



Fluency Tests in Yoruba Speakers:

Do **LETTERS** OR **MEANING** Reveal True Cognitive Performance?

Insights from the Ibadan Arm of the Recruitment and Retention for Alzheimer’s Disease Diversity Cohorts in the Alzheimer’s Disease Sequencing Project (READD-ADSP)

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INTRODUCTION

METHODS

RESULTS

CONCLUSION



Verbal fluency tasks are widely used in cognitive assessment.



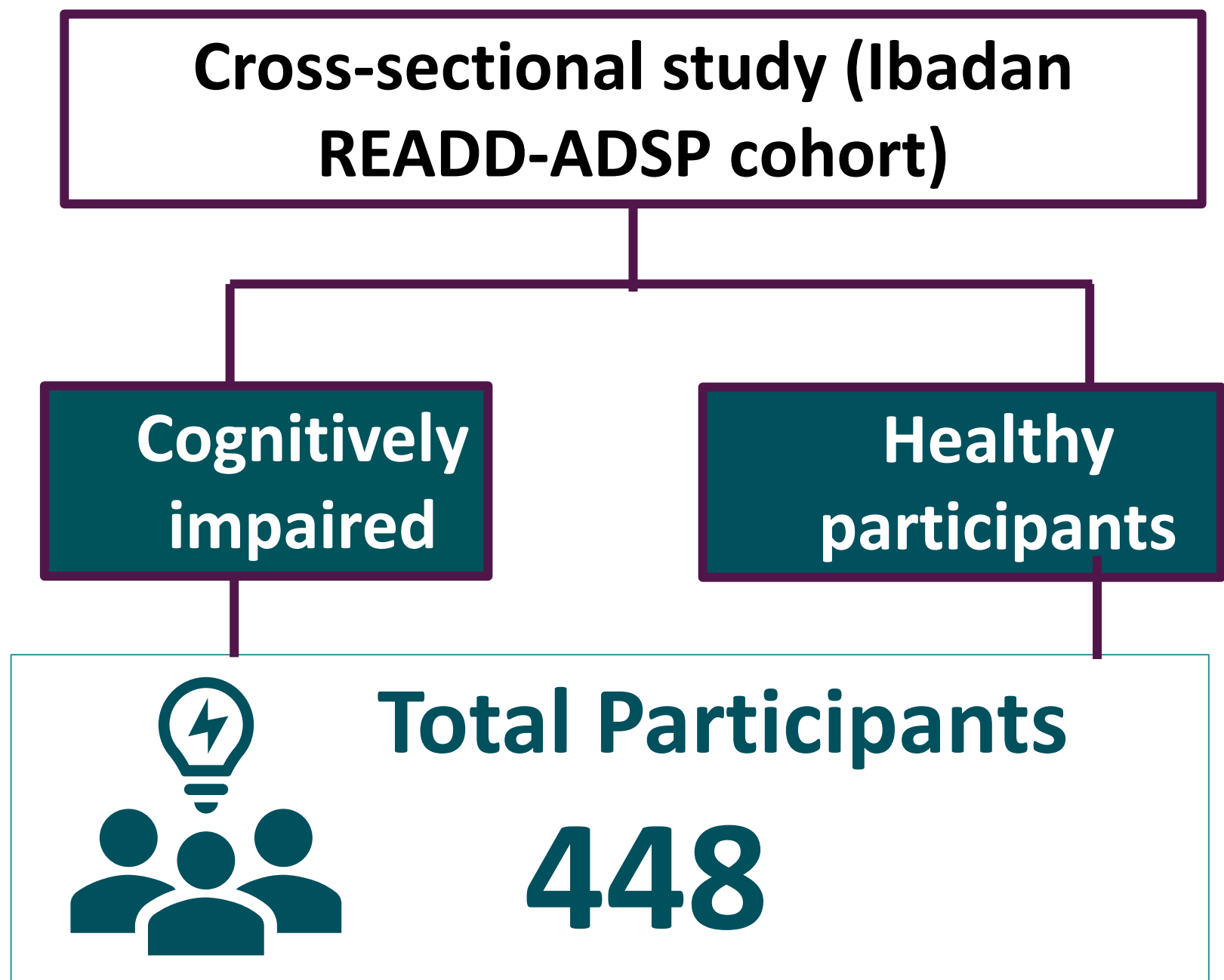
Performance may be influenced by language structure.



In Yoruba-speaking populations, vowel-initial nouns are more common than consonants.

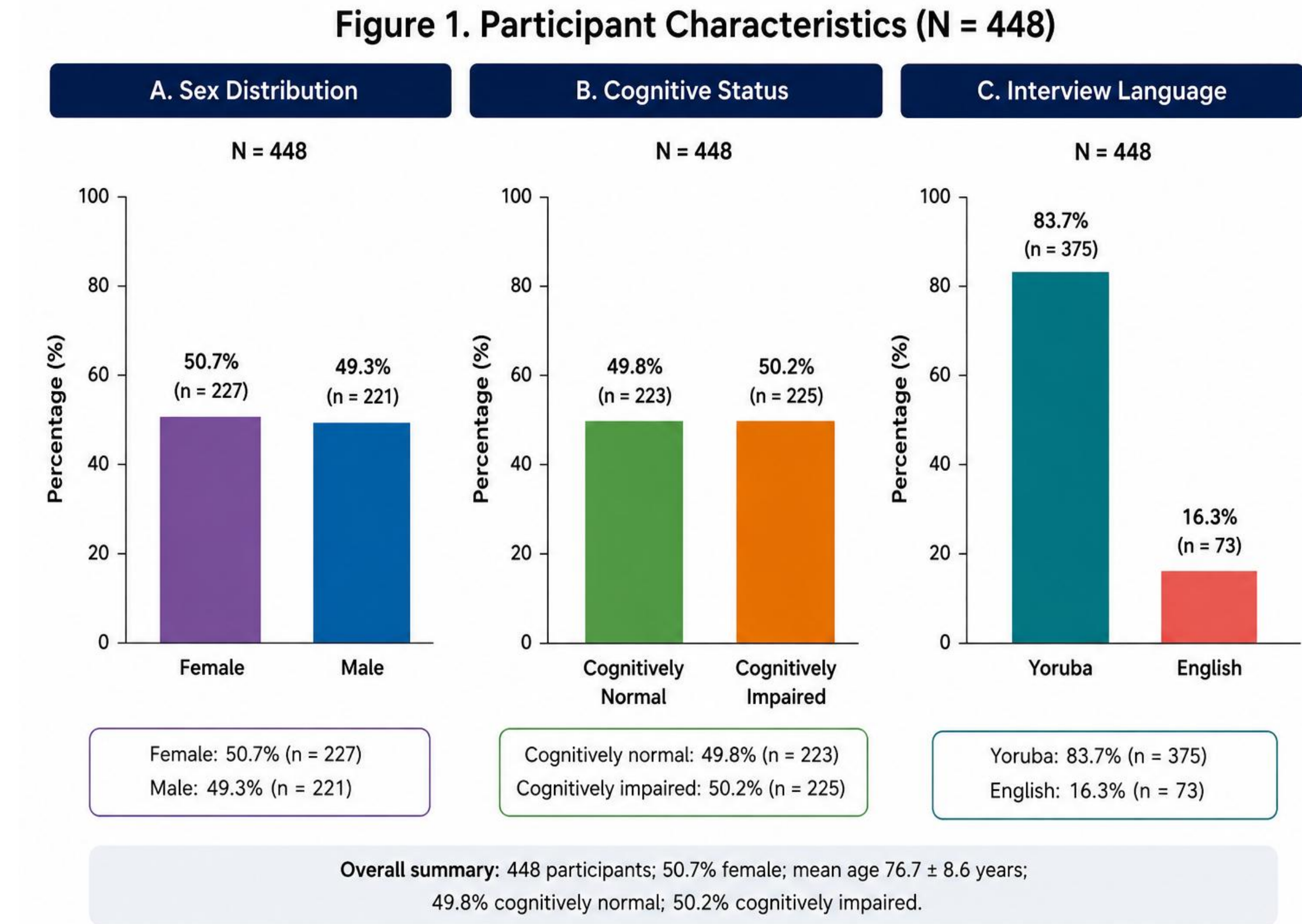


Examined whether reduced phonemic (F, L) compared to semantic fluency reflects linguistic constraints rather than cognitive impairment.



- Participants completed phonemic (F, L) and semantic (animals, vegetables) fluency tasks.
- Mean difference (MD) of language dominance, and education were assessed using t-tests.

LETTER AVAILABILITY INDEX (LAI) IN YORUBA		
F	L	A
0.115	0.083	0.260





Participants with formal education (n= 352) performed better than those without education on all fluency tasks (p ≤ 0.001).



English interviews were associated with higher phonemic fluency scores
F-word, MD= 2.32
L-word, MD= 2.42 (p < 0.001).



No language differences were observed for semantic fluency
Animal: MD= 1.02
Vegetable: MD= -0.12; (p > 0.05).



Phonemic (F-word, MD= 2.55; L-word, MD= 2.71; p < 0.001) compared to semantic fluency was significantly lower across groups.

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In Yoruba speakers, phonemic fluency is constrained by lexical availability and education, while semantic fluency is less affected, highlighting the need for culturally adapted cognitive assessments.
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