

## ReaDySpeech for people with dysarthria after stroke: feasibility of the intervention

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## Structure of today's talk:

- Why dysarthria?
  - Evidence & clinical practice
- ReaDySpeech research
- What next? Maximising the impact



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## Why dysarthria?



#### Dysarthria Cochrane review 5 trials versus Aphasia

Cochrane review 57 trials

(Mitchell, 2017: Brady 2016)



### The impact

"Tiring, upsetting and frustrating, the reality of dysarthria smacks me in the mouth every time I attempt speech."

"Dysarthria is imprisoning, limiting my life to the people and places that I know. I would no more engage in a new friendship or relationship than fly. Dysarthria has robbed me of the confidence to try."

Sorry, what did you say? Living with dysarthria (unclear speech) after stroke





Annette, research advisor and blogger



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## What we know about dysarthria?



• Incidence & prevalence?

• Natural history of recovery?







# So what did the Cochrane review find?

- No definitive adequately powered trials
- Outcome measures <a href="http://www.comet-initiative.org/">http://www.comet-initiative.org/</a>
- Patient input: intervention and outcomes
- Duration, timing, intensity





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## Intervention?



□Impairment level?

- Activity level?
- □ Participation level?
- □ All of the above?



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Fifth Edition 2016

#### What about the guidelines?

Activity and participation

#### What do we do?

• Impairment and activity (Miller, 2017)





## ReaDySpeech: online programme

- Intensity
- Quality
- Duration
- Timing

#### Hello Bill,

Welcome back to your speech rehabilitation programme.



Your therapist has set you a target of doing your exercises twice a day over the period of 2 days. your progress to date



 1/4
 4/4
 0/4

 Volume
 Orio-mutor exercises: Range
 Orio-mutor exercises: Speed





## Development

- Focus groups
- If we build it will they use it?
- Feasibility randomised controlled trial



Following MRC guidance to develop & evaluate complex interventions, 2008





## Feasibility of the intervention

• What was delivered?

• What was done?



• What participants thought?





## Maximising the impact – where next?

- More high quality research
- Outcome measures
- Basics
- Intensity how many reps?





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## References

- Brady, M. C., Kelly, H., Godwin, J., Enderby, P. & Campbell, P. (2016). Speech and language therapy for aphasia following stroke. *Cochrane Database of Systematic Reviews*, (6)
- Miller, N. & Bloch, S. (2017). A survey of speech–language therapy provision for people with post-stroke dysarthria in the UK. *International Journal of Language & Communication Disorders*
- Mitchell, C., Bowen, A., Tyson, S., Butterfint, Z., & Conroy, P. (2017). Interventions for dysarthria due to stroke and other adult-acquired, non-progressive brain injury. *Cochrane Database of Systematic Reviews* (1).
- Mitchell, C., Bowen, A., Tyson, S., & Conroy, P. (2016). If we build it, will they use it? Phase I observational evaluation of ReaDySpeech, an online therapy programme for people with dysarthria after stroke. *Cogent Medicine*(justaccepted), 1257410.
- Mitchell, C., Bowen, A., Tyson, S. & Conroy, P. (2017b). ReaDySpeech for people with dysarthria after stroke: protocol for a feasibility randomised controlled trial. *Pilot and Feasibility Studies*, 4(1), 25
- MRC (2008). Developing and evaluating complex interventions: new guidance. *London: Medical Research Council*.