



EVALUATION OF SUPPORTED CONVERSATION FOR ADULTS WITH APHASIA APPLICATIONS FOR REHABILITATION PROFESSIONALS

GTA Rehab Network
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Aura Kagan
Aphasia Institute

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Current Treatment Practice

Traditional language treatment:

- Work directly on language and/or cognitive impairment (e.g. sounds, words, grammar)

Functional communication treatment:

- Work on *compensation* for language impairment (e.g. gesture, use of drawn or written material)

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Traditional definition of aphasia

- Language problem
- Injury to the brain (left/dominant hemisphere)
- Most frequent cause – stroke

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Conversation

- A basic form of human communication - the 'currency' of participation in day-to-day life
- A means of revealing our inherent competence

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Social Model of Aphasia

- Emphasizes the social unit or dyad rather than focusing only on the individual with aphasia
- Gives interaction or social connection as much weight as transaction or information exchange

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Programmatic research related to SCA™

- Conceptual framework
- Intervention
- Evaluative measures
- Efficacy study

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Social Model of Aphasia

- Approaches the adult with aphasia as a competent person
- Involves a commitment to increasing access and decreasing barriers to life participation

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The argument for SCA™

- Aphasia masks competence normally revealed through conversation
- Conversation is central to participation in everyday life
- There is a relationship between perceived competence and conversation

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The argument for SCA™

- These factors lie at the heart of 'communicative access' to life participation
- Competence can be revealed through the skill of a conversation partner

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TRAINING

- **Acknowledging competence**
- **Revealing Competence**
 - In
 - Out
 - Verification

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SCAT™ Training Workshop
(including video on supported conversation)

Pictographic Communication Resources® (PCR)

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Two Outcome Measures

MSC

Measure of Conversation Partners' skill in providing **S**upported **C**onversation

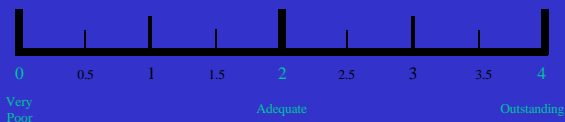
MPC

Measure of **E**articipation in **C**onversation

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MSC: Rating the Conversation Partner



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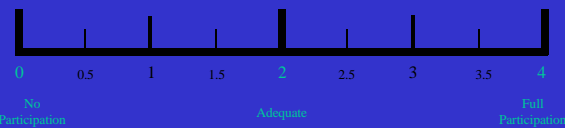
Primary Hypothesis

Volunteer conversation partners who are exposed to SCA™ training will score higher on a support measure (MSC) than those who are not exposed to training.

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MPC: Rating the Adult with Aphasia



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Secondary Hypotheses

- Aphasic adults talking with conversation partners who are exposed to SCA™ training will score higher on a participation measure (MPC) than those whose partners are not exposed to training.
- Changes in level of participation of adults with aphasia are related to changes in level of skill of their conversation partners.

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Selected Subject Characteristics

	Volunteers N=40	Adults with aphasia N = 40
Mean Age (years) ± SD	29 ± 10	69 ± 11
Sex	5 M 35 F	25 M 15 F
Number of students WAB AQ (severity of aphasia)	28 (70%) N/A	N/A 28 ± 15
Aphasia type based on WAB AQ	N/A	Broca 75.0 % Conduction 2.5 % Global: 15.0 % Transcortical 2.5 % Wernicke's 5.0 %
Time post onset	N/A	58 ± 40 months

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Data Analysis

- Hypotheses 1 and 2: **ANCOVA**
 - Covariates
 - Baseline (pre-training) scores
 - WAB AQ
- Hypothesis 3: **Pearson correlation**

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Methods

Pre-post randomized control group design with 40 dyads

Experimental Group (n=20 dyads)	Control Group (n=20 dyads)
Video 1	Video 1
TRAINING	Exposure to aphasia (opportunity to socialize) (‘Pathways’ video)
Video 2	Video 2

Data: 60 videos/pages

Dyad = 1 adult with aphasia + 1 volunteer conversation partner

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Hypothesis 1 Results: Volunteer conversation partners

Summary ANCOVA Table

Dependent Variables	Mean Square	F	p
Acknowledge Competence	7.3	19.1	<.001
Reveal Competence	32.3	159.0	<.001

Source = Intervention, df =1

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Hypothesis 2 Results: Participant with aphasia

Summary ANCOVA Table

Dependent Variables	Mean Square	F	p
Interaction	2.5	5.7	.023
Transaction	6.4	17.6	<.001

Source = Intervention, df =1

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Clinical Significance

Means (adjusted for covariates) of
experimental versus control group for
post-training scores

	Acknowledge Competence	Reveal Competence	Interaction	Transaction
Control	1.6 ± 0.1	0.7 ± 0.1	2.1 ± 0.2	1.9 ± 0.1
Experimental	2.5 ± 0.1	2.7 ± 0.1	2.7 ± 0.2	2.8 ± 0.1

Note: Values correspond to mean ± standard error

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Hypothesis 3 Results:

Correlation of change scores between
volunteers and participants with aphasia

	Acknowledge Competence	Reveal Competence
Interaction	.45	.39
Transaction	.59	.64

*All Pearson correlations $p < .01$

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Questions to think about when viewing videos

- What does the volunteer do to:
 - make the person with aphasia feel ok?
 - Help the person with aphasia reveal his competence?
- How does the person with aphasia react?
- What do they achieve together as a pair?

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Post-training Score Performance

Number of cases where post-training scores are better, worse than, or the same as pre-training scores, for experimental versus control group

		Acknowledge Competence	Reveal Competence	Interaction	Transaction
EXP	Better	17	20	15	17
	Same	1	0	2	2
	Worse	2	0	3	1
Control	Better	3	8	4	5
	Same	9	6	9	11
	Worse	8	6	7	4
Chi-square		$\chi^2=19.8$ $p<0.0001$	$\chi^2=17.1$ $p<0.0001$	$\chi^2=12.4$ $p<0.002$	$\chi^2=14.6$ $p<0.001$

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Ideas For Future Research Using Data From Efficacy Study

- Examining the relationship between outside observers' perception of the competence of the person with aphasia, and the level of participation in conversation of the person with aphasia
- Evaluation of conversation partners by participants with aphasia

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Conclusion

- It is possible to train volunteer conversation partners to better acknowledge and reveal the competence of adults with aphasia
- What the conversation partner does has some impact on the level of participation of the person with aphasia

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Rating by aphasic adult in relation to scores on the measures

(Experimental Dyad # 38 (M & D))

	Acknowledge Competence		Reveal Competence		Interaction		Transaction	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
M&D	0.5	2.0	0.2	2.5	0.5	3.0	0.5	3.0

Higher score = better performance

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Aphasic adults' rating of the conversation partner

	Like volunteer?		Could you answer questions?		Did the volunteer help?		Help Scale		Do they know you know?	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
M&D	Yes	Yes	Some	Yes	No	Some	0.0	2.5	Not sure/maybe	Yes

Higher score = better performance

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Aphasic adults' rating of the conversation partner

	Like volunteer?		Could you answer questions?		Did the volunteer help?		Help Scale		Do they know you know?	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
J&R	Yes	Yes	Some	Some	Yes	Some	5	3	Yes	Not sure/maybe

Lower score = worse performance

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Rating by aphasic adult in relation to scores on the measures

(Control Dyad # 15 (J & R))

	Acknowledge Competence		Reveal Competence		Interaction		Transaction	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
J&R	0.5	0.0	0.3	0.3	2.5	2.0	2.5	2.5

Lower score = worse performance

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Implications and Controversial Questions

- Should the focus of student training be changed to include an emphasis on the social consequences of aphasia?
- Is SCA™ practical for those with varying levels of motivation, those coping with other problems, and those with time constraints?
- What is the best research approach to the evaluation of SCA™? - Comparison of qualitative and quantitative strategies

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Implications and Controversial Questions

- Can SCA™ be used across cultures?
- Does SCA™ work for different types and severity levels of aphasia?

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