

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

the detrimental effect of educational disadvantages on processing speed in older Black adults. This may occur via benefits of social capital, which provides access to health resources and knowledge, increased social interaction, an emotional outlet allowing the ability to better cope with stress. Longitudinal analyses are needed to examine temporal patterns of associations. In addition, improving equitable access to high quality schools will improve later-life cognitive outcomes for future generations of older adults. However, for the growing number of Black older adults who will not experience the benefits of structural improvements in the education system, emotional and instrumental support may represent a modifiable psychosocial factor to reduce their disproportionate burden of cognitive morbidity.

Categories: Cross Cultural Neuropsychology/
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Keyword 1: cognitive functioning

Keyword 2: academic achievement

Keyword 3: cross-cultural issues

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5 Association of Discrimination to Cognition Among US-Born and Immigrant Latinx

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Objective: Neuropsychology is in a nascent stage of understanding the mechanisms that link social forces, psychosocial experiences, and brain health. Discrimination is associated with lower quality of life, higher stress, and worse physical health outcomes in Latinx, but contradictory findings in prior research complicate our understanding of its relationship to cognition. These contradictory results may be

explained by heterogeneity within the broad category of Latinx, a cultural identity that requires more nuanced conceptualization. Immigration status is a primary social identifier for Latinx people that carries significant stigma. However, prior research found enculturation promotes better physical and mental health outcomes in immigrants compared to their US-born counterparts, which may protect immigrant Latinx from the cognitive costs of discrimination. The current study hypothesized that the effect of discrimination on cognition will be stronger in US-born Latinx compared to immigrant Latinx. **Participants and Methods:** We partnered with 1,023 neurologically healthy, community dwelling Latinx adults (M age=56.1(\pm 10.7); M education=12.5(\pm 3.7); 69% women) in a prospective cohort study in NYC investigating risks factors for Alzheimer's disease. Immigration status was determined by self-report of birthplace. Measures of attention, language, and memory were administered by bilingual examiners in the participants' self-selected preferred language of English ($n = 388$) or Spanish ($n=635$). Discrimination, measured with the Everyday Discrimination Scale and Major Experiences of Discrimination Scale, was chronicity coded to weigh experiences of discrimination according to yearly chronicity. Linear regression models were employed for US-born and immigrant participants to assess the relationship between both discrimination measures and each cognitive measure.

Results: Compared to US-born Latinx ($n = 224$), immigrant Latinx ($n = 799$; primarily from the Dominican Republic) were older, had fewer years of school, had lower income, and were much more likely to have chosen to be assessed in Spanish. Immigrants reported experiencing significantly fewer everyday and major experiences of discrimination than non-immigrants. In unadjusted models, discrimination did not predict cognitive performance among US-born Latinx. Among immigrant Latinx, more major experiences of discrimination across the lifetime predicted better phonemic ($F(2,362) = 4.167, p < 0.05, R^2 = 0.017$) and semantic fluency ($F(2,362) = 3.304, p < 0.05, R^2 = 0.013$) but was not associated with measures of attention or memory.

Conclusions: Discrimination is an important life stressor for Latinx people living in the US, particularly when its impact is summed across intersectional identities. The current study is among the first to explore the potential cognitive