Supported Communication Intervention
A Functional: Social Approach to Aphasia Rehabilitation

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Example (J and L)

- Assess/Evaluate
  - Individual with Aphasia – Female 72 yrs old
  - 7 years post CVA (Nonfluent aphasia and apraxia of speech)
  - Western Aphasia Battery Aphasia quotient of 36.6/100 (characteristic of Broca's)
  - Limited production – Apraxia of Speech
  - Shortened Version of Token Test = 4/36 (WNL cutoff is 29/36 so her ability to process auditory-only information as the information increased in length and linguistic complexity was severely depressed),
  - Gesture skills -very strong in receptive and expressive domains, physically
  - Uses vocalizations and intonation quite expressively
  - Married – husband retired
  - Avid cook, independent (drives)

- External evidence
  - What do we know about treatment of individuals with chronic aphasia?
    - Systematic review
  - **Speech and Language Therapy for Aphasia Following Stroke**
    Greener, J., Enderby, P., et al. (1999). *Cochrane Database of Systematic Reviews* (4).
    - 12 studies, Level 2a,b
    - Inconclusive results

- **Conversational Partner Training Programmes in Aphasia: A Review of Key Themes and Participants' Roles**
  Turner, S., & Whitworth, A. (2006). *Aphasiology*, *20*(6), 483–510.
  - 9 studies; Level 2
  - Variety of partners – spouse to volunteer
  - Benefits noted, although more research needed

- Behavioral Observation (**for assessment/evaluation** and planning treatment – including baseline measure)
  - Manner – conversation on topic of couple's choosing
  - People – IA with her husband
  - Setting – clinic room
  - Client awareness – very aware – videotaped

- Qualitative analysis – what do you observe
  - Field notes (objective & subjective)
  - Patterns/themes
  - Conclusions

I would argue that the qualitative analysis would be appropriate for determining recommendations.

Selecting a target objective

- External Evidence
- Interview
- Dynamic Assessment
- Behavioral Observation (can use the same one but analyze differently)

- External evidence
  - Specific research for supported communication
  - Kagan, A., Black, S., Duchan, J., & Simmons-Mackie, N. (2001). Training Volunteers as Conversation Partners Using "Supported Conversation for Adults With Aphasia" (SCA): A Controlled Trial. *Journal of Speech, Language, and Hearing Research* Vol.44 624-638.
    - Level 2b
    - Trained volunteers had greater change than untrained volunteers. The training also produced a positive change in ratings of social and message exchange skills of individuals with aphasia

- Interview
  - Purpose
  - Kinds of questions you might ask?

- Dynamic Assessment
  - Does it have value here?
  - If so, what might it look like?

- Behavioral Observation (same as used for assessment/evaluation)
- Quantitative (more important for planning treatment – **baseline**)
  - What is concern?
  - What to count?
    - Frequency of occurrence
      - Simple enumeration
      - Response rate (%)

Supportive

- Uses multi-modality communication acts – writes, AAC
- Uses good prosody and nonverbal body language
- Facilitates message comprehension-checks to determine if message understood, repeats as necessary, waits
- Comments – asks open-ended questions, makes on-topic remarks, uses short sentences, comments on partners attempts
- Initiating and maintaining topics-changes & introduces topics appropriately
- Good listening and attending, acknowledges, waits
- Provides cues for multi modality communication and comprehension
- Requests for clarification are appropriate, specific, logical – guesses appropriately
- Provides opportunities to participate in social interactions; solicits input

Non-Supportive

- Primarily verbal
- Inappropriate rate, tone, poor eye contact, disengages
- Assumes comprehension, interrupts, talks for long periods
- Asks off-topic questions, remarks off-topic, includes too much detail, overly complex
- Changes topics abruptly without introduction, poor topic transition.
- Fails to listen attentively, makes discouraging remarks, fails to acknowledge
- Fails to give cues, doesn't encourage better communication
- Inappropriate requests (e.g., articulation), uses nonspecific requests (e.g., huh, what)
- Fails to solicit input, does not seek opinion, does not offer choices.

- Quantitative – Another approach
- Scale (handout)
  - Counting frequency of occurrence can be challenging
  - Rating Scale – combining subjective and objective information

Baseline

- Quantitative
  - Behavioral Observation – Counting supportive strategy use
  - Rating Scale
  - How do you quantify?

SCI Principles – Theoretical Construct for Planning Treatment

- Teaching the individual with aphasia and his/her communication partners how to use multiple modalities of communication
- Training communication partners to support both expressive and receptive communication for the individual with aphasia
- Promoting opportunities for social interaction

General Treatment Goals

- To increase the quality of communication in the dyad
- To increase the use of supportive communication behaviors/strategies by the communication partner
- To decrease the use of non-supportive communication behaviors/strategies by the communication partner

Behavioral Objective – an example

For the partner of the individual with aphasia:

To increase the production of 9 supportive behaviors/strategies by 50% over baseline level of performance during two, 10-minute conversations in the clinic on a topic provided by the clinician and a topic of the couple's choice. To get credit for producing a supportive strategy, one example must be used.

Event recording – simple enumeration

- Rating Scale
  - Could write a behavioral objective for this
    - What would that look like?
  - Could use as a measure of generalization
- Other thoughts about a possible behavioral objective?

Behavioral Objective

- The behavioral objective is an example of what you might wish to accomplish for the term.
- The objective requires counting occurrences of supportive behaviors that are produced by the partner.
- This is only one example of a behavioral objective that could be written for the specified general goals.

Treatment Foundations – Person with Aphasia

Prior to beginning treatment with the partner of the individual with aphasia, the clinician would first establish essential communication behaviors with the individual with aphasia

- This does not imply mastery – that is, independent and generalized skills, but rather
- Sufficient skills to communicate, including,
  - Knowledge and basic use of multi-modality communication behaviors that are relevant and appropriate for the individual and that will support meaningful interaction

Treatment – 3 Basic Stages

The 3 basic stages that follow provide a general view of how Supportive Communication Intervention would be conceptualized.

Note: these are general stages and do not reflect short term objectives nor a sequential teaching program. Rather, they guide the clinician in what elements should be a part of the intervention.

Stage 1: Educating the Communication Partner

- To understand nature and severity of the disorder, including modalities affected
- To recognize his/her partner's communication challenges AND strengths
- To recognize his/her own communication style, including supportive and non-supportive strategies

Stage 2: Begin Building Successful Communication

- Establish personalized and dynamic tools, developed by clinician and partners, for the individual with aphasia and partners (communication notebook with appropriate content, paper and pencil, etc.)
- Demonstrate supportive communication, including:
  - Variety of strategies
  - Identifying the intent of interaction and how that changes in different environments

Stage 3: Teaching Specific Strategies to Enhance Communication Exchanges

- Provide partners with direct models and hands-on experience, including visual materials where appropriate, specific to:
  - Each supportive vs. non-supportive strategy
  - How to & When to support communication
  - How to *act rather than react*
- Practice specific supportive strategies with the clinician and then with the individual with aphasia
- Have partners practice specific supportive strategies with the individual with aphasia at home
  - In-session review of communication at home

Intervention Implementation – an example

- Stages 1 and 2 – could be provided as instruction, using discussion, questions and answers with partner to judge whether the partner understands information/demonstrations and is ready to move to Stage 3.
- Stage 3 would then be implemented through a sequential teaching program. Rather than teach all supportive strategies at once, divide them. The next three slides illustrate how a sequential teaching program might look for teaching 3 strategies at a time. This program would then be repeated twice, each focused on 3 different strategies. This is just one example of how these strategies might be taught.

Antecedent	Behavior	Consequence	Reinf. Sch. Criteria
1. Introduce & define each of 3 supportive strategies (contrast with non-supportive strategy). Demonstrate/model (use visual materials as necessary) each. Ask partner to perform 3 items for each strategy with clinician during a "set-up" conversation where the clinician plays the role of the individual with aphasia.	Partner accurately demonstrates strategy. (e.g., waiting versus guessing; asking open ended question versus yes/no question; uses writing versus only verbal)	+ Social – appropriately communicate, comment on what was done well, contrast with non-supportive strategy -Corrective feedback, give suggestions for improvement – point out how and when to use strategies, when to act rather than react	1:1 Criteria for success on this step is correct use of 3/3 attempts to use each strategy
2. Ask partner to demonstrate 3 examples of each of the 3 supportive strategies with the clinician with no assistance in 3 minute "set-up" conversations. (Repeat 5 times)	Same as above	Same as above	Intermittent Criteria for success on this step is correct use of 3 strategies in 2 out of 3 attempts in each conversation

Sequential Teaching Program continued

Antecedent	Behavior	Consequence	Reinf. Sch. Criteria
3. Have partner use 3 supportive strategies at least 3 times with person with aphasia during a 3 minute conversation selected by the partner (Repeat 3 minute conversation 5 times)	Same as above	+ Person with aphasia communicates, clinician provides positive comments periodically - Clinician provides corrective feedback as appropriate	Intermittent Criteria for success on this step is correct use of 3 strategies in 2 out of 3 attempts in each conversation
4. Repeat Step 3, video tape and have partner evaluate performance. (No clinician feedback until videotape reviewed)	Partner accurately appraises strategy use.	+ Social – clinician comments on what was done well, contrast with non-supportive strategy - Corrective feedback, give suggestions for improvement	1:1 Criteria for success – go through this step twice, repeat if client seems confused or requests

Sequential Teaching Program continued

Antecedent	Behavior	Consequence	Reinf. Sch. Criteria
5. Have partner use 3 supportive strategies as appropriate in a 5 minute conversation on a topic decided by the couple. Repeat 2 times. Videotape for review	Partner accurately demonstrates strategy.	+ Person with aphasia communicates, clinician provides positive comments during video review - Clinician provides corrective feedback as appropriate	Intermittent Criteria for success on this step is appropriate - natural use of 3 strategies each conversation as determined by clinician

- Repeat above steps until all strategies have been taught.
- Have couple practice at home as they are moving through the sequential teaching program and report back regarding satisfaction

Treatment Data

- Create a data sheet for treatment data to be used with the sequential teaching program

Remember

- This is just one way to teach the supportive strategies given the principles of SCI.