



A study to assess the effectiveness of foot massage on reduction of cancer pain among palliative care patients

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ABSTRACT

Pain is an unpalatable sensory and emotional in contact with actual or potential tissue damage. Approximately 70% to 90% of people with cancer suffer with severe pain while undergoing treatment. Cancer pain can result due to poor blood circulation, a bone fracture that occurs due to metastasis, infection or inflammation in the affected part and side effects from cancer treatments. Hence the present study aimed to assess the effectiveness of foot massage on reduction of cancer pain among palliative care patients. The quasi-experimental design was employed with 40 patients who met the inclusion criteria were selected by non-probability convenience sampling technique. The researcher collected the demographic variables and done pretest to assess the pain score by using a numerical pain scale for both the experimental group and the control group. For the experimental group, foot massage was given twice a day for five days. Control group received routine care. At the end of the fifth day, post-test was done for both the experimental group and the control group. The data analysis was done by using descriptive and inferential statistics. The calculated 't' value is reveals that the experimental group seems to be highly significant than the control group. So foot massage is effective among cancer patients on the reduction of pain.

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INTRODUCTION

Pain is an unpalatable sensory and emotional in contact with actual or potential tissue damage or described in terms of such damage. Approximately 70% to 90% of people with cancer suffer with severe pain while undergoing treatment. Cancer pain can

result due to poor blood circulation, a bone fracture that occurs due to metastasis, infection or inflammation in the affected part and side effects from cancer treatments (Washington, 2017).

The concept of cancer pain has become highly prevalent in the world. Cancer patients usually experience intense and chronic pain. Patients may experience moderate to severe pain due to a malignant tumor or side effects of treatment regimens like chemotherapy, radiation therapy or surgery. Worldwide 9 million people were suffering from cancer pain. Pain management is one of the major aspects of oncology care (Douglas and Lowy, 2017).

In 2017, the world health assembly passed the resolution cancer prevention and control through an integrated approach (WHA70.12) urges governments and WHO to accelerate action to achieve the targets specified in the global action plan and 2030 UN agenda for sustainable development to reduce

premature mortality from cancer ([WHO, 2017](#)).

Massage states that the therapeutic practice of manipulating the muscles and limbs to reduce the pain. It is one of the experimental studies conducted in a medical Centre of the USA that comprises 41 cancer patients who were on radiation or chemotherapy and had pain and other symptoms. The numerical rating scale was used to assess the pain score. The massage was given to a patient three times a week. The pain was assessed at the time of admission and a week after administration of foot massage ([William, 2018](#)).

Cancer has a major impact across the world. Cancer statistics reveals the burden of cancer on society. The current statistics in India says that the estimated number of people living with the disease is about 2.25 million. Every year new cancer patient registered: over 11, 57,295 lakh the death occurs due to cancer is about 7,84,821. (Indian council of medical research) ([Arockiasamy, 2018](#)).

9.81% of male and 9.42% of females are in the risk of developing cancer before the age of 75 years. In 2018 the death rate of cancer in India is about 7,84,821. In that 4,31,519 were men and 3,71,302 were women. Cancer is the second most common disease in India, responsible for maximum mortality, with about 0.3 million deaths per year. (Indian council of medical research 2018) ([sharma, 2018](#)).

MATERIALS AND METHODS

The research approach adopted in the study was a quantitative approach by using a quasi-experimental research design. After getting formal permission from the principal of Saveetha College of nursing and head of the oncology department, the study was conducted at Saveetha Medical College and Hospital with 40 samples. Samples who met the inclusion criteria were chosen by using non-probability convenience sampling technique. Sample who do not understand Tamil or English, who are mentally and critically ill, are excluded from the study. The patients who consented for willing to participate were explained about the purpose and benefits about the study. The researcher collected the demographic variables and done pretest to assess the pain score by using a numerical pain scale for both the experimental group and the control group. Foot massage was given twice a day for 5 days. Control group received routine care. At the end of the fifth days, post-test was done for a study group. The data was tabulated, and analysis was done by using descriptive and inferential statistics.

RESULTS AND DISCUSSION

The current study reveals that out of 20 in experimental group 5(25%) comes under the age group of 31-45yrs, 11(55%) comes under the age group of 46-60yrs, 4(20%) comes under the age group of 61-75yrs. Sex 4(20%) belongs to male and 16(80%) belongs to a female. Regarding marital status 0(0%) comes under single, 17(85%) comes under married, 3(15%) comes under widowed and 0(0%) comes under divorced. Regarding educational status 0(0%) were completed their primary school, 6(30%) were completed their secondary school, 5(25%) were completed their higher secondary, 4(20%) were completed their graduation. 0(0%) were completed their post-graduation, and 5(25%) comes under illiterate. Regarding occupation 0(0%) comes under government worker, 14(70%) comes under private worker, 5(25%) comes under daily wages, and 1(5%) comes under unemployed. Regarding income 14(70%) comes under the above poverty line (above Rs.60000 per year), 6(30%) comes under below poverty line (less than Rs.60000 per year). Regarding diagnosis 5(25%) have breast cancer, 9(45%) have cervical cancer, and 6(30%) have gastrointestinal cancer. Regarding the known duration of illness for patients less than a year 0(0%), 1-2yrs 14(70%) and above 2 years 6(30%). Regarding the state of present treatment received analgesics 0(0%), chemotherapy 14(70%) and radiation therapy 6(30%). Regarding knowledge about the patients with cancer, seen 10(50%), heard 6(30%) and No 4(20%). Regarding their trial for any alternative pain reliever, Balm 20(100%), oil 0(0%) and massage by family members 0(0%).

Out of 20 in control group, 6(30%) comes under the age group of 31-45yrs, 10(50%) comes under the age group of 46-60yrs, 4(20%) comes under the age group of 61-75yrs. Sex 2(10%) belongs to male and 18(90%) belongs to a female. Regarding marital status, 1(5%) comes under single, 16(80%) comes under married, 2(10%) comes under widowed and 1(5%) comes under divorced. Regarding educational status 0(0%) were completed their primary school, 2(10%) were completed their secondary school, 8(40%) were completed their higher secondary, 9(45%) were completed their graduation. 0(0%) were completed their post-graduation, and 1(5%) comes under illiterate. Regarding occupation 0(0%) comes under government worker, 18(90%) comes under private worker, 2(10%) comes under daily wages, and 0(0%) comes under unemployed. Regarding income 19(95%) comes under the above poverty line (above Rs.60000 per year), 1(5%)

Table 1: Frequency and percentage distribution of pretest level of pain in experimental group and control group

Level of pain	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
Moderate	3	15	1	5
Severe	17	85	19	95

Table 2: Frequency and percentage distribution of post test level of pain in experimental group and control group

Level of pain	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
Mild	5	25	-	-
Moderate	15	75	3	15
Severe	-	-	17	85

comes under below poverty line (less than Rs.60000 per year). Regarding diagnosis 5(25%) have breast cancer,12(60%) have cervical cancer, and 3(15%) have gastrointestinal cancer. Regarding the known duration of illness for patients less than a year 2(10%),1-2yrs 13(65%) and above 2 years 5(25%). Regarding the state of present treatment received analgesics 2(10%), chemotherapy 12(60%) and radiation therapy 6(30%). Regarding knowledge about the patients with cancer, seen 15(75%), heard 4(20%) and No 1(5%). Regarding their trial for any alternative pain reliever, Balm 15(75%), oil 5(25%) and massage by family members 0(0%).

The present study reveals that the frequency and percentage distribution of pretest level of the pain out of 20 samples in experimental group 0(0%) had mild pain, 3(15%) had moderate pain and 17(85%) had severe pain. In control group out of 20 samples, 0(0%) had mild pain, 1(5%) had moderate pain, and 19(95%) had severe pain (Table 1 and Figure 1).

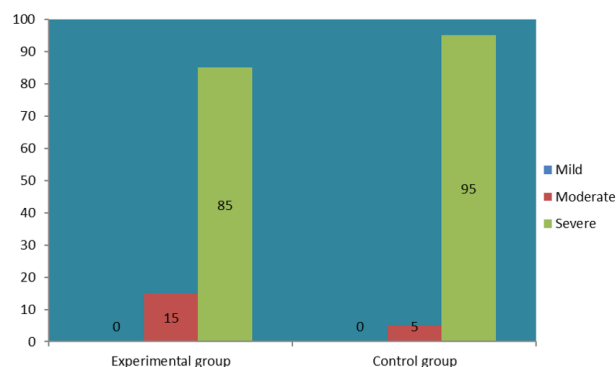


Figure 1: Frequency and percentage distribution of pretest level of pain in experimental group and control group

The present study reveals that the frequency and percentage distribution of post test level of pain. Out of 20 in the experimental group, 5(25%) had mild pain, 15(75%) had moderate pain, and 0(0%) had severe pain. In control group out of 20, 0(0%) had mild pain, 3(15%) had moderate pain, and 17(85%) had severe pain (Table 2 and Figure 2).

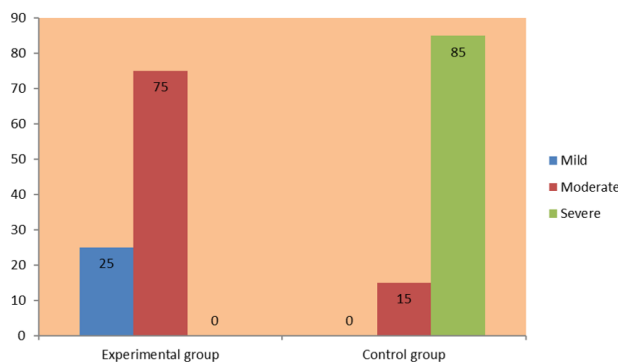


Figure 2: Frequency and percentage distribution of post test level of pain in experimental group and control group

(Jasmine, 2016), who reported that the calculated 't' value for the experimental group was t=8.4 which was found significant at P<0.005 level which showed a significant reduction on the level of pain following hand and foot massage.

Devi (2013) conducted a study to assess the effectiveness of foot massage on cancer pain among 40 patients (20 experimental, 20 control) using purposive sampling in Christian fellowship community health centre, Dindigul.

Kalyani (2015) conducted a quasi-experimental study to assess the effectiveness of music therapy on pain, anxiety and selected factors in 30 can-

cer patients using purposive sampling technique in Apollo hospitals Chennai by giving 2 sessions of 30 minutes music therapy for 5 consecutive days.

Hayes and Cox (2016) conducted an interventional study to assess the immediate effects of a five-minute foot massage on 25 patients in palliative care patients.

CONCLUSION

The result of this study shows that foot massage is an effective non-pharmacologic measure in reducing cancer pain of palliative care patients. Foot massage is an effective, simple, non-invasive, cost-effective method that can be used easily without any side effects or extra efforts from the part of practitioners.

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