

# A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge And Self Practice Regarding Self Care Management Of Osteoarthritis Among Osteoarthritic Patients Visiting Orthopaedic OPD In Rajindra Hospital, Patiala.

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## **Abstract:**

**Background:** Osteoarthritis is a progressive degenerative joint disorder that leads to chronic pain, stiffness, and reduced mobility, affecting older adults and limiting their independence. It is one of the leading causes of disability worldwide, with a rapidly increasing prevalence. Many patients lack adequate knowledge regarding essential self-care practices such as exercise, weight management, joint protection, lifestyle modification, and pain-relief strategies. Previous literature has consistently shown that limited awareness and inappropriate self-care behaviours contribute to worsening symptoms and poor quality of life. Observing similar gaps among patients attending the Orthopaedic OPD at Rajindra Hospital, Patiala, the need arose to implement a structured teaching programme (STP) to enhance their understanding and daily self-care practices.

**Aim of the study:** The aim of the study was to assess the effectiveness of a structured teaching programme on knowledge and self-practice regarding self-care management of osteoarthritis among osteoarthritic patients visiting the Orthopaedic OPD of Rajindra Hospital, Patiala.

**Material and method:** A pre-experimental one-group pre-test post-test design was adopted, and purposive sampling was used to select 50 osteoarthritic patients. A self-structured questionnaire consisting of demographic variables, knowledge items, and self-practice items was used for data collection. After the pre-test, a structured teaching programme was administered through flashcards, demonstrations, and PowerPoint presentations. A post-test using the same tool was conducted after seven days. Data were analysed using descriptive and inferential statistics.

**Results:** The study showed a marked improvement in both knowledge and self-practice after the intervention. The mean knowledge score increased from  $25.98 \pm 4.96$  to  $32.62 \pm 4.85$ , with a mean difference of 6.64 ( $p < 0.001$ ). The mean self-practice score increased from  $11.10 \pm 2.79$  to  $12.94 \pm 2.84$ , with a mean difference of 1.84 ( $p < 0.001$ ). None of the participants remained in below-average categories after the STP.

**Conclusion:** The structured teaching programme was highly effective in improving knowledge and self-care practices among osteoarthritic patients, demonstrating its importance in routine osteoarthritis management.

**Keyword:** Osteoarthritis, Structured teaching programme, Self-care management, Knowledge, Self-practice.

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## **I. Introduction**

Osteoarthritis (OA) is a degenerative joint disease characterized by the breakdown of cartilage leading to pain, stiffness and reduced mobility.<sup>1</sup> It is the most common form of arthritis, affecting approximately 302 million people worldwide and is the leading cause of disability among older adults. Its prevalence increases with age and commonly involves the knees, hips, and hands. The etiology of OA is multifactorial, involving systemic factors such as age, gender, genetics, obesity, and metabolic disorders, along with local factors like joint trauma, malalignment and occupational stress which together accelerate joint degeneration.<sup>2,3,4</sup> OA significantly impairs daily activities, reduces independence and adversely affects physical, psychological, and social well-being, while also imposing a substantial economic burden due to healthcare costs and loss of productivity. Evidence-based guidelines recommend patient education, exercise, and weight management as first-line interventions; however, many patients have inadequate knowledge and rely primarily on medications, neglecting lifestyle modifications. Studies have demonstrated that structured teaching and self-management programs effectively improve

knowledge, functional outcomes, and quality of life among OA patients.<sup>5 6 7 8</sup> During clinical postings ,it was observed that many osteoarthritis patients had inadequate knowledge regarding self care management and relied mainly on medication ,highlighting the need for structured educational interventions. Therefore, this study aims to assess the effectiveness of a structured teaching program on knowledge and self practice regarding self care management of osteoarthritis among osteoarthritic patients attending the orthopaedic outpatient department of Rajindra Hospital, Patiala.

## II. Material And Methods

This study was carried out on osteoarthritic patients visiting orthopaedic OPD at Rajindra Hospital Patiala. A total of 50 adult subjects (both males and females) of aged above 18 years of age were included in the study.

**Study design:** One group pre-test post-test Pre Experimental design.<sup>9</sup>

**Study location:** Orthopaedic OPD, Rajindra Hospital Patiala, Punjab.<sup>10</sup>

**Study duration:** One month

**Sample size:** 50 patients <sup>11</sup>

**Selection method:** Purposive sampling technique <sup>12</sup>

### Inclusion criteria:

- Patients diagnosed with Osteoarthritis.
- Patients willing to participate in the study
- Patients who can understand the Punjabi language.

### Exclusion criteria:

- Patients having psychiatric and cognitive disorder
- Patients unwilling to participate.

### Procedure methodology:

Firstly consent was taken from each patient and a well defined questionnaire was used to collect data of the selected patients.The tool consisted of three sections — demographic data, knowledge, and self practice related to osteoarthritis. A pre-test was conducted to assess the baseline knowledge and self practice of osteoarthritic patients. A structured teaching programme on self care management was administered to the participants. .After seven days, a post-test was conducted using the same questionnaire to assess the effectiveness of the teaching programme. The collected data were compiled, organized, and statistically analysed to draw conclusions.

## III. Result

The results of the study are presented in terms of demographic characteristics , pre test and post test levels of knowledge and self care practices and the effectiveness of the structured teaching programme.

**Plan Of Analysis:** Analysis and interpretation of data was done according to the objectives using descriptive and inferential statistics. The level of significance chosen was at  $p \leq 0.05$ .

### Section 1. Findings related to socio-demographic profiles of the subjects.

**TABLE 1:** Percentage distribution of socio-demographic characteristics

Demographic Information	Options	Frequency(f)	Percentage(%)
Age Group (Years)	30-40 Years	11	22%
	40-50 Years	8	16%
	50-60 Years	19	38%
	60 And above	12	24%
Gender	Male	21	42%
	Female	29	58%
	Other	0	0%
Education Level	Illiterate	13	26%
	Primary	10	20%
	Secondary	13	26%
	Graduate	14	28%

	Postgraduate	0	0%
Occupation	Unemployed	6	12%
	Labourer	9	18%
	Office Worker	6	12%
	Businessperson	6	12%
	Homemaker	22	44%
	Other	1	2%
Duration of Osteoarthritis	<1 Year	11	22%
	1-3 Years	21	42%
	3-5 Years	14	28%
	>5 Years	4	8%
Family History of Osteoarthritis	Yes	19	38%
	No	31	62%
Current Treatment	Medication	29	58%
	Physiotherapy	12	24%
	Home Remedies	8	16%
	Surgery	1	2%
	None	0	0%
Source of Information on Osteoarthritis	Doctor	25	50%
	Internet	8	16%
	Friends/Family	12	24%
	No Information Received	5	10%

The majority of patients were aged 50-60 years (38%) and females were (58%). Most participants were homemakers (44%) and had osteoarthritis for 1-3 years (42%). (Table 1)

**SECTION 2: Findings related to pre test score of knowledge and self practices of osteoarthritis.**

**TABLE 2: Distribution of Pre test knowledge and self care practices**

**N=50**

LEVEL	KNOWLEDGE f%	PRACTICE f%
Excellent	0(0%)	2(4%)
Good	15(30%)	13(26%)
Average	30(60%)	25(50%)
Below average	5(10%)	10(20%)
Poor	0(0%)	0(0%)

TABLE 2: The pre test findings revealed that most participants had average knowledge (60%) and average self care practices (50%). A smaller proportion demonstrated good knowledge (30%) and good practice (26%)

**SECTION III: Findings related to post test score of knowledge and self practices of osteoarthritis.**

**TABLE 3: Distribution of post test knowledge and self care practices .**

**N=50**

LEVEL	KNOWLEDGE f%	PRACTICE f%
Excellent	10(20%)	7(14%)
Good	30(60%)	24(48%)
Average	10(20%)	14(28%)
Below average	0(0%)	5(10%)
Poor	0(0%)	0(0%)

TABLE 3: Post test results showed improvements with most participants demonstrating good knowledge (60%) and good self care practice (48%). Additionally 20 % of participants achieved excellent knowledge after the intervention.

**TABLE 4: Effectiveness of the structured teaching programme.**

**N=50**

Variable	Pre-test Mean ±SD	Post test Mean± SD	Mean difference	t-value	p-value
Knowledge	25.98±4.96	32.62±4.85	6.64	17.34	<0.001
Self -Practice	11.10±2.29	12.94±2.84	1.84	7.73	<0.001

TABLE 4: The mean knowledge score increased significantly from 25.98±4.96 in the pre test to 32.62±4.85 in the post test (t=17.34, p<0.001). Similarly, the mean self care practice score improved from 11.10±2.29 to 12.94±2.84 (t=7.73, p<0.001), indicating the effectiveness of the structured teaching programme (Table-4)

These findings indicate that the structured teaching programme was effective in improving knowledge and self care practices among osteoarthritis patients.

#### **IV. Discussion**

This study assessed the effectiveness of a structured teaching programme (STP) on knowledge and self-care practices among osteoarthritis patients attending the Orthopaedic OPD of Rajindra Hospital, Patiala. The demographic findings showed that most participants were older adults and predominantly female, which is consistent with previous studies such as Puri et al. (2024) and Hunter et al. (2022), where a higher prevalence of osteoarthritis was observed among similar age groups and females.

The pre-test findings revealed that participants had only average knowledge and inadequate self-care practices. This aligns with findings reported by Hunter et al. (2022) and Egerton et al. (2021), who observed that patients often lack sufficient understanding of self-management despite receiving clinical care. These similarities highlight the persistent gap in patient education regarding non-pharmacological management.

Following the intervention, a significant improvement was observed in both knowledge and self-care practices, with most participants achieving good and excellent scores. The difference between pre-test and post-test scores was statistically significant ( $p < 0.001$ ), indicating the effectiveness of the STP. These findings are in agreement with studies by Pablo Rodríguez Sánchez-Laulhé et al. (2022), Jokar et al. (2024), and Puri et al. (2024), which also reported that structured educational interventions significantly improved patient knowledge, behaviour, and disease outcomes.

The association between demographic variables and baseline knowledge was found to be significant for education, occupation, and duration of illness, which is similar to findings from Valaasa et al. (2021). However, post-test improvements were not significantly associated with demographic variables, suggesting that the STP was equally effective across all groups. This is consistent with Egerton et al. (2021), who reported that educational interventions produce beneficial outcomes regardless of patient characteristics.

Overall, the findings of the present study are consistent with existing literature and confirm that structured teaching programmes are an effective, low-cost strategy to improve knowledge and self-care practices among osteoarthritis patients, thereby enhancing disease management and quality of life.

#### **V. Conclusion**

This study concluded that the structured teaching programme was effective in improving knowledge and self-care practices among osteoarthritis patients. A significant difference was observed between the pre test and post test scores. the intervention enhanced patients understanding of disease management and promoted better self care behaviours. Thus structured teaching programme can improve the quality of life in osteoarthritis patients.

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