



VNeST:

**who, what, when, why and why not?**

**Adult Language EBP group  
2015**

Julia Murphy and Kate Makin

## Who are we?

- 15+ active members working with adults across NSW (Sydney, Blue Mountains & Illawarra/Shoalhaven areas)
- Members work across acute, rehabilitation and community settings
- Stable group membership with a number of long-term members as well as more recently graduated clinicians
- Academic link: Professor Lyndsey Nickels from Macquarie University

# What was our Clinical Question?

- Does VNeST **improve sentence production** in clients with aphasia?
- Does treatment using VNeST show **generalization** effects to untreated items and connected speech?
- Is VNeST most suitable for clients with mild, moderate or severe aphasia?

# What were our articles?

- **Edmonds, L., Nadeau, S. & Kiran, S. (2009)**, Effect of Verb Network Strengthening Treatment (VNeST) on lexical retrieval of content words in sentences in persons with aphasia. *Aphasiology* 23(3): 402-424.
- **Edmonds, L. & Babb, M. (2011)**, The effect of Verb Network Strengthening treatment in moderate-to-severe aphasia. *American Journal of Speech-Language Pathology* 20: 131-145.
- **Edmonds, L., Mammino, K. & Odeja, J. (2014)**, Effect of Verb Network Strengthening Treatment (VNeST) in persons with aphasia: extension and replication of previous findings. *American Journal of Speech-Language Pathology*, 23: 312-329.
- **Furnas, D. & Edmonds, L. (2014)**, The effect of computerised Verb Network Strengthening Treatment on lexical retrieval in aphasia. *Aphasiology* 28 (4): 401-420.
- **Edmonds, L., Obermeyer, J. & Kernan, B. (2014)**, Investigation of pretreatment sentence production impairments in individuals with aphasia: towards understanding the linguistic variables that impact generalization in Verb Network Strengthening Treatment. *Aphasiology* 29(11): 1312-1344.
- **Edmonds, L. (2014)** Tutorial for Verb Network Strengthening Treatment (VNeST): detailed description of the treatment protocol with corresponding theoretical rationale. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders* 24(3): 78-88.

# What is VNeST?

## Verb Network Strengthening Treatment

- A semantically based treatment that targets lexical retrieval of meaningful words in sentences
- Each treatment step has a purpose based on the theoretical foundation
- The nouns that are related to verbs in proposed networks are called thematic roles
- Research has shown that verbs and their related thematic roles are neurally co-activated so that the agents and patients facilitate the activation of the verbs and vice versa
- VNeST requires participants to produce diverse scenarios related to trained verbs which may spread activation to untrained verbs and networks.

# What is VNeST?

## Verb Network Strengthening Treatment

- **Intensive** - 2 hour sessions, 2-3 sessions/week, up to 11 weeks
- **Steps**
  1. Generate agents & patients for chosen verbs with cues/help
  2. Read responses aloud
  3. Expand one schema with *Wh*- questions
  4. Make semantic judgments about sentences that the SP reads aloud
  5. Produce target verbs independently
  6. Repeat step 1 without cues
- **No pictures**

# What is VNeST?

## Verb Network Strengthening Treatment

Agents	Verb	Patients
Dad		Boat
Chauffeur		Limousine
Paramedic	<b>Drive</b>	Ambulance
Taxi driver		Taxi
Wife		Car

# When might you use VNeST?

- In the **chronic** setting (ie., more than a year post stroke)
- When you are able to provide **intensity** of therapy (face to face or by telehealth)
- It would be worth considering when you have a client:
  - Has verb and noun naming impairment at single word and sentence level
  - Who enjoys structured therapy
  - Who has mild-moderate aphasia
  - With any aphasia type, including Wernicke's aphasia



## **Why** would you use VNeST?

- To improve single word and sentence level spoken output

Because:

- improvements may generalise to untreated words and connected speech for some people
- VNeST has shown merit for all aphasia types, including Wernickes aphasia
- Despite the trend that it is most suited to clients with mild-moderate aphasia, clients with severe aphasia also showed improvement

# **Why** would you not use VNeST?

Because:

- improvements may not be maintained long-term
- It is unclear if VNeST achieves better outcomes than other therapy approaches
- A reasonable understanding of the technique is required (may limit involvement of AHA and carers)
- When trialing with clients, members found it time consuming and challenging

Further research is needed as the 5 articles reviewed were authored by the same researcher (Lisa Edmonds)



Clinical Bottom Line

Does VNeST **improve sentence production** in clients with aphasia?

It **may**, for **some** clients with **chronic aphasia**.

Does treatment using VNeST show **generalisation** effects to untreated items and connected speech?

Yes, **most clients** showed generalisation. However, improvements were often **not maintained**.

Is VNeST most **suitable**  
for clients with mild,  
moderate or severe  
aphasia?

There is a trend that it is most  
effective for clients with **mild  
to moderate aphasia.**

# Adult Language group

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- All meetings held at Concord Hospital from 2.30-3.30pm and are followed by ANCIG
- Likely meeting dates for 2016 (TBC)
  - Thursday 18<sup>th</sup> February
  - Thursday 21<sup>st</sup> April
  - Thursday 16<sup>th</sup> June
  - Thursday 18<sup>th</sup> August
  - Thursday 20<sup>th</sup> October



**Any questions?**

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