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IMPROVING UPPER LIMB FUNCTION AFTER STROKE: A HOME-BASED AND SELF-DIRECTED TRIAL OF CONSTRAINT INDUCED MOVEMENT THERAPY

Stephen Isbel¹, Chris Chapparo², David McConnell², Judy Ranka²

¹ACT Health, Canberra ACT, Australia, ²University of Sydney, Sydney, NSW, Australia

Background: Cerebrovascular Accident, or stroke ranks as one of the leading causes of disablement in Australia. Motor impairment of the upper limbs is one of the most common and disabling consequences of stroke. Conventional methods for improving function in the upper limbs following stroke have had limited success. Constraint Induced Therapy (CI Therapy) is one method that has shown promising results. Research to date has focused on the use of this method in institutional based clinical trials.

Objective: The purpose of this research was to determine the effectiveness of CI Therapy in a home setting.

Methods: In Phase One of this study a new home-based CI Therapy protocol was developed with the involvement of expert and consumer panels. Phase Two of the study used a non-concurrent, A1/A2 single subject research design to test the effectiveness of the protocol developed in Phase One on eight post stroke participants. The treatment consisted of restraining the intact upper limb in a mitt for 21 days combined with a home-based and self-directed daily activity regime. All participants were tested pre and post-treatment using the Wolf Motor Function Test (WMFT) and the Motor Activity Log (MAL).

Results: Five out of eight participants showed significant improvement on the WMFT and/or the MAL.

Conclusion: A home-based and self-directed CI Therapy protocol may improve upper limb function following stroke. This requires further between group analysis and if this proves to be effective it may have implications for community based post stroke rehabilitation.

Learning Outcomes: Delegates will be able describe the basic principles of CI Therapy and how a home based and self directed CI Therapy protocol was tested.