relationship between the degree of cognitive impairment and one's ability to perform on measures of health numeracy and literacy.
Participants and Methods: This cross-sectional study included data from 38 adult clinical patients referred for neuropsychological evaluation for primary memory complaints at an urban, public Midwestern academic medical center. All patients were administered a standardized neurocognitive battery that included the Montreal Cognitive Assessment (MoCA), as well as measures of both health numeracy (Numeracy Understanding of Medicine Instrument-Short Version [NUMI-SF]) and health literacy (Short Assessment of Health Literacy-English [SAHL-E]). The sample was 58% female and 60% Black/40% White. Mean age was 65 (SD=9.4) and mean education was 14.4 years (SD=2.5). The sample was further split into three groups based on cognitive diagnosis determined by comprehensive neuropsychological assessment (i.e., No Diagnosis [34%]; Mild Cognitive Impairment [MCI; 29%]; Dementia [34%]).Groups were well matched and did not statistically differ in premorbid intellectual functioning (F=1.96, p=.157; No Diagnosis, M=100, SD=7.92; MCI, M=99, SD=8.87; Dementia, M=94, SD=7.72) ANOVAs were conducted to evaluate differences between clinical groups on the MoCA, NUMI-SF, and SAHL-E. Multiple regressions were then conducted to determine the association of MoCA scores with NUMI-SF and SAHL-E performance.
Results: As expected, the Dementia group performed significantly below both the No Diagnosis and MCI groups on the MoCA (F=19.92, p<.001) with a large effect (η_p^2=.540). Significant differences were also found on the NUM-SF (F=5.90, p>.05) and on the SAHL-E (F=6.20, p>.05) with large effects (η_p^2=.258 and η_p^2=.267, respectively). Regression found that MoCA performance did not predict performance on the NUMI-SF and SAHL-E in the No Diagnosis group (F=2.30, p=.809) or the MCI group (F=1.31, p=.321). Conversely, the MoCA significantly predicted performance on the NUMI-SF and SAHL-E for the Dementia (F=15.59, p=.001) group.
Conclusions: Degree of cognitive impairment is associated with understanding of health numeracy and literacy information, with patients diagnosed with dementia performing most poorly on these measures. Patients with normal cognitive functioning demonstrated a significantly better understanding of health

numeracy and health literacy. This study supports the notion that as cognitive functioning diminishes, incremental support is necessary for patients to understand medical information pertaining to their continued care and medical decision-making, particularly as it relates to both numerical and written information.

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46 Cognitive Reserve and Gait Speed are Associated with Cognitive Performance in Black/African American Older Adults

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Objective: Cognitive reserve and health-related fitness are associated with favorable cognitive aging, but Black/African American older adults are underrepresented in extant research. Our objective was to explore the relative contributions and predictive value of cognitive reserve and health-related fitness metrics on cognitive performance at baseline and cognitive status at a 4-year follow up in a large sample of Black/African American older adults.
Participants and Methods: Participants aged 65 years and older from the Health and Retirement Study (HRS) who identified as Black/African American and completed baseline and follow-up interviews (including physical, health, and cognitive assessments) were included in the study. The final sample included 321 Black/African American older adults (mean age = 72.8; sd = 4.8; mean years of education = 12.3; sd = 2.9; mean body mass index (BMI) = 29.1; sd = 5.2; 60.4% identified as female). A cross-sectional analysis of relative importance – a measure of partitioned variance controlling for collinearity and model order – was first used to explore predictor variables and inform the hierarchical model order. Next, hierarchical multiple regression was used to examine cross-sectional relationships between cognitive reserve (years of education), health-related

fitness variables (grip strength, lung capacity, gait speed, BMI), and global cognition. Multiple logistic regression was used to examine prospective relationships between predictors and longitudinal cognitive status (maintainers versus decliners). Control variables in all models included age, gender identity, and a chronic disease index score.

Results: Cross-sectional relative importance analyses identified years of education and gait speed as important predictors of global cognition. The cross-sectional hierarchical regression model explained 33% of variance in baseline global cognition. Education was the strongest predictor of cognitive performance ($\beta = 0.48$, $p < 0.001$). Holding all other variables constant, gait speed was significantly associated with baseline cognitive performance and accounted for a significant additional amount of explained variance ($\Delta R^2 = 0.01$, $p = 0.032$). In a prospective analysis dividing the sample into cognitive maintainers and decliners, a single additional year of formal education increased chances of being classified as a cognitive maintainer (OR = 1.30, 95% CI = 1.17-1.45). There were no significant relationships between rate of change in health-related fitness and rate of change in cognition.

Conclusions: Education, a proxy for cognitive reserve, was a robust predictor of global cognition at baseline and was associated with increased odds of maintaining cognitive ability at 4-year follow up in Black/African American older adults. Of the physical performance metrics, gait speed was associated with cognitive performance at baseline. The lack of observed association between other fitness variables and cognition may be attributable to the brief assessment procedures implemented in this large-scale study.

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47 Mind-Wandering in Older Adults: Implications for Fluid Cognition and Perceived Psychological Quality of Life

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Objective: Mind-wandering is defined as a spontaneous shift of attention away from the external environment to inner thoughts. With mind-wandering being a ubiquitous phenomenon, there has been increasing interest in examining the role these spontaneous, and often unintentional, thought processes may have for metrics of cognitive and psychological health. However, much of this literature is mired with inconsistencies, potentially stemming from the use of variegated experimental methods and quantification of mind-wandering through different metrics. For example, mind-wandering has been investigated through endorsement of self-report probes embedded in tasks of sustained attention, with participants asking to endorse whether they were engaging in task-unrelated thoughts or task-related, but evaluative thoughts about the task (task-related interference). Other studies have instead focused on behavioral metrics of task performance, like omission and commission errors, the variability in response time (RTCV), and speeding or slowing prior to errors to quantify mind-wandering. In this study, employing a large sample of older adults, and implementing the novel technique of partial least squares regression, we examined the combined and simultaneous effect of different mind-wandering metrics in explaining variance in fluid cognition and psychological health in older adults.

Participants and Methods: One hundred and fifty older adults with normal cognition or mild cognitive impairment were administered a Go/No-Go Task (GNG) with embedded mind-wandering probes, the Conners CPT-3, the NIH Toolbox-Cognition Battery, and the WHO Quality of Life Assessment Brief Version at baseline in a clinical trial examining the impact of two mind-body interventions on aging. Based on previous research, the following variables were considered behavioral measures of mind-wandering: quantity of omission and commission errors, RTCV, pre-error speeding, and post-error slowing. Percentage of self-reported task-related interference (i.e. evaluating current