DOI: 10.7860/JCDR/2025/80480.22626

Evaluating the Effectiveness of Motor Re-Learning with Task-oriented Approach versus Traditional Methods in Upper Extremity Rehabilitation for Post-Stroke Patients

SHAONLI DAS[1], MEENAKSHI VERMA[2]*

ABSTRACT

Introduction: Stroke accounts for the second leading cause of death in the western world. Upper limb disability is common & severely affects everyday activities. Muscle weakness, spasticity, decreased motor function as well as reduction in quality of life which highlights the need for effective rehabilitation to restore function.

Aim: The aim of the study is to analyse the effectiveness of motor re-learning with task-oriented approach in upper extremity rehabilitation for post-stroke patients.

Materials and Methods: A systematic search was performed across several electronic databases, including Google Scholar, Research-Gate, PubMed, and Scopus, using relevant scientific terms. Articles published between 2013 to 2024 assessing the effects of a task-oriented approach, motor re-learning on stroke patients were included in the review. Initially 81 articles were identified , after removing 10 duplicates, excluding 28 for non-eligibility, 13 for inaccessibility, 4 for inconsistent results, and 6 during data extraction, 20 relevant articles were included in this review. Selected studies were extracted, including study design, sample size, intervention methods (task-oriented approach, and motor re-learning), outcome measures (Box and Block Test, Fugl-Meyer Assessment, FIM, Nine-Hole Peg Test) and key findings.

Results: The results depicted that there has been marked increase in gross motor and fine motor skills, hand dexterity whereas decrease in tone when compared pre and post-test results. The combination of motor relearning with the task-oriented approach demonstrated superior outcomes compared to conventional therapy.

Conclusions: The study indicates that combining the motor relearning program with a task-oriented approach in stroke patients has been more effective than traditional training. For future physiotherapy applications, it can be explored as a standard practice to enhance functional recovery in stroke patients.

Keywords: Motor function, Upper limb disability

PARTICULARS OF CONTRIBUTORS:
1. Postgraduate Student, Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, Uttar Pradesh.
2. Assistant Professor, Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, Uttar Pradesh.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
*Meenakshi Verma
Assistant Professor, Department of Physiotherapy, Sharda School of Allied Health Sciences, Sharda University, Greater Noida, Uttar Pradesh.
E-mail: meenakshi.verma@sharda.ac.in