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"Effectiveness Of Empowerment Programme On Coping Of Post-Mastectomy Patients Undergoing Chemotherapy In A Tertiary Care Hospital, Kottayam"

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ABSTRACT: Breast cancer is the most common malignancy among women globally.[1] The patients with breast cancer adopts different coping styles during their treatment time. This study investigated the effectiveness of empowerment programme on coping of post-mastectomy patients undergoing chemotherapy.

Methods: This study adopted a quantitative research approach with a quasi-experimental pretest post-test control group design. Sr. Callista Roy's Adaptation model was the theoretical support for the study.A purposive sampling technique with a total of 70 patients, 35 in each control and the experimental groups were selected for the study. The data were collected with socio-personal and clinical data sheets and the Jalowiec coping scale. On the first day of the test, a pre-test was conducted and an empowerment programme was given to the experimental group, which includes a structured teaching programme, mindfulness breathing exercises and mindfulness body scan meditation. The post-test was conducted at the end of the intervention.

Results: The results reveals that the U value obtained for coping of post-mastectomy patients undergoing chemotherapy among the control and experimental group was 206.5 which was significant at 0.001 level.

Conclusion: This indicates that among the post-mastectomy patients undergoing chemotherapy the empowerment programme was effective in improving the coping.

KEYWORDS: *Post mastectomy Patients Undergoing Chemotherapy, Empowerment programme, Effectiveness, Coping.*

INTRODUCTION

A breast cancer diagnosis is a challenging situation which is challenging to create a conducive environment that empowers patients in their lives. Supportive groups, counsellors, and online communities help them to join, share their experiences, and attain emotional support. [2]The patients need health professionals to communicate to express their needs and clarify their doubts. The diagnosis of cancer, surgery and chemotherapy have created coping issues in patients with breast cancer. So the investigator felt a need to conduct a study to find out the effectiveness of empowerment programmes to help post mastectomy patients undergoing chemotherapy to improve their health practices and coping.

BACKGROUND OF THE PROBLEM

The most common forms of cancer affecting the people of India are breast cancer, cervical cancer and oral cancer.The most common forms of cancer affecting the people of India are breast cancer, cervical cancer and oral cancer.[3]Despite good health indicators breast cancer is a public health problem in Kerala with an annual incidence of 14.9/100000 population.[4] The most common forms of cancer affecting the people of India are breast cancer, cervical cancer, and oral cancer. These three cancers together constitute a major portion of the overall cancer burden in the country and pose a serious public health challenge. Breast cancer is the leading cancer among women in India and has been increasing steadily due to changing lifestyle patterns, late diagnosis, and lack of

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awareness about preventive screening. Cervical cancer remains another major contributor to cancer-related morbidity and mortality among Indian women, despite being largely preventable through early screening and vaccination. Meanwhile, oral cancer is especially prevalent among men and is strongly associated with the widespread use of tobacco, betel nut chewing, and alcohol consumption, which continue to be common habits across several regions.

Among the Indian states, Kerala represents a unique situation. Even though Kerala is well known for its excellent health indicators—such as high literacy rates, strong primary healthcare services, and good maternal and child health outcomes—breast cancer continues to be a public health problem in the state. The annual incidence rate of breast cancer in Kerala is 14.9 per 100,000 population, which is comparatively high and highlights the need for increased attention to early detection, regular breast examination, and public awareness programs. The paradox of high health literacy and high breast cancer incidence suggests that lifestyle factors, delayed diagnosis, and limited participation in screening programs may be important contributing reasons.

Thus, despite advancements in healthcare and relatively better access to medical services, breast cancer remains a concern in Kerala. This calls for strengthened health education, awareness initiatives, and more effective screening strategies. Early diagnosis and timely treatment can significantly improve survival rates and reduce the burden of cancer in the community.

NEED AND SIGNIFICANCE

Mastectomy creates physiologic, psychological and social problems in patients.Educating breast cancer patients had a positive effect on their emotions and attitudes and helped them prepare for the future. Educating breast cancer patients strengthened their ability to cope with treatment and adverse effects.[5] During the investigators clinical experience, it is found that post mastectomy patients undergoing chemotherapy are having physiological and psycho-social problems with chemotherapy and mastectomy. The investigator felt a need to conduct a study to find out the effectiveness of empowerment programme to help post-mastectomy patients undergoing chemotherapy to improve their coping.

Objectives

- To assess the health coping of post-mastectomy patients undergoing chemotherapy
- To determine the effectiveness of the empowerment programme on coping of post mastectomy patients undergoing chemotherapy

METHOGOLOGY

- The total sample size is 70 with 35 in control and 35 in experimental group.Sampling technique is non probability purposive sampling technique. Post mastectomy patients undergoing chemotherapy who are in the age group 30-70 years, can read Malayalam, have completed a minimum one cycle of chemotherapy and are willing to participate in the study were included in the study. Post mastectomy patients undergoing chemotherapy who are with major mental illness, visual or hearing impairment were excluded from the study. Socio personal sheet, clinical data sheet and Jalowiec coping scale (part B) was used for collecting data. Pilot study was conducted with 10% of the study sample at Oncology day care unit of Govt. Medical College Hospital Kottayam. During the main study the data was collected from 70 post mastectomy patients undergoing chemotherapy in day care chemotherapy unit of Government Medical College hospital Kottayam over a period of six weeks from 15/05/2022 to 24/06/2022. First thirty five subjects were allocated to the control group. After obtaining informed consent, the pretest was conducted using socio personal and clinical data sheet, health practice assessment scale and Jalowiec coping scale. Post test was carried out on the 21st day of pretest with the same tools. After completing data collection from the control group, the next thirty-five subjects were allocated to the experimental group. Informed consent was obtained. After the pretest, empowerment programme was administered to

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the patients individually. The follow-up was done by telephonic communication. Post test was conducted for experimental group on the 21st day with the same tools. Analysis of sample characteristics such as socio personal data and clinical data was done using frequency distribution and percentage. Frequency distribution and percentage was used to assess the health practices and coping of post mastectomy patients undergoing chemotherapy. Median, IQR and Mann Whitney U test was used to evaluate the effectiveness of empowerment programme on health practices and coping of post mastectomy patients undergoing chemotherapy.

Table 1: Sociopersonal data of postmastectomy patients undergoing chemotherapy

Sample characteristics	Control group (n=35)		Experimental group (n=35)		df	χ^2	p
	f	%	f	%			
Age in years							
30-40	4	11.40	3	8.60	3	2.00	0.57
41-50	10	28.60	9	25.70			
51-60	15	42.90	12	34.30			
61-70	6	17.10	11	31.40			
Education							
Primary education	7	20.00	2	5.70	4	5.73	0.22
High school	14	40.00	23	65.70			
Higher secondary	8	22.90	6	17.10			
Degree and above	4	11.40	3	8.60			
Professional/Technical education	2	5.70	1	2.90			
Marital status							
Single	1	2.90	2	5.70	3	2.35	0.50
Married	23	65.60	27	77.10			
Widow	8	22.90	5	14.30			
Divorced/Separated	3	8.60	1	2.90			
Occupation							
Unemployed	19	54.20	14	40.00	4	3.39	0.49
Manual labourer	8	22.90	13	37.10			
Self-employed	3	8.60	1	2.90			
Private job	4	11.40	5	14.30			
Government job	1	2.90	2	5.70			

Table 2: Clinical data of postmastectomy patients undergoing chemotherapy

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	Control group (n=35)		Experimental group(n=35)		df	χ^2	p
	f	%	f	%			
Type of surgery Modified radical mastectomy	29	82.80	31	88.50	3	1.21	0.75
Radical mastectomy	1	2.90	1	2.90			
Breast-conserving surgery	4	11.40	3	8.60			
Radical mastectomy with breast reconstruction	1	2.90	0	0			
Duration after surgery (in months)							
2 – < 3	5	14.30	4	11.40			
3 – < 4	10	28.60	11	31.50			
4 – < 5	2	5.70	4	11.40	4	1.07	0.90
5 – < 6	9	25.70	9	25.70			
6 – > 6	9	25.70	7	20.00			
Stage of cancer							
Stage I	16	45.70	16	45.70	3	1.25	0.74
Stage II	13	37.10	15	42.90			
Stage III	5	14.30	4	11.40			
Stage IV	1	2.90	0	0			
Number of cycles of chemotherapy underwent							
2 cycles	5	14.20	3	7.41			
3 cycles	8	22.90	7	20.00			
4 cycles	1	2.90	7	20.00			
5 cycles	3	8.50	3	8.60	6	7.41	0.21
6 cycles	8	22.90	9	25.70			
7 cycles	8	22.90	6	17.10			
8 cycles	2	5.70	0	0			

Coping of post mastectomy patients undergoing chemotherapy

Coping of post mastectomy patients undergoing chemotherapy and was assessed by Jalowiec coping

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scale. Coping was classified as high (121- 180), moderate (60 -120) and low (0 - 59). The results depicts that 85.7% of subjects in the control and 82.9% of patients in the experimental group had moderate coping. Chi square value shows that there was no statistically significant difference between control and experimental group. Hence the groups were homogenous in terms of coping.

The study findings reveals that 54.3% of subjects in control and 42.9% of subjects in experimental group had moderate coping and 40% of subjects in control and 57.1% of subjects in experimental group had low confrontive coping. Majority of subjects in control (94.3%) and experimental group (91.4%) had moderate evasive coping. The findings shows that 68.5% of subjects in control and 71.4% of subjects in experimental group had moderate optimistic coping. Majority of subjects in control (94.3%) and experimental group (91.4%) had low fatalistic coping. Chi square value shows that there was no statistically significant difference between control and experimental group. Hence the groups were homogenous in terms of confrontive, evasive, optimistic and falatistic coping styles. Majority of subjects in control (97.1%) and experimental group (100%) had low emotive coping. Majority of subjects in control (82.9%) and experimental group (94.3%) had low palliative coping. The results hows that (60%) of subjects in control and (68.6%) in the experimental group had moderate supportant coping. The results also shows that 71.4% of subjects in the control and 57.1% of subjects in experimental group had moderate self-reliant coping. Chi square value shows that there was no statistically significant difference between control and experimental group. Hence the groups were homogenous in terms of emotive, palliative, supportant and self-reliant coping styles.

Table 3: Median and IQR of pretest and post test scores of coping of post mastectomy patients undergoing chemotherapy in control and experimental group (n=70)

Group	Coping			
	Pre test		Post test	
	Median	IQR	Median	IQR
Control (n=35)	72	23	80	22
Experimental (n=35)	67	16	104	29

Table 3 depicts that the median of pretest score of coping in the control group was 72 and in experimental group was 67 and the IQR of control group and experimental group were 23 and 16 respectively. The median of the post test score of coping in the control group was 80 and in experimental group was 104 and the IQR of control group and experimental group were 22 and 29 respectively.

Table 4: Mean rank, sum of ranks and U value of post test scores of coping of post mastectomy patients undergoing chemotherapy in control and experimental group (n = 70)

	Coping			
Group	Mean rank	Sum of ranks	U	p
Control (n=35)	23.90	836.50	206.50	0.000
Experimental (n =35)	47.10	1648.50		

Table 4 shows that the mean rank of post test score of coping of post mastectomy patients undergoing chemotherapy in control group was 23.90 and in experimental group was 47.10. The U value obtained for coping of post mastectomy patients undergoing chemotherapy among the control and experimental group was 206.5 which was significant at 0.001 level. It was interpreted that there was statistically significant difference in the post test score of coping between control and experimental group. Hence null hypothesis was rejected. This indicates that the empowerment programme was effective in improving the coping of post mastectomy patients undergoing chemotherapy.

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The results depicts that the median pretest and post test score of confrontive coping in control group was 11 and 12 respectively whereas the median pretest and post test score in experimental group was 10 and 19 respectively. The median pretest and post test score of evasive coping in control group was 19 and 20 respectively whereas the median pretest and post test score in experimental group was 17 and 24 respectively. The median pretest and post test score of optimistic coping in control group was 17 and 19 respectively whereas the median pretest and post test score in experimental group was 16 and 20 respectively. The median pretest and post test score of fatalistic coping in control group was 0 and 1 respectively whereas the median pretest and post test score in experimental group was 2 and 1 respectively. The median pretest and post test score of emotive coping in control group was 2 and 2 respectively whereas the median pretest and post test score in experimental group was 2 and 3 respectively. The median pretest and post test score of palliative coping in control group was 5 and 3 respectively whereas the median pretest and post test score in experimental group was 5 and 10 respectively. The median pretest and post test score of supportant coping in control group was 10 and 11 respectively whereas the median pretest and post test score in experimental group was 9 and 12 respectively. The median pretest and post test score of self-reliant coping in control group was 9 and 9 respectively whereas the median pretest and post test score in experimental group was 8 and 13 respectively.

The obtained U value for the domains; confrontive (U =199), evasive (U =331.5), optimistic (U=326), palliative (U=154), supportant (U=330) and self-reliant (U= 289.5) were significant at 0.001 level. This indicates that the empowerment programme was effective in improving the coping related to these domains. The obtained U value for the domains: fatalistic and emotive coping were 565.5 and 500.5 respectively which was not significant at 0.05 level. Hence the empowerment programme was statistically not effective in improving the fatalistic and emotive coping of post mastectomy patients undergoing chemotherapy.

DISCUSSION

In the present study regarding educational status the present study illustrated that 40% of subjects in the control group and 65.7% in experimental group were high school educated. The study also revealed that 65.7% of subjects in control group and 77.1% in experimental group were married. Similar findings were supported by a cross-sectional study conducted to investigate the coping strategies, quality of life and pain of sixty-two breast cancer women.The majority of participants were high school educated (41.9%) and married (93.5%).[6]

The U value obtained for coping of post mastectomy patients undergoing chemotherapy among the control and experimental groups was 206.5 which was significant at 0.001 level. This indicates that the empowerment programme was effective in improving the coping of post mastectomy patients undergoing chemotherapy. The study findings were in parallel to a study to investigate the effect of a supportive programme on coping strategies and stress in sixty women with breast cancer. The study concluded that the supportive programme group participants experienced a significantly higher increase in their problem-oriented coping strategies score in comparison with the control group.[7]

LIMITATIONS

Long term effect of empowerment programme was not assessed due to limited time. Few post mastectomy patients between the age group of 60 – 70 who are undergoing chemotherapy reported poor technical knowledge in using android phone. More time was taken to collect data from older patients. For getting adequate number of subjects in the prescribed time period researcher had to include patients who have undergone different cycles of chemotherapy. Patients above 60 years had difficulty to perform exercises. Due to chemotherapy induced fatigue, few patients had difficulty to follow the health practices in the initial few days after chemotherapy. Space constraints are there in the study setting.

RECOMMENDATIONS

The study can be replicated in different settings with larger sample to facilitate generalisation of results. Similar non pharmacological therapies like cognitive behavioural therapy and yoga can be conducted. A comparative study

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can be conducted to determine the effectiveness of different non pharmacological therapies on health practice and coping of post mastectomy patients undergoing chemotherapy. A similar study can be conducted by assessing anxiety, fatigue and quality of life of post mastectomy patients undergoing chemotherapy. A prospective study can be conducted with time series design to determine the long term effect of the intervention programme. Effectiveness of pre-chemotherapy counselling through a video assisted orientation programme can be implemented to assess the knowledge and quality of life of post mastectomy patients. Study can be conducted on effectiveness of post mastectomy exercices on pain, functional ability and quality of life of post mastectomy patients. Couple intervention programme can be planned for post mastectomy patients.

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