

status, booster status, testing site, and recruitment wave.

**Results:** Black older adults had a steeper decline of OTDL performance compared to Whites (linear:  $b = -.25$ , quadratic  $b = -.009$ ,  $ps < .001$ ). There was a significant race  $\times$  social and community context interaction on linear OTDL trajectories ( $b = .06$ ,  $p = .01$ ), but no other significant race  $\times$  SDoH interactions were observed ( $bs = -.007-.05$ ,  $ps = .73-.11$ ). Stratified analyses revealed lower levels of social and community context were associated with steeper age-related linear declines in OTDL performance in Black ( $b = .08$ ,  $p = .001$ ), but not White older adults ( $b = .004$ ,  $p = .64$ ). Additionally, lower levels of economic stability were associated with steeper age-related linear declines in OTDL performance in Black ( $b = .07$ ,  $p = .04$ ), but not White older adults ( $b = .01$ ,  $p = .35$ ). Finally, no significant associations between other SDoH and OTDL trajectories were observed in Black ( $bs = -.04-.01$ ,  $ps = .09-.80$ ) or White ( $bs = -.02-.003$ ,  $ps = .07-.96$ ) older adults.

**Conclusions:** SDoH, which measure aspects of structural racism, play an important role in accelerating age-related declines in everyday functioning. Lower levels of economic and community-level social resources are two distinct SDoH domains associated with declines in daily functioning that negatively impact Black, but not White, older adults. It is imperative that future efforts focus on both identifying and acting upon upstream drivers of SDoH-related inequities. Within the United States, this will require addressing more than a century of anti-Black sentiment, White supremacy, and unjust systems of power and policies designed to intentionally disadvantage minoritized groups.

**Categories:** Aging

**Keyword 1:** activities of daily living

**Keyword 2:** minority issues

**Keyword 3:** everyday functioning

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## 2 The Interactive Effects of Cognitive Activity and Education on Cognitive Functioning in Diverse Middle-Aged to Older Adults

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**Objective:** Prior work with older adults has shown that participating in a range of physical, social, and cognitive activities provides great benefits, such as improved mood and cognitive functioning. These activities can protect against common cognitive problems associated with aging (e.g., poor working memory and processing speed) and lower the risk of developing dementia, thus supporting the cognitive reserve hypothesis. Cognitive reserve refers to the preservation of an individual's cognitive abilities over time despite changes in the brain that allows them to be resilient in performing daily and complex tasks (Stern, 2012). Historical factors such as education, life experiences, and occupational complexity, as well as current lifestyle behaviors such as cognitive and social activities may serve as proxies for cognitive reserve. It is not clear whether historical proxies of cognitive reserve (e.g., educational attainment) interact with more proximal lifestyle factors (e.g., recent cognitive stimulation) to impact cognitive functioning. In this study, we examined if education, recent cognitive activity, and their interaction predicted enhanced immediate memory and visual and verbal working memory in middle-aged to older adults.

**Participants and Methods:** Participants were 62 middle-aged to older adults (age 45-93; mean age = 65.9 years; 80.6% female; 70.9% Black; ~75.0% with high school education or higher) recruited from a Louisiana housing facility for seniors with low or fixed incomes and a local community center. Data collection included the CHAMPS Physical Activity Questionnaire for Older Adults, Wechsler Adult Intelligence Scale subtests (Digit Span Forward and Digit Span Backward), and the Size Judgment Span Task. Mixed-effects regression analyses were performed with education (less than high school, high school, college), the CHAMPS cognitive activity composite (Weaver & Jaeggi, 2021), and an education  $\times$  cognitive activity interaction term as independent variables and cognitive test scores as the outcome variables. All models controlled for age and race/ethnicity.

**Results:** Significant education by cognitive activity effects were observed for Digit Span Backward and Size Judgment Span, but not for Digit Span Forward. The interactions reflected a positive association between cognitive activity and cognitive functioning in people with at least a high school education, but not in people with less than a high school education.

**Conclusions:** Our results support previous findings that education level and engagement in cognitive activity may serve as protective factors against cognitive decline in later life. The finding that cognitive activity was not associated with better cognitive functioning at lower levels of education suggest that earlier life experiences may moderate the benefit of lifestyle interventions later in life. Future studies should examine whether other lifestyle interventions, such as exercise, are more beneficial for people with less cognitive reserve from earlier life experiences.

**Categories:** Aging

**Keyword 1:** cognitive functioning

**Keyword 2:** diversity

**Keyword 3:** working memory

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### 3 Does External Locus of Control Moderate the Intergenerational Transmission of Dementia Risk Among Non-Latinx Black and Non-Latinx White Middle-Aged Adults?

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**Objective:** People whose parents had dementia or memory impairment are at higher risk for later-life cognitive impairment themselves. One goal of our research is to identify factors that either increase the risk of or protect against family history of dementia over the life course. External locus of control has been associated with lower cognitive function in middle-aged and older adults. Previous findings have shown that adults racialized as Black have relatively high

levels of external locus of control due to inequity and racism. We hypothesized that lower parental memory would be associated with lower offspring memory among Non-Latinx Black and Non-Latinx White (hereafter Black and White, respectively) adults; and associations would be stronger among participants with higher levels of external locus of control.

**Participants and Methods:** Participants comprised 594 adults racialized as Black or White (60.3% Black; 62% women; aged  $56.1 \pm 10.4$ ;  $15.3 \pm 2.7$  years of education) from the Offspring Study who are the adult children of participants in the Washington Heights Inwood Columbia Aging Project (WHICAP). Parental memory was residualized for age ( $74.3 \pm 6.0$ ) and education ( $13.7 \pm 3.1$ ). Self-reported external locus of control was assessed using 8 items from the the perceived control questionnaire. Memory was assessed with the Selective Reminding Test, and a composite of total and delayed recall scores were computed. Linear regression quantified the interaction between parental memory and external locus of control on memory in models stratified by race, and adjusted for age, sex/gender, and number of chronic health diseases.

**Results:** Among Black participants ( $n=358$ ), there were no main effects of parental memory or locus of control on offspring memory. However, lower parental memory was associated with lower offspring memory among Black participants with high levels of external locus of control (standardized estimate=0.36,  $p=0.02$ , 95%CI [0.05, 0.67]). Associations were attenuated and non-significant at lower levels of control. Among White participants ( $n=236$ ), there was a main effect of parental memory on offspring memory, and this association did not vary by levels of external locus of control.

**Conclusions:** Poor parental memory, which reflects risk for later-life cognitive impairment and dementia, was associated with lower memory performance among White middle-aged participants. Among Black participants, this association was observed among those with high levels of external locus of control only. Economic and social constraints shape levels of external locus of control and are disproportionately experienced by Black adults. In the face of greater external locus of control, a cascade of psychological and biological stress-related processes may be triggered and make Black adults' memory function more vulnerable to the detrimental impact of parent-related dementia risk. Longitudinal analyses are needed