



NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE:

Individualised coaching in the use of supportive communication strategies for a person with aphasia and their spouse, may improve performance in a conversational re-tell task, but results may vary significantly, and further research is needed into whether gains are generalised to different interactions / social situations and which components of therapy are necessary. No specific info re which patient / communication partner characteristics may lead to better treatment outcomes.

Clinical Question/s:

- Part 1: "Which communication partner training methods are effective in facilitating communication activities and participation for people with aphasia?"
- Part 2: "Which patients and / or communication partner characteristics lead to better outcomes in communication partner training?"

Citation: Hopper, T., Holland, A., & Rewega, M. (2002) Conversational coaching: treatment outcomes and future directions. *Aphasiology*, 16(7), 745-761.

Design/Method:

- 2 dyads (seen separately with 1 SP instructing / coaching)
- All sessions conducted and videotaped in each couple's home
- Instructional session (for each dyad separately)
 - o SP watched tape of one baseline session with couple & highlighted facilitative behaviours & discussed other possible strategies (as determined by SP watching recording prior to session).
 - o Participants indicated preferred strategies to target in therapy and demonstrated these.
- Treatment sessions (10 for each dyad separately)
 - o PWA watched 2-3 minute segment of "Real Life" TV show and tried to re-tell it in naturalistic conversation to communication partner. (Note comprehension of the story was confirmed by SP).
 - o SP intervened when communication breakdown or miscommunication occurred, after 2 failed attempts from participants at resolving breakdown themselves.
 - o SP coached each participant in use of alternative strategies and prompted couple to revisit ideas if incorrect info was conveyed / interpreted.
- Outcome measures:
 - o Pre & post intervention conversation samples (using same method as for treatment)
 - Pre-probe session (with "story 1" and "story 2")
 - Multiple baseline sessions (4 for 1 dyad; 6 for other dyad) – varied stories
 - Post-probe sessions
 - 1 week post treatment – "story 1"
 - 3 months post treatment – "story 2"
 - Measured number of main concepts successfully co-constructed by dyad as a % of total number of concepts within each story (as per 2 independent judges).
 - o CADL-2 – administered pre & post treatment.
 - o Speech & Hearing students (naïve to aphasia) judged whether video samples were pre or post treatment.

Participants:

- 2 dyads (married couples)
- Mr. Y: 76yo, Left temporal lobe ischemic stroke 3 yrs prior, Broca's aphasia, WAB aphasia quotient 37.4, attending group communication therapy
- Mrs. Y: 70yo, attentive & supportive, though using few effective communication strategies (primarily using repeated questioning)
- Mr. G: 41yo, L MCA stroke, 2 years post stroke, Broca's aphasia, WAB aphasia quotient 21.3
- Mrs. G: 39yo, enthusiastic – keen to improve her conversational strategy use
- NOTE: All except Mrs. Y Passed a pure-tone hearing screening & all got 100% accuracy on word recognition task in treatment environment.

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Experimental Group: As per participants info.

Control Group: No control group included in study design and no use of experimental control measures.

Results:

- 1) % main concepts co-constructed (in re-tell of TV story):
 - Dyad Y:
 - story 1 – 23% at pre-probe, 46% at 1 week post
 - story 2 – 0% at pre-probe, 22% at 3 months post
 - Dyad G:
 - story 1 – 0% at pre-probe, 29% at 1 week post
 - story 2 – 0% at pre-probe, 27% at 3 months post
 - Note significant variability in baseline & treatment data (from graphs), with one of Dyad G's baseline measures being higher than all treatment measures, & interpersonal conflict noted to impact performance in one of Dyad Y's treatment sessions.
- 2) CADL-2
 - Mr Y had percentile increase of 20%, increase in stanine score from 4-5
 - Mr G had no percentile decrease of 2%, but note seizure occurred prior to this aspect of study.
- 3) Social Validation (naïve judgements of pre & post treatment samples by speech and hearing students)
 - Students were able to identify which conversational samples were pre vs. post therapy with 100% accuracy, except story 2 for dyad G (68% of students judged correctly).
 - Increase in number of concepts identified & less erroneous information for post treatment samples.

Comments – Strengths/weaknesses of paper

Strengths:

- Mostly clear & detailed description of study design and the treatment method, making it quite replicable.
- Reported inter-rater reliability data (all greater than 80%).
- Multiple baseline measures were recorded pre-treatment to allow analysis for effect of repetition of task, vs. specific intervention (although this was not strongly acknowledged by the authors).

Weaknesses:

- Some aspects of study design were not clearly explained / justified, including:
 - o what was the need for the pre-test probe? (i.e. how was this different from baseline sessions?)
 - o why did number of baseline sessions vary between dyads?
 - o why did they only collect data for 7 out of 10 treatment sessions?
 - o were the independent judges for number of main concepts in each story performing a pure retell task or performing the same task as the treatment dyads (i.e. co-constructing in conversation)?
- Method for how communication strategies were chosen for each couple was not clearly described.
- Variability in number of concepts in each story likely skewed data for % of main concepts conveyed.
- Small sample size & no experimental control was used.
- Authors themselves acknowledged that variability in interpersonal dynamics appeared to impact upon treatment performance.
- Authors appeared overly generous in describing their treatment outcomes - stating there was 'convincing evidence of positive outcomes', when percentage increases for main outcome measure were small
- Lacked personal / psycho-social outcome measures for each dyad (i.e. whether generalisation had occurred to other relationships, other social situations).
- Nature of changes / improvements on the CADL-2 were not clearly described.

Level of Evidence (NH&MRC): Level IV

Appraised By: Adult Language EBP group

Date: 2011