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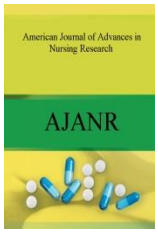

A STUDY TO ASSESS THE EFFECTIVENESS OF CAMPHOR OIL APPLICATION IN REDUCTION OF JOINT PAIN AMONG THE MENOPAUSAL WOMEN AT SELECTED RURAL AREA, PANAGUDI

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ABSTRACT

Introduction: Menopausal is a week period of women life. Camphor oil application is an alternative therapy to reduce the knee joint pain. Aim of the Study: A study was conducted to determine the effectiveness of Camphor oil application in reducing knee joint pain. Objectives: 1) To assess the level of joint pain among the menopausal women before and after the intervention in both experimental group and in the control group. 2) To assess the effectiveness of the camphor oil Application in reducing joint pain among menopausal women. 3) To find out the association between the level of joint pain in the menopausal women with the selected demographic variables such as age, education, occupation, marital status, nature of work, frequency of pain and taking other medications. Methods: The research design selected for the study was one non randomized control group design. A purposive sampling technique was followed to obtain a sample of 60 menopausal women who satisfied the inclusive criteria were included for the study. Pre assessment on the level of knee joint pain was assessed. Camphor oil application was given by the researcher for a period of 6 days. The post test was done using the numerical pain intensity scale at the end of intervention. Ethical aspect of this study was maintained. Result and conclusion: The data were analyzed using descriptive and inferential statistics. The paired't' test value in experimental group is 14.109 at $p > 0.05$ and the paired 't' test value in control group is 2.05 at $p > 0.05$. The unpaired't' test value is 3.52 at $p > 0.05$. This finding showed that there was a significant reduction in the level of knee joint pain among menopausal women who were received camphor oil application.

INTRODUCTION

Natural menopause is the permanent cessation of menstruation resulting from loss of ovarian follicular activity when occurred after consecutive months of amenorrhea [1,2]. Prevalence of symptoms among menopause women of age group 48 years and above were, emotional problems (crying, spells, depression, irritability) 90.7%, headache 72.9%, lethargy 65.4%, dysuria 58.9%, forgetfulness57%, musculoskeletal problems (joint pain, muscle pain) 53.3% sexual problems (decreased libido, dyspareunia) 31.8%, genital problems (itching, vaginal dryness) 9.3% and change in voice 8.4%. [3,4].

Muscular skeletal pain is one of the most severe complaints of in the women undergoing menopause.

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Musculoskeletal pain poses a heavy burden on both medical expenses and patient`s quality of life and affect over half of the female population at mid age. Musculoskeletal pain is a pre dominant manifestation of musculoskeletal disorder (MSD) and involves soft tissues including muscle, tendons, and nerves. [5,6].

Camphor oil is aromatic and absorbed through the skin. Camphor oil has a various use a variety of uses. It has anti- inflammatory properties and is often an ingredient in vapour rub, liniments, and balms. Camphor oil is a common ingredient in pain relief medications, including topical analgesics. It may treat muscle ache and pains, while stimulating circulation, by interacting with receptors on the sensory nerves. Camphoroil also reduces chronic muscle pain and joint pain over longer period. Camphor oil has dual hot and cold action; camphor oil numbs and cools the nerve endings, then warm the pain area as it increases circulation to stiff joint and muscles. Camphor oil also treat headaches including migraine headache, cough and congestion, superficial burns, skin issues, and chronic disease such Alzheimer's and similar disease. [7,8] conducted a study to assess the effectiveness of camphor oil application on reducing of joint pain among menopausal women at selected rural area at Coimbatore. [9] One group pre-test post- test pre-experimental design was used. The study was consisted of 50 samples of menopausal women selected by non-probability convenience sampling technique. Numerical pain intensity scale was used to assess severity of joint pain. The descriptive and inferential statistics were used to analysis the data. The obtained „t" test value was 21.59 which was significant at 0.05 level. The study revealed that camphor oil application is effective on reduction of joint pain among menopausal women [10]

Prevalence of Joint pain among Menopausal women is increasing and it affects the quality of life and that the reason behind the researcher to proceed the study.

Statement of the Problem

A study to assess the effectiveness of camphor oil application on reduction of joint pain among menopausal women at selected rural area Panagudi. [11]

Objectives of the Study

- To assess the level of joint pain among the menopausal women before and after the intervention in both experimental group and in the control group.
- To assess the effectiveness of the camphor oil Application in reducing joint pain among menopausal women.
- To find out the association between the level of pain in the menopausal women with the selected demographic variables such as age, education, occupation, marital status, nature of work, frequency of pain, taking other medications and weight in kg.

Hypothesis

H1- There will be a statistically significant reduction in the level of pain after the camphor oilapplication among the menopausal women.

H2- There will be a statistically significant association between level of joint pain among menopausal women and the selected demographic variable such as age, education, occupation, marital status, frequency of pain, nature of work and taking other medications. [12]

Research Methodology

The Research Approach for the present study is quantitative research approach .The research design selected for the study was non randomized control group design. The study was conducted in the Panagudi community. [13, 14] A purposive sampling technique was followed to obtain a sample of 60 menopausal women who satisfied the inclusive criteria were included for the study. Pre assessment on the level of knee joint pain was assessed. Camphor oil application was given by the researcher for a period of 6 days. The post test was done using the numerical pain intensity scale at the end of intervention. Ethical aspect of this study was maintained.

RESULTS AND FINDINGS

On the analysis of frequency and percentage distribution of samples based on demographical variable among menopausal women

With regarding of age, majority of the samples were 61-65 years with 47% and least age group falls on below 51-55 years by 20%. Regarding education, the majority of the samples were primary with 100%. In account of occupation majority of the samples were unemployed with 100%. Considering hours of standing the majority of the samples were in <4 hours with 86%. Regarding marital status the majority of the samples were married with 60 %. In account of duration of pain majority of the samples where 2-3 year with 60% and least were 4-5 years with 27%. Considering nature of work majority of the samples where sedentary with 87% [15] In account of taking medication majority of the samples belongs to taking medication 100%. Regarding weight majority of the samples where<60kg with 60%.

The first objectives of the study, to assess level of joint pain among the menopausal women before and after the intervention in both experimental group and control group

Table 1 Reveals the frequency and percentage distribution of pre-test and post-test level of knee joint pain among menopausal women in experimental group and control group. It evidenced from the above table that the pre-test level of knee pain in experimental group majority of them had moderate pain 18 (60%). The post-test level of knee pain in experimental group the majority of them had moderate pain 18 (60%). In control group, the

pre-test level of knee joint pain majority of them had moderate pain 20 (67%) and the post-test level of knee joint pain the majority of them had moderate pain 26 (86%).

The second objectives of the study to assess the effectiveness of camphor oil application on reducing joint pain among menopausal women. Regarding the pre-test level of knee joint pain among menopausal women in experimental group was 5.6 with standard deviation score was 2.37. In the control group the pretest level of knee joint pain among menopausal women was 5.6 and standard deviation score was 2.22.

Regarding the post-test level of knee joint pain among the menopausal women in experimental group was 4 with the standard deviation was 1.6.In control group the post-test level of knees joint pain among menopausal women score was 5.2 and the standard deviation was 1.104. The calculated 't' value was t=2.05 was found to be significant at P=0.05 level.

The third objectives of the study, to find out the association between the level of knee joint pain in menopausal women with a selected democratic variable such us education, occupation, hours of standing, marital status, nature of work, duration of pain, taking medication and weight.

In the study investigator found out there was no significant association in the level of knee joint pain and democratic variables.

Table 1: Frequency and percentage distribution of pretest and posttest level of joint pain among menopausal women in experimental group and control group. N=60

S. No	Level of joint pain	Experimental group (N=30)				Control group (N=30)			
		Pre-test		Post-test		Pre-test		Post-test	
		F	%	F	%	F	%	F	%
1	No pain	0	0	0	0	0	0	0	0
2	Mild pain	0	0	12	40	0	0	1	7
3	Moderate pain	18	60	18	60	20	67	26	86
4	Severe pain	12	40	0	0	10	33	2	7
5	Worst pain	0	0	0	0	0	0	0	0

Table 2: Comparison of pre-test and post-test mean, standard deviation and 't' test value within the experimental group and control group. N=60

Group	Test	Mean	SD	Paired 't' value
Experimental group	Pre	5.6	2.37	t=14.109 TV= (<0.05) 2.05
	Post	4	1.6	
Control group	Pre	5.6	2.22	t=4.06 TV= (<0.05) 2.05
	Post	5.2	1.104	

CONCLUSION

Menopause impacts in the joints because of reduction of the estrogen receptors in joint. Estrogen protects bones and helps keep joint inflammation low. As estrogen levels decline during perimenopause (the first stage of menopause) the joints can swell and become painful. Camphor is a natural product with many applications in traditional and modern medicines. The present study also concluded that camphor oil application was effective on reducing knee joint pain among menopausal women.

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