

A STUDY TO ASSESS KNOWLEDGE AND PRACTICES REGARDING HOME BASED CARE OF ARTHRITIS AMONG ADULTS AT SELECTED RURAL AREA DISTRICT JAIPUR

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ABSTRACT

Introduction: Arthritis is a prevalent chronic condition with significant impacts on individuals' well-being and healthcare systems globally. This study aims to assess the knowledge and practices related to home-based arthritis care among adults in a rural area. **Method:** The research approach quantitative research approach A descriptive study was conducted in selected geographical area which is prone to arthritis cases a rural area of chhapura khurd District Jaipur, involving 100 adults aged 31-70. Structured questionnaires and checklists were used to collect data on demographic characteristics, knowledge about arthritis, and home-based care practices. **Results:** The majority of participants (61%) exhibited poor knowledge levels regarding arthritis care, with only 12% demonstrating good knowledge. In terms of practice levels, 47% of participants showed poor practices, while 7% exhibited good practices. Significant associations were observed between educational qualification, occupation, family history of arthritis, and both knowledge and practice levels ($p < 0.05$). Correlation analysis revealed a positive correlation between knowledge and practice scores ($r = 0.578$, $p > 0.05$), emphasizing the pivotal role of knowledge in influencing effective arthritis management practices. However, no significant relationships were found between age, gender, or monthly family income, and knowledge or practice levels. **Conclusion:** This study highlights the need for targeted educational interventions to enhance awareness and understanding of arthritis management practices, particularly in rural area. The findings contribute valuable insights into arthritis care and have implications for nursing education, services, and practice.

KEYWORDS: Arthritis, Home-based care, Knowledge, Practice, Rural area.

INTRODUCTION

Around 12% of adults between 25 and 74 years of age, approximately 15.8 million people, exhibit signs and symptoms of arthritis.^[1] The prevalence varies among different age groups, with around 85% of people aged 70 to 75 experiencing arthritis in their hands. Arthritis can affect individuals irrespective of age, race, or social status, leading to numerous physician visits and hospitalizations each year.^[2] A recent study estimated the global prevalence and incidence of knee osteoarthritis. Among individuals aged 15 and over, the prevalence of knee OA was found to be 16%, increasing to 22.9% among those aged 40 and over.^[3]

Arthritis is a prevalent chronic condition of Arthritis is a debilitating disease that can affect people of all ages, contrary to popular belief. With over 100 different types

of arthritis, accurately identifying the specific type is crucial for effective treatment.^[4] Managing arthritis primarily focuses on relieving symptoms and optimizing functional outcomes.^[5]

In the modern world, factors such as family stress, excessive workload, poor diet, and environmental factors like high fluoride levels in certain areas contribute to the prevalence of arthritis and other diseases.^[6] Patient education programs have proven beneficial in improving the quality of life, functioning, and coping abilities of individuals with arthritis. These programs can focus on self-management, exercise, or a combination of both. However, research indicates that some patients have a preference for surgical treatment and hold negative beliefs about conservative management.^[7]

Education can be given either by a physician or by the multidisciplinary health team. Research suggests that patient education is not only feasible but also valuable in terms of improvements in quality of living, functioning, well-being and improves coping. Individuals of all ages, with a significant impact on their quality of life and functional abilities. Despite the importance of home-based care, there is a notable gap in our understanding of the knowledge and practices surrounding arthritis management in rural settings. This knowledge gap impedes the development of targeted interventions and hinders efforts to improve the quality of care for individuals living with arthritis in rural area.

To address this gap, the present study aimed to assess the knowledge and practices regarding home-based care for arthritis among adults in a selected rural area of District Jaipur. The results of this study provide valuable insights into the knowledge gaps and practice patterns regarding home-based care for arthritis among adults in rural areas. By identifying factors influencing knowledge and practices, this study aims to contribute to the development of targeted nursing education programs, interdisciplinary collaboration initiatives, and tailored healthcare services aimed at improving arthritis care in rural area.

The objectives of the study were

- To assess knowledge regarding home based care of arthritis among adult at selected rural area district Jaipur.
- To check practices regarding home based care of arthritis among adults at selected rural area district Jaipur.
- To find out the association between knowledge of adults regarding home based care of arthritis with selected Socio demographic variables at selected rural area district Jaipur.
- To find out the association between practice score of adults regarding home base care of arthritis with selected Socio demographic variables at selected rural area district Jaipur.
- To find out co- relation between knowledge score and practice score regarding home bases care of arthritis at selected rural area district Jaipur.

Hypothesis

H₁: There is significant association between knowledge regarding home based care of arthritis among adult at selected rural area district jaipur with Socio demographic variables at 0.05 level of significance.

H₀₁: There is no significant association between knowledge regarding home based care of arthritis among adult at selected rural area district jaipur with Socio demographic variables at 0.05 level of significance.

H₂: There is significant association between practice regarding home based care of arthritis among adult at selected rural area district jaipur with Socio demographic

variables at 0.05 level of significance.

H₀₂: There is no significant association between practice regarding home base care of arthritis among adult at selected rural area district jaipur with Socio demographic variables at 0.05 level of significance.

H₃: There is significant co- relation between knowledge and practice score regarding home base care of arthritis among adult at selected rural area district jaipur with Socio demographic variables at 0.05 level of significance.

H₀₃: There is no significant co-relation between knowledge and practice score regarding home base care of arthritis among adult at selected rural area district jaipur with Socio demographic variables at 0.05 level of significance.

Conceptual framework:- General system model

METHODOLOGY

Research approach: Quantitative research approach

Research design: This research employed a descriptive study design to assess the knowledge and practices regarding home-based care for arthritis among adults in a rural area of District Jaipur.

Study Setting and Participants: The study was conducted in a rural area of chhapura khurd District Jaipur, selected based on its accessibility and representation of typical rural area in the region. The participants comprised adults aged 31-70 residing in the selected rural area. This age group was chosen to focus on adults who are likely to be responsible for their own or their family members' health and well-being.

Sampling: A non probability convenience sampling technique was utilized to recruit participants for the study. Individuals meeting the inclusion criteria (age 31-70 and residing in the rural area of chhapura khurd District Jaipur) were approached and invited to participate in the study. A total of 100 participants were included in the sample, ensuring a diverse representation of the target population.

Data collection: Data collection was carried out using structured knowledge questionnaire and checklist developed based on existing literature and expert input. Additionally, it included 20 items related to knowledge about arthritis, its management, and 20 item home-based care practices. The checklist was used to assess specific home-based care practices related to arthritis management, such as exercise routines, medication adherence, and lifestyle modifications.

Data analysis: By using descriptive data analyzed by mean, mode, median and sd along with inferential data analyzed by chi square and correlation coefficient.

RESULT

Table 1: Frequency and Percentage distribution of Demographical characteristics. (N=100)

S. N.	Demographical variable	Frequency
1	Age of samples (In years)	
	a) 31-40	5
	b) 41-50	33
	c) 51-60	27
	d) 61-70	35
2	Gender	
	a) Male	50
	b) Female	50
3	Educational qualification	
	a) Less than Secondary	39
	b) Senior secondary	38
	c) UG	20
	d) PG	3
4	Occupation	
	Farmer	11
	Daily wager	25
	Govt. job	10
	Unemployed	54
5	Monthly family income (in rupees)	
	Less than 15000	29
	15001-30000	43
	30001-50000	20
	More than 50000	8
6	History of arthritis in family	
	Yes	10
	No	90

Table 1. shows majority were aged 41-70 years, with the highest frequency in the 41-50 age group (33%). Gender distribution was equal between males and females (50% each). Most participants had education up to secondary

or senior secondary level (77%), and unemployment was prevalent (54%). Monthly family income was primarily between 15,001 to 30,000 rupees (43%), and the majority reported no family history of arthritis (90%).

Table 2: Showing Knowledge and Practice level regarding home base care of arthritis among adults. (N = 100)

S. No	Level of knowledge	Frequency
1	Poor knowledge	61
2	Average knowledge	27
3	Good knowledge	12
S. No	Level of practice	Frequency
1	Poor practice	47
2	Average practice	46
3	Good practice	7

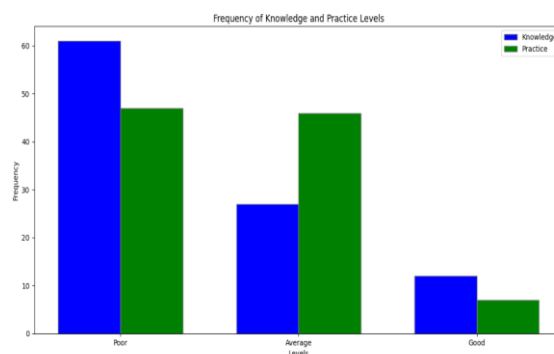


Figure 1: Knowledge and Practice level regarding home base care of arthritis among adults.

Table 2 and figure 1. presents the distribution of knowledge and practice levels regarding home-based care of arthritis among 100 adults. The majority of participants exhibited poor knowledge (61%), followed by those with average knowledge (27%), and a smaller

proportion with good knowledge (12%). In terms of practice levels, 47 participants demonstrated poor practices, while 46 showed average practices, and only 7 exhibited good practices.

Table 3: Showing the relationship between Knowledge and Practice regarding home based care of arthritis among adult. (N = 100)

S. No	Variables	Mean	S.D.	DF	“r”	Tabulated “r” value @ i.o.s 0.05	Result
1	Knowledge score	7.87	5.189	98	0.578	0.83	Positive NS
2	Practice score	8.23	3.513				

In Table 3, the relationship between knowledge and practice regarding home-based care of arthritis among adults is explored. The mean knowledge score was found to be 7.87 with a standard deviation of 5.189, while the mean practice score was 8.23 with a standard deviation of 3.513. The correlation analysis revealed a positive

correlation ($r = 0.578$) between knowledge and practice scores, suggesting that individuals with higher levels of knowledge tended to exhibit better practices in arthritis care. However, the correlation was not statistically significant ($p > 0.05$).

Table 4: Findings related to the association between practice level and level of knowledge with selected demographic variables among adults regarding home base care of arthritis.

S.N.	Demographical Variable	Df	Calculated Chi-square value	
			Level of Knowledge	Level of practice
1	Age of Samples (In years)	6	14.194*	10.790 ^{NS}
2	Gender	2	0.053 ^{NS}	3.258 ^{NS}
3	Educational Qualification	6	32.950*	32.137*
4	Occupation	6	17.518*	15.424*
5	Monthly Family Income (in Rupees)	6	22.357*	10.571 ^{NS}
6	History of Arthritis in Family	2	26.108*	34.610*

Table 4 examines the association between practice level, knowledge level, and selected demographic variables among adults regarding home-based care of arthritis. Significant associations were observed between educational qualification and both knowledge level ($\chi^2 = 32.950$, $p < 0.05$) and practice level ($\chi^2 = 32.137$, $p < 0.05$), as well as between occupation and both knowledge level ($\chi^2 = 17.518$, $p < 0.05$) and practice level ($\chi^2 = 15.424$, $p < 0.05$). Additionally, a significant association was found between the history of arthritis in the family and both knowledge level ($\chi^2 = 26.108$, $p < 0.05$) and practice level ($\chi^2 = 34.610$, $p < 0.05$). However, no significant associations were observed between age, gender, or monthly family income and either knowledge or practice levels.

DISCUSSION

The study aimed to assess the knowledge and practices related to home-based care of arthritis among adults in a rural area, as well as to explore the association between these factors and selected demographic variables. The findings provide valuable insights into the current status of arthritis management in this population and have implications for nursing education, services, and practice.

The study found that the majority of participants exhibited poor knowledge regarding home-based care of arthritis, with only a small proportion demonstrating

good knowledge. Similarly, similar research conducted by Rekić et al. (2022), which also reported suboptimal knowledge and practice levels among arthritis patients in rural settings.^[8] These consistent findings highlight the need for targeted educational interventions to enhance awareness and understanding of arthritis management practices among individuals residing in rural area.

The correlation analysis revealed a positive correlation between knowledge and practice scores, suggesting that individuals with higher levels of knowledge tended to exhibit better practices in arthritis care. This aligns with the findings of a study conducted by Valerie et al. (2001), which similarly reported a positive association between knowledge and practice among arthritis patients.⁹ Additionally, a study by Gurjar N.R. et al. (2018) further supports this correlation, revealing that caregivers with better knowledge demonstrate superior practices in caring for arthritis pain.^[10] These consistent findings emphasize the critical role of knowledge in influencing the adoption of effective arthritis management practices.

Furthermore, the study explored the association between knowledge and practice levels with selected demographic variables. Significant associations were observed between educational qualification, occupation, and the presence of a family history of arthritis, and both knowledge and practice levels. However, no significant

associations were found between age, gender, or monthly family income, and knowledge or practice levels.

These findings resonate with several previous studies. Lunden *et al.* (2011) documented that caregivers with advanced qualifications exhibit enhanced knowledge in caring for arthritis patients. Similarly, research by Luong *et al.* (2012) highlighted that occupation and familial history of arthritis are correlated with greater knowledge of arthritis care.^[11] Additionally, another study observed that neither age nor gender significantly influenced the quality of arthritis care provided, supporting the notion that socio-demographic factors may not be pivotal determinants of knowledge and practice levels in arthritis management.^[12] Overall, these findings underscore the complex interplay between demographic factors and arthritis care and emphasize the necessity for tailored interventions to optimize patient outcomes.

In conclusion, the study contributes to the existing knowledge on arthritis care and offers practical implications for nursing. The recommendations for future research, including larger sample sizes, experimental designs, and exploration of technology integration, pave the way for continued efforts to enhance arthritis management, particularly in rural area. However, the study has limitations, such as its applicability to a specific rural area and the exclusion of certain demographic variables, which should be considered in interpreting the findings.

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