to clarify temporal associations. Nonetheless, these findings suggest that reducing social and economic inequities disproportionately experienced by Black adults may dampen the effect of intergenerational transmission of dementia risk on cognition.

Categories: Aging
Keyword 1: multiculturalism
Keyword 2: aging (normal)
Correspondence: A. Zarina Kraal, Department of Neurology, Columbia University Irving Medical Center, New York, NY, azk2109@cumc.columbia.edu

4 Interactions of Inflammation and Psychosocial Stress on White Matter Integrity Over Time in Older Black Adults

Elizabeth A Boots[1,2,3], Sue Leurgans[2], Douglas L Feinstein[1], Debra A Fleischman[2], Konstantinos Arfanakis[2], Lisa L Barnes[2], Melissa Lamar[2]
[1]University of Illinois at Chicago, Chicago, IL, USA. [2]Rush Alzheimer's Disease Center, Chicago, IL, USA. [3]Mayo Clinic, Rochester, MN, USA

Objective: Higher levels of inflammation are associated with risk factors for Alzheimer's disease and related dementias (ADRD) in older Black adults including psychosocial stressors (e.g., discrimination and early life adversity) and white matter alterations. Yet, limited work has investigated these risk factors together in a longitudinal neuroimaging study, despite the well-known ADRD disparity in older Black adults. Using data from the Minority Aging Research Study and African American Clinical Core of the Rush Alzheimer's Disease Center, we examined interactions of psychosocial stressors and change in inflammation on changes in white matter integrity as measured via diffusion tensor imaging (DTI).
Participants and Methods: Older Black adults (n=102) without known dementia at baseline (age=75.8±6.1 years; 87.3% female; education=15.4±2.7 years) completed blood draws at two time points (follow-up=2.4±0.7 years), neuroimaging at two or more time points (follow-up=3.7±1.8 years), and psychosocial questionnaires at one time point coinciding with the first blood draw/neuroimaging. Blood serum was assayed using highly-sensitive multiplexed sandwich ELISA for interleukin-6, c-reactive protein (CRP), and tumor necrosis factor-alpha (TNF-α) and a change score was calculated for each inflammatory marker (T2 – T1). The Williams Everyday Discrimination Scale quantified experiences of discrimination in all participants and a 16-item questionnaire of emotional and physical trauma from age 0-18 assessed early life adversity in a participant subset (n=63). DTI-derived tract-based spatial statistics (TBSS) slope change measures for trace of the diffusion tensor, fractional anisotropy (FA), axial diffusivity (AD), and radial diffusivity (RD) were calculated, with the first two scans matched in time to blood assays. Linear regression models investigated interactions of each inflammatory marker change score (separately) and either discrimination or early life adversity (separately) on trace, FA, AD, and RD slopes as individual outcomes adjusting for age, sex, education, white matter hyperintensities (total volume and voxelwise), cardiovascular risk factors, statin and analgesic medications, thyroid conditions, and depression. Statistical significance was determined at $p<0.05$ using family wise error correction and threshold free cluster enhancement.
Results: Discrimination moderated the relationship between TNF-α and AD whereby those with increasing TNF-α and higher levels of discrimination had increasing levels of AD over time in white matter tracts connecting the left and right cerebellum, the left pallidum and medulla, and the left superior frontal gyrus and left thalamus. Both discrimination and early life adversity moderated associations between CRP and AD, where increases in CRP and higher psychosocial stressors (of either type) resulted in decreasing AD over time in tracts involving cingulate, frontal, and parietal regions. Discrimination and early life adversity also moderated associations between CRP and RD, where increasing CRP combined with greater psychosocial stressors resulted in decreasing RD in right hemisphere association and projection tracts connecting frontal, parietal, central, and subcortical regions.
Conclusions: TNF-α and CRP interacted with measures of psychosocial stress to associate with DTI-derived TBSS slope change measures of AD and RD in differential, and at times, paradoxical ways. Findings suggest that both risk and resilience as related to brain connectivity may be co-occurring in the

https://doi.org/10.1017/S1355617723009785 Published online by Cambridge University Press

presence of psychosocial stressors for older Black adults.

Categories: Aging
Keyword 1: neuroimaging: structural
Keyword 2: minority issues
Keyword 3: aging disorders
Correspondence: Elizabeth A. Boots Ph.D., University of Illinois at Chicago, eboots2@uic.edu

5 Poorer Memory Outcomes are Observed in Underinsured Latino Older Adults with Metabolic Syndrome

Jordana Breton, Abbey M Hamlin, Nazareth Ortega, Joaquin Urquiza-Perez, Thaha Hossain, Megan Perry, Lauren Eisenstat, Sanya Kotian, Alexandra L Clark
University of Texas at Austin, Austin, Texas, USA

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

https://doi.org/10.1017/S1355617723009785 Published online by Cambridge University Press