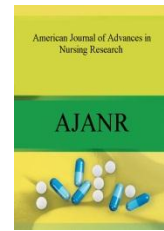




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EFFECT OF WARM WATER FOOT BATH ON LEVEL OF FATIGUE AMONG CLIENTS WITH CANCER AT SELECTED CANCER CENTER IN NEYYOOR

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ABSTRACT

Cancer is a term that elicits a shock in the nerve endings of every individual, touches every country in the world. A study to evaluate the effectiveness of warm water foot bath on fatigue among clients with cancer was undertaken at CSI-International Cancer Center, Neyyoor, using a quasi experimental pre test, post test control group design. 60 clients with cancer who were admitted at CSI-International Cancer Center and those who fulfilled the inclusion criteria were selected for the study using a Non-probability purposive sampling technique. The tool used was Modified Piper Fatigue Scale. The interventional group received warm water foot bath for 15 minutes, 3 times a day for 3 consecutive days along with usual treatment and the control group received only usual treatment. Post test fatigue scores were assessed on the third day 2 hours after the last intervention. The findings revealed that warm water foot bath reduced the level of fatigue among clients with cancer in the interventional group than the control group. Along with medical treatment, complimentary therapy such as warm water foot bath therapy could be added into the treatment regimen in the Indian scenario.

INTRODUCTION

Cancer is a term that elicits a shock in the nerve endings of every individual, touches every country in the world. A person diagnosed with cancer is like being pushed out of a helicopter into a jungle war with no training, no maps, and no idea how to survive.

World Cancer Research Fund and World cancer statistics quotes that there are about 12.7 million cancer cases occur around the world every year and it is expected to increase to 26 million by the year 2030. In India, cancer prevalence is estimated to be around 2.5 million, with 8, 00,000 new cases and 5, 50,000 deaths per year.

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Every cancer patient receiving radiation and chemotherapy may experience fatigue 14% - 96% of patients undergoing cancer treatment have fatigue than other side effects. Treating cancer related fatigue consist of Methylphenidate (Ritalin), non-pharmacological measures like warm water foot bath, herbs, acupressure, yoga, massage, spiritual practices, green tea, specific diet, ayurvedic medicine, relaxation meditation.

K.M. Mustian, O.Palesh. L, J.Peppone, Roscoe J A, Usuki K Y, Sprod L K, et.al (2010) conducted a randomized controlled clinical trial to examine the effectiveness of warm water foot bath on fatigue among cancer survivors suffering from moderate or severe fatigue, warm water foot bath was given for 15 min for 4 days. The results revealed that immersion of foot in warm water was more effective on cancer related fatigue.



Statement of the Problem

A Study To Evaluate The Effectiveness Of Warm Water Foot Bath On Fatigue Among Clients With Cancer In a Selected Cancer Center At Neyyoor.

Objectives of the Study

- To assess the pre and post test level of fatigue among clients with cancer in experimental and control group.
- To evaluate the effectiveness of warm water foot bath on level of fatigue among clients with cancer.
- To determine the association between post test level of fatigue among clients with cancer and demographic variables in the experimental and control group.

Hypotheses

- H1: There is a significant difference between the pre and post test level of fatigue among clients with cancer in the experimental group.
- H2: There is a significant difference in the post test level of fatigue among clients with cancer between the experimental and control group.
- H3: There is a significant association between post test level of fatigue among clients with cancer and selected demographic variables in the experimental, control group.

Operational Definitions

Effectiveness

In this study it refers to the effect of warm water foot bath in reducing the level of fatigue among clients with cancer.

Warm Water Foot Bath

It refers to the immersion of both feet in warm water at 41C, 3 times a day for 15 minutes with an interval of 2 hours, for 3 consecutive days.

Fatigue

In this study fatigue refers to state the severity of symptoms as measured by Modified Piper Fatigue Scale.

Clients with cancer

In this study it refers to clients who are diagnosed to have cancer and admitted at Kanyakumari Medical Mission CSI- International Cancer Center.

Assumptions

- ✓ Clients with Cancer may experience varying level of fatigue.
- ✓ Warm water foot bath is a simple cost effective measure which may reduce fatigue.
- ✓ Warm water foot bath has no potential adverse effects on clients with cancer.

Conceptual Framework: General System Theory (Albawing Von Bettenlaffy-1968) was used in this study.

METHODOLOGY

Research Approach: A quantitative evaluative approach was used in this study.

Research Design

A quasi experimental pretest posttest design with control group was chosen for this study.

Setting of the Study

The study was conducted at Kanyakumari Medical Mission CSI-International Cancer Center, Neyyoor. The total bed strength was 100. In the outpatient department on an average 560 clients attended per month. The average inpatient census was 90% – 94% per month.

Population

The target Population for this study was clients with cancer admitted at hospital.

Sample

The sample for the present study was clients with cancer admitted at Kanyakumari Medical Mission CSI-International Cancer Center, Neyyoor.

Sample size: 60 Clients with cancer admitted at Kanyakumari Medical Mission CSI-International Cancer Center and those who fulfilled the inclusion criteria. (30 in the Experimental Group and 30 in the Control group)

Criteria for Sample Selection

Inclusion Criteria

Clients who are diagnosed with cancer

- Irrespective of site of cancer and sex.
- Age 20 years and above.

Exclusion Criteria

Clients with cancer who were

- Unconscious and terminally ill,
- With peripheral vascular diseases of the foot and legs.
- With sensory deficit,
- With any foot ulcer and Type 2 Diabetes Mellitus

Sampling Technique

Non-probability purposive sampling technique was used for the study.

Description of the Tool

Modified Piper Fatigue Scale was used to assess the level of fatigue.

The tool consisted of two parts:

Part: I

It consisted of demographic and clinical variables of clients with Cancer. (Age, Gender,



Occupation, Education, Stage of cancer, Duration of illness, Duration of treatment, Modality of treatment and Number of radiation cycles).

Part: II

This consisted of Modified Piper Fatigue Scale to evaluate the level of fatigue. The Modified Piper Fatigue Scale consisted of 22 numerically scaled, "0" to "10" scores that measure four dimensions of subjective fatigue: behavioral / severity (6 items: #1-6); affective meaning (5 items: #7-11); sensory (5 items: #12-16); and cognitive / mood (6 items: #17-22); These 22 items were used to calculate the four sub scale / dimension score and the total fatigue score.

Scoring Procedure

Each question consisted of 0-10 scores. The total maximum and minimum score were '220' and '0' respectively. To calculate the total fatigue score, add the scores of 22 items together and divide by 22 in order to keep the score on the same numeric '0' to '10' scale. 0: No Fatigue, 1-3 Mild fatigue, 4-6 Moderate fatigue, 7-10 severe fatigue.

Validity

The tool along with intervention was validated by five experts in the field of Nursing and Medicine.

Reliability

Reliability was assessed by test retest method $r = 0.89$.

Pilot Study

A pilot study was conducted among 10 clients with cancer at Ashwin Hospital, Coimbatore. The pilot study analysis showed that the study was feasible and practicable.

Data Collection Procedure

Data collection was done for a period of 6 weeks. Permission was obtained from the Hospital Authorities, Informed written consent was obtained. On 1st day. Pre test fatigue scores were assessed. Warm water foot bath was given for 15 minutes, 3 times a day for 3 consecutive days and post test fatigue scores were assessed on the third day 2 hours after the last intervention.

Plan for Data Analysis

The demographic variables were analyzed by using descriptive statistics (frequency and percentage). Level of fatigue was analyzed by using descriptive statistics (mean, standard deviation). Effectiveness of warm water foot bath was analyzed by using inferential statistics (paired "t" test and independent "t" test).

Association between level of fatigue and their selected demographic variables was assessed by chi square analysis.

Protection of Human Rights

The study was conducted after the ethical approval from the Hospital. Informed written consent was obtained from all the study subjects. Anonymity and confidentiality was maintained throughout the study. Warm water foot bath was demonstrated to the control group after the post test.

Major Findings of the Study

- Among the experimental group, in the pre test 9(30%) clients had mild fatigue, 15(50%) clients had moderate fatigue and 6(20%) clients had severe fatigue. Whereas in the post test 18(60%) of the clients had mild fatigue, 10(33%) clients had moderate fatigue and 2(7%) of the clients had severe fatigue.
- Among the control group, in pre test 4(13%) clients had mild fatigue, 17(57%) clients had moderate fatigue and 9(30%) clients had severe fatigue. Whereas in the post test 4(13%) clients had mild fatigue, 16(54%) clients had moderate fatigue and 10(33%) clients had severe fatigue.
- In the experimental group, the mean pre test score of fatigue was 4.68 with standard deviation 1.87. Whereas the mean post test score of fatigue was 3.57 with standard deviation of 1.49 and mean difference was 1.11. The obtained 't' value was 2.7 which was significant at $p < 0.05$ level.
- In the control group the mean pre test score of fatigue was 5.72 with standard deviation 1.72. Whereas the mean post test score of fatigue was 5.49 with a standard deviation of 1.70 and mean difference was 0.23. The obtained 't' value 0.84 was not significant at $p < 0.05$ level.
- Chi Square analysis revealed that there was a significant association between post test level of fatigue and demographic variables such as duration of treatment, χ^2 : 13.6 (9.49) at $p < 0.05$ in the experimental group.
- There was no significant association between age, gender, educational status, occupation, stage of cancer, duration of illness, modality of treatment and number of radiation cycles and level of fatigue among clients with cancer in the experimental group.
- In the post test there was a significant association between level of fatigue and educational status χ^2 : 30.09 (15.5), occupation χ^2 : 13.79 (12.6) among clients with cancer in the control group.
- There was no significant association between the posttest level of fatigue and age, gender, educational status, occupation, stage of cancer, duration of illness, modality of treatment and number of radiation cycles in the control group.



Table 1. Distribution of subjects according to their fatigue level among clients with cancer in the interventional and control group

n=60

Level of Fatigue	Interventional Group				Control Group			
	Pre Test		Post Test		Pre Test		Post Test	
	(f)	%	(f)	%	(f)	%	(f)	%
None	0	0	0	0	0	0	0	0
Mild	9	30	18	60	4	13	4	13
Moderate	15	50	10	33	17	57	16	54
Sever	6	20	2	7	9	30	10	33

Table 2. Effectiveness of warm water foot bath on level of fatigue among clients with cancer

n=30

Group	Mean	S D	M D	't' value
Interventional Group				
Pre-test	4.68	1.87		
Post-test	3.57	1.49	1.11	2.7*
Control Group				
Pre-test	5.72	1.72		
Post-test	5.49	1.70	0.23	0.84

*: significant at $p < 0.05$ level.**CONCLUSION**

- The present study concluded that warm water foot bath was effective in reducing fatigue among clients with cancer.
- Warm water foot bath therapy did not have any adverse effects on the clients with cancer.

- Along with the medical treatment, complimentary therapy such as warm water foot bath therapy could be added into the treatment regimen in the Indian scenario.

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