symptoms. No other DRS-2 subscale or the DRS-2 total score correlated with anxiety, depression, quality of life, or affect ratings at admission. Baseline DRS-2 attention, initiation/perseveration, and memory had significant correlations with self-report measures at 3 and 6 months; these DRS-2 scores were selected for further analysis. Mixed ANOVAs found a significant main effect of group (impaired vs. not-impaired) for the initiation/perseveration subscale, memory subscale, and DRS-2 total score on negative affect; impairment in any of these domains was associated with lower reported negative affect at all three time points. There was no significant effect of cognitive scores on any other self-report measure. There was a significant, positive linear trend in quality of life over time. There was a significant quadratic trend in depression symptoms, with decreased depression reported at 3 months and increase at 6 months.
Conclusions: Impaired performance on the DRS-2 was associated with lower negative affect over time. Cognitive impairment was not associated with anxiety, depression, quality of life, or positive affect. There appear to be reliable trends in some psychological factors regardless of cognitive scores, with an increase in quality of life over time and a temporary decrease in reported depression captured at 3 months. The relationship between cognitive impairment and negative affect should be interpreted with caution, as only 22 residents completed the affect self-report at all three time points. Overall, we found limited evidence of an association between cognitive scores at time of admission and self-reported psychological factors at 3 and 6 months.

Categories: Aging
Keyword 1: cognitive functioning
Keyword 2: quality of life
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17 Emotional and Instrumental Support as Protective Factors in Cognitive Aging Among Black and Hispanic/Latinx Older Adults

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Objective: Social support may protect against Alzheimer's disease and related dementias (ADRD), potentially through emotional or instrumental support elements. Black and Hispanic/Latinx older adults bear a disproportionate burden of ADRD. However, independent effects of emotional and instrumental support on cognition, a primary indicator of ADRD risk, are largely understudied in these groups. Guided by the differential vulnerability hypothesis – the theoretical framework which posits that systemic racism disadvantages Black and Hispanic/Latinx individuals' health – we hypothesize that emotional and instrumental support may be particularly important to protect against worse cognition for Black and Hispanic/Latinx older adults, who often have fewer resources due to these inequalities (e.g., wealth, educational opportunities) to otherwise maintain health. Using the NIH Toolbox Emotion Module measures of emotional (e.g., the extent to which individuals can rely on others in challenging times) and instrumental support (e.g., the extent to which individuals can rely on others for assistance in daily activities), we aimed to identify positive social support factors (i.e., emotional and instrumental support) that may protect against ADRD risk (i.e., longitudinal executive function and memory performance) among Black and Hispanic/Latinx older adults.
Participants and Methods: Participants were 362 Black and 265 Hispanic/Latinx adults aged 65-89 (63% female, average age=75) from the Kaiser Healthy Aging and Diverse Life Experiences (KHANDLE) Study who completed baseline and up to two additional waves of assessments (every 1.5 years), including

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questionnaires, neuropsychological evaluations, and the NIH toolbox. Predictors included baseline covariates (i.e., age, language of test administration, gender, education, income, self-rated health) and NIH toolbox emotional and instrumental support variables. Outcomes were baseline and longitudinal memory (visual and verbal episodic memory) and executive functioning (verbal fluency and working memory) composites from the Spanish and English Neuropsychological Assessment Scales (SENAS). Latent growth curve models were conducted separately in Black and Hispanic/Latinx participants to estimate effects of emotional and instrumental support on baseline cognition and subsequent change in each domain.
Results: Black participants reported greater emotional support. There were no group differences in levels of instrumental support. Greater instrumental support was associated with better initial memory (standardized β= .194, 95%CI: [.063, .325]) among Black participants but not among Hispanic/Latinx participants. In Hispanic/Latinx participants, greater emotional support was associated with better initial executive functioning (standardized β= .215, 95%CI: [.079, .350]. Emotional support was not associated with either cognitive domain in Black participants. There were no associations between emotional or instrumental support on cognitive change in either group.
Conclusions: Results point to differences between Black and Hispanic/Latinx older adults in the impact of specific aspects of social support on different cognitive domains. Positive associations between instrumental support and baseline memory in Black participants and between emotional support and executive functioning in Hispanic/Latinx participants suggest unique cognitive consequences of social support across groups. Differences in the role of specific types of social supports may be useful in identifying intervention targets specifically for Black and Hispanic/Latinx older adults, who are disproportionately affected by ADRD. Future research will examine these constructs using multiple group models to test these associations more rigorously.

Categories: Aging
Keyword 1: aging disorders
Keyword 2: diversity
Keyword 3: social processes

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18 Regional patterns of mitochondrial function using phosphorus magnetic resonance spectroscopy in older adults at-risk for Alzheimer's disease.

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Objective: The brain is reliant on mitochondria to carry out a host of vital cellular functions (e.g., energy metabolism, respiration, apoptosis) to maintain neuronal integrity. Clinically relevant, dysfunctional mitochondria have been implicated as central to the pathogenesis of Alzheimer's disease (AD). Phosphorous magnetic resonance spectroscopy (31p MRS) is a non-invasive and powerful method for examining in vivo mitochondrial function via high energy phosphates and phospholipid metabolism ratios. At least one prior 31p MRS study found temporal-frontal differences for high energy phosphates in persons with mild AD. The goal of the current study was to examine regional (i.e., frontal, temporal) 31p MRS ratios of mitochondrial function in a sample of older adults at-risk for AD. Given the high energy consumption in temporal lobes (i.e., hippocampus) and preferential age-related changes in frontal structure-function, we predicted 31p MRS ratios of mitochondrial function would be greater in temporal as compared to frontal regions.
Participants and Methods: The current study leveraged baseline neuroimaging data from an ongoing multisite study at the University of Florida and University of Arizona. Participants were older adults with memory complaints and a first-degree family history of AD [N = 70; mean [M] age [years] = 70.9, standard deviation [SD] = 5.1; M education [years] = 16.2, SD = 2.2; M MoCA = 26.5, SD = 2.4; 61.4% female; 91.5% non-latinx white]. To achieve optimal sensitivity,

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