REVIEW OF: Communication-Based Interventions: Augmentative and Alternative Communication for People with Aphasia

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Background Information

- Traditional aphasia therapy focuses on the restoration of impaired language (i.e., speaking understanding, reading and writing). However, many people with aphasia will continue to experience some degree of chronic aphasia.
- Current research indicates that aphasia is more than a language disorder. Rather, it is a symbolic processing weakness or inefficiency to process all types of symbolic information. Simply substituting one symbol for another will not provide adequate support. For example, substituting the written word "dinner" for a drawing of a plate with dinner food (e.g., chicken, vegetable and potatoes) for the spoken word "dinner", especially if this drawing or icon is isolated on a single button on a communication page. Thus, AAC systems need fresh approaches to organization, design and structure that extend beyond linguistic or symbolic processing.
- The ability to recognize pictures of familiar people and events is a well-preserved cognitive skill of persons with aphasia (PWA). Using highly contextualized pictures, meaning a picture, photograph or virtual environment representing a situation (grocery shopping), place (library) or experience (grandson's baseball game), curtails the need for symbolic processing for PWA.
- AAC is a combination of strategies used in conjunction with each other so that a PWA can engage in social interactions more successfully. For example, at a family reunion, the PWA might use a combination of natural speech, writing, drawing, gestures and pre-stored information on a communication device to talk about a recent personal experience.
- The authors suggest that providing compensatory strategies early in the intervention process can improve long-term outcomes of people with aphasia and increase overall acceptance. Furthermore, given potential limitations of reimbursement for services, early introduction to AAC strategies provides additional time for PWA to "adjust, practice, refine, master and begin to generalize compensatory strategies" (p. 813).

Purpose of the Chapter

This chapter provides an overview of a variety of augmentative and alternative (AAC) options for "communication-based interventions" for PWA. It offers information about the types of AAC devices, strategies, techniques and applications beneficial for a variety of communication abilities and severity levels associated with aphasia.

Note: In this summary, we will not discuss the entirety of the chapter's content. Rather, we will highlight the main concepts influencing the development of DynaVox Compass™.

Key Findings

- "The development and maintenance of successful AAC systems for PWA almost invariably require multi-modal approaches that combine several strategies, need frequent updating to meet changing needs, and provide a means of facilitating ongoing partner support of communicative interactions. For PWA, AAC is most effective when it is multifaceted, dynamic and adaptable" (pgs. 815-816).
- Self-generated drawings can be used by both the PWA and their communication partner to address both transactional (providing specific information) and interactional (maintaining or developing interpersonal relationships) communication goals. Drawings can be utilized dynamically with both the PWA and communication partner alternatively contributing features during the course of the conversation. Graphic elements such as an arrow can also extend or clarify intended meaning.
- Written choice strategy benefits PWA by supporting the need for informational redundancy and increases comprehension as the information is presented through multiple modalities. For example, the communication partner will supplement the spoken message by writing key words or choices on paper. Variations of this strategy can be adapted accordingly to the severity level of the PWA. Variations of this strategy can be adapted according to the severity level of the PWA. For example, the communication partner can decrease the number of choices or only write the numbers (1, 2, 3) for choices rather than key words. In addition, rating scales, a similar strategy that can be used to elicit opinions, can be adapted by using a number range (1-5), words ("good-ok-bad") or pictures (happy face to sad face).

cont.

- Researchers report that people with chronic aphasia, who use high tech devices incorporating highly contextualized photographs in combination with words or phrases and color-coding to with recognition and navigation, have demonstrated increased success with:
  - Navigating their communication device.
  - The ability to tell stories to unfamiliar communication partners.
  - The overall quality of their interactions.

Application of Key Findings in DynaVox Compass™

- **Navigation Bar:** The Navigation Bar is always visible for the PWA to change Topics with ease. There is access to all topics in single layer navigation.
- **Visual Scenes and Topics:** Clear, contextualized visual scenes are used to support successful communication. The visual image may be used to trigger speech, clarify speech or to access related messages to speak.
- **PCS™ Symbols:** Contextual symbols have been included in the DynaVox Compass™ symbol library. These symbols provide detailed content or background to encourage understanding of the actual intent of the message rather than only one key word of it. For example, "I'm going to bed" shows a person walking into a bedroom with a bed visible. It shows a person performing the action of the intended message rather than just an icon of a bed on the button.
- **Shared Communication Space:** Both users and communication partners have access to a variety of compensatory strategies to maintain successful interactions. Both participants can utilize the visual scenes and additional compensatory tools such as the white board and rating scale for co-construction of meaning as well as support expression and comprehension.
- **Whiteboard** – The Whiteboard is one of the easily accessible and broadly applicable communicative tools within DynaVox Compass™. It provides a shared communication space for both the PWA and the communication partner to increase their participation in and understanding of the conversational topic through interactive drawing or writing. Individuals will be able to store and retrieve previous drawings for use as a referent.
- **Rating Scale** – This tool supports conversation, as facilitated by the communication partner, in a variety of conversations and settings as well as provides access to a pain scale with which many of us are familiar.

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