Bristol Speech and Language Therapy Research Unit

North Bristol NHS Trust

Are mindfulness and other CBT techniques effective in improving communication in people with acquired, non-progressive aphasia?

Systematic Review and Patient and Public Involvement Exercise

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Background

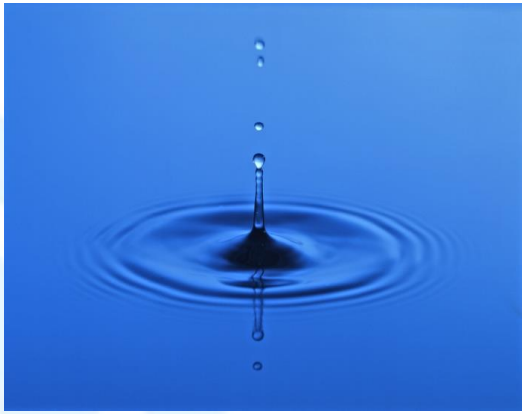
- Aphasia and anxiety
  - clinical practice
  - literature (e.g. Cahana-Amitay, 2011)

- Aphasia and attention (e.g. Murray, 2012; Korda and Douglas, 1997)

Background

Mindfulness

"paying attention in a particular way: on purpose, in the present moment and non-judgementally" (Kabat-Zinn, 1994)



Evidence for effectiveness in:

- Anxiety and depression (Kabat-Zinn et al., 1992; Teasdale et al., 1992)
- Attention skills (Zha et al., 2007)
- Other health conditions (Baer, 2003)

Structure

Are mindfulness and other CBT techniques effective in improving communication in people with acquired, non-progressive aphasia?

Patient and Public Involvement (PPI) exercise

Systematic Review

Patient and Public Involvement - Methods

People with aphasia – mild to severe

Recruited from:

- Stroke groups
- Conversation groups
- Mindfulness group for stroke patients
- Patients known to researcher and colleagues

Groups and 1-1 interviews

Thematic analysis used to identify factors of importance to PWA

PPI - Results

- Many people reported fluctuations in degree of aphasia
- Negative factors identified:
  - Stress/anxiety
  - Heightened emotions - various
  - Pain, illness
  - Tiredness
  - Perceived importance of conversation
  - Background noise
- Increase in other stroke symptoms
- Some failed to identify any impact of stress – why?

PPI – Results

Suggested explanations for variability

- *"you use all your resources just trying to communicate"*

  Resource allocation?

- *"you think something will be expected or thought"*
- *"people listening to me speaking rather than what I said"*

  Concern about others' perceptions?

PPI – Results

Positive variables :

- Disclosure – card, badge
- Environment - secure, supportive, time
- Preparation, planning, rehearsal

What is a Systematic Review?

- ‘A review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review.’ (Cochrane Collaboration, 2014)

Systematic Review - Methods

PICO method used to define question, inclusion and exclusion criteria

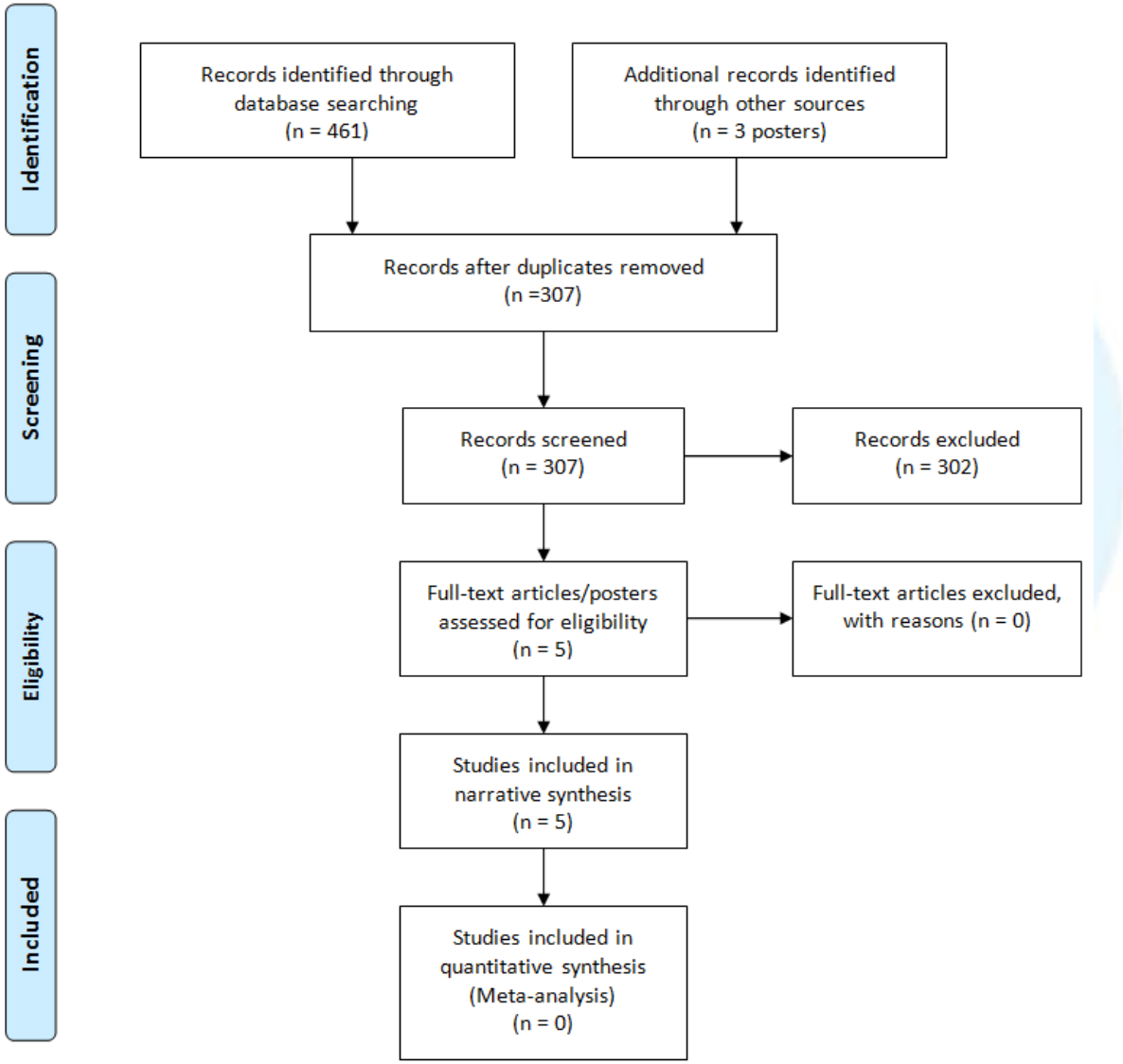
- ***P**opulation*: adults with acquired, non-progressive aphasia (any aetiology);
- ***I**ntervention*: mindfulness-based approaches and other cognitive behavioural therapies;
- ***C**omparison:* any other intervention or no intervention
- ***O**utcome*: improved communicative effectiveness

6 electronic databases scrutinised

461 distinct references retrieved

Systematic Review - Results

PRISMA 2009 Flow Diagram



Results

- 3 eligible papers, 2 studies from ‘grey literature’ - posters

- Quality assessed – SCED (Single Case Experimental Design) scale

SCED Scale

PsycBITE

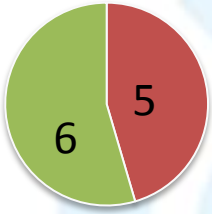
Rating Scale for Single Participant Designs

For each item, please justify scoring (for both "yes" and "no" responses), by at least mentioning page and paragraph numbers in the field underneath the tick boxes.

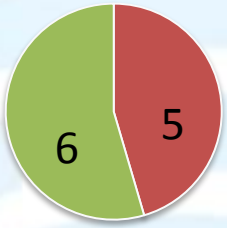
	Rater 1:		Rater 2:		Consensus	
	yes	no	yes	no	yes	no
1. Clinical history was specified. *Must include Age, Sex, Aetiology and Severity.*	☐ specify page & paragraph	☐	☐ specify page & paragraph	☐	☐ specify page & paragraph	☐
2. Target behaviours. Precise and repeatable measures that are operationally defined. *Specify measure of target behaviour.*	☐	☐	☐	☐	☐	☐
3. Design 1: 3 phases. Study must be either A-B-A or multiple baseline	☐	☐	☐	☐	☐	☐
4. Design 2: Baseline (pre-treatment phase). Sufficient sampling was conducted	☐	☐	☐	☐	☐	☐
5. Design 3: Treatment phase. Sufficient sampling was conducted	☐	☐	☐	☐	☐	☐
6. Design 4: Data record. Raw data points were reported	☐	☐	☐	☐	☐	☐
7. Observer bias: Inter-rater reliability was established for at least one measure of target behaviour	☐	☐	☐	☐	☐	☐
8. Independence of assessors	☐	☐	☐	☐	☐	☐
9. Statistical analysis	☐	☐	☐	☐	☐	☐
10. Replication: *either* across subjects, therapists or settings	☐	☐	☐	☐	☐	☐
11. Evidence for generalisation	☐	☐	☐	☐	☐	☐

SCED scale scores

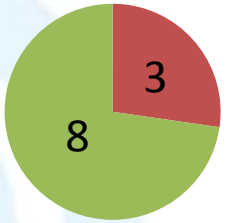
Laures-Gore



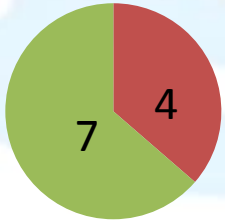
Dickinson et al.



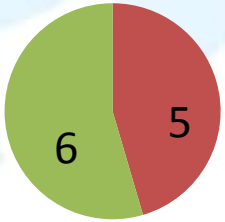
Orenstein et al.



Gadson et al.



Wantsala et al.



Conclusions

PPI

- PWA can experience marked fluctuations in spoken communication as a result of anxiety, stress and a number of other factors
- People find strategies that help, but few had heard of or tried mindfulness

Systematic Review

- Language outcomes showed gains (on 4 out of 5 studies)
- Small number of studies, making it difficult to draw conclusions
- Moderate quality of design and scope for improvement in future study methodology
- Diverse outcomes reported
- Studies were positive about the ability of people with aphasia to access mindfulness interventions

Impact

- Further research into the efficacy of using mindfulness techniques for PWA needs to be explored
- Exploration of impact on quality of life for PWA

Thank you for listening!

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