presence of psychosocial stressors for older Black adults.

Categories: Aging
Keyword 1: neuroimaging: structural
Keyword 2: minority issues
Keyword 3: aging disorders
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5 Poorer Memory Outcomes are Observed in Underinsured Latino Older Adults with Metabolic Syndrome

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Objective: Metabolic Syndrome (MetS) is a constellation of deleterious cardiometabolic health conditions (e.g., diabetes, hypertension) that have been linked to cognitive impairment and accelerated cognitive decline in older adults. Research has shown that Latinos are at increased risk for developing MetS relative to non-Latino Whites and the prevention, maintenance, and treatment of cardiometabolic risk factors are largely contingent upon health insurance status. Within the United States there are considerable state-based differences in eligibility and access to health insurance coverage. Although Texas has the second largest population of Latinos, they are one of the most underinsured groups within the state. There is some evidence to suggest that inconsistent healthcare is associated with cognitive impairment among underserved/underprivileged groups. The current study sought to examine whether insurance status moderates the association between MetS and cognitive functioning in an effort to inform public health policy initiatives vital to reducing age-related health disparities amongst Latino older adults residing in Texas.
Participants and Methods: The study sample included 850 primarily Spanish-speaking (67.6%) Latino older adults (mean age = 63.1±7.81) largely of Mexican origin/descent (95%) enrolled in the Health and Aging Brain Study-Health Disparities. All participants completed neuropsychological testing, a health exam, and questions about health insurance coverage. MetS status (MetS+ vs. MetS-) was determined by abnormal clinical abdominal obesity, triglycerides, high-density lipoprotein, blood pressure, and fasting glucose values. Health insurance status was determined by current enrollment in any private or public insurance plan. Cognition was assessed with Digit Span, Logical Memory I and II, Trail Making Test (A and B), Spanish-English Verbal Learning Test, and Letter Fluency (FAS). Raw scores were converted to z-scores which were subsequently averaged into two distinct memory and executive functioning composite scores. ANCOVAs controlling for age, sex, education, APOE e4 positivity, annual income, and primary language status were used examine health insurance status x MetS interactions on cognitive composites.
Results: Approximately 54.6% of the sample met clinical criteria for MetS+ and 23.6% endorsed having no health insurance. There were no significant group differences in the proportion of MetS+ and MetS- individuals with and without health insurance ($X^2 = .002$, $p = .96$). Results revealed there was a significant MetS x health insurance status interaction on the memory composite ($F = 5.39$, $p = .02$). Post-hoc comparisons revealed that Latino older adults without health insurance demonstrated poorer memory performance relative to those with health insurance in the MetS+ group ($p = .02$). In contrast, there were no significant differences in memory performance across insurance status in the MetS- group ($p = .35$). Finally, there was no significant MetS x health insurance interaction on executive functioning ($p = .60$).
Conclusions: Findings revealed that health insurance coverage differentially impacts memory, but not executive functioning, amongst Latinos with MetS+. Underinsured Latinos with chronic cardiometabolic health conditions may be at risk for poor memory outcomes and increasing access to affordable healthcare could help mitigate the adverse effects of MetS+ on memory. Future studies examining the relationship between health insurance, MetS status, and neuroimaging markers may yield additional insight into mechanisms underlying age-related dementia disparities.

Categories: Cross Cultural Neuropsychology/ Clinical Cultural Neuroscience

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Keyword 3: cognitive functioning
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6 Racial Discrimination and White Matter Integrity Among Black Older Adults

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Objective: Non-Hispanic Black older adults experience a disproportionate burden of Alzheimer's Disease and related dementias (ADRD) risk compared to non-Hispanic White older adults. It is necessary to identify mechanisms that may be contributing to inequities in cognitive aging. Psychosocial stressors that disproportionately affect Black adults (e.g., discrimination) have the potential to impact brain health through stress pathways. The brain's white matter, which appears to be particularly important for ADRD risk among Black older adults, may be uniquely vulnerable to stress-related physiological dysfunction. To further understand whether and how discrimination can affect ADRD risk, this study aimed to examine associations between multiple forms of racial discrimination and white matter integrity, operationalized through diffusion tensor imaging.
Participants and Methods: Cross-sectional data were obtained from 190 non-Hispanic Black residents aged 65+ without dementia in northern Manhattan. Racial discrimination was self-reported using the Everyday Discrimination and Major Experiences of Lifetime Discrimination scales. Example items from the Everyday Discrimination Scale include: "You are treated with less respect than other people"; "You are called names or insulted." Example items from the Major Experiences of Lifetime Discrimination Scale include: "At any time in your life, have you ever been unfairly fired from a job?"; "Have you ever been unfairly denied a bank loan?" Racial discrimination was operationalized as experiences attributed to "race" or "skin color." White matter integrity was assessed using fractional anisotropy (FA) via diffusion tensor imaging. Multivariable regression models evaluated the unique effects of everyday and major experiences of lifetime racial discrimination on mean FA in the whole brain and specific regions. Initial models controlled for age, sex/gender, intracranial volume, and white matter hyperintensities. Subsequent models additionally controlled for socioeconomic and health factors to consider potential confounders or mediators of the relationship between discrimination and white matter integrity.
Results: Major experiences of lifetime discrimination were negatively associated with mean FA within the left cingulum cingulate gyrus and the right inferior fronto-occipital fasciculus. These associations persisted when controlling for additional covariates (i.e., education, depression, and cardiovascular diseases). In contrast, major experiences of lifetime discrimination were positively associated with mean FA within the right superior longitudinal fasciculus (temporal part). This association was attenuated when controlling for additional covariates. Everyday racial discrimination was not associated with mean FA in any regions.
Conclusions: These results extend prior work linking racial discrimination to brain health and provide evidence for both risk and resilience among Black older adults. Major experiences of lifetime racial discrimination, a proxy for institutional racism, may have a stronger effect on white matter integrity than everyday racial discrimination, a proxy for interpersonal racism. Educational opportunities and cardiovascular risk factors may represent mediators between racial discrimination and white matter integrity. White matter integrity within specific brain regions may be a mechanism through which racially patterned social stressors contribute to racial disparities in ADRD. Future research should characterize within-group heterogeneity in order to identify factors that promote resilience among Black older adults.

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