



# A STUDY TO ASSESS THE EFFECTIVENESS OF PRE CHEMOTHERAPY EDUCATION ON SELF CARE AND COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER IN ONCOLOGY UNIT CANCER CENTER AT ERODE.

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## ABSTRACT

**BACKGROUND OF THE STUDY;** Self management involves taking responsibilities for your own health and taking the initiative to do so. This can be accomplished by learning information and skills that will help you deal with the difficulties you may encounter during and after your cancer treatment. The aim of the study was to develop a self care and coping strategies, women with breast cancer.

**OBJECTIVES;** To evaluate the effectiveness of prechemotherapy education on self care and coping strategies, of women with breast cancer

**DESIGN;** Pre-experimental one group pretest and post test design was used to assess the effectiveness of pre chemotherapy education on self care and coping strategies, of women with breast cancer.

**SETTINGS;** Oncology Unit of Erode Cancer Center, Thindal, Erode.

**SAMPLE SIZE;** Total sample size was 30 Women with Breast Cancer who were residing at Erode Cancer Center, Erode. Who were fulfilling inclusion criteria.

**SAMPLING TECHNIQUE;** Purposive sampling technique was used to select the sample.

**METHODS;** A pre experimental study was conducted with one group pretest- post test, to find out the effectiveness of Pre Chemotherapy education on self care and coping strategies, of women with breast cancer at Oncology unit cancer center, Erode. Pretest was done by using interview schedule self care and coping strategy scale was prepared with extending review of literature. The content validity of questionnaire and education was established with valuable inputs from the experts in the field of nursing, medical oncologist. The tool was evaluated through inter rated reliabilities.

## **INTRODUCTION**

Breast cancer is one of the most frequent and common cancer in women world wide. 2million new cancer cases were diagnosed in 2018 among which 23% of patients were diagnosed with breast cancer. Now it is the most common cancer in both developed and developing countries. The incidence rates were 19.3 per 1,00,000 women in Eastern Africa, 89.7 per 1,00,000 women in Western Europe , more than 80 per 1,00,000 in Japan and less than 40 per 1,00,000 in other most developing countries. **(Zaidi.Z.etal.,2018).**

In United states, 2, 68,600 women were diagnosed with invasive breast cancer, 62,930 women were diagnosed with in situ breast cancer. 41,760 women's died of breast cancer. The five year survival rate women with breast cancer are 99%, and if it is spread to the lymph nodes, the cancer patient five year survival rate is 85% only. Currently, in United States 3million women have been diagnosed with breast cancer. **(Espanol., 2019).**

## **STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of pre chemotherapy education on self -care and coping strategies among women with breast cancer in oncology unit of Cancer center at erode.

## **OBJECTIVES OF THE STUDY**

- To Assess the pre test level of the self-care and coping strategies of women with breast cancer.
- To Evaluate the effectiveness of pre chemotherapy education on self-care and coping strategies of women with breast cancer.

- To find out the association between post test level of self-care, coping strategies of women with breast cancer with their selected demographic variables.

### **HYPOTHESIS:**

- H1 - There is a significant difference between pre test and post test level of self-care and coping strategies of women with breast cancer in oncology unit, cancer centre, Erode.
- H2 - There is a significant association between post test level of self-care and coping strategies of women with breast cancer with their selected demographic variables.

### **ASSUMPTION:**

- It is assumed that the women will have knowledge on pre chemotherapy education on self care and coping strategies in breast cancer.
- The patient subjected with breast cancer are at risk of developing a problem with self-care and coping strategies which needs prompt identification and initiation of education.

### **DELIMINATION:**

- The scope of this study was limited to the women with breast cancer in erode cancer center

### **DESCRIPTION OF THE TOOL**

There are three section of tool were used. They are,

SECTION- I :Demographic variables

SECTION- II : Modified Self-care strategies scale

SECTION- III : Modified BRIEF COPE 28 scale

#### **SECTION – I : Demographic variables:**

It consists of demographic characteristics of women with breast cancer such as

1. Age in years
2. Sex
3. Level of education
4. Religion
5. Marital status
6. Dietary habits
7. Tumor staging
8. Treatment
9. Family history of breast cancer

## SECTION - II : Modified Self-care Strategies scale

A tool assessment of self-care strategies such as

1. Anemia and fatigue
2. GI symptoms (appetite changes, nausea and vomiting)
3. Oral care
4. Constipation and Diarrhea
5. Infection/fever
6. Hair loss and Skin problems

The main aim of the check list is to quantify women's involvement in self-care activities through out their cycle of chemotherapy treatment.

The scoring pattern as follows,

- 1 – 30 - Inadequate self-care abilities
- 31 – 60 – Moderate self-care abilities
- 61 – 90 - Adequate self-care abilities

## SECTION III : Modified BRIEF COPR 28 Scale:

This scale mainly used to assess the coping strategies of women newly diagnosed with breast cancer. It's a Brief COPE scale it has 28 item inventories. It includes 14 scales that correspond to 14 different coping strategies: a) Self distraction, b) Active coping, c) Denial, d) Substance use, e) Use of emotional support, f) Use of instrumental support, g) Behavioral disengagement, h) Venting, i) Positive reframing, j) Planning, k) Humor, l) Acceptance, m) Religion, n) Self-blame. In this scale each scale has 2 item that is avoidant and approach, each assessed on a one point scale

The scoring pattern given as

- 0 – avoidant scoping
- 1 – approach scoping

Scoring interpretations:

- 1 – 10 – Less coping skills
- 11 – 19 – moderate coping skills
- 20 – 28 – more coping skills

## VALIDITY

The investigator formulated the tool based on the objectives after thorough literature review. The tool will be submitted to the experts in the field of Nursing and Medicine to establish the content validity. Based on experts suggestion, the investigator finalized the tool for the original study. Tool was modified according to the suggestion and recommendation of the experts.

**METHODS OF DATA COLLECTION:**

A written permission will be obtained from the concerned authority to conduct the study erode cancer center, at Erode. Data collection will be done for the period of four weeks. The patients who fulfilled the inclusion criteria are selected for the study by using purposive sampling technique. The investigator meet the patients and explained the purpose of study and obtained informed consent. Approximately 45 minutes will taken for each participant for collecting data about all the tools used in this study. The investigator will retrieved the demographic data and The structured questionnaire will given to the study participants and instructed them to fill all the questions to assess their self-care was assessed with Modified self-care strategies scale and coping ability will assessed with Modified BRIEF COPE 28 scale.

**RESULT****SECTION A: FREQUENCY AND PERCENTAGE DESCRIPTION OF SAMPLE ACCORDING TO THEIR DEMOGRAPHIC VARIABLES.****TABLE – 4.1****FREQUENCY AND PERCENTAGE DISTRIBUTION OF WOMEN WITH BREAST CANCER ACCORDING TO DEMOGRAPHIC VARIABLES****(n=30)**

S.NO	VARIABLES	FREQUENCY	PERCENTAGE (%)
<b>1.</b>	<b>AGE (YEARS)</b>		
	20 years – 35 years	06	20%
	36 years – 50 years	16	53.3%
	51 years – 70 years	08	26.7%
<b>2.</b>	<b>SEX</b>		
	Male	0	0%
	Female	30	100%
<b>3.</b>	<b>LEVEL OF EDUCATION</b>		
	Uneducated	09	30%
	Primary education	09	30%
	Higher secondary	08	26.7%
	Graduate	04	13.3%
<b>4.</b>	<b>RELIGION</b>		
	Hindu	14	46.7%
	Christian	08	26.7%

	Muslim	08	26.7%
	Others	0	0%
<b>5.</b>	<b>MARRITAL STATUS</b>		
	Married	23	76.7%
	Unmarried	0	0%
	Widow or widower	7	23.3%
<b>6.</b>	<b>DIETARY HABITS</b>		
	Vegetarian	03	10%
	Non vegetarian	27	90%
<b>7.</b>	<b>TUMOR STAGING</b>		
	First Stage	0	0%
	Second Stage	14	46.7%
	Third Stage	16	53.3%
	Fourth Stage	0	0%
	Unclassified	0	0%
<b>8.</b>	<b>TREATMENT</b>		
	Neoadjuvant	14	46.7%
	Adjuvant	16	53.3%
<b>9.</b>	<b>FAMILY HISTORY OF BREAST CANCER</b>		
	Yes	13	43.3%
	No	17	56.7%

## **SECTION B: ASSESS THE LEVEL OF SELF CARE AND COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER BEFOR AND AFTER PRE CHEMOTHERAPY EDUCATION.**

Determination of the level of self care and coping strategies among women with breast cancer was assigned by three point scale who were scored between one to thirty marks were referred to have inadequate self care abilities, thirty one to sixty were referred to moderate self care abilities, sixty one to ninety were referred to adequate self care abilities for self care strategies scale. Who were scored between one to ten marks were referred to less coping skills, eleven to nineteen were referred to moderate coping skills, twenty to twenty eight were referred to more coping skills for coping strategies.

**TABLE – 4.2**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE AND POST TEST SCORES ON LEVEL OF SELF CARE STRATEGIES AMONG WOMEN WITH BREAST CANCER.**

Level of self care strategies	Three point scale	Pre test		Post test	
		No of respondent	Percentage	No of respondent	Percentage
Inadequate	1 – 30	9	30%	0	0%
Moderate	31 – 60	21	70%	3	10%
Adequate	61 – 90	0	0%	27	90%
<b>Total</b>		<b>30</b>	<b>100%</b>	<b>30</b>	<b>100%</b>

Assessment of the level of self care women with breast cancer in pre test reveals that highest percentage of respondent (70%) had moderate self care abilities, were (30%) of them at inadequate self care abilities and no one have adequate self care abilities.

In the post test assessment of the self care abilities of the respondents (90%) of them were at adequate self care abilities, and (10%) of them are had moderate self care abilities about pre chemotherapy education among women with breast cancer. None of them at the level of inadequate self care abilities.

**TABLE – 4.3**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE AND POST TEST SCORES ON LEVEL OF COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER.**

Level of coping strategies	Three point scale	Pre test		Post test	
		No of Respondent	Percentage	No of Respondent	Percentage
Less coping	1 – 10	12	40%	2	6%
Moderate coping	11 – 19	17	57%	5	17%
More coping	20 – 28	1	3%	23	77%

<b>Total</b>		<b>30</b>	<b>100%</b>	<b>30</b>	<b>100%</b>
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Assessment of the level of coping skills of the women with breast cancer in pre test reveals that highest percentage of respondent (57%) had moderate coping skills, were (40%) of them at less coping skills and only one have (3%) at the more coping skills.

In the post test assessment of the coping skills of the respondent (6%) of them were at less coping skills, (17%) of them are had moderate coping skills and (77%) of them are had more coping skills about pre chemotherapy education among women with breast cancer.

### **SECTION C: EFFECTIVENESS OF PRE CHEMOTHERAPY EDUCATION ON SELF CARE AND COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER.**

**TABLE – 4.4**

#### **PAIRED ‘t’ VALUE OF PRE TEST AND POST TEST SCORES OF WOMEN WITH BREAST CANCER SELF CARE STRATEGIES SCALE.**

(n = 30)

	Mean	M.D	S.D	Mean %		Paired ‘t’ Value	Level of significant
				Pre	Post		
<b>Pre test</b>	<b>36</b>	<b>41.5</b>	<b>8.31</b>	<b>40%</b>	<b>81.5%</b>	<b>19.82</b>	<b>Highly significant P &lt; 0.05 Level</b>
<b>Post test</b>	<b>73.4</b>						

The table- 4.4 shows that the knowledge score of Pre test mean was 36, Post test mean was 73.4, The mean level of mean difference 41.5, Standard Deviation was 8.31, The ‘t’ test value was 19.82 at  $p < 0.05$  level which shows statistically Highly significance at 0.05 level. Its indicated that the self care abilities has improved in post test due to pre chemotherapy education and hence the test was effective.



**TABLE – 4.5****PAIRED ‘t’ VALUE OF PRE TEST AND POST TEST SCORES OF WOMEN WITH BREAST CANCER COPING STRATEGIES.****(n = 30)**

	Mean	M.D	S.D	Mean %		Paired ‘t’ value	Level of significant
				Pre	Post		
Pre test	11	39.29	4.68	39.38%	78.57%	10.028	Highly significant P < 0.05 level
Post test	22						

The table - 4.5 shows that the coping strategies scores of pre test mean was 11, post test mean was 22, the mean level of difference 39.29, standard deviation was 4.68, the ‘t’ test value was 10.028, at  $p < 0.05$  level which shows statistically highly significant at 0.05 level. Its indicated that the coping strategies has improved in post test due to pre chemotherapy education and hence the test was effective.

**SECTION D: FIND OUT THE ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND LEVEL OF SELF CARE AND COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER.****TABLE – 4.6****CHI SQUARE VALUE OF ASSOCIATION BETWEEN POST TEST SCORE REGARDING BREAST SELF EXAMINATION WITH THEIR SELECTED DEMOGRAPHIC VARLABLES.**

S.NO	DEMOGRAPHIC VARIABLES	CALCULATED VALUE OF (X <sup>2</sup> )	Df	‘t’ value	Level of significant (P < 0.05)
1	Age	14.79	4	9.49	P < 0.05 (S)

2	Sex	26.4	2	5.99	P< 0.05 (S)
3	Level of education	20.63	6	12.59	P< 0.05 (S)
4	Religion	21.569	6	12.59	P< 0.05 (S)
5	Marrital status	24.068	4	9.49	P< 0.05 (S)
6	Dietary habits	26.11	2	5.99	P< 0.05 (S)
7	Tumor staging	23.487	8	15.51	P< 0.05 (S)
8	Treatment	23.487	2	5.99	P< 0.05 (S)
9	Family history of breast cancer	23.498	2	5.99	P< 0.05 (S)

Table – 4.6 shows the chi square was calculated to find out the association between the post test scores of women with breast cancer their selected demographic variables regarding self care strategies. It reveals that there was a significant association ( $p < 0.05$ ) found between the post test scores of self care strategies and demographic variables

**TABLE – 4.7**

**CHI SQUARE VALUE OF ASSOCIATION BETWEEN POST TEST SCORE REGARDING COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER THEIR SELECTED DEMOGRAPHIC VARIABLES.**

S.No	Demographic variables	Calculated value of (X <sup>2</sup> )	Df	't' value	Level of significant (P< 0.05)
1	Age	19.815	4	9.49	P< 0.05 (S)
2	Sex	24.74	2	5.99	P< 0.05 (S)
3	Level of education	19.388	6	12.59	P< 0.05 (S)
4	Religion	19.232	6	12.59	P< 0.05 (S)
5	Marrital status	22.121	4	9.49	P< 0.05 (S)
6	Dietary habits	26.204	2	5.99	P< 0.05 (S)
7	Tumor staging	20.857	8	15.51	P< 0.05 (S)
8	Treatment	20.907	2	5.99	P< 0.05 (S)
9	Family history of breast cancer	20.998	2	5.99	P< 0.05 (S)

**Table – 4.7** shows the chi square was calculated to find out the association between the post test scores of women with breast cancer their selected demographic variables regarding coping strategies. It reveals that there was a significant association ( $p < 0.05$ ) found between the post test scores of coping strategies and demographic variables.

## CONCLUSION

It reveals that there was a significant association ( $p < 0.05$ ) found between the post test scores of self care strategies and demographic variables. It reveals that there was a significant association ( $p < 0.05$ ) found between the post test scores of coping strategies and demographic variables.

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