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**Beautily**

Department of Child Health  
Nursing, Saveetha College of  
Nursing, SIMATS, Chennai,  
Tamil Nadu, India

**Bhuvaneshwaran D**

B.Sc. (N) IV Year, Saveetha  
College of Nursing, SIMATS,  
Chennai, Tamil Nadu, India

**Esaivani VD**

B.Sc. (N) IV Year, Saveetha  
College of Nursing, SIMATS,  
Chennai, Tamil Nadu, India

**Lydia Sherin P**

B.Sc. (N) IV Year, Saveetha  
College of Nursing, SIMATS,  
Chennai, Tamil Nadu, India

**Corresponding Author:**

**Beautily**

Department of Child Health  
Nursing, Saveetha College of  
Nursing, SIMATS, Chennai,  
Tamil Nadu, India

## Effectiveness of camphor oil application on arthritis among geriatrics at Kondancheri rural areas

Beautily V, Bhuvaneshwaran D, Esaivani VD and Lydia Sherin P

**Abstract**

**Introduction:** Camphor oil is the oil extracted from the wood of camphor trees and processed by steam distillation. It can be used topically to relieve pain, irritation, and itching. Camphor is also used to relieve chest congestion and inflammatory conditions. It has a strong odor and taste and is easily absorbed through the skin.

**Objectives:** The present study aims are to assess and associate effectiveness of camphor oil application on arthritis among geriatrics in selected area.

**Methods:** Experimental Research Approach, convenient sampling technique was used to assess. Select the sample and post-test and pre-test experimental research design the effectiveness of camphor oil application on arthritis among geriatrics by using structured questionnaires.

**Results:** Among 50 samples in pretest 1(2%) Geriatrics has mild pain, 21(42%) Geriatrics has moderate pain and 28 (56%) Geriatrics has severe pain. During the post test 22(44%) Geriatrics has mild pain, 24(48%) Geriatrics has moderate pain and 4 (8%) Geriatrics has severe pain. The mean pretest score on severity of joint pain was 6.74 and that of post test was 3.86. The calculated 't' value was 21.59 at 49 degree of freedom was significant at 0.05 level. It showed that camphor oil application is effective on reduction of joint pain among Geriatrics.

**Conclusion:** The study proves that geriatric have moderate pain.

**Keywords:** Geriatrics, camphor oil application

**Introduction**

According to world health organization (1948), Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity and ability to lead a socially and economically productive life. Ayurveda has been recognized by the WHO as complete system of natural medicine, but is not widely known that the first ever study of a traditional medical system sponsored by WHO was of complete, classical Ayurveda treatment for rheumatoid arthritis [1]. Musculoskeletal disorders of upper and lower extremities are common in the general population and place a significant burden on the healthcare system [2]. The patients were advised to apply the study drug thrice daily for 14 days [3]. Knee arthritis sufficiency to consider joint replacement represents a minority of all knee pain and disability suffer by older people [4]. Estimate the relative frequency of musculoskeletal pain is different and multiple, anatomical sites in the adult population [5]. Symptom prevalence is generally believed to increase the age [8]. The ability of topical preparation of glucosamine sulphate and chondroitin sulfate to reduce pain related to arthritis [9]. Treatment of human facial demodicosis with freshly prepared camphor oil with or without glycerol dilutions gave complete cure camphor oil application can proved to be safe with no side effects [11] Good health is a prerequisite to human productivity and development process. Health is vital for ethical, artistic, material and spiritual development of man. Good health is a basic right and produces civic consciousness. According to world health organization (2010), pain has been defined as "an unpleasant sensory or emotional experience associated with actual or potential tissue damage, or described in terms of such damage. Participating in sports, including fun, fitness, and social interaction and stress relief. Participating in sports is especially imports is especially if you participate regularly. The purpose of the study was to find out the parental attitude towards female participation in sports.

Camphor is a white, crystalline substance with a strong odor and pungent taste, derived from the wood of Camphor laurel (*Cinnamomum camphora*) and other related trees of laurel family. Camphor tree is native to China, India, Mongolia, Japan and Taiwan and a variety of this fragrant evergreen tree is grown in Southern United States especially in Florida. Camphor is obtained through steam distillation, purification and sublimation of wood, twigs and bark of the tree. There are many pharmaceutical applications for camphor such as topical analgesic, antiseptic, antispasmodic, anti-pruritic, anti-inflammatory, anti-infective, contraceptive, mild expectorant, nasal decongestant, cough suppressant, etc. Camphor is easily absorbed through the skin and can also be administered by injection, inhalation and ingestion. Camphor (*Cinnamomum camphora*) has several chemical varieties, each with different essential oil compositions. The leaf of *Cinnamomum camphora* contains camphor, as the main component along with cineol, linalool, eugenol, limonene, safrole,  $\alpha$ -pinene,  $\beta$ -pinene,  $\beta$ -myrcene,  $\alpha$ -humulene, p-cymene, nerolidol, www.ijcasereportsandimages.com borneol, camphene and some other components.

### Materials and Methods

Quantitative experimental research approach with one group pre-test and post-test experimental design to assess the effectiveness of camphor oil application on arthritis by using structured questionnaires among the geriatrics. A total sample is 50 were selected using convenience sampling technique. The criteria for sampling technique are geriatrics aged group r between 50 to 70 years, who are willing to participate in the study. The data collection period was done in the rural area. The purpose of the study was using structured questionnaire. The data were analysed using camphor oil application and assess the effectiveness of camphor oil application among geriatric age group. Chi-square is used to associate the level of knowledge with the selected demographic variables.

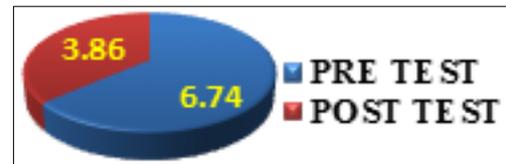
### Result and Discussion

**Section I:** Distribution of demographic variables of Geriatrics with joint pain.

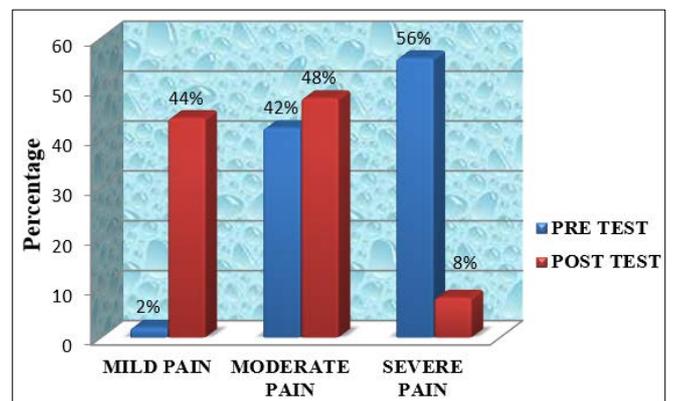
Among the respondents, 18(36%) were between the age group of 50-60years, 15(30%) were between the age group of 61-68 years, 17(34%) were between the age group of 69-75years. Regarding sex, 17(34%) were male and 33(66%) were female. Regarding the marital status, 50 (100%) were married. Regarding the family type 20(40%) of them belong to nuclear family, 18 (36%) of them belong to joint family, 12(24%) of them belong to extended family. Regarding the education 23 (46%) of them were illiterate, 14 (28%) of them were primary educated, 11 (22%) of them were belong to secondary educated, 2(4%) of them were higher secondary educated. Regarding the occupation 11(22%) of them were unemployed, 15(30%) of them were self-employers, 9(18%) of them were private employee, 8(16%) of them were daily wages, 7(14%) them were government employee. Regarding the monthly income 8(16%) of them were receiving  $\leq$  Rs.4000, 18(36%) of them were receiving between Rs.4001-5000, 12(24%) of them were receiving between Rs.5001-6000, 12(24%) of them were receiving  $\geq$  Rs. 6001. Regarding duration of joint pain 18(36%) of them were experienced for 0-1 year, 21(42%) of them were

experienced for 2-3 years, 11 (22%) of them were experienced for 4-5 years. Based on nature of work 14(28%) of them were sedentary work, 27(54%) of them were moderate work, 9(18%) of them were heavy work. Regarding impact on activities of daily living 20 (40%) of them were interfering little, 22(44%) of them were interfering significantly, 8(16%) of them were unable to perform activities.

**Section II:** Distribution of severity of joint pain in pretest and posttest among Geriatrics.



**Figure 1:** Shows the mean pretest score on severity of joint pain was 6.74 and that of posttest was 3.86. The calculated 't' value was 21.59 at 49 degree of freedom was significant at 0.05 level. It showed that camphor oil application is effective on reduction of joint pain among geriatrics.



**Fig 2:** Show the details percentage of mild moderate and severe Pain

In pretest 1(2%) Geriatrics has mild pain, 21(42%) Geriatrics has moderate pain and 28 (56%) Geriatrics has severe pain. During the posttest 22(44%) Geriatrics has mild pain, 24(48%) Geriatrics has moderate pain and 4 (8%) Geriatrics has severe pain.

**Section III:** Comparison of mean pretest and post test score of severity of joint pain among Geriatrics.

**Section IV:** Association between demographic variables with pre test score of joint pain among Geriatrics: shows that there was association between type of family, family monthly income, duration of pain, nature of work and impact on activities of daily living with pretest joint pain score of Geriatrics and there was no significant association between age, marital status, education, occupation with pretest joint pain score of Geriatrics.

### Conclusion

The mean post test score of joint pain was lower than the mean pretest score of joint pain. The finding shows that the camphor oil application was effective in reducing the severity of joint pain among Geriatrics. So the alternative hypothesis was accepted.

The chi-square test was used to find out the association between the demographic variables with pretest score of joint pain. The result revealed that the demographic variables like type of family, family monthly income, duration of pain, nature of work and impact on activities of daily living had significant association with the findings.

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