

## **Research Paper (7)**

### **Functional outcome of joint mobilization added to task-oriented training on hand function in chronic stroke patients**

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#### **Abstract**

**Background:** Approximately half of stroke patients show impaired upper limb and hand function. Task-oriented training focuses on functional tasks, while joint mobilization technique aims to restore the accessory movements of the joints.

**Objective:** To investigate the effect of adding joint mobilization to task-oriented training to help the patients in reaching a satisfactory level of recovery for their hand function.

**Patients and methods:** Thirty chronic stroke patients with paretic hand participated in the study; they were divided equally into study and control groups. The study group received joint mobilization followed by task-oriented training for the affected hand. Meanwhile, the control group received task-oriented training only. Both groups received their treatment in the form of 3 sessions per week for 6 successive weeks. The primary outcome measures were hand function that was assessed by Jebsen-Taylor hand function test (JTT) and active and passive wrist extension range of motion (ROM) that was measured by a standard goniometer. The secondary outcome measure was the grip strength of the hand that was assessed by a JAMAR adjustable hand dynamometer.

**Results:** There was a significant improvement in all the outcome measurements in both groups that were more evident in the study group.

**Conclusion:** Combining joint mobilization with task-oriented training had a highly significant effect in improving the hand function in chronic stroke patients compared to task-oriented training alone.

**Keywords:** Stroke, Spasticity, Hand function, Joint mobilization, Task-oriented training