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Effect of motor imagery of truncal exercises on trunk function and balance in early Stroke: A randomized controlled trial

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Background: Studies in the past focused on benefits of motor imagery in improving upper and lower limb functions when administered along with conventional therapy. Nevertheless, there is a paucity of literature proving the effects of motor imagery of truncal exercise in improving trunk function in patients with stroke.

Aims/purpose: To study the effect of motor imagery of truncal exercises on trunk function and balance in early stroke.

Methods: A total of 24 patients were included in the study. Trunk function was measured using Trunk Control Test (TCT), Trunk Impairment Scale Verheyden (TIS Verheyden) and Trunk Impairment Scale Fujiwara (TIS Fujiwara). Balance was assessed using Brunel Balance Assessment (BBA) and Tinetti POMA. The MI intervention included a 3-week practice of trunk exercises after observing the video while the control group practiced the trunk exercises alone. Measurements were taken before, after and 4 weeks after intervention.

Results: MI group showed improvement after 3 weeks intervention on values of TIS (Verheyden), BBA, Tinetti balance and gait with a large effect size of 1.69, 1.06, 1.63 and 0.97 respectively. Moderate effect size on TIS Fujiwara (0.58) and small effect size on TCT (0.12) was observed. When measured after 4 weeks, large effect size was seen on TIS Verheyden (1.59) and Tinetti balance (1.24). Moderate effect size was observed on BBA (0.62) and Tinetti gait (0.72).

Conclusion: Trunk motor imagery is effective in improving trunk function and balance in patents with stroke and has a carryover effect in the aspects of mobility. The therapy gain that was observed during the time of discharge was seen to be maintained at the follow up levels.

Biography

Reethu Elsa is a student researcher from India and research interests mainly include stroke, rehabilitation.

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