

INFORMATION ABOUT DIFFERENT HOME CARE MEASURES FOR REDUCING THE PAIN IN KNEE JOINTS

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ABSTRACT

Knee pain (KP) is a commonly diagnosed ailment that is more prevalent among Indians than other ethnic communities, with a frequency of 31.8 percent. Although they significantly decreased inflammation and discomfort, long-term follow-up studies revealed adverse side effects such as digestion problems, cardiac arrest, and nephrosis. As a result, we're in a position to focus on non-pharmacological choices available at home to reduce pain, enhance function, and delay cardiovascular events. The present research aims to examine the knowledge about the different home care measures for knee pain in the middle age group. To examine the knowledge about the different home care measures for knee pain in the middle age group. 50 males and females within the age group of 50 to 59 years. A questionnaire about the various home care measures was prepared, and the selected individuals were subjected to answer. The abstracted results were taken for statistical analysis. The results of our study found that middle-aged, older people had moderate knowledge regarding the awareness of the home care measures like massage therapy, leaf application therapy, diet and rest. Hence the home care measures for knee joint pain relief effectively improve functional immobility among middle age people with knee joint pain..

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1. INTRODUCTION

Knee pain (KP) is a highly prevalent musculoskeletal disease that is a primary cause of disability in adults over 50 years old, lowering their quality of life (QOL) [1,2]. Knee pain is more common among Indians than in other ethnic groups, with a prevalence of 31.8% [3]. In this age range, about one in every four persons in the UK has KP, primarily due to underlying knee osteoarthritis (OA) [2,4]. According to the International Association for the Study of Pain (IASP), chronic pain affects 20% of adults. They believe that suffering is personal and subjective and that the inability to articulate pain vocally is a barrier. When pain cannot be expressed verbally, pain behaviours such as guarding, agitation, facial expression, or altered movement may be used [5].

The treatment's major goals are to reduce pain, restore function, and halt the disease's development. Medicinal, non-pharmacological, and surgical therapies, as well as mixtures, have been categorized. Pharmacologic therapy was the most extensively used non-surgical treatment for KP. Anti-inflammatory medicines and non-opioid analgesics have been administered to help with inflammation and pain relief. Although they significantly decreased inflammation and discomfort, long-term follow-up studies revealed negative side effects such as digestive issues, heart failure, and renal impairment. As a result, long-term pharmaceutical therapy was restricted due to the risk of negative effects. As a result, many people have resorted

to alternate therapies, such as alternative medicines (CAM) [6,7]. As a result, we are in a position to concentrate on non-pharmacological choices available at home to reduce pain, enhance function, and delay disease progression [8]. The present research aims to examine the knowledge about the different home care measures for knee pain in the middle age group.

2. METHOD

2.1. Study design

A cross-sectional study was conducted on 50 Middle-aged people from January to March 2021 in the rural area of Earaiyur Chennai. We selected 50 males and females within the age group of 50 to 59 years. A questionnaire about the various home care measures was prepared, and the selected individuals were subjected to answer it. After abstracting the answers, the data was used for statistical analysis, thereby examining the people's knowledge of various home care measures.

2.2. Statistical analysis

The Statistical Package for Social Sciences was used to conduct the statistical analysis (SPSS, version 22). In categorical/dichotomous demographic data, frequencies and percentages were reported. The mean and standard deviation of the pain and knowledge scores were calculated. The correlation between pain and knowledge scores was analyzed using the Karl Pearson correlation coefficient method. The association between the level of pain score and knowledge score with demographic variables were analyzed using the chi-square test/yates corrected chi-square test. Influencing factors for pain and knowledge scores are identified using univariate and multivariate analysis. A simple bar diagram, a simple bar with two standard deviation bar diagrams, and a Scatter diagram with regression estimate were used to represent the data. A p-value of ≤ 0.05 was considered statistically significant, and two-tailed tests were used for test significance.

3. RESULTS

Knowledge of Different Home Care measures for knee Pain relief among Middle-aged groups in selected Rural Areas in Chennai. To examine the knowledge about the different home care measures for knee pain relief among the middle-aged group in the selected rural area in Chennai.

Table 1. Demographic variables

Demographic variables		Middle-aged group of people	%
Age group	45 - 49	10	20.00%
	50 - 54	18	36.00%
	55 - 59	22	44.00%
SEX	FEMALE	31	62.00%
	MALE	19	38.00%
EDUCATION	COLLEGIATE	15	30.00%
	HIGH SCHOOL	12	24.00%
	HIGHER SECONDARY SCHOOL	16	32.00%
	PRIMARY SCHOOL	7	14.00%
MARITAL STATUS	DIVORCED	3	6.00%
	MARRIED	36	72.00%
	SEPARATED	4	8.00%
	UNMARRIED	5	10.00%
TYPE OF FAMILY	WIDOW	2	4.00%
	JOINT FAMILY	21	42.00%
	NUCLEAR	29	58.00%

NATURE OF WORK	HEAVY WORK	12	24.00%
	MODERATE WORK	22	44.00%
	SEDENTARY	16	32.00%
FAMILY INCOME	>41430	5	10.00%
	10357-15535	13	26.00%
	15536-20714	14	28.00%
	20715-41429	10	20.00%
HOBBIES	6214-10356	8	16.00%
	HOUSEHOLD WORK	20	40.00%
	READING BOOKS	8	16.00%
DURATION OF KNEE JOINT PAIN	WATCHING T. V	22	44.00%
	0-1 yr	5	10.00%
	1 - 3 yrs	20	40.00%
	MORE THAN 3 YRS	17	34.00%
TYPE OF PHYSICAL ACTIVITY	No pain	8	16.00%
	EXERCISE	22	44.00%
	IRREGULAR	1	2.00%
	NOT DOING	19	38.00%
	YOGA	8	16.00%

Table 1 displays the statistical profile of middle-aged persons who took part in the current analysis on “knowledge of different home care measures for knee pain relief among the middle-aged group in the selected rural area at Chennai.” The age-wise sex distribution of cases is shown in Table 2.

Table 2: Age-wise sex distribution

Sex	Number	Mean age	Standard Deviation	Student independent t-test
Male	19	51.63	3.66	t=1.78 p=0.08(NS)
Female	31	53.68	4.09	

A Male's mean age is 51.63 years, and a female's mean age is 53.68 years. Overall, the elder's mean age is 52.90 years, and SD is 4.02 years. The percentage level of numerical pain score among middle-aged people living in rural areas is maximum. In general, 10.00% of the males have no pain level score, 40.00% possess a mild level of pain score, 48.00% have a reasonable level of pain score, and 2.00% have a severe level of pain score (figure 1).

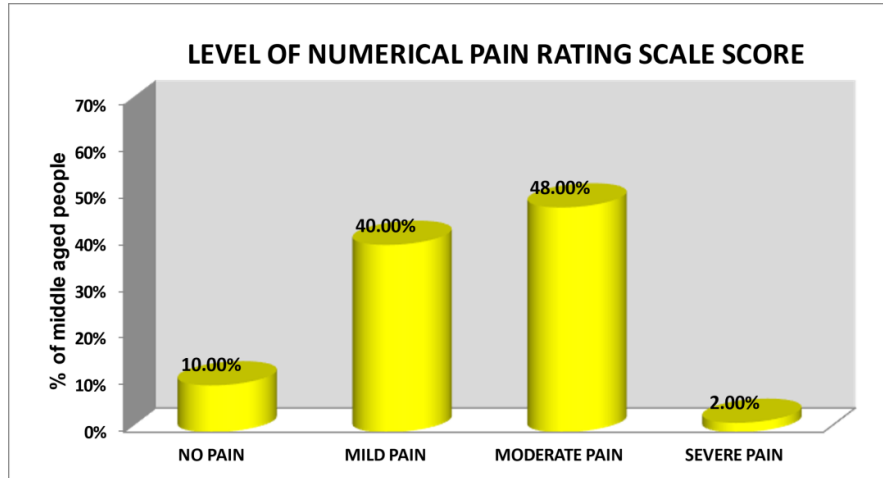


Figure 1. Age distribution

Table 3: Knowledge about home care measures

		Middle-aged group of people	%
Oil therapy	CAMPHOR OIL	18	36.00%
	COCONUT OIL	16	32.00%
	EUCALYPTUS OIL	16	32.00%
Massage	NO IDEA	30	60.00%
	USEFUL	20	40.00%
Hot application	NO IDEA	28	56.00%
	USEFUL	22	44.00%
Leaf application	NO IDEA	24	48.00%
	USEFUL	26	52.00%
Warm rice bran application	NO IDEA	23	46.00%
	YES	27	54.00%
Exercise	BENEFIT	30	60.00%
	NO IDEA	20	40.00%
Weight reduction	NO IDEA	27	54.00%

	YES	23	46.00%
Use of cushioned shoes	NO IDEA	28	56.00%
	USEFUL	22	44.00%
	NO IDEA	30	60.00%
Diet	YES	20	40.00%
Rest	NO IDEA	26	52.00%
	YES	24	48.00%

Table 3 and figure 2 show the percentage level of Knowledge score among middle-aged people living in rural areas. In general, 62.00 percent of males have an inadequate level of performance, 38.00 percent have a moderate level of performance, and none have an adequate level of performance..

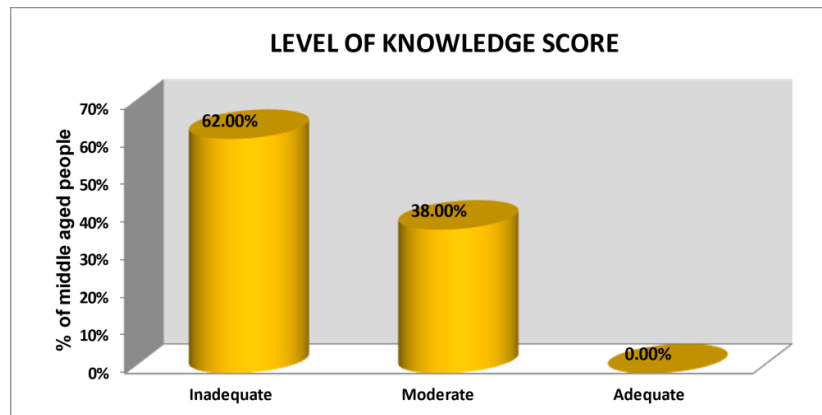


Figure 2. Clinical presentation of the participants

More middle-aged, older adults were known to have more moderate knowledge regarding massage leaf application, diet and rest. Statistical significance was assessed using the chi-square test/yates corrected chi-square test. Univariate Odds ratio with 95% confidence shows each variable wise number of times more knowledge of middle-aged people in a rural area. The validity of the tool was assessed using content validity. Experts from the nursing and Medical determined content validity. They suggested certain modifications to the tool. After the modifications, they agreed on this tool for assessing knowledge of Different Home Care measures for knee Pain relief among Middle-aged groups in selected Rural Areas in Chennai. After the pilot study, the tool's reliability was assessed using inter-rater and test-retest methods. Pain score reliability correlation coefficient value is 0.92, and knowledge score reliability correlation coefficient value is 0.82. These correlation coefficients are very high, and it is a good tool for assessing knowledge of Different Home Care measures for knee Pain relief among Middle-aged groups in selected Rural Areas in Chennai.

4. DISCUSSION

This cross-sectional study aimed to examine the knowledge and awareness of various home care measures in managing Knee joint pain among middle-aged people. Our study questionnaire was prepared regarding the various home care measures which were said to be helpful in managing knee joint pain. Subjects were made to answer, and data was collected and used for statistical analysis. Our findings suggest that 2.00% of middle-aged people have a severe level of pain score, 48.00% have a moderate level of pain score, and 40.00% have a mild level of pain score. Regarding awareness and knowledge, more middle-aged older adults were known to have more moderate knowledge than others regarding massage therapy, leaf application therapy,

diet and rest. Association between the pain score and the knowledge score revealed that middle-aged older adults with more moderate knowledge regarding oil therapy (camphor oil), leaf application therapy, diet and rest has been found to have lower pain score. Our study suggests that increased knowledge of various home care measures benefits knee joint pain management. It is understood that there is a significant, negative, fair correlation between knowledge score and Pain score. It means their knowledge score increases their pain score decreases fairly.

5. CONCLUSION

In our study, we conclude that 50 middle-aged people were provided with the questionnaire, and the data were collected and subjected to statistical analysis. The results showed that middle-aged, older adults had more knowledge and awareness regarding various home care measures like massage therapy, leaf application therapy, diet and rest. Our study concludes that the home care measures for knee joint pain relief effectively improve the level of functional immobility among middle age people with knee joint pain.

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ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

COMPETING INTEREST

The authors declare no conflict of interest.

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