**

The table 3: reveals that in experimental group pre and post test practice mean were 9.7 and 26.4. The data underwent statistical analysis and the obtained calculated paired 't' value was 3.77, which is lesser than table value at 0.05 level of significance.

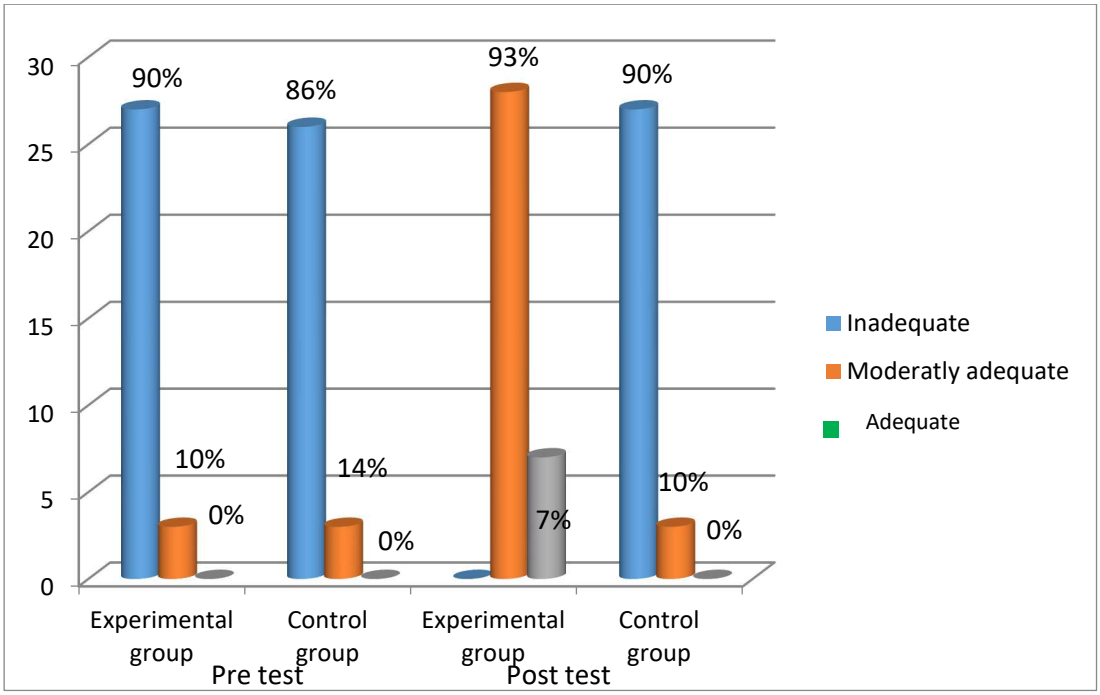

Figure 2: The bar chart shows that total percentage of pretest and post test level of practice regarding breast cancer and breast self-examination between experimental group and control group.

In experimental group the level of practice in pre test was inadequate in 27(90%), moderately adequate in 3(10%), and no one had adequate knowledge, in the post test inadequate practice was 2 (7%), moderately adequate practice was 28(93%), and adequate practice was 0(0%). The control group in both pre test and post test were showed inadequate practice was 26(86%), moderately adequate practice was 4(14%).

Table.4.Analysis of Pre Test and Post Test Level of Practice Regarding Breast Cancer and Breast Self-Examination between Experimental Group and Control Group

n=30+30

S.NO	Group	Test	Mean	SD	df	Table Value	Unpaired' t' Value
1.	Experimental	Pre Test	9.73	17.63			
2	Control	Pre test	8.4	2.6	58	2	0.23 *
3.	Experimental	Post test	26.4	14.5			
4.	Control	Post test	8.4	26	58	2	3.33 NS

*** Significant at p <0.05 NS - Non significant**

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The table 4: reveals that in experimental and control group pre test mean were 9.3 and 8.4, in post test it was 26.4 and 8.4. The data underwent statistical analysis and the obtained calculated value was 0.23 which was less than the table value and 3.33, which was greater than the table value at 0.05 level of significance.

Table.5.Association between the Pre-Test Level of Knowledge Regarding Breast Cancer and Breast Self-Examination with Their Selected Demographic Variables within Experimental Group. (Age, Religion, Educational Status, Number of Children)

n = 30

S.NO	Demographic value	Chi- square value	df	Table value
1.	Age	0.83	3	7.82^{NS}
2-	Religion	0.83	3	7.82^{NS}
3.	Educational status	0.83	4	9.49^{NS}
4.	Number of children	3.10	3	7.82^{NS}

Limitations

Generalization of the study findings was only to the selected samples.2.Assessed the practice of breast self-examination among women by using rating scales only 3. Post test knowledge and practice regarding breast cancer and breast self-examination was assessed after 30days.

Recommendations

A comparative study can be conducted among rural and urban women.2.Replication of study can be done with more number of samples in different setting to validate and generalize the findings.3.A comparative study can be done between professionals and non-professionals.4.Similar study can be conducted by using different teaching aids, current AV aids.

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 al, 2006) 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. The data also showed that majority of the students had acquired information about breast cancer, its risk factors and BSE from sources such as media, from books, school (lectures, friends) and from health care providers. This result is consistent with the results of the other studies like Budden (1995) and Milaat (2000) . These findings indicated that media continue to be one of the most important sources of information about breast cancer and BSE and highlighted the cooperation between public health educators and the media in dissemination of breast cancer information and BSE.

Conclusions

The investigator concludes that the planned nursing intervention on knowledge and practice regarding breast cancer and breast self-examination among women is very essential to protect them from breast cancer. Thus, it encompasses commitment by village health nurse to create awareness among women to promote their personal health.

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CONFLICTS OF INTEREST

"The authors declare no conflict of interest".