A service delivery model of Constraint-Induced Movement Therapy in an undergraduate clinical education setting

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Introduction
Constraint-Induced Movement Therapy (CIMT) is a rehabilitation programme designed to improve arm and hand function following stroke by limiting the use of the stronger hand and promoting use of the affected hand.

Despite strong evidence of effectiveness1, CIMT is not a readily available treatment option in New Zealand post-stroke rehabilitation settings. Currently there is no hard evidence as to why this research validated therapy is not available but anecdotally a major drawback is the amount of therapist time required.

Method
A self selected group of people with chronic stroke (n=6, 2 women and 4 men; ages 49-72 years old; time since stroke 22 to 84 months; right hemiplegia n=5, right hand dominant n=5).

Participants
A self selected group of people with chronic stroke. The Northern X Regional Ethics Committee (NTX/10EXP/062) approved this study. All participants gave written consent before baseline assessment.

Final year undergraduate physiotherapy students, supervised and supported by clinical educators (registered physiotherapists) delivered the programme from 9 a.m to 3 p.m., Monday to Friday for two weeks.

Purpose
To explore a unique method of service delivery for Constraint-Induced Movement Therapy.

Participants
A self selected group of people with chronic stroke (n=6, 2 women and 4 men; ages 49-72 years old; time since stroke 22 to 84 months; right hemiplegia n=5, right hand dominant n=5).

Method
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Results
The service delivery model was evaluated using group feedback sessions with the students; while the patients completed an anonymous questionnaire.

Student responses included:
- Enjoyed the creativity of treatment ideas
- Liked hearing fuller explanations of treatment techniques
- Great to have prep time before patients come in to informally hand over to each other and share treatment ideas
- Preferred not to maintain a patient case load during the CIMT service

Patients responses included:
- Functional improvements included:
  - Mr K (2 years post-stroke) could control his affected hand supination to drink soup from a spoon without spilling any.
  - Mr X (7 years post-stroke) could fully extend his elbow, drink a glass of wine and shave with his affected hand for the first time since his stroke.
  - Mr O (5 years post-stroke) wrote a lower case “a” for the first time since his stroke.

- Student responses included:
  - Enjoyed the creativity of treatment ideas
  - Liked hearing fuller explanations of treatment techniques
  - Great to have prep time before patients come in to informally hand over to each other and share treatment ideas
  - Preferred not to maintain a patient case load during the CIMT service

References
3 Binns E & Taylor D. Students and patients gain from new model, unique programme. Physio matters September 2011, p11.

Acknowledgments
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