

Review of clinical outcomes of repeated participation in the Helping Hand Program: A modified constraint induced movement therapy for children with Acquired Brain Injuries

Project Summary

Centre for Leadership in Acquired Brain Injury

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SHARING OUR WORK

- Findings from this study were shared with clinicians, clients and families at Holland Bloorview.
- The findings from this study will be shared at local, national and international conferences. An abstract was submitted to the Acquired Brain Injury Network conference 2016 to share the results with the wider acquired brain injury community.
- A manuscript will be prepared and submitted for publication.

WHAT WAS THIS STUDY ABOUT?

Difficulty moving your arm (hemiplegia) can occur as a result of an acquired brain injury and often hinders movement efficiency and impacts your ability to self-care, work and play. The Helping Hand program is a modified Constraint-Induced Movement Therapy (mCIMT) that involves restraining the arm/hand that is stronger and forces intensive practice with the injured arm/hand to promote functional use of that limb. This innovative interdisciplinary therapy group offered annually to 8-12 clients, 4-18 years of age, has demonstrated positive changes in occupational performance and upper arm function in clients who have attended the program for one trial.

The purpose of this study was to examine the effect of repeated trials of the Helping Hand program on arm/hand function and performance in daily activities of living for children and youth experiencing hemiplegia following an acquired brain injury.

WHAT DID WE DO?

With consent, the outcomes of 13 children and youth who participated in the multiple trials of the Helping Hand program were entered in a Research Ethic Board approved Database and results were analyzed.

Outcome measures included in the analyses were the Assisting Hand Assessment, the Quality of Upper Extremity Skills Test, Grip Strength, and the Canadian Occupational Performance Measure. The results of the study were shared with the clinicians and the clients and families who participated in the project.

IMPACT FOR CLIENTS, FAMILIES AND CLINICAL PRACTICE

This project provides evidence to support Helping Hand as an effective therapy for children with arm movement difficulty following a brain injury. The results demonstrate participation in the Helping Hand contributes to positive changes in arm/hand function and in the ability to participate in everyday activities. This unique group program supports the goals of client's and their families in the promotion of involved arm/hand use in everyday activities.

WHAT DID WE LEARN?

The study informed us that there is improved arm/hand function and improved functional performance in daily activities with repeat participation in the program.

We learned that there is often a decline in performance (arm/hand function and daily activities) from year to year when not participating in the program. With repeat participation, performance is noted to improve again.

The project provides clinicians and families with evidence with clinical decision making in the use of repeated mCIMT trials for children with hemiplegia following an acquired brain injury.

NEXT STEPS?

This project will contribute to evidence for the use of mCIMT group programming in the field of paediatric acquired brain injury rehabilitation. The findings of the project will be shared with families, clinicians and researchers working in the field of acquired brain injury through presentations at local, national and international conferences. For example, this project will be shared at the Brain Injury Network 2016 Conference and the team will be submitting a paper for publication in a peer-reviewed journal.

Future steps to further evaluate the program include examining the effectiveness of the concurrent parent group, and exploration of the nature of goals identified in the Helping Hand program using the Canadian Occupational Performance Measure.

TO LEARN MORE ABOUT THIS STUDY, PLEASE CONTACT:

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WHO ARE WE?

The team is a made up of clinicians and researchers from the Holland Bloorview Kids Rehabilitation Brain Injury Rehabilitation Team and the Bloorview Research Institute.

The team includes family leaders, occupational therapists, occupational therapy assistants, physiotherapists, social workers and clinician scientists.

THANK YOU!

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