

# Applying Aphasia Rehabilitation to Vietnamese patients

Jacinda Choy & Shing Chai  
Speech Pathologists  
Braeside Hospital



HammondCare

An independent Christian charity

# Post-stroke Communication Difficulties

- Acquired communication difficulties:
  - Dysphasia/Aphasia
  - Dysarthria
  - Dyspraxia
  - Dysphonia
- 1/3 patients post-stroke present with aphasia (Engelter et al., 2006)
- Aphasia reduces quality of life for patients post-stroke and results in increased emotional distress/depression (Hilari et al., 2012)



# What is EBP for aphasia rehabilitation?

## Australian Clinical Guidelines for Stroke Management 2017

For stroke survivors with aphasia, speech and language therapy should be provided to improve functional communication. (Brady et al. 2016)

## Aphasia Rehabilitation Best Practice Statements 2014

5.3 People with aphasia post one month should have access to intensive aphasia rehabilitation if they can tolerate it. (Brady et al., 2012)

7.7 Where possible, treatment should be offered in all relevant languages and the relevant modalities. (GPP)



# Aphasia Rehabilitation Best Practice Statements 2014

## 5.6 Aphasia rehabilitation can include:

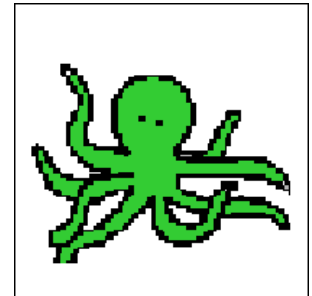
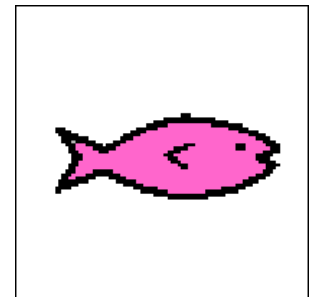
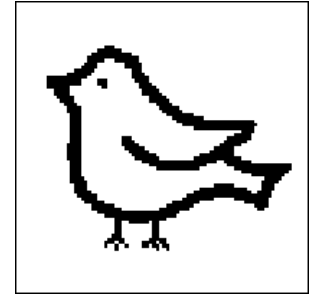
- a. Treatment of aspects of language following models derived from cognitive neuropsychology
  - i. Word retrieval deficits
  - ii. Reading deficits
  - iii. Writing deficits
- b. Treatment of sentence comprehension and production impairments
- c. Discourse treatment
- d. Augmentative and alternative communication
- e. Constraint-induced language therapy
- f. Gesture-based therapy

(Brady et al., 2012)	I
(Wiseburn & Mahoney, 2009)	IV
(Brady et al., 2012)	I
(Brady et al., 2012)	I
(Thompson et al. 2003)	III-3
(Boyle, 2011)	IV
(Baxter, Enderby, Evans, & Judge. 2012)	IV
(Brady et al., 2012)	I
(Rose, Raymer, Lanyon, & Attard, 2013)	III-2



# What is CILT?

- Concept adapted from Dr Edward Taub – “constraint induced motor therapy” targeting avoidance of the unused limb.
- Group treatment program
- 3 main principles:
  - **Massed practice**
  - **Constraint** – forced use of speech
  - **Shaping**
    - Occurs in behaviourally relevant context



# What does the literature say?

- Pulvermuller et al (2001) found that patients in constraint-induced group improved in 3/4 pre/post tests and reported 30% increase in amount of communication in everyday life
  - Conclusion: massed practice of CI > conventional Rx spaced out
- Multiple RCTs conducted on CILT → mixed results  
?need for constraint
- **Conclusion:** CILT is useful but may not be superior to other therapies.



# Let's have a try

1. Work in pairs.
2. Choose one picture from the next slide and describe **3x features** of it as clearly as you can.  
**No pointing/gesturing! No naming the object or number!**
3. The other person can guess which number picture they think you are describing.
4. Swap turns.
5. Prize for the pair who guess the most pictures!



1



2



3



4



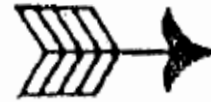
5



6



7



8



HammondCare

An independent Christian charity



# Implementing Evidence → Clinical Practice

## EBP

- Intensive aphasia rehabilitation
- Treatment offered in patient's language
- Evidence-based therapy techniques

## Challenges

- Limited staffing hours (therapists & interpreters)
- Reduced motivation of patients
- High proportion of CALD patients

E.g. Fairfield: 20.4% of people only speak English at home.  
Largest CALD group is Vietnamese (15.3%).



# Applying Aphasia EBP to Vietnamese patients

- Adapted the CILT protocol for 2x Vietnamese speaking patients
- Briefing with interpreter before session to discuss sentence construction and vocabulary variations
- Interpreter for all sessions
- Pre/post testing in Vietnamese



# Meet our patients

## Mr T

- 73 y.o. Vietnamese-speaking male
- L) BG thalamic haemorrhage
- Mild-moderate aphasia. Mild dysarthria and AOS

## Mr Q

- 62 y.o. Vietnamese-speaking male
- L) frontal GBM
- Mild receptive and moderate-severe expressive aphasia. Severe AOS



## **Example Vietnamese CILT session**

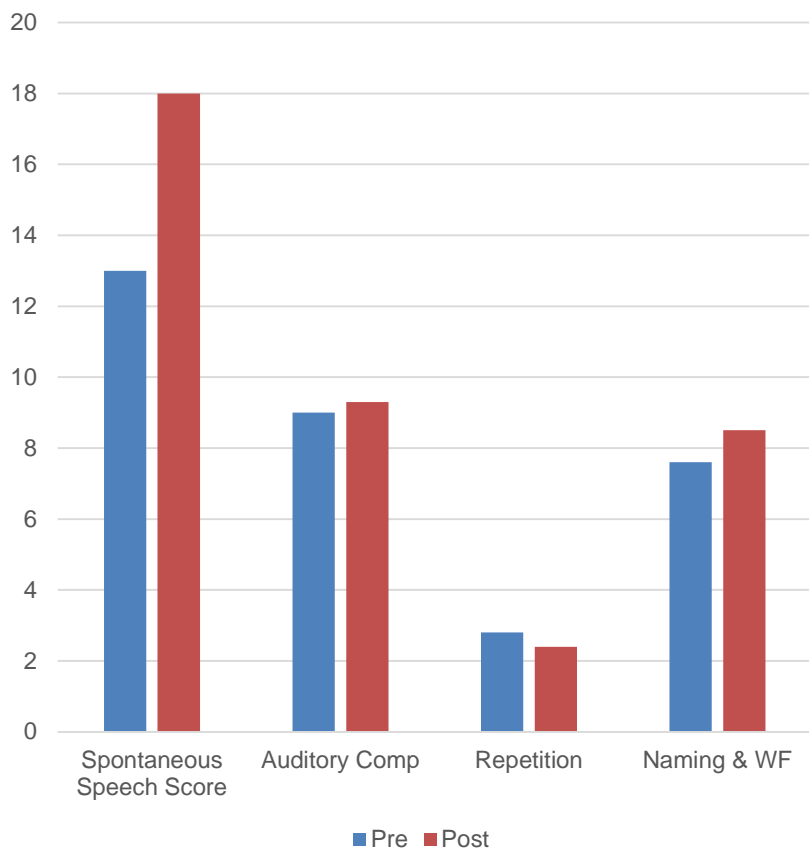


**HammondCare**

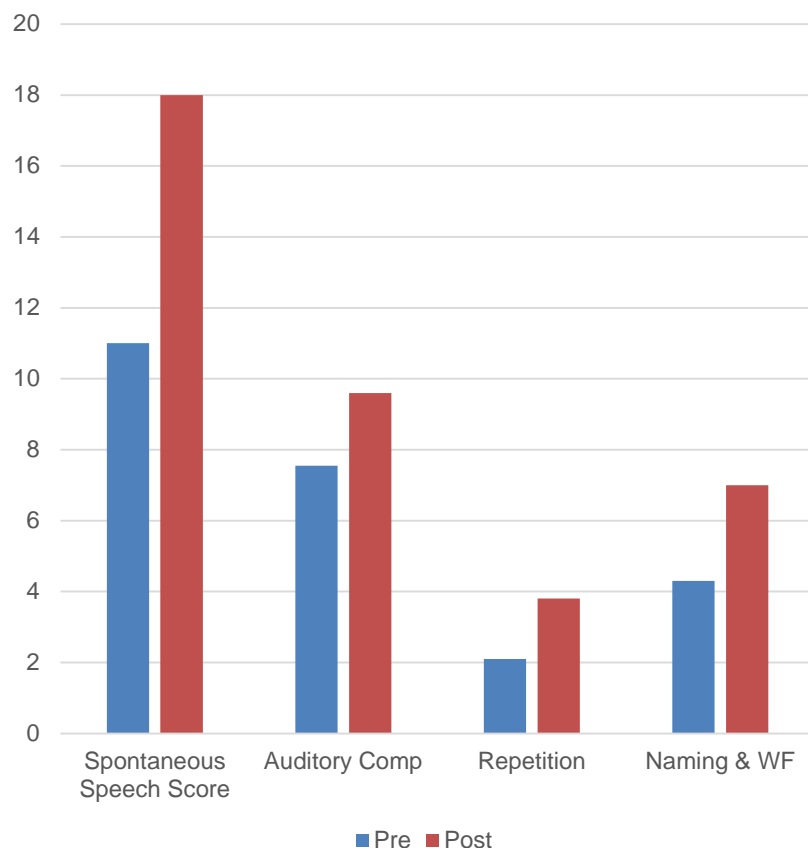
An independent Christian charity

# Western Aphasia Battery Results

T Pre/Post WAB Scores

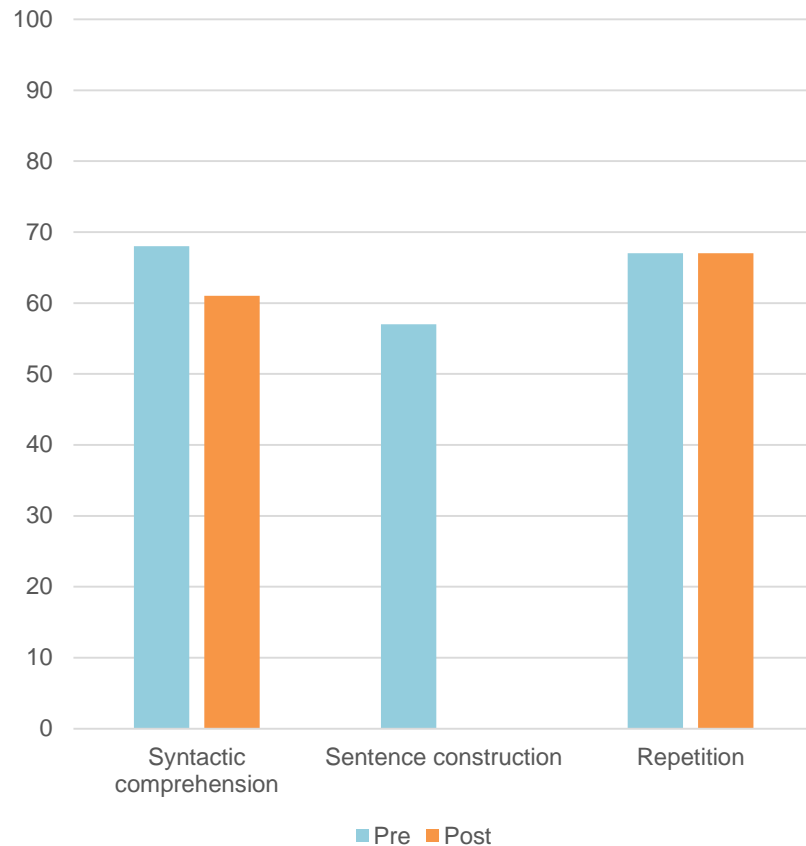


Q Pre/Post WAB Scores

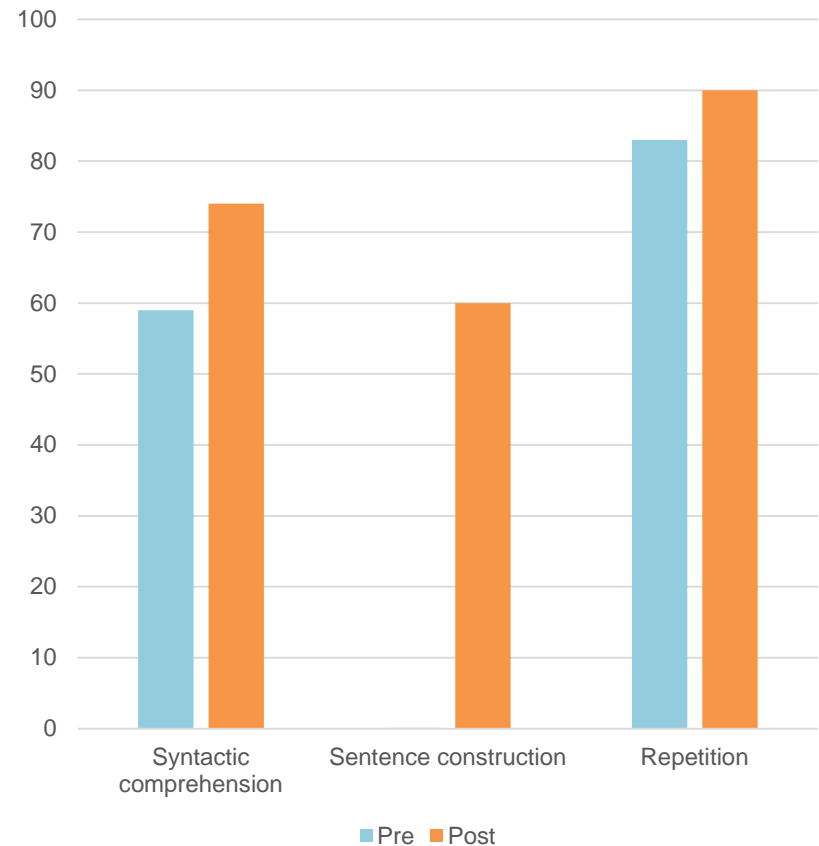


# Bilingual Aphasia Test Results

T Pre/Post BAT Scores

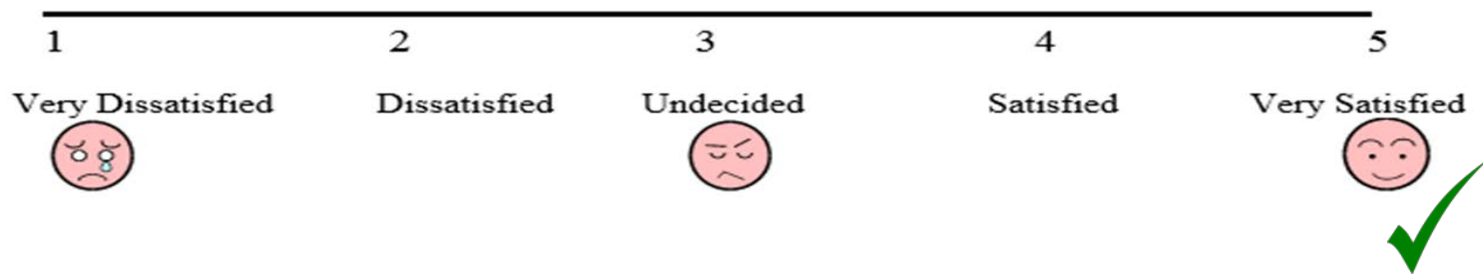


Q Pre/Post BAT Scores



# What the patients thought

- Gained information/strategies to help them outside the group
- Increased confidence interacting with other people
- Both patients felt they improved with their communication
- Son reported patient “*saying longer sentences at home*”



# Some conclusions for CILT

- CILT is effective group therapy for improving receptive and expressive skills in patients with communication difficulties
- CILT may be more/less effective for different patients
- CILT adapted into different languages can still be effective





# Overall conclusions

- In all rehabilitation care, need to consider how to apply and adapt it for CALD patients
- Involve working with interpreters/bilingual staff
  - Pre-briefing and de-briefing with interpreters or bilingual staff about the culture/language
- Adaptation of assessment/therapy stimuli
- ?Language groups across regions rather than by site
- Group therapy to increase therapy intensity and motivation with patients of same language/similar culture





Questions?

Jacinda Choy  
Speech Pathologist  
[jchoy@hammond.com.au](mailto:jchoy@hammond.com.au)  
(02) 9756 8807

Shing Chai  
Speech Pathologist  
[schai@hammond.com.au](mailto:schai@hammond.com.au)  
(02) 9756 8906



# References

- Australian Bureau of Statistics (2016, February 22) 2016 Census QuickStats. retrieved from [http://www.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/SSC11477](http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC11477)
- Engelter, S. T., Gostynski, M., Papa, S., Frei, M., Born, C., Ajdacic-Gross, V., ... & Lyrer, P. A. (2006). Epidemiology of aphasia attributable to first ischemic stroke: incidence, severity, fluency, etiology, and thrombolysis. *Stroke*, 37(6), 1379-1384.
- Hilari, Katerina et al. (2012). What Are the Important Factors in Health-Related Quality of Life for People With Aphasia? A Systematic Review. *Physical Medicine and Rehabilitation* , 93(1) , 86 - 95.e4.
- Hill, K. (2008). Australian clinical guidelines for acute stroke management 2007. *International Journal of Stroke*, 3(2), 120-129.
- Nickels, L., & Osborne, A. (2016). Constraint Induced Aphasia Therapy: Volunteer-led, unconstrained and less intense delivery can be effective. *NeuroRehabilitation*, 39(1), 97-109.
- Power, E., Thomas, E., Worrall, L., Rose, M., Togher, L., Nickels, L., ... & O'Connor, C. (2015). Development and validation of Australian aphasia rehabilitation best practice statements using the RAND/UCLA appropriateness method. *BMJ open*, 5(7), e007641.
- Pulvermüller, F., Neininger, B., Elbert, T., Mohr, B., Rockstroh, B., Koebel, P., & Taub, E. (2001). Constraint-induced therapy of chronic aphasia after stroke. *Stroke*, 32(7), 1621-1626.
- Rose, M. L., Mok, Z., Carragher, M., Katthagen, S., & Attard, M. (2016). Comparing multi-modality and constraint-induced treatment for aphasia: a preliminary investigation of generalisation to discourse. *Aphasiology*, 30(6), 678-698.
- Zhang, J., Yu, J., Bao, Y., Xie, Q., Xu, Y., Zhang, J., & Wang, P. (2017). Constraint-induced aphasia therapy in post-stroke aphasia rehabilitation: A systematic review and meta-analysis of randomized controlled trials. *PloS one*, 12(8), e0183349.



# Our mission

Our passion is improving  
quality of life for people in need

