



Effects of Metacognitive Strategy Training on recovery of independence of post stroke survivor.

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Post stroke individual experience significant challenges with their functional health, despite advances in neurorehabilitation. Approximately 39% of post stroke survivor depends upon others in their basic ADL¹ whereas more than 50% post stroke survivor depends in their instrumental ADL². They can't participate in a meaningful daily life activity leading to disability³ in contrast to the concept of International Classification of Functioning (ICF) Model. The conventional occupational Therapy approach of Stroke rehabilitation only confined to improvement of the particular task trained to the individual with practice⁴. Mounting of evidence suggests that the novel Metacognitive Strategy Training is applied in the field of stroke rehabilitation for greater independence and reducing disability.

Objective: -The objective of this study was to estimate the effect of the Metacognitive Strategy Training (MCST) compared with conventional Occupational rehabilitation Therapy on improving independence and reducing disability of post stroke survivor.

Methods: 30 subjects with stroke, attending dept. of occupational therapy, National Institute of Rehabilitation Training and Research, Odisha, India participated an exploratory, double-blind, randomized controlled trial with pre-post and follow up study. Subjects were randomized over two intervention groups. Group-1 received MCST with conventional therapy (n=15), and Group-2 conventional therapy only (n=15). The intervention session

scheduled for 6wks. The outcome measure was done with Functional Independence Measure (FIM) and The Lawton instrumental activities of daily living (IADL) measures independence at baseline (Time1), post intervention (Time2) and after 6 months (Time3). **RESULT:** MCST with conventional therapy showed greater improvement than Conventional Therapy in the score of FIM and LIADL at Time 2($p<0.011$, $p<0.02$) respectively. Similarly, after 6 months of follow-up at Time 3 the MCST with conventional therapy showed better improvement than conventional Therapy only ($p<0.005$)

CONCLUSION: MCST has greater efficacy in improving independence and reducing disability of post stroke survivor in long term.

Keywords: -stroke, rehabilitation, Metacognitive Strategy Training, independence, disability

References

1. Appelros P, Samuelsson M, Karlsson-Tivenius S, Lokander M, Terent A. A national stroke quality register: 12 years experience from a participating hospital. *Eur J Neurol.* 2007; 14:890-894.
2. Brock K, Black S, Cotton S, Kennedy G, Wilson S, Sutton E. Goal achievement in the six months after inpatient rehabilitation for stroke. *Disabil Rehabil.* 2008; 31:880-886
3. Wolf, T. J., Baum, C., & Connor, L. T. (2009). Changing face of stroke: Implications for occupational therapy practice. *American Journal of Occupational Therapy*, 63(5), 621-625.
- 4, Veerbeek, J. M., van Wegen, E., van Peppen, R., van der Wees, P. J., Hendriks, E., Rietberg, M., & Kwakkel, G. (2014). What is the evidence for physical therapy poststroke? A systematic review and meta-analysis. *PloS one*, 9(2), e87987.