Effect on Nurse Led Back Massage Therapy on Fatigue among Breast Cancer Patients IN selected hospitals at Kanyakumari district

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ABSTRACT

Background: Breast cancer is the world's most prevalent cancer and is a common risk factor that can reduce life expectancy, particularly among females. Cancer-related fatigue (CRF) is one of the most debilitating symptoms experienced by breast cancer survivors, which is mainly caused by radiotherapy and chemotherapy. The burden of unmanaged CRF can lead to reduction in quality of life (QoL) as it affects patients' physical function, mood, social interaction, and cognitive performance. Cancer-related fatigue has a more significant negative effect on QoL than other cancer-related symptoms, such as pain, nausea, vomiting, and depression, and it can last for months or even years after cancer treatment.

Aim of the study: to examine the effect of back massage on fatigue among breast cancer patients.

Setting: The study was carried out at the oncology ward in the st Joseph hospital, Kanyakumari.

Sample: A convenient sample of 84 patients with breast cancer was participating in the study.

Design: A quasi experiment design (study/control) was utilized.

Tools: A Semi Structured Demographic Questionnaire; Piper Fatigue Scale; Questionnaire were used to collect data.

Results: There was a highly statistically significant decrease in the total mean score of fatigue, $P<.001$.

Conclusion: Back massage is a simple, non-invasive technique has a beneficial effect on reducing fatigue of breast cancer patients.

INTRODUCTION

Breast cancer is the world's most prevalent cancer and is a common risk factor that can reduce life expectancy, particularly among females. Cancer-related fatigue (CRF) is one of the most debilitating symptoms experienced by breast cancer survivors, which is mainly caused by radiotherapy and chemotherapy. The burden of unmanaged CRF can lead to reduction in quality of life (QoL) as it affects patients' physical function, mood, social interaction, and cognitive performance. Cancer-related fatigue has a more significant negative effect on QoL than other cancer-related symptoms, such as pain, nausea, vomiting, and depression, and it can last for months or even years after cancer treatment.

Pharmaceutical agents that are commonly applied to manage CRF consist of antidepressants, steroids, cholinesterase inhibitors, donepezil, and stimulants. However, evidence regarding their effectiveness and safety in breast cancer patients remains inconsistent and unclear. Physical (such as high blood pressure and kidney/liver damage) and psychological (such as restlessness and anxiety) side effects and consequences pertaining to pharmaceutical interventions have impelled patients to turn to complementary and alternative medicine (CAM) as supplementary approaches to fatigue management. Various CAM approaches, such as mindfulness-based interventions (e.g., yoga)], cognitive-behavioral therapy (CBT), and physical exercise, have been used to manage fatigue as supplementary approaches. However, interventions such as yoga and physical exercise are energy-consuming, which may decrease patients' willingness to participate, particularly for those with significant fatigue symptoms. Other approaches such as CBT have a high cost and require extensive professional support, which can limit the space for long-term symptom management. Other nonpharmacological approaches that are

less time- and energy-consuming are worthy of further exploration to facilitate better management of CRF in the long run.

Massage therapy has generally been considered a safe CAM approach to managing a wide range of health problems. There are several types of commonly used massage therapy techniques in clinical practice, including Chinese massage, Japanese massage, Thai massage, Swedish massage, and reflexology. These types of massage involve handling muscles and stroking or rubbing the soft tissues of the human body, which can modulate body functions and cause relaxation. Evidence has indicated that practicing massage therapy has a beneficial impact on increasing heart rate variability, improvement in mood disturbance, as well as QoL and reducing fatigue and physical discomfort. Particularly, massage therapy has a great rate of acceptance and has been commonly applied in fatigue management among breast cancer survivors].

In the past few years, a growing body of small-scale clinical studies has been implemented to assess the effects of massage therapy on relieving fatigue in breast cancer patients, and some evidence has demonstrated that massage therapy decreased CRF. In addition, three systematic reviews/review protocols relating to massage therapy for cancer symptom management have been published. However, the review by Finnegan-John et al. focused on different types of CAM interventions for CRF management in patients with different cancer diagnoses, while the other two studies emphasized the effect of massage therapy on CRF relief. Pan et al. generally addressed treatment-related side effects of breast cancer rather than focusing on fatigue management.

Table1: The Demographic Characteristics of the Sample (N=84)

METHODS AND MATERIALS
Methods
A quasi experimental design (study / control) was utilized to examine the effect of back massage on fatigue in patients with breast cancer. The study was carried out at the selected

Items	Study Group n= (42)		Control Group n= (42)		x^2	P-value
	No	%	No	%		
Age						
Mean ± SD	52.38±4.8			52.62± 4.8	-.229-ns	.820
Range	40 – 60		40 – 60			
Age Group						
<50 years	14	33.3%	12	29.3%	.814ns	.436
>50 years	28	66.7%	29	70.7%		
Sex					.048ns	.827
Male	22	52.4%	23	54.8%		
Female	20	47.6%	19	45.2%		
Marital Status					.091ns	.955
Married	35	83.3%	34	81.0%		
Widow	6	14.3%	7	16.7%		
Divorced	1	2.4%	1	2.4%		
Educational level					.000ns	1.000
Illiterate	11	26.2%	11	26.2%		
Read and write	15	35.7%	15	35.7%		
Secondary education	12	28.6%	12	28.6%		
High education	4	9.5%	4	9.5%		
Occupation						
Working	21	50.0%	23	54.8%	.827ns	.414
Not working	21	50.0%	19	45.2%		

CONCLUSION
Findings of the study indicated that back massage is a safe and potentially beneficial nursing intervention to decrease fatigue and enhance quality of life in these subjects. There is

tertiary hospital in Kanyakumari. A convenient sample of 84 patients was recruited for this study. These patients were approached over 11 month period from the beginning of August 2021 to the end of June 2022.

Piper Fatigue Scale (PFS): Was developed by Piper (1998) [17] to assess fatigue level, it contains 22 items categorized into 4 reliable and correlated dimensions: behavioral severity (6 items); relating to the severity and degree of disruption in activity of daily living; affective meaning (5 items) relating to the emotional meaning attributed to fatigue; sensory (5 items), relating to the physical symptoms; and cognitive and mood (6 items), relating to mental and mood states. The score of the scale ranged from zero to ten, total and subscale mean scores are derived from summing individual items and dividing by the number of items in the subscale/ total scale to maintain the 0-10scaling.Withseveritycodes:(0) none, (1-3) mild, (4-6) moderate and (7-10) sever. The higher scores correspond to higher fatigue level.

RESULTS
Characteristics of the Sample
The mean age of the participants in the study and the control group was 52.38±4.8 and 52.62±4.8 years old respectively. More than half of the participants in both study and control groups were male 52.4% and 54.8% respectively. Concerning the educational level, about 35.7% of both study and control groups can read and write. Half of the participants in the study and the control groups were working 50.0% and 54.8% respectively. The majority of the participants in both study and control groups were married 83.3% and 81.0% respectively. See table 1.

Total Fatigue Score					Mann-WhitneyU test P-value	
	Study Group		Control Group		Pre	post
	Pre	Post	Pre	Post		
Total Fatigue Score					-.296-ns	2.500-(S)
Mean ±SD	149.64 ±7.2	133.26 ±8.1	151.43 ±8.2	148.90 ±9.1	.768	.014
t-testp-value	21.039(HS)<.001		4.968(HS)<.001			

Table2: The Effect of Back Massage on Fatigue level among the Studied Groups Pre and Post Intervention

DISCUSSION
Fatigue is a frustrating and disabling long-term sequel of breast cancer impacting both the physical functioning and patients' quality of life. Massage therapy is a non-pharmacological nursing intervention widely used to treat patients with different conditions.

EFFECT OF BACK MASSAGE ON FATIGUE
Integration of massage therapy in acute care settings has been shown to effectively enhance patients' ability to cope with both physical and emotional aspects of pain and other physical symptoms. The present study findings revealed that there was highly statistically significant decreases in the total mean score of fatigue in the study group post intervention compared with the control group. The findings are not surprising given that massage therapy has been shown to decrease fatigue in people with chronic fatigue syndrome, multiple sclerosis, cancer and other chronic diseases significantly impacting the health and well-being of individuals in a similar way as breast cancer.

a need for future studies validating and extending these findings, as well as exploring the mechanisms responsible for the beneficial effect of back massage on fatigue in breast cancer patients.

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