

revealed variables were non-normally distributed, therefore Independent Samples Kruskal-Wallis tests and Spearman's Correlations were computed to examine differences and correlations between ethnocultural groups.

**Results:** After controlling for age and education, Latinx and NLB groups had significantly higher ADAS-cog and FAQ scores than the NLW group ( $H_s = 9.50-21.53$ ,  $p_s < .05$ ). Spearman's partial correlations controlling for age, education, gender, and depression revealed that higher ADAS-cog scores were associated with higher FAQ scores within Latinx ( $\rho = .49$ ,  $p < .001$ ), NLB ( $\rho = .66$ ,  $p < .001$ ), and NLW ( $\rho = .60$ ,  $p < .001$ ) groups.

**Conclusions:** Findings indicate that neurocognition is positively associated with functional status and support the ecological and external validity of the ADAS-cog and FAQ for use with NLB and Latinx older adults, in addition to previously established work with more homogenous samples. Study strengths include the overall sample size, geographic diversity, and standardization of research approaches. Study limitations include high education level and low comorbidity rates present in the sample, limiting the generalizability of the results, in addition to the unbalanced ethnocultural groups, further emphasizing the need for increased inclusion efforts of ethnoculturally diverse older adults into brain health research studies.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** ethnicity

**Keyword 2:** dementia - Alzheimer's disease

**Keyword 3:** everyday functioning

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### 3 Harmonized Memory and Language Function in the Harmonized Cognitive Assessment Protocol (HCAP) Across the United States and Mexico

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**Objective:** Cross-national neuropsychological research is needed to understand the social, economic, and cultural factors associated with cognitive risk and resilience across global aging populations. Memory and language have been shown to be sensitive to age-related cognitive decline and pathological cognitive aging processes and may be more sensitive to subtle cognitive decline than measures of global cognitive function. Thus, we aimed to derive and validate harmonized cognitive domain scores for memory and language across population-based studies in the US and Mexico.

**Participants and Methods:** Data came from the Health and Retirement Study (HRS) Harmonized Cognitive Assessment Protocol (HCAP) and the Mexican Health and Aging Study (MHAS) Ancillary Study on Cognitive Aging (Mex-Cog). We used confirmatory factor analysis methodology to create statistically co-calibrated cognitive domains of memory and language. We performed differential item functioning (DIF) analysis to evaluate measurement differences across studies, using a cultural neuropsychological approach to identify comparable items across studies (i.e., cross-study anchors). We evaluated harmonized scores by examining their relationship to age and education in each study.

**Results:** We included 3347 participants from the HRS-HCAP study [Mage=76.6(7.5), 60% female] and 2042 participants from the Mex-Cog study [Mage=68.1(9.0), 59% female]. Education was classified according to the International Standard Classification of Education in the following categories (HRS-HCAP and Mex-Cog, respectively): none or early childhood education: (0.7%; 50.5%), primary education (4.1%; 22.3%), lower secondary education (7.1%; 15.7%), upper secondary education (41.1%; 3.0%), and any college (47.1%; 8.5%). DIF analyses revealed that 5 out of the 7 memory items and 1 out of the 12 language items demonstrated statistical evidence of measurement differences across studies, meaning that these items measured each

underlying cognitive construct differently across studies. After adjusting for DIF by not allowing the items with DIF to be cross-study anchors, harmonized memory and language scores showed generally the expected associations with age and education in each study. Increasing age was associated with lower memory ( $r=-0.40$  in HRS-HCAP;  $r=-0.44$  in Mex-Cog) and language ( $r=-0.31$  in HRS-HCAP and  $r=-0.67$  in Mex-Cog) scores. Increasing years of education was associated with better memory and language scores, with mean scores ranging from  $z=-0.86$  and  $z=-0.29$  among those with a primary education or lower to  $z=0.33$  and  $z=0.90$  among those with any college, for HRS-HCAP and Mex-Cog, respectively.

**Conclusions:** A cultural neuropsychology approach to statistical harmonization facilitates the generation of harmonized measures of cognitive functioning in cross-national studies. Future work can utilize these harmonized cognitive scores to investigate determinants of late-life cognitive decline and dementia in the US and Mexico.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** cross-cultural issues

**Keyword 2:** psychometrics

**Keyword 3:** aging disorders

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#### 4 Associations Between Education, Emotional and Instrumental Support, and Cognitive Function in Black, White, and Latinx Older Adults

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**Objective:** Higher education is strongly associated with better cognitive function in older adults. Previous research has also showed that positive psychosocial factors, such as self-

efficacy and emotional and instrumental support, are beneficial for late-life cognition. There is prior evidence of a buffering effect of self-efficacy on the relationship between educational disadvantage and poor cognition in older adults, however it is not known if other psychosocial factors modify the schooling-cognition relationship. We hypothesized that higher levels of emotional and instrumental support will diminish the association between lower education and lower cognitive test scores among older adults.

**Participants and Methods:** 553 older adults without dementia (42.1% non-Latinx Black, 32.2% non-Latinx White, 25.7% Latinx; 63.2% women; average age 74.4 (SD 4.3)) from the Washington Heights-Inwood Columbia Aging Project. Neuropsychological tests assessed four cognitive domains (language, memory, psychomotor processing speed, and visuospatial function). Self-reported emotional and instrumental support were assessed with measures from NIH Toolbox. Linear regression estimated interactions between education and the two support measures on cognition in models stratified by cognitive domain and racial and ethnic group. Covariates included age, sex/gender, and chronic health conditions (e.g. heart disease, stroke, cancer, etc.).

**Results:** Education was associated with cognition across racial and ethnic groups. For every one year of schooling, the processing speed z-score composite was 0.33 higher among Latinx participants, 0.10 among non-Latinx Black participants, and 0.03 higher among non-Latinx White participants. The education-cognition relationship was generally similar across cognitive domains with larger effects in non-Latinx Black and Latinx participants than in White participants. Low education was associated with slower processing speed among Black participants with low emotional support ( $B = 0.224$ , 95% CI [0.014, 0.096]), but there was no association between low education and processing speed among Black older adults with high levels of emotional support (beta for interaction =  $-0.142$ , 95% CI [-0.061, -0.001]). A similar pattern of results was observed for instrumental support (beta for interaction =  $-0.207$ , 95% CI [-0.064, 0.010]). There were no interactions between support and education on other cognitive domains or among Latinx and White participants.

**Conclusions:** We found that higher levels of emotional and instrumental support attenuate