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A Study To Assess The Effect Of Planned Teaching Regarding The Post Mastectomy Exercises On Knowledge Among The Women Undergoing Mastectomy In Selected Oncology Centers Of Sangli, Miraj, Kupwad Corporation Area.

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Abstract Mastectomy is the common surgical procedure for breast cancer. Following mastectomy probable complications are likely to occur and lymphedema is one of the dreadful complications. Post mastectomy exercises play an important role in prevention of complications by releasing muscular tension, preventing contractures and restoring strength. Studies have reported that pre and post - operative education is the best way to reduce complications. A study was undertaken with an aim to determine the effect of planned teaching regarding the post mastectomy exercises on knowledge among the women undergoing mastectomy. A pre-experimental one group pre-test post-test research design was used in this study. A total of 25 women who undergoing mastectomy were selected in this study by using non probability purposive sampling technique. Pre - test was conducted by using structured knowledge questionnaire tool and the same day planned teaching was given for duration of 45 minutes and on the 7th day post- test was given by using same structured knowledge questionnaire. Results were compared between pre-test and post-test knowledge scores and association was studied between pre-test knowledge scores with selected demographic variables. In pre-test knowledge score was (11.08±2.44) and post-test knowledge score was (16.80±2.30). The statistical t value was 23.02 and p value 0.000. The findings of the study showed that the post-test knowledge score was higher than the pre-test knowledge score. Hence the planned teaching was effective and increased knowledge.

Keywords: knowledge, planned teaching, post mastectomy exercises, women undergoing mastectomy, demographic variables.

INTRODUCTION

Health is a resource for everyday life. Health is a positive impression; highlighting social and personal funds as well as physical abilities.[1] Unhealthy practices include overweight and obesity, lack of physical activity, unhealthy eating, more consumption of alcohol, drugs and smoking which may lead to affect the risk for cancer. [2] Cancer as a disease causes burden emotionally and physically on family, significant others, community and other social resources. [3]

Cancer is the leading cause of morbidity and mortality in the world. According to **GLOBOCAN**, cancer mortality and morbidity are rising globally, according to the **International Agency for Research on Cancer**, which recorded 18.1 million new cases and 9.6 million deaths in 2018. In worldwide increasing the number of new cancer cases an estimated 27.5 million in 2040. The cancer in worldwide 5 -year prevalence is estimated to be 43.8 million. Cancer is one of the leading cause of mortality and morbidity in India an estimated 1.16 million new cancer cases registered each year and 7,84,821 death in each year.[6] One of the most dangerous cancers in women is breast cancer. It is similarly the principle cause of death in women globally. According to **International Agency For Research On Cancer (IARC)** the Lung cancer and Breast cancer are the leading cancers in worldwide in terms 2.1 million (11.6%) new cases and 6,27,000 (6.6%) deaths are estimated in 2018. Breast cancer is becoming more common worldwide, particularly in developing countries like India. In India the breast cancer is an estimated 1, 62,468 (14%) new cancer cases and 87,090 (11.1%) deaths in 2018. A cancerous cell forms in the liner of a milk ductor milk gland in one of the breasts, which leads to breast cancer. If breast cancer is diagnosed early on, there is a greater chance of a cure. [6]

Mastectomy is the surgical removal of one or both breasts, either partly or completely. The types of mastectomy includes total or simple mastectomy, modified radical mastectomy, radical mastectomy, double mastectomy, skin-sparing mastectomy, nipple- sparing mastectomy. The common complications after mastectomy include lymphedema, seroma and reduced range of motion, which may lead to shoulder dysfunction. [7]

The post mastectomy exercises are performed by patients after a mastectomy. After mastectomy patients do the regular exercises to help improving the activities. Post-mastectomy exercises are very important for avoiding complications by relaxing muscle tension, restoring strength, avoiding scar tissue formation, and increasing the elasticity of joints and muscles that have been compromised by the surgery. Exercises should be initiated in acute phase which is around 72 hours. [12.13] Commonly performed post mastectomy exercises are (1) Deep breathing exercise (2)

Pursed lip breathing exercise (3) Shoulder flexion exercise (4) Shoulder abduction exercise (5) Shoulder shrug circles exercise (6) Wall climbing exercise.

Most of the women have less knowledge regarding exercises and hence their knowledge has to be enhanced by teaching. Therefore extensive education is needed before and after surgery. Education is the best way to prevent further complications ofmastectomy.

MATERIAL AND METHODS –

A quantitative research approach with Pre-experimental one group pre-test post-test research design was used for conducting the study. The independent variable was planned teaching and dependent variable was knowledge. The study population in this study was women undergoing mastectomy. Women who are willing to participate in study, women who are admitted 2 days before mastectomy and women who understand Marathi and Hindi language were included in the study while women who have complications between the period of postoperative day 1st and 3rd were excluded from the study. The study consisted of 25 samples were selected by using non-probability purposive sampling technique.

After doing the validity of the tool by experts the final tool were prepared with two sections. Section 1 with Demographic variables and section 2 structured knowledge questionnaire.

The research was approved by institutional ethical committee after presenting research proposal with data collection tool. Permission was taken from hospital administrators of cancer hospital. Written informed consent was taken from each participants after explaining the procedure. Code numbers were given to the data collection tool to maintain the confidentiality. The pre-test was taken by using the structured knowledge questionnaire. After the pre-test the planned teaching was given for the duration of 45 minutes and on the 7th day post-test was given by using the same structured knowledge questionnaire tool.

RESULTS –

The data was analysed using descriptive and inferential statistics. Frequency, percentage was calculated for demographic variables. The pre-test and post-test knowledge score was calculated by using frequency, percentage, mean and standard deviation. Paired t test was used to compare pre and post- test knowledge score. The chi square test was calculated the association between the pre-test knowledge score with selected demographic variables.

Table no. 1. Frequency and percentage distribution of selected demographic variables

N=25

Above table shown that maximum participants (36%) are 41-50 age and above 50 years of age. 48% women had primary educational qualification.68% women had no family history of cancer.72% women had not received information regarding post mastectomy exercise.12% women had received information from family members and 8% women had received information from health care provider and electronic media.

Table no.2. Frequency & percentage distribution of pre -test knowledge score regarding post mastectomy exercises N=25

Level of knowledge	f	%
Poor (0-8)	4	16.00
Average (9-16)	21	84.00
Good (17-25)	0	0.00

The above table shows that the knowledge score was divided in to three groups like poor (0-8 score), average (9-16 score) and good (17-25 score). At the time of pre-test, 16% women undergoing mastectomy in selected oncology centers had poor knowledge regarding post mastectomy exercises, 84% average knowledge and no one had good knowledge.

Figure No-1: Frequency & percentage distribution of pre -test knowledge score regarding post mastectomy exercises

Table no.3. Frequency & percentage distribution of post-test knowledge score regarding post mastectomy exercises N=25

Level of knowledge	f	%
Poor (0-8)	0	0.00
Average (9-16)	13	52.00
Good (17-25)	12	48.00

The above table shows that the knowledge score was divided in to three groups like poor (0-8 score), average (9-16 score) and good (17-25 score). At the time of post-test, no one women undergoing mastectomy in selected oncology centers had poor knowledge regarding post mastectomy exercises, 52% average knowledge and 48% had good knowledge.

Figure No-2: Frequency & percentage distribution of post -test knowledge score regarding post mastectomy exercises

Table no.4: Comparison of pre- test and post -test knowledge score N=25

TEST	MEAN	S.D	't' value	'p' value
Pre- test	11.08	2.44	23.02	0.000
Post-test	16.80	2.36		

The comparisons of the pre-test and post-test means of the knowledge were done by the paired t test. The average pre-test score was 11.08, with a 2.44 standard deviation. The average post-test score was 16.80, with a 2.36 standard deviation. The test statistics value of the paired t test was 23.02 with p value 0.00. The p value less than 0.05 hence reject the null hypothesis and accept the alternative hypothesis. Shows the significant difference in the pre and post-test average knowledge

score regarding post mastectomy exercises among women undergoing mastectomy in selected oncology centers.

Figure no.3: Comparison of pre-test and post-test Knowledge score regarding post mastectomy exercises

Table no.5: Association of the pre-test knowledge score with selected demographic variables n=25

For the above table showed that their educational qualification variable was calculated p value is less than 0.05 hence the significant association of pre-test knowledge score with demographic variable regarding post mastectomy exercises and other demographic variable like, age, family history of cancer and information received regarding post mastectomy exercises was calculated p value is more than 0.005 hence there are not significant. The demographic variable of source of information had does not conduct the chi square test because the 7 participants only received information regarding post mastectomy information.

DISCUSSION –

The analysis of the demographic data of the study samples gave an idea about the general characteristics of the women undergoing mastectomy.

The study's main findings are listed below.

Demographic variables

1. According to age of women undergoing mastectomy, in this study 8% women were from age group 21-30 years, 20% women from the 31-40 years, 36 % of women between the ages of 41 and 50, and 36 % of women between the ages of 51 and above years of age.
2. According to educational qualification of women undergoing mastectomy, in the study 48% of women were educated up to primary, 36% women were up to higher secondary, 16% women were graduated and no one women from post graduate and no formal education.
3. To the question any family history of cancer, 32% women answered yes and 68% women answered no.
4. To the question any previous information received regarding post mastectomy exercises, 28% women answered yes and 72% women answered no.
5. To the question source of information regarding post mastectomy exercises, 12% women answered from family members, 8% women answered from health care provider and 8% women answered from electronic media and no one women answered the neighbors.

   The study's findings are discussed in relation to the objectives and hypothesis of the study-

The first objective of the study was to determine the pre-test knowledge score regarding post mastectomy exercises

The total score of knowledge was divided into three groups like poor (0-8), average (9-16) and good (17-25) score. At the time of pre-test, 16% women had poor knowledge and 84% women had average knowledge regarding post mastectomy exercises. No one woman had good knowledge score. The pre-test average score was 11.08 with standard deviation of 2.44.

The study correlates with the study of, Ashwini. K.N. (2018) at Kidwai Memorial Institute of Oncology in Bangalore, to see if video-assisted teaching would improve breast cancer patients' knowledge of post-mastectomy exercises. The 50 pre -operative breast cancer patients were selected. In the pre-test average score were 16.42 with standard deviation of 3.0. [41]

The second objective of the study was to determine the post-test knowledge score regarding post mastectomy exercises

The total knowledge score was divided into three groups like poor (0-8), average scores (9-16) and good score (17-25). In the post-test 52% women had average knowledge and 48% women had good knowledge score regarding post mastectomy exercises and no one women had poor knowledge in the post-test. The post-test average score was 16.80 with standard deviation of 2.36.

The study correlates with the study of, Ashwini, K.N (2018) at Kidwai Memorial Institute of Oncology in Bangalore, to see if video-assisted teaching would improve breast cancer patients' knowledge of post-mastectomy exercises. The 50 pre-operative breast cancer patients were selected in the study. In the post-test average score were 34.92 with standard deviation of 3.80. [41]

The third objective of the study was to compare pre-test knowledge score with post-test knowledge score.

The comparisons of the pre-test and post-test means of the knowledge were done by the paired t test. The average pre-test score was 11.08, with a 2.44 standard deviation. The average post-test score was 16.80, with a 2.36 standard deviation. The test statistics value of the paired t test was 23.02 with p value 0.00. The p value less than 0.05 hence reject the null hypothesis and accept the alternative hypothesis. Shows the significant difference in the pre and post-test average knowledge score regarding post mastectomy exercises among women undergoing mastectomy in selected oncology centers.

The study's fourth objective was to see if there was a relationship between pre-test knowledge scores and selected demographic variables.

As the calculated p value is greater than 0.05, there is no significant relationship between age, family history of cancer, and information received regarding post mastectomy exercises knowledge score**.** But there is significant association between educational qualifications as calculated p value is less than 0.05. A total of 25 people participated in the research.

CONCLUSION:

The post-test knowledge score was higher than the pre-test knowledge score, according to the study's results**.** The comparison of the pre-test and post-test knowledge score was significantly. Hence the planned teaching had increased the knowledge regarding the post mastectomy exercises. So the planned teaching regarding the post mastectomy exercises was effective. This will also help the health care professional to develop their knowledge. The planned teaching is a proven method to improve the knowledge so the nursing students will use this knowledge of post-mastectomy exercises to enhance their own care quality and to provide more responsive nursing care to patients.

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Conflict of Interest:

No conflict of interest involved.

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