Primary progressive aphasia (PPA) is a clinical disorder involving a gradual loss of language function due to neurodegenerative disease. Three PPA variants are associated with characteristic language impairments, as well as atrophy in specific brain regions (1). PPA is often referred to as frontotemporal dementia with language impairment by NIH Alzheimer’s Disease Centers.

Individuals with PPA experience decreased access to lexical and semantic networks (2).

Intervention principles include a proactive management and staging approach utilizing Augmentative and Alternative Communication (AAC) to maximize communication during disease progression (3). AAC includes gestures, writing, communication boards, and speech-generating devices.

Conversation necessitates access to shared referents or shared knowledge of events, and placing the lexica visually in front of a person through AAC supports can be used as a measure of coherence and conciseness in discourse.

Novel activities:

Making a smoothie, making a sandwich, or potting a plant

Conversation:

Describe the activity just completed

Data were collected for three activities and six videotaped conversations.

Nine pre-determined target words were identified for each participant based on the activity completed. Target words were used as a measure of coherence and conciseness in discourse.

Participants could produce target words through spoken words, app output, writing or pointing to written words, or gestures.

Conversations were videotaped, transcribed and coded.

Mean target words used during control and experimental conversations were not supported by the AAC app.

There was a significant difference in the scores for AAC app support (M=15.92, SD=3.76) and no AAC app support (M=3.50, SD=3.19) conditions; t(4)=5.908, p=0.0001.

Future research for language treatment in PPA should focus on developing a larger evidence base for functional interventions aimed at addressing daily communication. Future investigations should involve a larger participant group at different levels of disease progression, as well as clear identification of PPA variant.

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