

# Primary Progressive Aphasia across South Asian Languages: A cognitive linguistic profile

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**KEY TAKEAWAY**

India’s linguistically diverse PPA cohort demonstrates that culturally and linguistically appropriate assessment tools enable accurate characterization of PPA and advance cross-linguistic understanding of the disorder.

INTRODUCTION

- Primary Progressive Aphasia (PPA) presentation and assessment are influenced by linguistic and cultural context.
- India's multilingual and linguistically diverse population provides a unique context for studying PPA.
- Language structure and multilingualism may influence the manifestation of PPA symptoms.
- Limited evidence exists on PPA profiles in multilingual Indian speakers.

AIM OF STUDY

- Examine PPA in the context of linguistic diversity in India.
- Profile language and cognitive abilities across different PPA variants.

METHOD

**Case identification**

- 3600 dementia patients** (Cognitive Disorder Clinic, NIMHANS; 2016 - 2025)
- 118 PPA patients** (International diagnostic criteria; Gorno-Tempini et al., 2011)

**Sociodemographic & Linguistic profiling**

- Age, Gender, Education
- Linguistic background
- Bilingualism profile

**Cognitive Assessments**

- Indian version of Addenbrooke’s Cognitive Examination (ACE-III)
- Indian Council of Medical Research – Neurocognitive Toolbox (ICMR-NCTB)

**Language Assessments**

- Western Aphasia Battery
- Indian Semantic Memory Battery
- Novel test of Syntax for Indian Languages

**The PPA Cohort**

**118 PPA**60 nfvPPA49 svPPA9 lvPPA

**Linguistic Diversity**

**A. Language distribution within the cohort**

**B. Multilingual repertoire of participants**

**C. Language combination patterns**

**Cognitive Linguistic Profile**

| COGNITIVE & LANGUAGE ASST.          | N  | nfvPPA                | svPPA                | lvPPA                 | p-value |
|-------------------------------------|----|-----------------------|----------------------|-----------------------|---------|
| ACE-III                             | 75 | 49.5 (31 – 67.75)     | 26.0 (15.25 – 36.75) | 25 (9.0 – 43.0)       | 0.002*  |
| Picture naming (ICMR-NCTB)          | 50 | 66.7 (57 – 81)        | 42.08 (21 – 63)      | 56 (50.5 – 58)        | 0.003*  |
| WAB-AQ                              | 40 | 69.1 (51.85 – 84.2)   | 56.08 (42.3 – 70.95) | 63.35 (57.98 – 67.88) | 0.07    |
| ISMB – WPM                          | 40 | 75.43 (70.25 – 86.75) | 50.74 (26 – 80.5)    | 81 (76.5 – 83.5)      | 0.012*  |
| Novel test of Syntax (Syntax)       | 20 | 5 (1-7)               | 7.5 (3-12)           | -                     | 0.03*   |
| Novel test of Syntax (Phonology)    | 20 | 1 (0-2)               | 2 (1-2)              | -                     | 0.02*   |
| Novel test of Syntax (Motor speech) | 20 | 2 (0-2)               | 2 (1-2)              | -                     | 0.14    |

CONCLUSIONS

- Culturally and linguistically appropriate Indian cognitive and language assessment tools effectively characterize PPA subtypes
- Findings have broader implications for the global assessment of PPA
- The study advances cross-linguistic understanding of PPA and its manifestations across language and cultures

REFERENCES



Scan for references

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