

frequency being associated with greater cognitive decline. Research on the cognitive implications of migraines in underserved communities is scarce. The American Migraine Prevalence and Prevention Study (2015) found that the prevalence of chronic migraines was the highest amongst Hispanic females compared to White females. Latina/os are 50% less likely to receive a migraine diagnosis and adequate headache medication when compared to non-Hispanic White patients. Latina women were more likely to report somatic symptoms than White and African American participants ($F=8.96$; $p>0.001$) (Liefland et al., 2014). Somatoform disorders are often diagnosed amongst Latina/os to account for medical unexplained symptoms, and if misdiagnosed can be stigmatizing and detrimental to treatment. We illustrate the critical role that neuropsychologists play by utilizing Socially Responsible Neuropsychology (SRN), a theoretical framework that promotes equitable and precise neuropsychological care to reduce misdiagnosis, elucidate cognitive implications, and address the complex medical needs of Latina/o patients. Given the limited literature on migraines and neurocognitive functioning, our objective is to present two case studies to illustrate the neuropsychological implications among bilingual Latina/o with chronic migraines.

Participants and Methods: Two highly educated Latina/o women, ages 39 and 41 years old, with chronic migraines, cognitive decline, diagnoses and a history of somatization symptoms. The onset of symptoms was gradual, worsening in intensity and frequency, along with notable motor symptoms (e.g., paralysis, weakness, numbness, bilateral tremors), photophobia, and phonophobia. Their cognitive complaints were conceptualized as part of a somatoform presentation by their providers.

Results: The SRN model guided clinical decision-making to establish reliable normative anchors to identify relative impairment compared to premorbid estimates. Testing was completed in English after establishing language dominance via English and Spanish measures of verbal fluency. Cognitive profiles identified declines in attention, processing speed, language, perceptual reasoning, visual memory, executive functioning, motor functioning, and notable decline in their functioning over several years. The neuropsychological profile discounted the presence of a somatoform disorder. One case was diagnosed with an Unspecified Mild Neurocognitive Disorder, while

the other case met criteria for a Major Neurocognitive Disorder due to Multiple Etiologies (i.e., vascular contribution, migraines, history of other contributions- choking episode). **Conclusions:** Given the decline in each profile, it was hypothesized that the patients' utilization of compensatory strategies and higher education may have masked the onset of symptoms. These complex cases highlight the need for comprehensive neuropsychological evaluations that are culturally and linguistically responsive to boost the sensitivity of accurate diagnosis. The ability to objectively capture neurocognitive decline offers a unique opportunity to enhance treatment, which would have otherwise remained undetected and untreated. The SRN model enhanced diagnostic considerations, treatment planning, and allowed for advocacy strategies to improve the quality of life, and access to culturally/linguistically appropriate resources.

Categories: Cross Cultural Neuropsychology/
Clinical Cultural Neuroscience

Keyword 1: brain disorder

Keyword 2: cognitive functioning

Keyword 3: treatment outcome

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31 Investigating Race and Performance on the Verbal Naming Test

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Objective: Dysnomia may be one of the earlier neuropsychological signs of Alzheimer' disease (Cullum & Liff, 2014), making it an essential part of dementia evaluations. The Verbal Naming (VNT) is a verbal naming-to-definition task designed to assess possible dysnomia in older adults (Yochim et al., 2015) and has been used as an alternative to tasks that predominately rely on picture-naming paradigms. These researchers investigated the influences of age, educational level, cognitive diagnosis, educational quality, and race to examine if race would be a remaining significant factor in the performance of the VNT.

Participants and Methods: Black (n=57) and White (n=127) participant data were collected during clinical neuropsychological evaluations, which included the VNT alongside other cognitive measures. A multiple regression was utilized controlling for age, educational level, cognitive diagnosis, educational quality via reading level, and race to investigate if race would remain a significant predictor of test performance.

Results: Results suggested that race was still a significant predictor ($p = .003$) of VNT scores despite efforts to control other sources of variance. Additionally, other cognitive measures such as WAIS-IV Block Design ($p = .004$) and D-KEFS Tower Test ($p = .004$) also showed statistically significant relationships with race in the same model, whereas verbal memory (CVLT) and verbal fluency (D-KEFS) did not. The NAB Naming analysis violated the assumption of homoscedasticity; therefore, results with the NAB Naming test were not further interpreted.

Conclusions: These results suggest that race is a significant predictor of performance on some cognitive measures, including the VNT. However, it did not predict performance on verbal memory or verbal fluency. Future investigations of racial differences on neuropsychological test performance would benefit from consideration of variables that may account for discrepancies between White and Black examinees. Several proxy variables could include educational quality, acculturation, and economic status.

Categories: Inclusion and Diversity/Multiculturalism

Keyword 1: naming

Keyword 2: ethnicity

Keyword 3: minority issues

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32 Elevated Plasma pTau-181 is Associated with Lower Global Cognition and Executive Function in Older Adults

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Objective: Aggregation of phosphorylated tau (pTau) is a hallmark feature of Alzheimer's disease (AD). Novel assays now allow pTau to be measured in plasma. Elevated plasma pTau predicts subsequent development of AD, cortical atrophy and AD-related pathologies in the brain. We aimed to determine whether elevated pTau is associated with cognitive functioning in older adults prior to the development of dementia.

Participants and Methods: Independently living older adults (N = 48, mean age = 70.0 years; SD = 7.7; age range 55-88 years; 35.4% male) free of dementia or clinical stroke were recruited from the community and underwent blood draw and neuropsychological assessment. Plasma was assayed using the Quanterix Simoa® pTau-181 V2 Advantage Kit to quantify pTau-181 levels and APOE genotyping was conducted on the blood cell pellet fraction obtained from plasma separation. Global cognition was assessed using the Dementia Rating Scale-2 (DRS-2) and executive function was assessed using the Stroop, D-KEFS-2 Fluency, and Trails Making Test. Diagnosis of mild cognitive impairment (MCI) was determined based on overall neuropsychological performance. Participants were diagnosed as MCI if they scored >1 SD below norm-referenced values on 2 or more tests within a domain (language, executive, memory) or on 3 tests across domains.

Results: Multiple linear regression analysis revealed a significant negative association between plasma pTau-181 levels and DRS-2 (B = -2.57, 95% CI (-3.68, -1.47), $p < .001$), Stroop Color-Word score (B = -2.64, 95% CI (-4.56, -0.71), $p = .009$) and Fruits and Vegetables Fluency (B = -1.67, 95% CI (-2.84, -0.49), $p = .007$), adjusting for age, sex, education and APOE4 status. MCI diagnosis was determined for 43 participants, of which 8 (18.6%) met criteria. Logistic regression analysis revealed that pTau-181 levels are associated with increased odds of MCI diagnosis (OR = 2.18, 95% CI (1.01, 4.68), $p = .046$), after accounting for age, sex, education and APOE4 status.

Conclusions: Elevated plasma pTau-181 is associated with worse cognition, particularly executive function, and predicts MCI diagnosis