

A STUDY TO ASSESS THE EFFECTIVENESS OF HOT WATER COMPRESS WITH EPSOM SALT AMONG ELDERLY WOMEN WITH KNEE JOINT PAIN RESIDING AT SELECTED AREA

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Abstract: Pain is a complex, multidimensional phenomenon. Everyone has experienced some types or degrees of pain. Pain prompts people to seek health care more often than any other problem. Pain is a leading cause of disability. As the average life span increases more people have chronic diseases in which pain is a chronic symptom. Joint pain is a chronic, progressive process in which new tissue is produced in response to joint insults and cartilage deterioration. The most common pain during the elderly people with joint knee pain and it occurs more commonly in women than in men. It accounts for substantial disability as a result of its effect on the large weight bearing joints and the spine.

METHOD

A Pre-Experimental One group pre test post test Design was used to assess the effectiveness of hot water compress with Epsom salt among Elderly Women with knee joint pain residing at selected area. After obtaining permission various department and people, the investigator selected 100 samples by using purposive sampling technique. The samples who met the inclusion criteria were selected. The investigator introduced and explained the purposes of the study to the samples and obtained the written informed consent. The tool consists of two sections like demographic variables and Pain Rating scale was measured the level of knee joint pain. The collected data were coded and entered in Excel for further data analysis. Descriptive statistics and inferential statistics were used for data analysis.

RESULTS

- The pre-test level of knee joint pain data revealed that 47(47%) were had Severe Pain, 51(51%) were had Moderate Pain, 2 (2%) were had Mild Pain. The Post -test level of knee joint pain data revealed that 81(81%) were had No pain, 19(19%) were had Mild pain and none of the Moderate and Severe pain.
- The Result shows that the Effectiveness of Hot Water Application with Epsom Salt for a Knee Joint Pain between Pre and Post Test among Elderly Women. The finding reveals that Pre-Test mean and standard deviation score of Knee Joint Pain was 9.08 ± 2.61 . Whereas in the Post Test the mean and standard deviation score of Knee Joint Pain was 18.49 ± 2.53 . The calculated paired t value is $t = 0.000^*$. It was found to be statistically significant at $p < 0.005$ level. It indicates that the Hot Water Application with Epsom Salt was significantly effective to improve the level of Knee Joint Pain among Elderly Women.

➤ The data shows that the demographic variables of Age and Types of diet shown statistically significant association with Post-Test Level of Knee Joint Pain $p < 0.005$ level. The other demographic variables had not shown any statistical association with the Post-Test Level of Knee Joint Pain among elderly women's.

CONCLUSION

The present study concludes that Epsom Salt with Hot Water Compression Was Reducing the Knee Joint Pain for Elderly Women's. Epsom salt it's easily available and Less Expensive.

Keywords: Pain, Epsom Salt, Hot Water Compression & Knee Pain.

1. INTRODUCTION

"I don't believe in pain management anymore, I believe in trying to cure persistent pain." Dr. Moskowitz

Pain is a complex, multidimensional phenomenon. Everyone has experienced some types or degrees of pain. Pain prompts people to seek health care more often than any other problem. Pain is a leading cause of disability. As the average life span increases more people have chronic diseases in which pain is a chronic symptom. Joint pain is a chronic, progressive process in which new tissue is produced in response to joint insults and cartilage deterioration. The most common pain during the elderly people with joint knee pain and it occurs more commonly in women than in men. It accounts for substantial disability as a result of its effect on the large weight bearing joints and the spine. An Epsom salt bath is an effective alternative remedy. Epsom salts contain a high level of sulphate and magnesium, possesses powerful anti-inflammatory properties and warm water creates a powerful system for naturally relieving pain and inflammation associated with knee arthritis Epsom salt is an ingredient used in a soak to treat minor aches and pains. It's soothed tired muscles and reduces swelling. If soaking in an Epsom salt bath for aches and pains, make sure not to use water that's too hot. Epsom salt hot water bath very effective in the treatment of joint pain. Epsom salt can act topically and immediately reduce the pain in joint. Pain measurements help determine the severity, type, and duration of the pain, and are used to make an accurate diagnosis, determine a treatment plan, and evaluate the effectiveness of treatment.

OBJECTIVES

1. To Assess the Pre-&Post-test Level of knee joint pain among Elderly Women.
2. To determine the Effectiveness of hot water application with Epsom salt for a Knee Joint Pain among elderly women.
3. To Find the Association between Post-Test Level of Knee Joint Pain with the selected Socio-Demographic Variables among Elderly Women

2. METHODS AND MATERIALS

A Pre-Experimental One group pre test post test Design was used to assess the effectiveness of hot water compress with Epsom salt among Elderly Women with knee joint pain residing at selected area. After obtaining permission various department and participants, the investigator selected 100 samples by using purposive sampling technique. The samples who met the inclusion criteria were selected. The investigator introduced and explained the purposes of the study to the samples and obtained the written informed consent. The tool consists of two sections like demographic variables and Pain Rating scale was measured the level of knee joint pain. The data collection was done in the Nerukundram urban area. The time taken for each client is 30 minutes. The objective of the study was explained to the medical officer and other paramedical personnel, who were posted in the Nerukundram Health center of Chennai. Adequate privacy was provided. During the 1st visit, the researcher introduced herself and explained the purpose of the study and confirmed the willingness of the elderly women to participate in the study by getting consent from them as per the inclusion criteria. The demographic data was collected by structure questionnaire followed by pre test pain level assessed. On the day two Epsom salt compress was prepared by adding 30 grams of Epsom salts to one liter of boiling water (The temperature of the boiling water is as tolerated by the client) creating a hot compress by dipping a clean washcloth in the boiling water, wringing it out, and applying for 20 minutes over the knee joint, twice a day for 10 days will often relieve the joint pain. The collected data were coded and entered in Excel for further data analysis. Descriptive statistics and inferential statistics were used for data analysis.

3. DISCUSSION AND RESULT

SECTION A: DISTRIBUTION OF THE DEMOGRAPHIC VARIABLES AMONG ELDERLY WOMEN.

The data depicts that with respect to age, most of them 66-70 (50%) were aged 60 -65 years, 44 (44%) were aged 71-75 years and 6 (6%). Regarding religion most of them 51(51%) were Hindus, 26 (26%) were Christians and 23(23%) were Muslims. With respect to education status most of them 41(41%) were higher education, 30 (30 %) were degree, 27(27%) were primary education and 2(2%) were illiterate. Regarding the occupation most of them 83(83%) were home maker, 15(15%) daily wages, 2 (2%) were private sectors. With regards to family income, most of them 38 (38%) had a family income Rs.10000 to Rs.15000, 18(18 %) had a family income Rs.5000 to Rs.10000, 38(38%) had a family income Rs.15000 to Rs .20000, 6(6%) had a family income above Rs.20000. Regarding the Marital status most of them 94(94%) were married, 06(6%) were divorce. Regarding the Diet most of them 38(38%) were following mixed diet, 34(34%) were vegetarians, 28(28%) were Non vegetarians. With regards performing any exercises most of them 88(88%) were no, 12(12%) were says yes.

SECTION-B: ASSESS THE PRE AND POST-TEST LEVEL OF KNEE JOINT PAIN AMONG ELDERLY WOMEN.

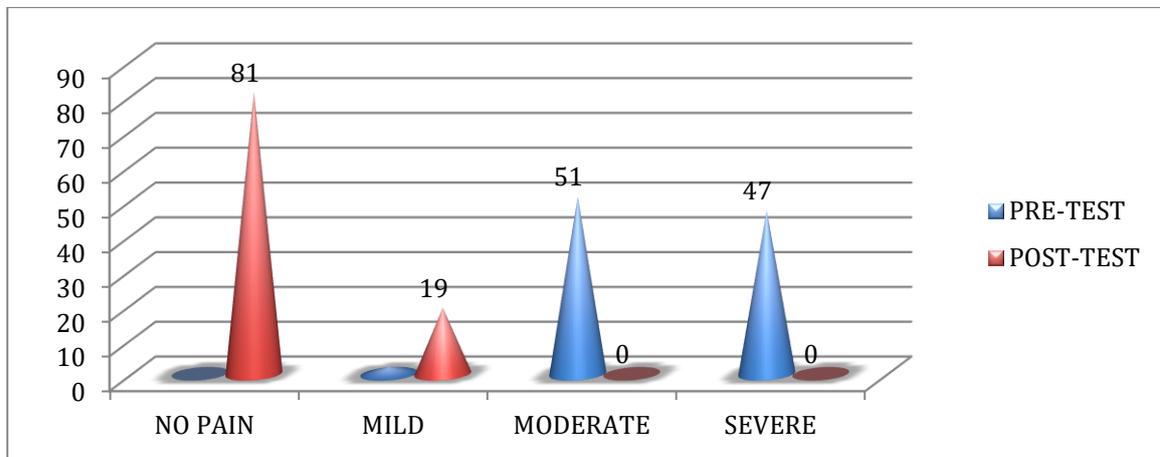


Figure-1 Pre and Post Level of Knee Joint Pain among Elderly Women

The figure 1 shows the Pre-Test Level of Knee Joint Pain among Elderly Women. The data revealed that 47(47%) were had Severe Pain, 51(51%) were had Moderate Pain, 2 (2%) were had Mild Pain. Post-Test Level of Knee Joint Pain among Elderly Women in that 81(81%) were had No pain, 19(19%) were had Mild pain and none of the Moderate and Severe pain.

SECTION C: EFFECTIVENESS OF HOT WATER APPLICATION WITH EPSOM SALT FOR A KNEE JOINT PAIN AMONG ELDERLY WOMEN

Table I: Effectiveness of Hot Water Application with Epsom Salt for a Knee Joint Pain between Pre and Post Test.

n=100

VARIABLES	MEAN	STANDARD DEVIATION	PAIRED 't' VALUE
Pre-Test Level of Knee Joint Pain	9.08	2.61	t= 0.000* p = < 0.005 (S)
Post-Test Level of Knee Joint Pain	18.49	2.53	

The table I, shows that the Effectiveness of Hot Water Application with Epsom Salt for a Knee Joint Pain between Pre and Post Test among Elderly Women. The finding reveals that Pre-Test mean and standard deviation score of Knee Joint Pain was 9.08 ± 2.61 . Whereas in the Post Test the mean and standard deviation score of Knee Joint Pain was 18.49 ± 2.53 . The calculated paired t value is $t = 0.000^*$. It was found to be statistically significant at $p < 0.005$ level. It indicates that the Hot Water Application with Epsom Salt was significantly effective to improve the level of Knee Joint Pain among Elderly Women.

The study supported to the **Lavanya Sankar (2019)** done a study on Effectiveness of Epsom Salt with Hot Water Application on Knee Joint Pain among Elderly in a Selected Rural Area at Puducherry. The objectives of this study were to assess the level of pain in knee joint among elderly patients. A pre experimental research design was adopted for this study. In total, 29 samples were selected based on the purposive sampling technique. McMaster Universities Osteoarthritis Index (WOMAC) oosteoarthritis rating scale was used to assess the degree of pain. Epsom salt with hot water application, the posttest mean pain score was 2.17 with the standard deviation of 0.384. The effectiveness was statistically tested by paired t test which was found to be highly statistically significant at $p < 0.001$. It indicates that Epsom salt with hot water application was effective in reduction of knee joint pain.

Hence, the stated that hypothesis H1 was accepted.

SECTION D: ASSOCIATION BETWEEN POST TEST LEVEL OF KNEE JOINT PAIN WITH THE SELECTED SOCIO DEMOGRAPHIC VARIABLES AMONG ELDERLY WOMEN

The finding shows that the demographic variables of Age and Types of diet shown statistically significant association with Post-Test Level of Knee Joint Pain $p < 0.005$ level. The other demographic variables had not shown any statistical association with the Post-Test Level of Knee Joint Pain among elderly women's.

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Hence, the stated that hypothesis H2 was accepted

4. CONCLUSION

Epsom salt its have anti-inflammatory and analgesics properties acts as a pain killing agent and does not have any side effects in addition to this Epsom salt has very less side effects this can be used as alternative complementary therapy. It's easily available and can be used as a home remedy in patients with arthritis. The purpose of this study was to assess the effectiveness of hot water compression with Epsom salt application early reduction of knee joint pain.

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