



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2020; 6(5): 234-236
www.allresearchjournal.com
Received: 16-03-2020
Accepted: 18-04-2020

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Effectiveness of structured teaching programme on knowledge regarding osteoarthritis among middle aged adults in selected rural areas of Moodbidri

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Abstract

Osteoarthritis is the most common form of arthritis, affecting millions of people around the world. Often called wear-and-tear arthritis, osteoarthritis occurs when the protective cartilage on the ends of bones wears down over time. Its high prevalence especially in elder patients and high rate of disability make it a leading cause of disability. Indian studies reveal that 5% of the aged. Indian population is affected by osteoarthritis and the incidence of osteoarthritis is increasing by 5% of the population every year.

Objective: The objectives of the study were 1. To assess the pre-test knowledge regarding osteoarthritis among middle aged adults. 2. To find the effectiveness of structured teaching programme on knowledge regarding osteoarthritis among middle aged adults. 3. To find the association between the pre-test knowledge scores and selected demographic variables.

Research methodology: A quantitative (evaluative) approach and pre-experimental research design with one group pre-test post-test, with a total of 60 middle aged adults were included in the study. Purposive sampling technique was used for selecting the sample. Demographic proforma and structure interview schedule were used to collect data from middle aged adults. Analyses were done by using the descriptive and inferential statistics.

Results: In this study, it has been revealed that, there was significant difference between the mean pre-test and the mean post-test knowledge score ($t_{(59)}=32$, table value $t_{(59)}=1.670$, $p<0.05$), which shows that the structured teaching programme was effective in increasing the knowledge score of middle aged adults of selected rural areas. This showed that the structured teaching programme was effective.

Keywords: Knowledge level, osteoarthritis, middle aged adults

1. Introduction

Osteoarthritis is a disease in which the cartilage that acts as a cushion between bones in joints begins to exhaust, causing swelling and pain in joints which affect negatively. The main symptom is pain, causing loss of ability and often stiffness. "Pain" is generally described as a sharp ache, or a burning sensation in the associate muscles and tendons. Osteoarthritis can cause a crackling noise (called "crepitus") when the affected joints is moved or touched, and patients may experience muscles spasm and contraction in the tendons. The prevalence of osteoarthritis in India is very high.

Since osteoarthritis is a chronic condition which does not have a definitive treatment, the treatment concentrates on conservative and symptomatic treatment, so the self-care activities like "Proper Nutrition, Joint Protection Measures (Use of Assistive Devices), Medication, Hot and Cold Applications, and Therapeutic Exercises" can help to a great extent in conservation of the joint and relieving arthritic pain in the patients.

2. Need of the Study

Osteoarthritis is a joint disease that most often affects middle age to elderly people. It is commonly referred to as "OA" or as "wear and tear" of the joints. It involves the entire joint, involving the cartilage, joint lining, ligaments and bone.

The patient suffering from osteoarthritis should know the importance of self-care activities which are inexpensive at the same time are useful in overcoming the problems associated with it especially pain. The self-care activities that patient should know and practice include a proper nutrition. Joint protection measures (use of assistive devices), medication, hot and cold

application and therapeutic exercises. Many countries in Asia are aging rapidly. It has been estimated that the percentage of people aged 65 years and over in Asia will more than double in the next two decades from 6.8% in 2008 to 16.2% in 2040.

An important aims of investigators is to provide necessary knowledge regarding self-care activities to prevent the complication and to help the patient to change the undesirable attitudes to the desirable attitudes.

3. Objectives

- To assess the pre-test knowledge regarding osteoarthritis among middle aged adults.
- To find the effectiveness of structured teaching programme on knowledge regarding osteoarthritis among middle aged adults.

4. Research Methodology

Quantitative (evaluative) approach was used and Research design was pre-experimental research design with one group pre-test post –test. The study was conducted in in the rural

areas of Moodbidri, Karnataka. Population of this study includes middle aged adults of rural areas of Moodbidri. The Sample size was 60. Non-probability purposive sampling technique was chosen for the study. Demographic Performa and structure interview schedule was used to collect data from middle aged adults. Intervention was given in the form of structure teaching program on osteoarthritis. It consists of 28 questions, each multiple choice had 4 options with 1 correct response. Each item has a score of 1 for the correct answer and 0 for the wrong answer. The maximum possible score was 28 and the minimum score was 0. The score was categorized on arbitrary basis as follow:

1. Poor : 0-7
2. Average: 8-14
3. Good : 15-21
4. Very good: 22-28

5. Data Analysis

The data were analyzed by using descriptive and inferential statistics like Frequency, percentage, mean, standard deviation and paired T-Test.

Table 1: Frequency and percentage distribution of pre test and post test knowledge score of middle aged adults.

Level of knowledge	Pre-test knowledge score		Post-test knowledge score	
	Frequency	Percentage	Frequency	Percentage
Poor	43	71.67	0	0
Average	17	28.33	5	8.33
Good	0	0	45	75
Very good	0	0	10	16.67

Table 1 shows that in the pre-test most of the middle aged adults (71.67%) had poor knowledge, 28.33% had average knowledge. On the other hand in the post test 75% acquired good knowledge, 16.67% had very good knowledge and 8.33% acquired average knowledge regarding osteoarthritis which is also shown in Fig-1.

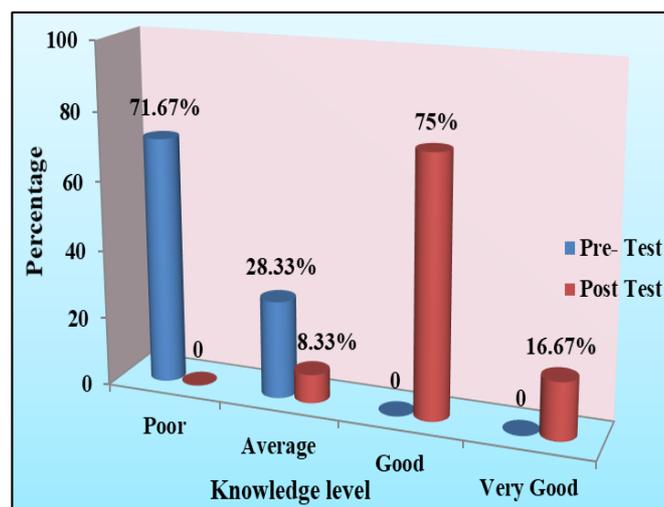


Fig 1: Cylindrical diagram showing the percentage distribution of pre-test and post-test knowledge scores of subjects.

Table 3: Mean, median, mean percentage and standard deviation of pre-test and post-test knowledge score.

	Max. possible score	Mean	Median	Mean %	SD
Pre test	28	5.716	5	20.41	2.45
Post test	28	18.2	18	65	3.355

The data presented in the table 3 shows that mean percentage of post test (65%) knowledge score was higher than the mean percentage of pre-test (20.41%) knowledge score.

Table 3: Mean standard deviation (SD), mean difference (MD) and paired “t” test of pre-test and post-test knowledge scores of subjects

	Mean	Standard deviation	Mean difference	t value	Remark
Pre test	5.716	2.45	12.48	32	Significant
Post test	18.2	3.355			

The data presented in the table 3 shows that “t” value computed between mean pre-test and post-test knowledge score ($t_{(cal)} = 32$, Table value $t_{(59)} = 1.671$) was statistically significant. (Calculated value was greater than table value). It showed that there was a significant difference between the mean pre-test and post-test knowledge score of middle aged adults regarding osteoarthritis.

6. Discussion

- The findings of the study revealed that, in the pre-test most of the middle aged adults of selected rural areas (71.67%) had poor knowledge and 28.33% had average knowledge regarding osteoarthritis.
- In the post-test most of the middle aged adults of selected rural areas (75%) had acquired good knowledge and 16.67% gained very good knowledge and only 8.33% had acquired average knowledge regarding osteoarthritis.
- The mean percentage of pre-test knowledge score of middle aged adults of selected rural areas was 20.41%

and mean percentage of post-test knowledge score was 65%.

- The difference between the mean pre-test and the mean post-test knowledge score was found to be statistically significant ($t_{(cal)} = 32$, Table value $t_{(59)} = 1.671$), which shows that the structured teaching programme was effective in increasing the knowledge score of middle aged adults of selected rural areas.

7. Conclusion

The findings of the study have implications for nursing practice, nursing education, nursing administration and nursing research. Nursing education should emphasize more on preparing prospective nurses to impart health information and assist the people in developing their self-care potentials. Research has to be conducted with a view to contribute knowledge to the body of nursing, to expand and broaden the scope of nursing. Thus, the nurse researcher should conduct further research on knowledge regarding osteoarthritis.

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