E-Poster

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Impact of Motor Relearning Program on Enhancing Lower Limb Functional Mobility in Chronic Stroke Patients in Saudi Arabia-A Single-Blinded, Multi centered, Randomized Control Trail

Topic: Integrative Medicine

Mohammed Alshehri

Physical Therapy, Jazan University, Jazan, Saudi Arabia

BACKGROUND

Stroke is a clinically defined syndrome characterized by an acute, focal neurological deficit due to vascular injury. Strokes can result in various disabilities, including sensory and motor abnormalities, leading to difficulties with motor control, balance, and posture. Physical therapists use various neurorehabilitation approaches to enhance the functional abilities and independence of stroke patients. The Motor Relearning Program (MRP) is a task-oriented, self-monitored, structured program based on motor control theories and neuroplasticity used in the rehabilitation of stroke patients. To determine the effectiveness of MRP in improving lower limb functional mobility after a chronic stroke.

METHODS

A single-blinded, multi-centered randomized controlled trial (RCT) was conducted in Saudi Arabia. Thirty-two post-stroke patients were randomly assigned to two groups: experimental (n=16) and control (n=16). The experimental group received 45 minutes of MRP along with conventional physical therapy (CPT), while the control group received CPT alone for the same duration. The intervention was administered three days a week for six weeks (18 sessions). The Motor Assessment Scale (MAS) and Barthel Index (BI) were used as outcome measures. Pre- and post-intervention measurements were obtained.

RESULTS

Of the participants, 23 (71.9%) were male, 25 (78.1%) had an ischemic stroke, and 19 (59.4%) had the left side affected. The BI and MAS scores showed significant improvement in the experimental group ($p < 0.001$), while no significant improvement was observed in the control group.

CONCLUSION

Motor Relearning Program significantly enhances lower limb functional mobility among chronic stroke patients within the Saudi Arabian population. The approach's emphasis on task-oriented training, active patient involvement in movement planning, repetition of tasks, and training in varied environmental contexts contributes to improved cortical reorganization, motor planning, and problem-solving across different environments.

Statement of Disclosures

None

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Corresponding Author:
Mohammed Alshehri
Physical Therapy, Jazan University, Jazan, Saudi Arabia
Email: phdalshehri@gmail.com