

A STUDY TO EVALUATE THE EFFECTIVENESS OF ISOMETRIC EXERCISE IN REDUCING PAIN AND IMPROVED FUNCTIONAL PERFORMANCE AMONG THE PATIENTS WITH OSTEOARTHRITIS IN SELECTED HOSPITAL, NAGAPATTINAM

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ABSTRACT

A true experimental study was performed to assess the effectiveness of Isometric exercise in reducing pain and improved functional performance among the patients with osteoarthritis in selected hospital, Nagapattinam. Forty patients were selected using probability simple random sampling technique. Data were collected using a demographic, questionnaire, numerical pain intensity scale and modified WOMAC scale followed by pretest and Administration of isometric exercise for after seven days post test was conducted by the same questionnaire. The data obtained were analyzed using descriptive and inferential statistics. The study concluded that Effectiveness of Isometric exercise on level of pain and functional performance.

Key words: Effectiveness, Isometric exercise, pain and improved functional performance, osteoarthritis.

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INTRODUCTION

Osteoarthritis (OA) is the most common form of arthritis and a leading cause of disability in older adults. It accounts for more limitations in walking, stair climbing, and other daily activities than any other disease. The individual, societal, and financial burdens of this disease warrant rigorous scientific investigation in order to identify coping strategies for those affected. The pathology is the OA which causes body structural and functional limitations such as muscle weakness, decreased joint range of motion (ROM), joint instability, fatigue, stiffness, and pain. The consequences are activity avoidance, muscle atrophy, difficulty in performing functional tasks involving ambulation and transfer and reduced quality of life.

Statement of the Problem:

A study to evaluate the effectiveness of isometric exercise in reducing pain and improved functional performance among the patients with osteoarthritis in selected hospital, Nagapattinam.

Objectives:

- To assess the level of pain among the patients with osteoarthritis of before & after administering isometric exercise in both experimental and control group.
- To evaluate the effectiveness of isometric exercise in reducing pain and improved functional performance among patients with osteoarthritis in selected hospital, Nagapattinam.
- To compare the level of pain and functional performance among the patients with osteoarthritis of experimental and control group.
- To find out the association between level of pain and functional performance of patients with osteoarthritis and selected demographic variables.

Hypotheses:

H01-there is no significance relationship between the effectiveness of isometric exercise in reducing pain and improved functional performance among the patients with



osteoarthritis

H02- there is no significant relationship between effectiveness of isometric exercise in experimental group with selected demographic variables.

Assumption:

Isometric exercises may be effective in reducing pain and improving the functional performance among the knee osteoarthritis patients.

Figure 1: Conceptual Framework Based on Modified Roy’s Adaptation Model 1996.

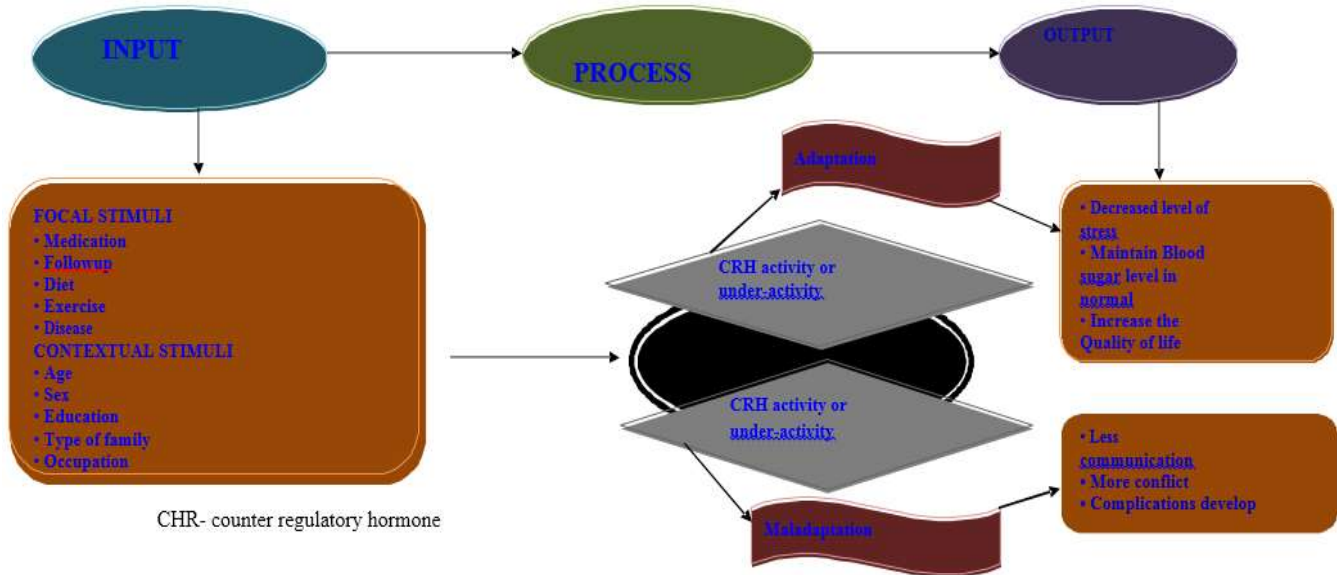


Figure 2: Schematic Representation of Research Study.

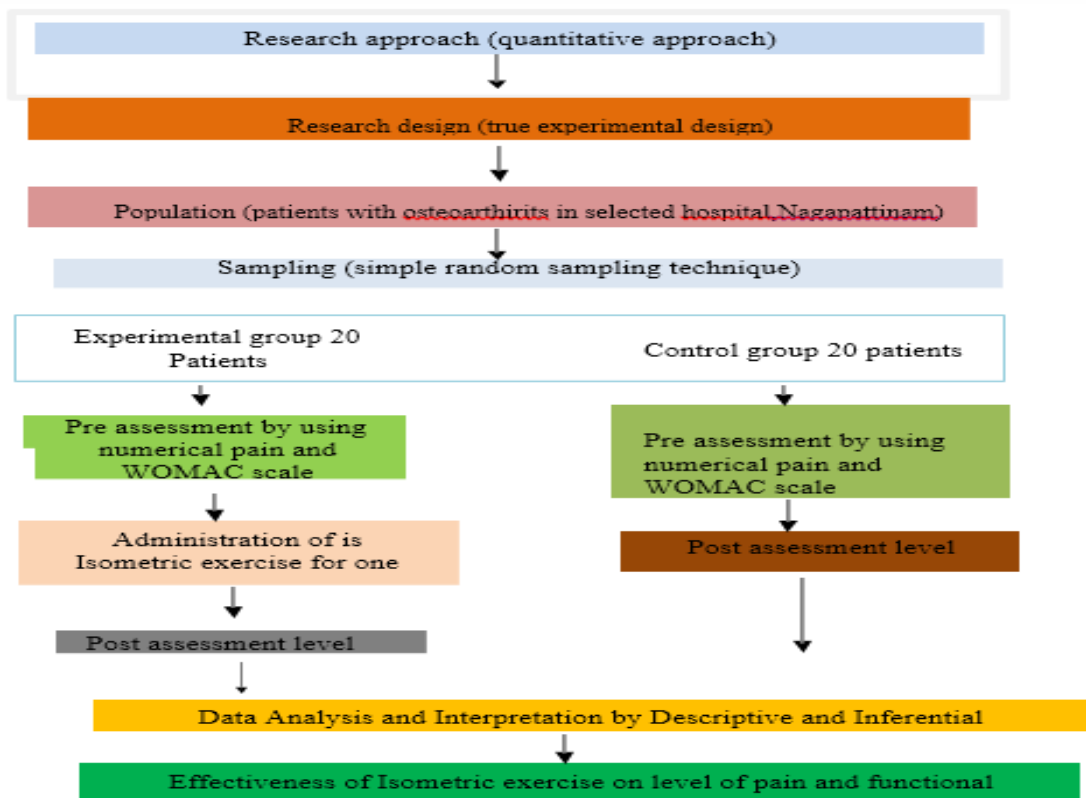
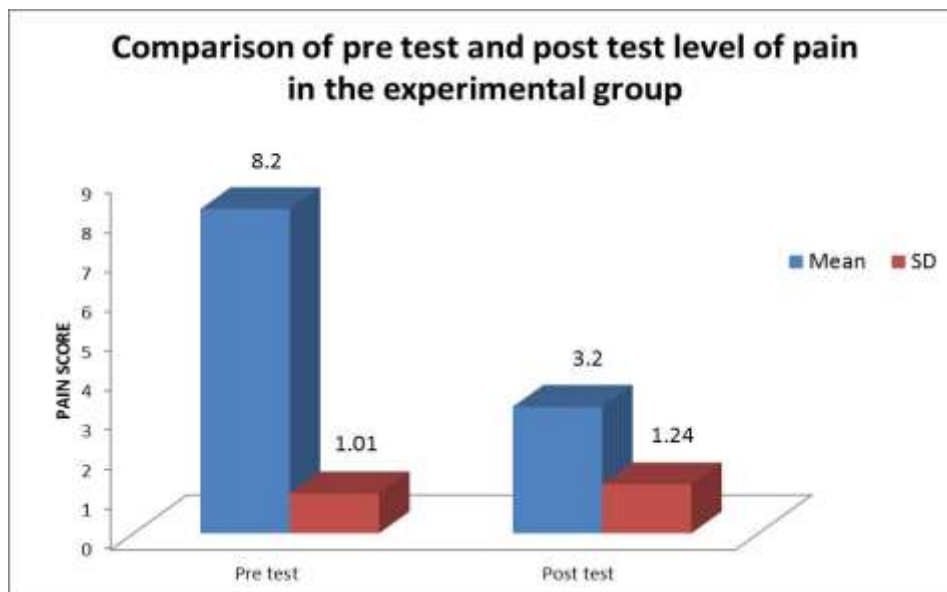


Figure 3: Comparison of Pre-Test and Post-Test Level of Pain in the Experimental Group.**RESULT:**

Level of pain in the experimental group, the posttest mean score was 3.20 with S.D 1.24 and in the control group the post test mean score was 6.55 with S.D 1.36. The calculated 't' value of 8.153 was statistically highly significant at $p < 0.001$ level. Level of functional performance in the experimental group, the post test mean score was 31.05 with S.D 11.88 and in the control group the posttest mean score was 60.35 with S.D 15.09. The calculated 't' value of 8.916 was statistically highly significant at $p < 0.001$ level.

The above bar diagram represents, that in the experimental group, the pre-test mean score was 8.20 with

S.D 1.01 and the post-test mean score was 3.20 with S.D 1.24. The calculated 't' value of 15.811 was statistically highly significant at $p < 0.001$ level which clearly shows that there is a significantly mild level of pain among patient with osteoarthritis before and after giving the isometric exercise in the experimental group.

CONCLUSION:

The study concludes that the isometric exercises had significant effect by reducing the pain and improving the functional performance in the experimental group than the control group. As by concluding that the stated null hypothesis was accepted.

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