NSW Speech Pathology
Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE:
Part 1: The 'Supported Conversation for Adults with Aphasia' (SCA) program appears more effective at facilitating participation in conversation for people with aphasia than general education and exposure to people with aphasia. However, it is unclear which aspect/s of the training makes the difference.

Part 2: The motivation, culture and education level of communication partner volunteers may affect treatment outcomes, but further research is needed in this area.

Clinical Question [patient/problem, intervention, (comparison), outcome]:
Part 1: Which communication partner training methods are effective in facilitating communication activities and participation for PWA?

Part 2: Which patients and/or communication partner characteristics lead to better outcomes in communication partner training?

Citation: Kagan,A., Black, S., Duchan, J., Simmons-Mackie and Square, P. Training volunteers as Conversation partners using " Supported Conversation for Adults with Aphasia"(SCA): a controlled trial. *Journal of Speech, Language and Hearing Research*, 44, 624-638, 2001.

Design/Method: A single–blind, randomised, controlled, pre/post design. An experimental and a control group were rated before and after intervention. Assignment for the people with aphasia (PWA) was quasi-randomised as some changes were made due to transport issues. Tests for randomisation were carried out. For PWA, randomisation was effective except for severity (i.e. the experimental group was more severe so controlled for by having WAB Aphasia quotient as a covariate). For volunteers the experimental group was older but not covaried as experience says it makes no difference.

Method: Written and pictographic materials and magazines were placed on the table in a consistent manner for all videotaping sessions.

Measurement tools:
1. Measure of Skill in Providing Supported Conversation for Adults with aphasia" (M) SCA i.e. how well do communication partners acknowledge and reveal competence of PWA.

2. Measure of Participation in Conversation for Adults with Aphasia (M) PCA. Both are scored from 0 (poor performance) to 4 (high level performance), with 0.5 intervals (i.e. a 9 point scale). Rating guidelines and anchors are provided. (See Kagan, 1999 *'Supported conversation for adults with aphasia: Methods and evalutaion',* unpublished dissertation, University of Toronto, Toronto, for details).

Both measures were developed and field tested by Kagan 1999. Inter rate reliability moderately high for all categories but lower for interaction (r= 0.65). No specific validity measures reported.

Participants: 80 participants i.e. 40 dyads of one volunteer and one adult with Aphasia. 20 dyads in both the experimental and control groups.

Volunteers: recruited from applicants at the Aphasia Centre via a screening application and an interview. > 70% were female students,< 30 yrs. 45% had an undergraduate degree**.**

Person with Aphasia (PWA): recruited from 150 who attended day programmes.

Selection criteria: a) mod-severe aphasia on WABAQ, b) able to engage in conversation at "some" level with a skilled partner using all modalities, c)at least 1 yr post CVA, d) verified focal lesion, e) pre-morbidly competent English speakers, f) no dementia/sever psychiatric problems or progressive aphasia . 63% male, mean age 70yrs and mean 13 yrs of education.

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Experimental Group: Experimental dyads were videotaped in a semi-structured conversation (where topics followed a pre-selected agenda and PWA had opportunity to ask the volunteer any questions) and rated using the (M)SCA before and after receiving SCA training. **Training consisted of: I:** A one day workshop as outlined in SCA instructional protocol (Kagan, 1999). Conducted by the investigator, following a script. <u>Content:</u> conceptual / motivational module (1.25 hrs); technical module (2 hrs); role play (1.5 hrs) and evaluation (0.5hr). Technical module included: a) acknowledging the competence of PWA ("I know you know") and b) revealing their competence (give time / materials / prompts/ verify the info). **II** followed by 1.5 hr hands on session within 2 wks to work with a PWA and have an opportunity to practice skills under supervision of a SLP.

Control Group: These dyads were also videotaped using the same semi-structured conversation process (as for experimental group) and were rated using the (M)SCA. Following this, the volunteers were "exposed" to aphasia by watching a video about the lives of 5 PWA and their families. Also given an opportunity to interact with other PWA at the 'Aphasia Centre' (to allow equal exposure to people with aphasia as experimental group). Video taped and rated using the (M)SCA again after this.

Results:

- There were statistically significant differences between the trained and untrained volunteers (using ANCOVA) on the (M) SCA for acknowledging and revealing competence. Also untrained volunteers changed little from the first to the second interview, despite exposure to PWA.

- PWA scored higher on (M) PCA when conversing with trained as opposed to untrained volunteers for A) interaction (social connection) and B) transaction (information transfer). Statistically significant differences between groups for both A and B (using ANCOVA).

- There was a moderate positive correlation (statistically significant) between changes in volunteers' scores and the scores of the partners with aphasia. The strongest correlation was between revealing competence and transaction ($r = $).64) Other correlations were weaker (ranging from $r = 0.39$ for revealing competence and interaction, to $r = 0.59$ for acknowledging competence and interaction).

- Impact of exposure and experience on the performance of volunteers and PWA via post hoc analyses: A larger proportion of control subjects than experimental subjects (both volunteers and PWA) did the same or worse the second time around (i.e. the training made the difference, not just exposure to PWA).

- Effect sizes for results were: interaction (0.44); transaction (0.88); acknowledging competence (1.38) and revealing competence (5.7). * Note: 0.2, 0.5, and 0.8 are considered small, moderate and large respectively, with 0.5 accepted as clinically significant.

- Although statistically significant, the impact on "social" variables such as acknowledging competence and interaction was weaker. Authors theorise that volunteers' ability to acknowledge competence is probably due to personality traits and attitudes.

Comments – Strengths/weaknesses of paper:
- Paper acknowledges the results need to be interpreted with caution in terms of their strength and the amount of variance explained.
- Note rater's blinding may have been limited due to the strong experimental effect.
- Suggest further research re longer training periods.
- Unclear why 2 experimental volunteers performed worse in post training conversations (possibly due to over enthusiasm and over use of techniques so conversation did not flow??).
- Unclear why a large number (N= 8) of control volunteers did worse at initial conversation. (possibly due to a negative first experience??).
- Need more research re impact of: age, culture , motivation level and education on vols' performance. Note the majority of vols were highly motivated and educated.
- Need further research to explore effect of trainer experience.

Level of Evidence (NH&MRC): Level III 1 Pseudo randomised control study.

Appraised By: Adult language EBP group | **Date:** 2011