needed to examine the bias-adjusted model's performance under additional conditions. Future research is needed to extend the bias adjustment to multinomial logistic regressions and to scenarios where the rate of misdiagnosis is unknown. Such methods may be valuable for improving detection of other neurological disorders with greater diagnostic error as well.

**Categories:** Dementia (Alzheimer's Disease)
**Keyword 1:** psychometrics
**Keyword 2:** test theory
**Keyword 3:** target detection
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## 53 Case Study Comparison of Logopenic and Semantic PPA Variants within the Medically Complex Veteran Population

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**Objective:** To explore the utility of neuropsychological testing for patients with Primary Progressive Aphasia and compare testing data for a Logopenic and Semantic PPA variants within the medically complex Veteran population.
**Participants and Methods:** Both participants were referred by their psychiatrist due to memory concerns. The case studies testing data will be compared to look at the differences on testing between different PPA presentations within the Veteran population. Patient A is a 77 year old, right handed, African American, divorced man with approximately 14 years of formal education. Patient B is a 76 year old, right handed, Caucasian, widowed man with approximately 16 years of formal education.
**Results:** Patient A displayed problems with single-word retrieval, repetition of nonsense words and sentences, comprehension, reading, spelling, and naming. He also displayed impairments in aspects of working memory, along with learning and memory. His cognitive profile raises concern for a logopenic variant of primary progressive aphasia, which often has Alzheimer's disease pathology. Patient B displayed empty speech, impairments in fluency and reduced semantic knowledge that raises concern for a semantic variant of primary progressive aphasia. However, aspects of his presentation are not consistent with this diagnosis, specifically intact confrontation visual naming. Patient has a history of significant alcohol abuse, although he has mostly remained sober since moving to Texas. This evaluation cannot rule out the contribution of sustained alcohol use on his cognitive functioning; however, this is likely not the primary etiology given his significant language issues.
**Conclusions:** Patients with medically complex histories and unclear timelines of symptom progressive make it difficult for diagnostic clarity. Diagnoses can be additionally difficult to determine at times when the clinical presentation is not as clearly defined in textbooks. This case study comparison displays the importance of integrating all data to determine the proper diagnosis to optimize patient care and provide recommendations tailored to that individual.

**Categories:** Dementia (Non-AD)
**Keyword 1:** aphasia
**Keyword 2:** dementia - other cortical
**Keyword 3:** aging disorders
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## 54 Neuropsychiatric Symptoms in Mild Cognitive Impairment and Dementia with Lewy Bodies

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**Objective:** Neuropsychiatric symptoms (NPS) can be observed in mild cognitive impairment (MCI) and dementia. Hallucinations are a core clinical symptom of Dementia with Lewy Bodies (DLB). In this study, we investigated NPS in healthy control and MCI groups who would later

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be diagnosed with DLB to determine which symptoms would present early.
**Participants and Methods:** Participants included those originally diagnosed as healthy controls (n=55), MCI with DLB etiology (n=215), and DLB (n=1059). The control and MCI groups progressed to DLB at later visits in the study. NPS data were collected using the Neuropsychiatric Inventory Questionnaire (NPI-Q) that was obtained from the National Alzheimer's Coordinating Center.
**Results:** To determine which NPS presented early in the DLB course, we ran ANCOVAs to assess the role of original diagnosis on each NPS, using age as a covariate and applying Bonferroni correction. The control and MCI groups, who were later diagnosed with DLB, had greater severity of delusions, hallucinations, agitation, and apathy than the DLB group. The MCI group that would later be diagnosed with DLB had greater severity of anxiety and motor symptoms than the DLB group. The control group had greater irritability severity than the DLB group, and the controls had greater nighttime behavior severity than the MCI group, who had greater severity than the DLB group.
**Conclusions:** Overall, we found that NPS present early in those who will be diagnosed with DLB, even when they are diagnosed as healthy controls. These results suggest that examination of NPS is important even in healthy adults, and their presence may be the onset of the DLB process before an official diagnosis of the condition.

**Categories:** Dementia (Non-AD)
**Keyword 1:** dementia with Lewy bodies
**Keyword 2:** aging disorders
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## 55 The Indirect Effect of Positive Aspects of Caregiving on the Relationship between Dementia Severity and Caregiver Burden

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**Objective:** Caregiver burden tends to worsen as severity of dementia increases, and elevated burden can lead to negative consequences for dementia caregivers. In contrast, positive aspects of caregiving, such as feelings of being useful, needed, or appreciated as a caregiver, are associated with better outcomes. Caregivers reporting fewer positive experiences robustly demonstrate greater burden, suggesting that a lack of positive aspects of caregiving could be a key component of the relationship between dementia severity and burden. This study investigated whether an indirect effect of positive aspects of caregiving would be observed on the association between dementia severity and burden.
**Participants and Methods:** Data were extracted from the medical records of 724 patients enrolled for services at an outpatient memory clinic. Caregiver-care recipient dyads were included based on a clinically supported patient diagnosis on the dementia spectrum following a comprehensive geriatric evaluation and having fully completed assessments from an informal caregiver. Caregivers completed the Zarit Burden Interview (ZBI) and the Positive Aspects of Caregiving (PAC) measures. The Montreal Cognitive Assessment and Mini-Mental State Exam were used to estimate dementia severity, standardized to create a single variable. Multiple potential covariates (e.g., age, gender, education, nature of dyadic relationship) were considered for inclusion in the model. A cross-sectional mediation analysis using the Hayes PROCESS macro explored presence of an indirect effect of PAC on the relationship between dementia severity and ZBI using 5000 bootstrap samples.
**Results:** Of the proposed covariates, only caregiver age was correlated with any of the primary variables; this variable was controlled in subsequent analyses. Significant relationships emerged between dementia severity and ZBI ($r=-.12$, $p<.001$), between PAC and ZBI ($r=-.23$, $p<.001$), and between dementia severity and PAC ($r=-.07$, $p<.05$). An indirect effect of positive aspects of caregiving on the relationship between dementia severity and ZBI was statistically significant ($B= .0092$, BC 95% CI [.0008, .0185]), accounting for 14.4% of the variance in the model.

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