

A STUDY TO ASSESS THE EFFECT OF EXERCISE THERAPY ON QUALITY OF LIFE AMONG PATIENTS WITH OSTEOARTHRITIS AT S.N.R. DISTRICT HOSPITAL, KOLAR.

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Abstract - Osteoarthritis is most common type of degenerative disease affecting thousands of Indian citizens. **Objective-1.** To assess the quality of life before exercise therapy among patients with osteoarthritis in experimental and control group.**2.** To assess the quality of life after 15 days after exercise therapy among patients with osteoarthritis in experimental and control group. **3.**To compare the quality of life between the experimental and control group before and after 15 days of exercise therapy.**4.** To correlate the level of participation with quality of life among patients with osteoarthritis in experimental group.**5.** To associate the quality of life among osteoarthritis patients with their selected demographic variables in experimental and control group. **Methodology-** evaluative approach. True Experimental with Pre-test and Post-test Control Group design was used. 60 sample were selected with the help of simple random sampling technique The data was collected for a period of fifteen days i.e. 1-08-12 to 15-08-12. S.N.R District Hospital, Kolar. **Result-** In Pre test total number of patients (100%) had low quality of life in the Experimental Group. In the Control group, majority 29 (97.3%) of patients had low quality of life, 1 (3.3%) of patients had moderate quality of life and no patients had high quality of life. After exercise therapy in the Experimental group majority 28 (93.4%) patients had moderate quality of life, 2 (6.6%) patients had high quality of life and no patients had low quality of life and the Control Group remained the same. **Conclusion-** exercise therapy improve quality of life among patients with osteoarthritis

Key words- Assess, Effect, Exercise Therapy, Quality Life, Patients , Osteoarthritis

Introduction –

Musculoskeletal disorders affect many people often causing them to make radical life style such as retiring from work earlier than they wish.¹Joint diseases affect hundreds of millions of people throughout the world causing disability with great impact on individuals and on society as a whole.¹ Osteoarthritis is most common type of degenerative disease affecting thousands of Indian citizens²

Need for the study-

- Up to 60% of patients suffering from osteoarthritis will require long-term nursing-home care.
- 100to 150 million of people around the globe-roughly the equivalent of the population, Russian- federation, suffering by Osteoarthritis and this number are rising.

- In India has an estimated 12-14 million Osteoarthritis (13%)
- Osteoarthritis is the fourth leading cause of Year Lived with Disability (YLDs), accounting for 3.0% of total global YLDs.

Objectives-

- 1) To assess the quality of life before exercise therapy among patients with osteoarthritis in experimental and control group.
- 2) To assess the quality of life after 15 days after exercise therapy among patients with osteoarthritis in experimental and control group.
- 3) To compare the quality of life between the experimental and control group before and after 15 days of exercise therapy.
- 4) To correlate the level of participation with quality of life among patients with osteoarthritis in experimental group.
- 5) To associate the quality of life among osteoarthritis patients with their selected demographic variables in experimental and control group.

Hypothesis:

- 1) **H1:** There is a significant difference in quality of life between Experimental group and control group.
- 2) **H2:** There is a significant association between the level of participation in exercise therapy and quality of life.
- 3) **H3:** There is a significant association between quality of life of Experimental group and Control group with their selected socio-demographic variables.

Conceptual framework- Conceptual framework is a theoretical approach to study the problem, which is scientifically based on the emphasis of the selection, arrangement and classification of the concepts, which is dealt within the study.³ Theoretical framework selected for this study was based on Modified Wiedenbach's Clinical nursing Practice- A helping art Model.

Review of literature- The literature review is an extensive, systemic, and critical review of the most important published scholarly literature on particular topic. Research was done intensive review with available sources and found 100 plus article related to study.

Research methodology- Methodology is a significant part of research under which the researcher is able to project a blue print of the research taken .

Research Approach- The Research approach adopted for this study was evaluative approach

Research Design- True Experimental with Pretest and Posttest Control Group design was chosen.

Variables- Independent variables was exercise therapy and The dependent variable was quality of life of osteoarthritis patients.

Setting of the study - The present study was conducted at S.N.R District Hospital, Kolar.

Sample and Sampling technique- 60 sample were selected with the help of simple random sampling technique (Lottery method)

Data Collection tool- The following instruments were used for collection of data.1. Demographic Performa 2. Quality of life scale to assess the quality of life of patients with osteoarthritis 3. Observation checklist for the level of participation in exercise therapy. The tool was validate by various subject expert . The co-efficient correlation (r) was 0.97. Hence, the tool was found to be reliable.

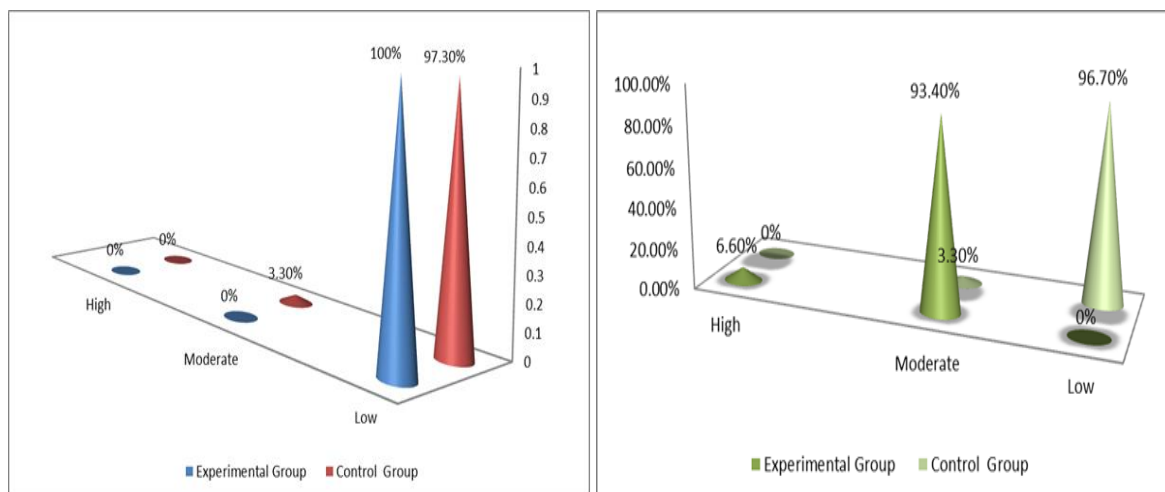
Data Collection- The data was collected for a period of fifteen days i.e. 1-08-12 to 15-08-12.

Data Analysis- The data obtained were analyzed using descriptive and inferential statistics.

RESULTS- the result was described the following heading-

Section – A: description of socio demographic variables of experimental and control group. In the Experimental Group majority 20 (66.6%) of them were between 41-45 years of age, In the Control Group majority 25 (83.3%) of them were between 41-45 years of age. that in both Experimental and Control Group majority 21(70%) patients were females. in the Experimental Group and control group majority 22(73.3%) and 18 (60%)of patients were Hindus. In the Experimental Group and control group majority 26 (86.7%) and 20 (66.7%) of them belong to Moderate economic class. In the Experimental Group and control group majority 26 (86.7%) and In the Experimental Group majority 26 (86.7%) of them were private employees, of them were private employees. in the Experimental Group and control group majority 19 (63.3%) and 22 (73.3%) of the patients do not have any family history of osteoarthritis. in both Experimental and Control Group majority 29(97.3%) of patients had no previous exposure to exercise therapy

Section-B: pre test and post test quality of life in experimental and control group.-



In Total number of patients (100%) had low quality of life in the Experimental Group. In the Control group, majority 29 (97.3%) of patients had low quality of life, 1 (3.3%) of patients had moderate quality of life and no patients had high quality of life. In post test majority 29 (97.3%) of patients had low quality of life, 1(3.3%) had moderate quality of life and no patients had high quality of life in the Control Group. After exercise therapy in the Experimental group majority 28 (93.4%) patients had moderate quality of life, 2 (6.6%) patients had high quality of life and no patients had low quality of life.

SECTION C: COMPARISON OF PRE TEST AND POST TEST QUALITY OF LIFE BETWEEN EXPERIMENTAL AND CONTROL GROUP.

Table:Comparison of Pre test and Post test Mean, Standard Deviation, Mean difference and Independent ‘t’ value between Experimental and Control group.

N=60 (30+30)

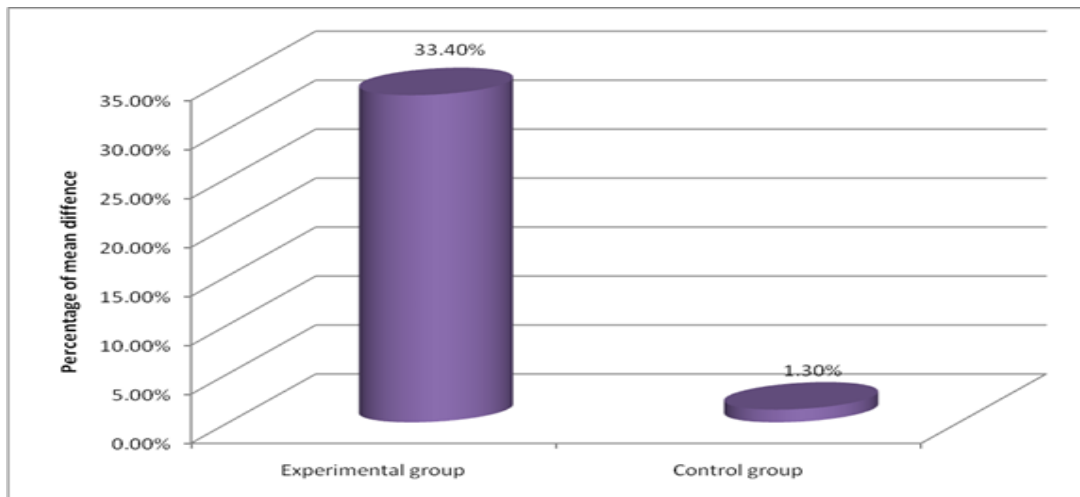
Quality of life	Experimental group			Control group			Independent t' test	Mean difference
	Mean	Mean % age	SD	Mean	Mean %age	SD		
Pre test	22	24.2%	2.98	23.2	25.77%	4.1	t=1.3 P> 0.05	1.3%
Post test	54.26	60.28%	3	24.2	26.88%	3	t=38.8 P<0.001	33.4%

S* =Significance P < 0.001

NS = No Significance P > 0.05

The above table shows the Pre test and Post test Mean, Mean Percentage, Standard Deviation, Mean difference and Independent‘t’ value between Experimental and Control group.

The Pre test Mean of Experimental Group was 22 with Standard Deviation 2.98, whereas in Control Group the Pre test Mean was 23.2 with Standard Deviation 4.1. . The obtained t value was 1.3 which was less than the table value. Hence, there was no significant difference in the pre-test quality of life between experimental and control group. The post-test Mean of Experimental group was 54.26 with Standard Deviation 3 and in the control group the Post test Mean was 24.2 with Standard Deviation 3.The obtained t value was 38.8 which was greater than the table value. Hence, the research hypothesis H₁ stating that there is a significant difference in Post test quality of life between Experimental and Control group was accepted at P<0.001.



The Pre test Mean Difference for Experimental and Control Group was 1.30%. The Post test Mean Difference for Experimental and Control Group was 33.40%.

Section D: correlation of post test quality of life with the level of participation in exercise therapy among experimental group.

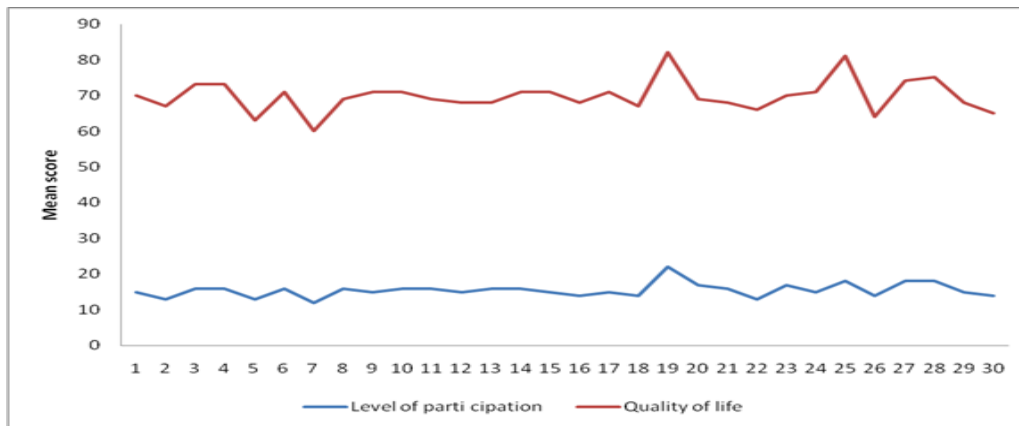
Table : Correlation between Post test quality of life with level of participation in exercise therapy among the Experimental Group.

N=30

Correlation Between	Mean	SD	Karl Pearson correlation coefficient
Post test quality of life	54.26	3.0	r = 0.66 P=0.001
Level of participation	15.53	1.9	

The above table shows the Correlation between Post test quality of life with level of participation in exercise therapy among the Experimental Group.

Karl Pearson’s correlation co-efficient (r) was used to find out the correlation between the post test quality of life and level of participation in exercise therapy among the Experimental Group. The obtained r value is 0.66 P = 0.001. Hence, the research hypothesis H₂ stating that there was a significant association between the level of participation in exercise therapy and Post test quality of life among the Experimental Group was accepted.



The graph shows that there is positive correlation between quality of life and level of participation in exercise therapy. With increase in the level of participation in exercise therapy, the quality of life also increases.

SECTION E: ASSOCIATION OF POST TEST QUALITY OF LIFE OF EXPERIMENTAL AND CONTROL GROUP WITH SELECTED SOCIO DEMOGRAPHIC VARIABLES.-

In the Experimental Group the calculated Chi square value for age, religion, socio economic status, occupation, family history of osteoarthritis and previous exposure to exercise therapy are less than the table value. So there was no significant association found between the Post test quality of life with these socio demographic variables. But the Chi square value for gender was more than the table value. So there was a significant association found between the Post test quality of life and the gender of patients in Experimental Group.

In the Control Group the calculated Chi square value for age, religion, socio economic status, occupation, family history of osteoarthritis and previous exposure to exercise therapy are less than the table value. So there was no significant association found between the Post test quality of life with these socio demographic variables. But the Chi square value for gender was more than the table value. So there was a significant association found between the Post test quality of life and the gender of patients in Control Group.

CONCLUSION

In Pre test total number of patients (100%) had low quality of life in the Experimental Group. In the Control group, majority 29 (97.3%) of patients had low quality of life, 1 (3.3%) of patients had moderate quality of life and no patients had high quality of life. After exercise therapy in the Experimental group majority 28 (93.4%) patients had moderate quality of life, 2 (6.6%) patients had high quality of life and no patients had low quality of life and the Control Group remained the same.

Recommendations:

1. A similar study can be undertaken on a large scale for making a more valid generalization.
2. A similar study can be replicated among other group of patients.

3. A comparative study can be conducted to identify the differences and similarities between home based and supervised exercises in improving the quality of life of osteoarthritic patients.
4. A similar study can be conducted in the other setting.
5. Study related to knowledge and practice of nurses regarding exercise therapy in osteoarthritis can be done.

Conflict of interest- nil

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