THE EFFECT OF EXERCISE THERAPY ON QUALITY OF LIFE AMONG PATIENTS WITH OSTEOARTHRITIS

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ABSTRACT

Osteoarthritis is most common type of degenerative disease affecting thousands of Indian citizens. It is the second most common form of disability and although it affects men and women, women are more likely to be symptomatic. Osteoarthritis is projected to rank second for women and fourth for men in the developed countries in terms of years lived with disability. Elderly patients are most often affected and because the number of individuals over the age of 50 years is expected to double worldwide between 1990 and 2020, the global burden of osteoarthritis will increase dramatically in the near future.

Key Words: Quality of Life, Osteoarthritis, Elderly, Worldwide

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INTRODUCTION

Musculoskeletal disorders are wide spread range from minor inconvenience to more life threatening process. Musculoskeletal disorders affect many people often causing them to make radical life style such as retiring from work earlier than they wish. Joint diseases affect hundreds of millions of people throughout the world causing disability with great impact on individuals and on society as a whole. While much has been said about the high incidence of diabetes, HIV and cancer in India, a recent study suggests that osteoarthritis beats them all to claim the number one spot among ailments in the country.

For most people with Osteoarthritis, graded exercise should be the mainstay of their self- management. Moderate exercise leads to improved functioning and decreased pain in people with osteoarthritis of the knee. Physical therapy and exercise can strengthen the muscles surrounding the joints and improve cartilage nutrition and health. This improves joint stability and joint flexibility, and helps to protect the joint from impact loads.

Physiotherapists can deliver targeted physical therapy to reduce pain and improve the function of joints affected by Osteoarthritis. They can also recommend stretching, exercise and strengthening programs that can be done at home to improve and maintain function and mobility.

NEED OF THE STUDY

Osteoarthritis is responsible for considerable pain, decreased quality of life, workdays, and disability. Up to 60% of patients suffering from osteoarthritis will require long-term nursing-home care. Elderly patients can develop pneumonia and blood clots in the leg veins that can travel to the lungs (pulmonary embolism) due to prolonged bed rest after the hip fracture.

Osteoarthritis is not just a public health problem for developed countries, but in developing countries; the incidence of the disease varies greatly. Mortality due to Osteoarthritis is not comparable in size to the day today effect of the disease. The human economic burden associated with this condition is severe. The cost of Osteoarthritis to society, country and world can be reducing by proper international and national action.

OBJECTIVES OF THE STUDY

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.

OPERATIONAL DEFINITIONS:❖ **Quality of life: -**

It refers to subjective and objective well-being or the degree to which a person enjoys the important possibilities of his/her life.

❖ **Exercise Therapy**

It refers to the technique or performance of physical exertion for improvement of health or correction of deformity. The exercises are aerobics exercises, muscle strengthening exercises and flexibility training.

❖ **Osteoarthritis Disease**

It refers to a degenerative disease of joints resulting from wear of the articular cartilage.

❖ **Patients with osteoarthritis**

Refers to, Person who has been diagnosed as osteoarthritis and admitted in the hospital

❖ **Effect**

It refers to the ability of Exercise therapy in producing desired quality of life

HYPOTHESIS:

H₁: There is a significant difference in quality of life between Experimental group and control group.

H₂: There is a significant association between the level of participation in exercise therapy and quality of life.

H₃: There is a significant association between quality of life of Experimental group and Control group with their selected socio-demographic variables.

RESEARCH METHODOLOGY

Schematic representation of Research Design:

Group of Osteoarthritis patients	Pre-test	Intervention	Post-test
Experimental Group G_1	O_1	X(LPd)	O_2
Control Group G_2	O_1	-	O_2

G_1 – Osteoarthritis patients in the experimental group

G_2 - Osteoarthritis patients in the control group

O_1 - Pre assessment of quality of life for Experimental Group and Control Group.

O_2 - Post assessment of quality of life for Experimental Group and Control Group.

X –Exercise therapy for Experimental Group.

LPd – Level of participation

RESULTS

The analysis is to reduce data to intelligible and interpretable from the relations of research problems can be studied and tested.

Figure .1: Percentage distribution of pre-test quality of life in experimental and control group.

Figure .2: Percentage distribution of post-test quality of life in experimental and control group.

Figure .3 Percentage distributions of pre-test and post-test mean difference of experimental and control group.

Figure .4: Line graph showing the correlation between the post test quality of life and level of participation among the experimental group.

Table (1): Association of Post-test quality of life of Experimental Group with selected socio demographic variables.

N=30			
Socio demographic variables	Below Median	Above Median	Chi square Value (χ^2)
1. Age in years			
a. 41-45years	12	13	2.3
b. 46-50years	2	1	
c. 51-55years	0	1	
d. 56-60years	1	0	
2. Gender			
a. Male	7	2	3.9
b. Female	8	13	
3. Religion			
a. Hindu	8	10	0.6
b. Muslim	1	1	
c. Christian	6	4	
4. Socio economic status			
a. High	4	5	1.1
b. Moderate	10	10	
c. Low.	1	0	
5. Occupation			
a. Government	1	1	1.2
b. Private	3	1	
c. Self employed	1	1	
d. others	10	12	
6. Family history of osteoarthritis			
a. Yes	4	4	0
b. No	11	11	
7. Previous exposure to exercise therapy			
a. Yes	15	14	1.3
b. No	0	1	

S* =Significance P < 0.001

NS = No Significance P > 0.05

Table (2): Association of Post test quality of life of Control Group with selected socio demographic variables.

N=30

Socio demographic variables	Below Median	Above Median	Chi square Value (χ^2)
1. Age in years			
a. 41-45years	11	9	
b. 46-50years	3	4	3.2
c. 51-55years	0	2	
d. 56-60years	0	1	
2. Gender			
a. Male	8	1	
b. Female	6	15	9
3. Religion			
a. Hindu	13	9	
b. Muslim	0	1	5.1
c. Christian	1	6	
4. Socio economic status			
a. High	2	1	
b. Moderate	11	15	1.8
c. Low.	1	0	
5. Occupation			
a. Government	0	1	
b. Private employee	1	2	2.2
c. Self employed	0	1	
d. others	13	12	
6. Family history of osteoarthritis			
a. Yes	9	10	0.1
b. No	5	6	
7. Previous exposure to exercise therapy			
a. Yes	1	0	1.2
b. No	13	16	

S* =Significance P < 0.001

NS = No Significance P > 0.05

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.

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