



EFFECTIVENESS OF EMPOWERMENT PROGRAMME ON HEALTH PRACTICES OF POST MASTECTOMY PATIENTS UNDERGOING CHEMOTHERAPY

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ABSTRACT

The present study investigated the effectiveness of empowerment programme on health practices of post mastectomy patients undergoing chemotherapy in a tertiary care hospital, Kottayam. A quantitative research approach with a quasi-experimental pretest post-test control group design was used for the study. The study was theoretically supported by Sr. Callista Roy's Adaptation model. A total of 70 patients, 35 each in control and the experimental group were selected for the study using a purposive sampling technique. The data were collected with socio-personal and clinical data sheets and health practice assessment scales. A pretest was conducted on the first day of assessment and an empowerment programme was introduced to the experimental group. The empowerment programme includes a structured teaching programme, mindfulness breathing exercises and mindfulness body scan meditation. The post-test was conducted at the end of the intervention. The statistical analysis using Mann Whitney U test showed that the obtained U value ($U=27$) for health practices was statistically significant at 0.001 level. In the domain-wise analysis the U value obtained for hygiene ($U=210.5$), prevention of infections ($U=136.5$), management of nausea and vomiting ($U=267.5$), diet ($U=109.5$), arm care ($U=73.5$) and practice of post mastectomy exercises ($U=49.5$) were significant at 0.01 level.

KEYWORDS : Effectiveness, Empowerment programme, Health practices, Post mastectomy patients undergoing chemotherapy

INTRODUCTION:

Breast cancer became the leading cause of cancer worldwide in 2020, accounting for 11.7% of all cancer types with approximately 2.3 million new cases.¹ Breast cancer can be seen in women of all ages after adolescence in all countries of the world, but its incidence increases with advancing age. As of the end of 2020, 7.8 million women were diagnosed with breast cancer in the last 5 years, making it the most common type of cancer in the world. Women worldwide lose more disabling years of life to breast cancer than to any other type of cancer.¹ The most common types of cancer affecting people in India are breast, cervical and oral cancer.²

Mastectomy, that is, removal of all or part of the breast, may cause psychosocial and physiological, problems in patients. Infection, pain, phantom breast syndrome, hematoma, frozen shoulder and lymphedema are important complications. Educating of women with breast cancer can improve the quality of life of patients by making them happy, reducing the need for analgesia, reducing symptoms and shortening hospital stays.³

During the investigator's clinical experience, it was found that most of the post mastectomy patients undergoing chemotherapy discontinued the exercises immediately after the postoperative period, they developed lymph edema even a few years after treatment and they had physiological and psychosocial problems with chemotherapy and mastectomy. The patients require timely, continuous and comprehensive access to information, they need health professionals to communicate their skills, express their needs and clarify their doubts. So the investigator felt a need to conduct a study to find out the effectiveness of an empowerment programme to help post mastectomy patients undergoing chemotherapy to improve their health practices.

OBJECTIVES

1. To assess the health practices of post mastectomy patients undergoing chemotherapy
2. To evaluate the effectiveness of empowerment programme on health practices of post mastectomy patients undergoing chemotherapy

METHODOLOGY

The present study was conducted at the Oncology day care unit of Govt. Medical College Hospital, Kottayam. A

quantitative research approach with a quasi-experimental pretest post-test control group was used for the study. A total of 70 post mastectomy women undergoing chemotherapy between the age group of 30-70 were selected using a non-probability purposive sampling technique, 35 each in the control and the experimental group. Socio-personal data sheet, clinical data sheet and health practice assessment scale prepared by the investigator were used for collecting the data after testing the content validity and reliability. After conducting the pilot study and making the necessary modifications the main study was conducted. The first 35 subjects were allocated to the control group, after conducting the pretest the post-test was carried out on the 21st day of the pretest with the same tools. After completing data collection from the control group, the next thirty-five subjects were allocated to the experimental group.

After the pretest, an empowerment programme was administered to the patients individually and a post-test was conducted for the experimental group on the 21st day with the same tools. An empowerment programme is given to the patients individually, which includes a structured teaching programme with the provision of an information leaflet, and a demonstration of mindfulness breathing exercises followed by mindfulness body scan meditation with the provision of pre-recorded audio. A structured teaching programme refers to a planned individual teaching programme on the management of side effects of chemotherapy, arm care and post mastectomy exercises for a duration of 15 minutes with the provision of an information leaflet. Health practices refer to the reported practice of post mastectomy patients undergoing chemotherapy concerning hygiene, prevention of infection, management of nausea and vomiting, diet, body image changes, arm care and post mastectomy exercises as measured by the health practice assessment scale.

RESULTS

Socio-personal and clinical data

The data revealed that 42.9% of patients in the control and 34.3% of patients in the experimental group belonged to the age group of 51-60 years. Among the 70 subjects, 40% of subjects in the control and 65.7% in the experimental group had a high school education. Most of the subjects in the control group (65.6%) and in the experimental group (77.1%) were married. Nearly half of the patients in the control group 54.2% and in the experimental group 40% were unemployed. The

majority of subjects in the control group (97.1%) and experimental group (91.4%) were non-vegetarians.

The data revealed that the majority of subjects in the control (82.8%) and experimental group (88.5%) underwent modified radical mastectomy. It was found that the duration after surgery was 3-4 months for 28.6% of subjects in the control and 31.4% of subjects in the experimental group. The data showed that for 45.7% of subjects in the control and 65.7% in the experimental group, the dominant hand side was affected whereas for 54.3% of subjects in the control and 34.3% of subjects in the experimental group, the non-dominant hand side was affected. The data depicted that in both the control and experimental groups 45.7% of subjects had stage I cancer. More than half of the patients in the control 51.5% and in the experimental group 60% did not have any comorbidities. The data pointed out that 51.5% of subjects in the control and 42.9% in the experimental group had normal weight whereas 37.1% of subjects in the control and 42.9% of subjects in the experimental group were overweight. It was found that 22.9% of subjects in the control and 25.7% in the experimental group had undergone 6 cycles of chemotherapy. Lymph oedema was diagnosed for 14.3% of subjects in the control and 8.6% in the experimental group. The chi-square value showed that there was no statistically significant difference between the control and experimental groups in terms of age, education, marital status, occupation, dietary pattern, type of surgery, duration after surgery, affected side, stage of cancer, comorbidities, body mass index, and number of cycles of chemotherapy underwent. Hence both groups were homogenous in nature.

Health practices of post mastectomy patients undergoing chemotherapy

The data depicted that 54.3% of subjects in the control and 74.3% of subjects in the experimental group had moderate health practices during the pretest. The majority of subjects in the control (82.9%) and in the experimental group (88.6%) had good health practices in hygiene. Among the 70 subjects in the control 82.9% and the experimental group 68.6% had good practices in the prevention of infections. Regarding dietary practices 71.4% in the control and in the experimental group 60% had good health practices. The majority of patients in the control (85.7%) and in the experimental group (85.7%) had good healthcare practices in arm care. About body image, 74.3% of subjects in the control and 65.7% in the experimental group had moderate health practices. The majority of patients in the control (85.7%) and experimental group (80%) had moderate health practices in the management of nausea and vomiting. Among the 70 subjects, the health practices related to the practice of post mastectomy exercises were moderate for 51.4% of subjects in the control and poor for 65.7% of subjects in the experimental group.

Table 1: Median and IQR of pretest and post-test scores of health practices of post mastectomy patients undergoing chemotherapy in control and experimental group (n=70)

Group	Health practices			
	Pre-test		Post-test	
	Median	IQR	Median	IQR
Control (n=35)	106.00	21	103.00	18
Experimental (n=35)	97.00	18	140.00	17

Table 1 reveals that the median pretest score of health practices in control group was 106 and experimental group was 97 and the IQR of control and experimental group were 21 and 18 respectively. The median post test score of coping in control group was 103 and experimental group was 140 and the IQR of control and experiment group were 18 and 17 respectively.

Table 2: Mean rank, sum of ranks and U value of health

practices of post mastectomy patients undergoing chemotherapy in control and experimental group (n = 70)

Health practices				
Group	Mean rank	Sum of ranks	U	p
Control (n=35)	18.77	657	27	0.000
Experimental (n =35)	52.23	1828		

Table 2 shows that the mean rank of post test score of health practices of post mastectomy patients undergoing chemotherapy in control was 18.77 and in experimental group was 52.23. The U value obtained for health practices of post mastectomy patients undergoing chemotherapy in the control and experimental group was 27 which was significant at 0.001 level. It was interpreted that there was statistically significant difference in the post test score of health practices between control and experimental group. Hence the null hypothesis was rejected. This indicates that the empowerment programme was effective in improving the health practices of post mastectomy patients undergoing chemotherapy.

Table 3: Median And Interquartile Range (IQR) Of Domains Of Health Practices Of Post Mastectomy Patients Undergoing Chemotherapy In Control And Experimental Group (n=70)

Domains of health practices	Group	Pre-test		Post-test	
		Median	IQR	Median	IQR
Hygiene	Control(n=35)	16	3	17	4
	Experimental (n=35)	17	4	20	2
Prevention of infections	Control(n=35)	16	3	16	3
	Experimental (n=35)	15	4	19	2
Management of nausea and vomiting	Control(n=35)	11	3	11	3
	Experimental (n=35)	10	2	14	4
Diet	Control(n=35)	18	4	19	3
	Experimental (n=35)	17	3	23	2
Body image	Control(n=35)	8	2	9	4
	Experimental (n=35)	7	4	11	4
Arm care	Control(n=35)	26	3	25	3
	Experimental(n =35)	25	3	31	2
Post mastectomy exercises	Control(n=35)	11	11	10	15
	Experimental (n=35)	5	14	24	4

Table 3 depicts that the median pretest and post test score of hygiene in control group was 16 and 17 respectively whereas the median pretest and post test score in experimental group was 17 and 20 respectively. It is also evident that the median pretest and post test score of prevention of infections in control group was 16 and 16 respectively whereas the median pretest and post test score in experimental group was 15 and 19 respectively. The median pretest and post test score of management of nausea and vomiting in control group was 11 and 11 respectively whereas the median pretest and post test score in experimental group was 10 and 14 respectively. The median pretest and post test score of diet in control group was 18 and 19 respectively whereas the median pretest and post test score in experimental group was 17 and 23 respectively.

The table reveals that the median pretest and post test score of body image in control group was 8 and 9 respectively whereas the median pretest and post test score in experimental group was 7 and 11 respectively. The median pretest and post test score of arm care in control group was 26 and 25 respectively whereas the median pretest and post test score in experimental group was 25 and 31 respectively. The table also

shows that the median pretest and post test score of practice of post mastectomy exercises in control group was 11 and 10 respectively whereas the median pretest and post test score in experimental group was 5 and 24 respectively.

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

Domains of health practices	Group	Mean rank	Sum of ranks	U	p
Hygiene	Control (n=35)	24.01	840.50	210.50	0.00
	Experimental (n=35)	46.99	1644.50		
Prevention of infections	Control (n=35)	21.90	766.50	136.50	0.00
	Experimental (n=35)	49.10	1718.50		
Management of nausea and vomiting	Control (n=35)	25.64	897.50	267.50	0.00
	Experimental (n=35)	45.36	1587.50		
Diet	Control (n=35)	21.13	739.50	109.50	0.00
	Experimental (n=35)	49.87	1745.50		
Body image	Control (n=35)	31.07	1087.50	457.50	0.07
	Experimental (n=35)	39.93	1397.50		
Arm care	Control (n=35)	20.10	703.50	73.50	0.00
	Experimental (n=35)	50.90	1781.50		
Post mastectomy exercises	Control (n=35)	19.41	679.50	49.50	0.00
	Experimental (n=35)	51.59	1805.50		

Table 4 reveals that obtained U value for hygiene (U=210.5), prevention of infections (U=136.5) and management of nausea and vomiting were (U= 267.5), diet (U=109.5), arm care (U=73.5) and practice of post mastectomy exercises (U=49.5) were significant at 0.01 level. This indicates that the empowerment programme was effective in improving the domains: hygiene, prevention of infections, management of nausea and vomiting, arm care and practice of post mastectomy exercises of post mastectomy patients undergoing chemotherapy. The table also shows that the obtained U value for the domain, body image was 0.07 which was not significant at 0.05 level. Hence the empowerment programme was statistically not effective in improving body image of post mastectomy patients undergoing chemotherapy.

DISCUSSION

The current study findings were congruent with a randomized clinical trial conducted to determine the effectiveness of informational audiotapes on state anxiety, self-care behaviours, and use of self-care behaviours; to describe the intensity and occurrence of common side effects in patients with breast cancer among 70 women receiving their first cycle of chemotherapy. The most frequent side effects were nausea and vomiting, fatigue, and taste change. The experimental group reported symptom improvements that were not found in the control group. The experimental group enhanced the use of recommended self-care behaviours, whereas the control group continued to use the self-care behaviours in the same way without effectiveness.⁴

The study findings were supported by a quasi-experimental study to analyse the effect of a planned educational programme regarding post mastectomy exercises on living activities among 90 adult female breast cancer patients after modified radical mastectomy. A highly statistically significant difference was reported among pre-, post and follow-up interventions regarding pain index disability score, and total Katz index in activities of daily living as well as instrumental activities of daily living.⁵

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