

# Speech-Language Therapy and Neurodegeneration:

## An Investigation of Speech-Language Pathologists' Perceptions of Maintenance-Based Semantic Feature Analysis Treatment for Adults with Primary Progressive Aphasia

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### Purpose Statement

The broad purpose of this study was to explore speech-language pathologists' (SLPs) perceptions of using semantic feature analysis (SFA) to enhance or maintain semantic skills in adults with primary progressive aphasia (PPA). More specifically, this study investigated SLPs' familiarity with SFA and maintenance-focused treatment, their clinical considerations and therapeutic approaches when using SFA to treat adults with PPA, and their experience using SFA in maintenance-focused treatment.

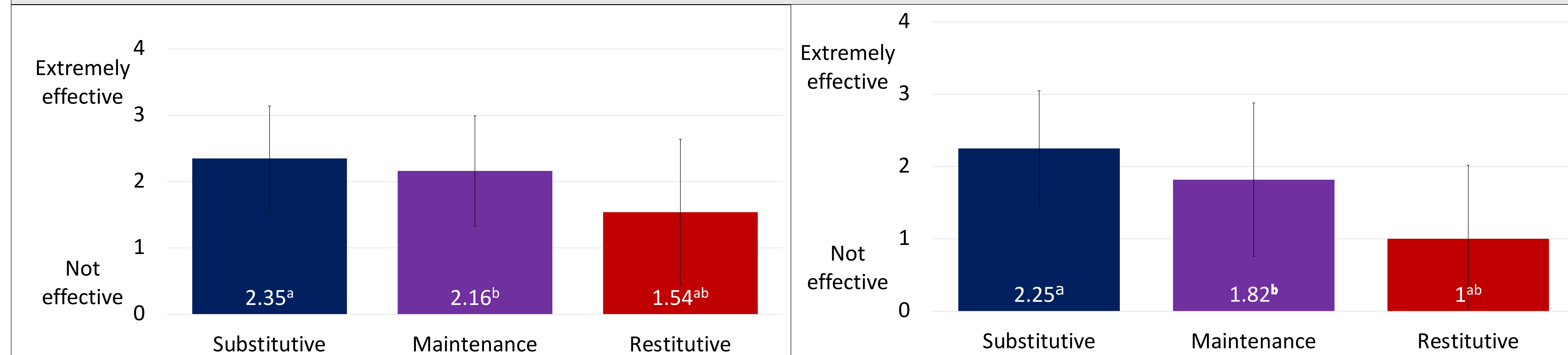
### Definitions

- *Primary progressive aphasia (PPA)* is characterized by the progressive language impairments seen in affected individuals. During the initial stages of neurodegeneration, aphasia is the most prominent symptom, with anomia (i.e., difficulty with word finding and naming of objects) affecting almost all individuals (Gorno-Tempini et al., 2011, pp. 1006-1008).
  - "Many patients remain in an anomic phase through most of the disease" (Mesulam, 2001, p. 427).
  - In PPA+, "patients enter a dementia phase in which other cognitive, behavioral, and/or motor domains outside of language are affected," and aphasia may no longer be the primary impairment (Dickerson, 2011, p. 620).

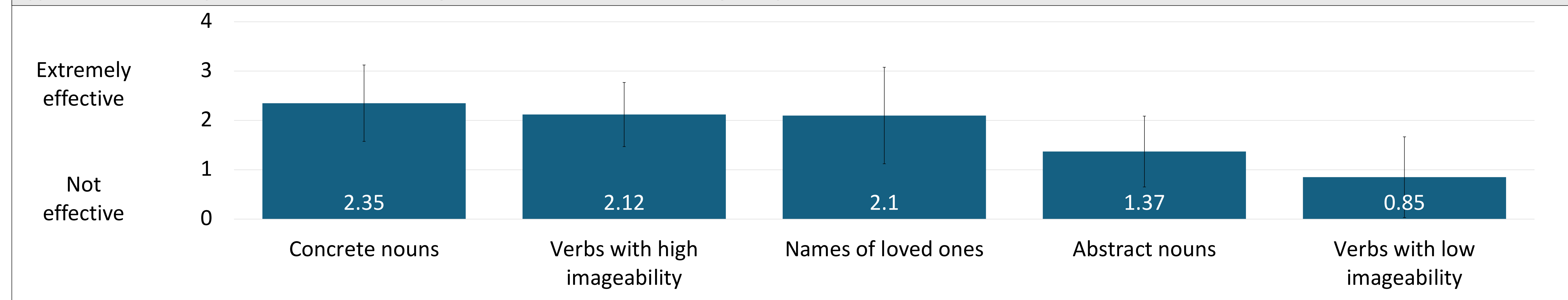
### Method

- I used quantitative survey research, along with selected qualitative probes, to collect and analyze data from ASHA-certified SLPs who had provided services to people with aphasia within the last five years.
- The survey included questions within four main subject areas: demographics, three broad treatment approaches (i.e., restitutive, maintenance, and substitutive), anomia treatments (e.g., SFA), and PPA.
- A total of 63 SLPs completed the survey instrument. There are two subgroups: SLPs who have experience using SFA to address PPA ( $n = 36$ ), and SLPs who have experience using SFA to address progressive anomia, but not PPA specifically ( $n = 14$ ).

### Effectiveness of Broad Approaches in Addressing Anomic Phase PPA (left) and PPA+ (right)

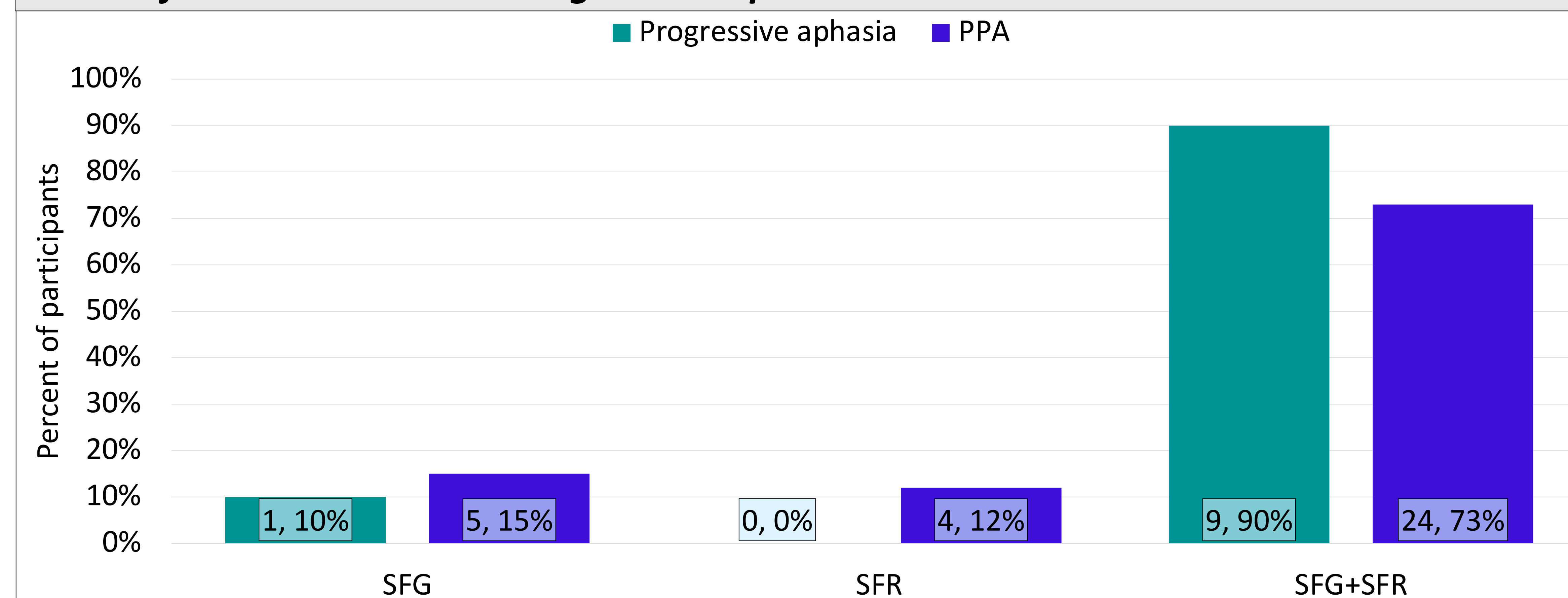


### Effectiveness of SFA in Addressing Lexical Retrieval Targets for PPA



Note. Items were coded using a scale where 0 represented *Not effective*, 1 represented *Slightly effective*, 2 represented *Somewhat effective*, 3 represented *Very effective*, and 4 represented *Extremely effective*. Like letters denote a statistically significant difference.

### Forms of SFA Used to Treat Progressive Aphasia and PPA



Note. SFG refers to "semantic feature generation," SFR refers to "semantic feature review," and SFG+SFR to a hybrid approach called "semantic feature generation plus semantic feature review."

### Major Conclusions

- Although maintenance approaches are a relatively new practice in PPA treatment (Reilly et al., 2016, p. 7), participants reported considerable experience and found them to be more beneficial than restitutive approaches.
- However, participants indicated that substitutive approaches hold certain advantages over maintenance approaches.
- There were several differences between how SLPs reported they implement SFA and how SFA treatment is documented in the literature.