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A Quasi Experimental Study to Assess the Effectiveness of IEC on Knowledge, Attitude and Practice Regarding Breast Self-Examination among Female Supportive Staff Working in A.C.S Medical College & Hospital

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Abstract

Breast cancer is a cancer that begins in the tissue of the breast. It occurs when the breast cells alter and develop out of control. Normally, the cells form a tumor. The cancer is referred to as "invasive" if it has gone beyond the breast. It's possible that it'll only spread to adjacent tissues and lymph nodes. To assess the Pretest and Posttest level on Knowledge, Attitude and Practice regarding BSE among female supportive staff. To assess the Effectiveness of IEC on Knowledge, Attitude and Practice. To assess the Relationship between Knowledge, Attitude and Practice regarding BSE. To find out the association between mean differed score of Knowledge, Attitude and Practice regarding BSE with selected socio demographic variable. A quasi-experimental study was conducted in A.C.S medical college and hospital with female supportive staff. The technique were selected Simple Random sampling technique based on the inclusive and exclusive criteria. Overall sample is 75 female supportive staff. They are divided into three groups and the data is collected by pre and posttest method. After collecting the pretest data the IEC booklet was distributed to the participants. In pretest most of the female supportive staff (93.33%) had inadequate knowledge, (4%) had moderate knowledge and (2.67%) had adequate knowledge regarding BSE. Whereas in the post test after the administration of IEC, (89.33%) had adequate knowledge and (10.67%) had moderate knowledge. In the pretest most of the female supportive staff (100%) had inadequate practice regarding BSE. In posttest after the administration of IEC, (48%) had inadequate practice, (32%) had moderate practice and (20%) had adequate practice. In the pretest most of the female supportive staff (49.3%) had moderately favorable attitude, (48%) had unfavorable attitude and (2.67%) had favorable attitude. In posttest after the administration of IEC, (56%) had moderately favorable attitude, (38.67%) had favorable attitude and (5.33%) had unfavorable attitude. The pretest mean score of knowledge was 4.65±1.89, mean score of practice was 0.15±0.36 and the pretest mean score of attitude was 7.33±2.26. Comparison revealed that the mean pretest and posttest Knowledge, Attitude and Practice regarding BSE. The demographic variables of female supportive staff significantly associated with the Knowledge and there is no significant association with Attitude and Practice. This study concludes that there is improvement in the level of Knowledge, Attitude and Practice of BSE among female supportive staff which indicates that the Information booklet is effective.

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Introduction

"From every wound, there is a scar, and every scar tells a story, a story that says 'I survived'."

– Kim. Breast cancer is a cancer that begins in the tissue of the breast. It occurs when the breast cells alter and develop out of control. Normally, the cells form a tumor. The cancer may not spread further in some cases. This is referred to as "in situ." The cancer is referred to as "invasive" if it has gone beyond the breast. It's possible that it'll only spread to adjacent tissues and lymph nodes. [1]

It can spread through the lymph systems include lymph nodes, lymph vessels and lymph fluid found throughout the body. Ductal carcinoma, which starts in the cells of the ducts, is the most prevalent type of breast cancer. Lobular carcinoma is a kind of breast cancer that starts in the lobes or lobules and is more commonly detected in both breasts than other types of breast cancer. Breast cancer fatality rates in women in the United States are greater than any other malignancy except lung cancer.[2] In India breast cancer has ranked number one cancer among Indian females with age adjusted rate as high as 25 per 100,000 women and mortality 12 per 100,000 women. The incidence of breast cancer in women observed in Chennai is 40.6 per 100,000 women was the highest in the country.[3]

Breast cancer is the most frequent type of cancer that women develop over their lives (except for skin cancer). It can strike at any age, but it becomes considerably more common after the age of 40, and the risk increases as women age. Some women may have a higher risk of breast cancer than others due to a variety of variables. However, every woman should be aware of breast cancer and what can be done to prevent it. In developed and developing countries, breast cancer is shown as a major health problem. Breast cancer is the leading malignant tumor and it consists 30% of cancers among women. Breast cancer is the second leading cause of cancer deaths.[4]

According to the American Cancer Society, about 1.3million women will be diagnosed with breast cancer annually. Worldwide about 465,000 will die from the disease. Breast cancer incidence in women in the United States is 1 in 8(about 13%).In 2012, an estimated 192,370 new cases of invasive breast cancer were expected to be diagnosed in women in the U. S along with 62,280 new cases of noninvasive (in situ) breast cancer. In India, the incidence of breast is increasing, with an estimated 80,000 new cases were diagnosed annually. According to reports, one in every 22 Indian women would develop breast cancer over her lifetime.[5]

Background of The Study:

Breast Cancer is the most common disease among females. It carries poor prognosis when it was detected too late. Patients usually present at late stages due to lack of awareness among breast examination of various aspects of breast cancer.

Indian Scenario: Breast cancer accounts for 14% of cancers in Indian women. It is reported that in every 4 minutes an Indian women is diagnosed with breast cancer. Breast cancer is on the rise, both in rural and urban India. A 2018, report of breast cancer statistics recorded 1,62,468 new cases are registered and 87090 reported deaths.[6]

Need for the Study

Breast cancer is the most common cancer in women, affecting 2.1 million women each year, and it is also the leading cause of cancer-related death in women. Breast cancer claimed the lives of 627,000 women in 2018, accounting for almost 15% of all cancer deaths among women. While incidence of breast cancer is greater among women in more developed countries, they are rising in practically

every location around the world.

Materials and Methods

A Quasi experimental study was conducted in A.C.S Medical College and Hospital with female supportive staff. The technique were selected Simple Random sampling technique based on the inclusive and exclusive criteria. Overall sample is 75 female supportive staffs working in A.C.S Medical College. The participants are divided into three groups and the data is collected by pre and posttest method. After collecting the pretest data the IEC booklet was distributed to the participants. This study conducted within four weeks.

Result

Section A: Description of the Demographic variables of female supportive staff.

The Demographic variables showed that most of the female supportive staff, 53(70.7%) were aged between 41 – 50 years, 72(96%) had educated up to SSLC, 64(85.4%) were Hindus, 72(96%) were sweepers, 38(50.7%) belonged to joint family, 50(66.7%) were residing in urban area, does not have any family member with breast cancer and with gynecological problem.

Section B: Assessment of level of Knowledge, Attitude and Practice regarding BSE among female supportive staff.

TABLE I: FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING BSE AMONG FEMALE SUPPORTIVE STAFF.

N = 75

Level of Knowledge	Pretest		Post Test	
	No.	%	No.	%
Inadequate Knowledge (≤50%)	70	93.33	0	0
Moderately adequate Knowledge (51 – 75%)	3	4.0	8	10.67
Adequate Knowledge (>75%)	2	2.67	67	89.33
Level of attitude	No.	%	No.	%
Unfavorable Attitude (≤50%)	36	48.0	4	5.33
Moderately Favorable Attitude (51 – 75%)	37	49.3	42	56.0
Favorable Attitude (>75%)	2	2.67	29	38.67
Level of practice	No.	%	No.	%
Inadequate Practice (≤50%)	75	100.0	36	48.0
Moderately adequate Practice (51 – 75%)	0	0	24	32.0
Adequate Practice (>75%)	0	0	15	20.0

The table 1 showed that in the pretest most of the female supportive staff 70(93.33%) had Inadequate Knowledge, 3(4%) had moderately adequate Knowledge and 2(2.67%) had Adequate Knowledge regarding BSE among female supportive staff. Whereas in the post test after the administration of IEC, 67(89.33%) had Adequate Knowledge and 8(10.67%) had moderately adequate Knowledge regarding BSE among female supportive staff.

In the pretest most of the female supportive staff 37(49.3%) had Moderately Favorable Attitude, 36(48%) had Unfavorable Attitude and 2(2.67%) had Favorable Attitude regarding BSE among female supportive staff. Whereas in the post test after the administration of IEC, 42(56%) had Moderately Favorable Attitude, 29(38.67%) had Favorable Attitude and 4(5.33%) had Unfavorable Attitude regarding BSE among female supportive staff.

In the pretest most of the female supportive staff 75(100%) had Inadequate Practice regarding BSE among female supportive staff. Whereas in the post test after the administration of IEC, 36(48%) had Inadequate Practice, 24(32%) had moderately adequate Practice and 15(20%) had Adequate Practice regarding BSE among female supportive staff.

Section – C: Effectiveness of IEC on level of Knowledge, Attitude and Practice regarding BSE among female supportive staff.

TABLE II: EFFECTIVENESS OF IEC ON LEVEL OF KNOWLEDGE REGARDING BSE AMONG FEMALE SUPPORTIVE STAFF

N = 75

Level of knowledge	Mean	S.D	Paired 't' value
Pre test	4.653	1.899	t = 28.424 p = 0.0001(S)
Post test	12.026	1.200	
Level of attitude	Mean	S.D	Paired 't' value
Pre test	7.333	2.262	t= 6.740 p= 0.0001
Post test	9.533	1.695	
Level of practice	Mean	S.D	Paired 't' value
Pre test	0.013	0.115	t= 42.125 p= 0.0001
Post test	3.8	0.77	

The table 2 showed that the pretest mean 4.653 with the standard deviation of 1.899 and the posttest mean 12.026 with the standard deviation of 1.200. The calculated‘t’ value (7.5029) which indicated that there was an extremely statistically significant difference in the pre and posttest level of Knowledge regarding BSE among female supportive staff. In pretest mean 7.333 with the standard deviation of 2.262 and the posttest mean 9.533 with the standard deviation of 1.695. The calculated ‘t’ value (6.740) which indicated that there was an extremely statistically significant difference in the pre and posttest level of Attitude regarding BSE among female supportive staff. In pretest mean 0.013 with the standard deviation of 0.115 and the posttest mean 3.8 with the standard deviation of 0.77. The calculated ‘t’ value (42.125) which indicated that there was an extremely statistically significant difference in the pre and posttest level of Practice regarding BSE among female supportive staff.

Section D: Relationship between Knowledge, Attitude and Practice regarding BSE among female supportive staff.

TABLE III: CORRELATION BETWEEN PRETEST KNOWLEDGE, ATTITUDE AND PRACTICE SCORES REGARDING BSE AMONG FEMALE SUPPORTIVE STAFF.

N = 75

Variables	Mean	S.D	Karl Pearson's Correlation Value
Knowledge	4.65	1.89	r = 0.076 p = 0.516, N.S
Practice	0.15	0.36	
Knowledge	4.65	1.89	r = 0.181 p = 0.119, N.S
Attitude	7.33	2.26	
Practice	0.15	0.36	r = 0.039 p = 0.739, N.S
Attitude	7.33	2.26	

N.S – Not Significant

The table 3 portrayed that the pretest mean score of Knowledge was 4.65±1.89, mean score of Practice was 0.15±0.36 and the pretest mean score of Attitude was 7.33±2.26. The calculated Karl Pearson's Correlation value of r = 0.076 between Knowledge and Practice, r = 0.181 between Knowledge and Attitude and r = 0.039 between Practice and Attitude showed statistically Non-significant at p<0.05 level.

TABLE VI: CORRELATION BETWEEN POSTTEST KNOWLEDGE, ATTITUDE AND PRACTICE SCORES REGARDING BSE AMONG FEMALE SUPPORTIVE STAFF.

N = 75

Variables	Mean	S.D	Karl Pearson's Correlation Value
Knowledge	12.13	1.20	r = 0.305 p = 0.008, S**
Practice	3.53	1.13	
Knowledge	12.13	1.20	r = 0.392 p = 0.001, S**
Attitude	11.13	2.20	
Practice	3.53	1.13	r = 0.259 p = 0.025, S*
Attitude	11.13	2.20	

The table 4 portrayed that the posttest mean score of Knowledge 12.13±1.20, posttest mean score of Practice 3.53±1.13 and the posttest mean score of Attitude 11.13±2.20. The calculated Karl Pearson's Correlation value of r = 0.305 between Knowledge and Practice, r = 0.392 between Knowledge and Attitude and r = 0.259 between Practice and Attitude showed a substantial positive correlation which was found to be statistically significant at p<0.01, p<0.01 and p<0.05 level respectively. This clearly infered that when the Knowledge regarding BSE among female supportive staff increases their Practice and Attitude level also increases.

ASSOCIATION OF MEAN DIFFERED SCORE OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING BSE AMONG FEMALE SUPPORTIVE STAFF WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Demographic variables of female supportive staff significantly associated with the Knowledge and there is no significant association with Attitude and Practice.

Discussion

The present study findings are consistent with, in pretest, the data revealed that overall aspects of 70(93.33%) members had Inadequate Knowledge,

3(4%) had moderately adequate Knowledge and 2(2.67%) had Adequate Knowledge regarding BSE among female supportive staff. In posttest, the data showed after providing of IEC, 67(89.33%) has Adequate Knowledge and 8(10.67%) had moderately adequate Knowledge regarding BSE among female supportive staff. In present study pretest, most of the female supportive staff 37(49.3%) had Moderately Favorable Attitude, 36(48%) had Unfavorable Attitude and 2(2.67) Favorable Attitude regarding BSE. Whereas in the posttest after providing IEC, 42(56%) had Moderately Favorable Attitude, 29(38.67%) had Favorable Attitude and 4(5.33%) had Unfavorable Attitude regarding BSE. In Present study, pretest, most of the female supportive staff 75(100%) had Inadequate Practice regarding BSE among female supportive staff. Where as in the posttest after providing of IEC, 36(48%) had Inadequate Practice, 24(32%) had moderately adequate Practice and 15(20%) had Adequate Practice and this study supported by similar study, conducted by Shrestha S et,al.,(2017) on Knowledge, attitude and practice regarding Breast Self-Examination among female health personnel. Two third of the respondents 232 (72.5%) had average level of knowledge, followed by 70 (21.8%) had poor level of knowledge and only 18 (5.6%) had good level of knowledge. Most of the respondents 304 (95%) had positive attitude whereas only 16 (5%) had negative attitude regarding BSE. Most of the respondents 290 (90.63%) performed BSE whereas only 30 (9.37%) respondents do not perform BSE.[8]

In present study the pretest and post test level of Knowledge, Attitude and Practice statistically significant difference regarding BSE among female supportive staff and this study supported by similar study, conducted by Brindha.S (2017) on Effectiveness of IEC on level of knowledge regarding breast self-examination among women working in Export Company. The comparison of pretest and posttest level of knowledge and attitude regarding breast self-examination among women working in Export Company was done by using paired t' test. The mean score of level of knowledge was increased from 14.6 to 22.03 which showed a marked difference of 8.03 and the standard deviation was decreased from 2.86 to 1.86. The mean score of level of attitude was increased from 15.07 to 25.05 which showed a marked difference of 10.02 respectively the standard deviation was decreased from 3.86 to 1.86 after the administration of Information education communication package. The paired' test value of knowledge was 10.14 highly significant at the level of $p<0.001$. It indicates the effectiveness of information education communication package on level of knowledge regarding breast self-examination among women working in Export Company. The paired t test value of attitude was 11.14 highly significant at the level of $p<0.001$.Thus it indicated the effectiveness of information education communication package on level of attitude regarding breast self-examination among women working in Export Company.[9]

In present study findings, Correlation between pretest Knowledge, Attitude and Practice scores regarding BSE among female supportive staff. A positive correlation was found to be statistically significant at $p<0.05$ level.

Correlation between posttest, Attitude and Practice scores regarding BSE among female supportive staff. A positive correlation was found to be statistically significant at $p<0.05$ level.

This clearly interfered that when the Knowledge regarding BSE among female supportive staff that

increases their Practice and Attitude and this study supported by Similar study conducted by Kalliguddi (2019) to assess the Knowledge, attitude, and practice of breast self-examination amongst female, IT professionals in Silicon Valley of India reveled that Knowledge and Practice, Attitude and Practice are extremely correlated; knowledge and attitude are not correlated.[10]

The demographic variables of female supportive staff significantly associated with the Knowledge and there is no significant association with Attitude and Practice and this study supported by Similar study conducted by kalliguddi (2019) to assess the Knowledge, attitude, and practice of breast self-examination amongst female, IT professionals in Silicon Valley of India reveled that there was a positive correlation between age and Knowledge, age and Practice, however, a negative correlation between age and Attitude.[10]

Summary:

Extensive review of literature and experts guidance helped the researcher to design the methodology and purpose of the study. The study was to assess the Effectiveness of IEC on Knowledge, Attitude and Practice regarding BSE among female supportive staff working in A.C.S Medical College & Hospital. The main study was conducted from 01.02.2021 to 28.02.2021 and 75 samples were selected using the simple random sampling technique. Data collection was done for period of less than 4 weeks. The data collected was analyzed using both descriptive and inferential statistics.

Conclusion

In both developed and developing countries, breast cancer is the most common cancer among women. Because of increased life expectancy, urbanization, and adoption of western lifestyles, the incidence of breast cancer is rising in the developing countries. Breast cancer incidence is generally low in low-resource areas with weak health systems, and the majority of women are detected late, therefore early detection programme based on knowledge of early signs and symptoms and fast referral to diagnosis and treatment are a possibility.[7]

Conflict of Interest: The authors have no conflicts of interest regarding this investigation**.**

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