From Gestures to Smart Phones: Serving the Needs of People with Aphasia with AAC

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I. AAC & Aphasia Overview
A. What is AAC?
- Strategies, techniques, or devices intended to supplement or replace, either permanently or temporarily, insufficient or ineffective communication skills.
- “a set of procedures and processes by which an individual’s communication skills (i.e., production as well as comprehension) can be maximized for functional and effective communication” (ASHA, 2002, p. 420).

B. AAC Basics
- Non-Aided: manual signs, gestures, body movements
- Aided: No, Low or High technology: Letterboards, communication notebooks, electronic dynamic display devices with voice output.

C. What is Aphasia? “Aphasia is a multimodality physiological inefficiency with verbal symbolic manipulations (e.g. association, storage, retrieval, and rule implementation). In isolated form it is caused by focal damage to cortical and/or subcortical structures of the hemisphere(s) dominant for such symbolic manipulations. It is affected by and affects other physiological information processes to the degree that they support, interact with, or are supported by the symbolic deficits.” (McNeil, 1988)

D. Why AAC & Aphasia? Traditional therapy: restore linguistic function, then clinicians use compensatory strategies to deal with residual deficits. However, if introduction of AAC is early: 1. Language restoration is supported by functional tasks 2. Person is familiar with AAC if needed in future

II. Unique Factors that Influence AAC Use
A. Cognitive Impairments: Executive function, Cognitive Flexibility, Attention

B. Symbolic Processing Disorder: Benefit from redundancy through multiple modalities and strategies to reduce reliance on symbols.

C. AAC facilitators: Importance of facilitators, Communication partner training
Example: Overview of navigation, Explanation of hierarchical structure, Facilitation strategies (cues & prompts), Homework using high-tech device, Written instructions to care for device

D. Strengths of PwA: Visual perception, intellectual functions, world knowledge

III. **AAC Assessments for Aphasia**: Goal: Develop a capability profile
   1. Traditional aphasia battery (e.g., WAB-R)
   2. Cognitive evaluation (CLQT, TEA, CADL-2 modified)
   3. Specific AAC measures
      - Multi-modal Communication Screening Task for Persons with Aphasia ([http://aac.unl.edu/screen/screen.html](http://aac.unl.edu/screen/screen.html))
      - Partner Dependency [http://aac.unl.edu/screen/aphasiachecklist.pdf](http://aac.unl.edu/screen/aphasiachecklist.pdf)
      - Needs assessment ([http://aac.unl.edu/screen/screen.html](http://aac.unl.edu/screen/screen.html))
      - Topic Inventory (photos and/or text)
      - Strategy and Device Trials

IV. **AAC Strategies & Devices**


B. No Tech
   1. Augmented Input/Comprehension: Drawing, writing key words, gesturing, referencing context, prosodic emphasis used in combination with spoken utterances
   2. Written Choice
   3. Drawing (Communicative Drawing Program)
   4. Writing: Anagram, Copy & Recall Treatment (e.g., Orjada & Beeson, 2005)
   5. Scales & Conversation Starters
   6. Communication Books: Provide instructions about methods of facilitating communication for the communication partner and ensure book is updated regularly
      - Visual Scene Display Templates Free! ([http://aac.unl.edu/intervention.html](http://aac.unl.edu/intervention.html))

C. Low Tech AAC
• May be appropriate for someone who has difficulty navigating a dynamic display; Acute care or early teaching of strategies; Specific communication situations

D. High Tech AAC

• May be appropriate for: Independent communicators; People familiar with computerized devices

• Mobile device considerations: 1. Can you use real photographs? 2. Is it for practicing speech or for communication? 3. How flexible is the application?

• Mobile device adaptations: Texting first letter or partial words, photographs, following directions, weather, maps.

V. AAC Intervention

A. Message Representation:

• High-Context Photographs: 4 criteria: Environmental context, Interaction, Personal relevancy, Clarity

• Combining modalities (i.e., redundancy)

B. Multimodality Communication Training Program (Purdy & VanDyke, 2011)

• Goal: improve strategic competence or ability to determine appropriate AAC strategy if communication breakdowns occur

C. Support Navigation: Errorless learning

D. Promote Generalization: Follow hierarchical training program (e.g., Johnson et al, 2008)

• Example of personalized hierarchy
  - Clinic room
  - Waiting room
  - Another waiting room/office
  - Familiar coffee shop
  - Unfamiliar restaurant
  - Over the phone
  - At family gathering
SELECT TOOLS


SELECT REFERENCES


