

The characteristic social functioning profiles in each primary progressive aphasia variant

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State of the art: Recent studies have suggested that social functioning changes can occur in all variants of primary progressive aphasia (PPA). Nonetheless, studies comparing all social functioning domains across PPA variants, including patients with predominant right anterior temporal lobe atrophy (i.e. semantic behavioral variant of frontotemporal dementia (sbvFTD)), are lacking.

Methodology: The sample included 47 logopenic variant (lvPPA), 67 nonfluent/agrammatic variant (nfvPPA), 49 semantic variant (svPPA), 25 sbvFTD and 59 healthy controls (HC). The social functioning battery included 14 measures (i.e. patient-facing tests, informant/clinician-filled questionnaires) spanning four domains: emotion reading, applied social cognition, real-life empathy, and personality.

Results:

Each PPA variant demonstrated a specific profile of social functioning impairments. nfvPPA and lvPPA presented with mostly mild deficits, although lvPPA patients showed severely impaired cognitive theory of mind and a more unassured/submissive personality. The svPPA profile showed severe impairments in emotion reading and social norms knowledge, as well as lower empathy, openness, and gregariousness/extroversion. sbvFTD patients' profile was similar to svPPA, although more severe and with additional personality features (lower conscientiousness, higher cold-heartedness). Performance on all patient-facing tests was significantly associated with an informant-filled real-life empathy questionnaire, even when controlling for the language skills involved in completing the test. A linear discriminant analysis showed that the social functioning battery alone classified the participants across the five groups with an accuracy of approximately 85%.

Conclusion: The current study highlights the importance of investigating social functioning in PPA variants both to fully characterize their clinical picture and to improve diagnostic sensitivity.

Conflicts of interest

None.