misplacement, hour hand distance from center, and clock face area (CFA). Cardiovascular burden was calculated using the revised version of the Framingham Stroke Risk Profile (FSRP-10). Peripheral inflammation was operationalized using interleukin (IL)-6, IL-8, IL-10, tumor necrosis factor alpha (TNF-a), and high sensitivity C-reactive protein (hsCRP). The brain integrity composite was comprised of bilateral entorhinal cortex volume, bilateral ventricular volume, and whole brain leukoaraiosis.
Results: Over and above age and cognitive reserve, hierarchical regressions showed FSRP-10, inflammatory markers, and brain integrity explained an additional 13.3% of the variance in command TCT ($p < 0.001$), with FSRP-10 ($p = 0.001$), IL-10 ($p = 0.019$), and hsCRP ($p = 0.019$) as the main predictors in the model. FSRP-10, inflammatory markers, and brain integrity explained an additional 11.7% of the variance in command digit misplacement ($p = 0.009$), with findings largely driven by FSRP-10 ($p < 0.001$).
Conclusions: Overall, in non-demented older adults, subtle behavioral nuances seen in digital clock drawing metrics (i.e., total completion time and digit misplacement) are partly explained by cardiovascular burden, peripheral inflammation, and brain integrity over and above age and cognitive reserve. These nuanced behaviors on digitally acquired clock drawing may associate with an emergent disease process or overall vulnerability.
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Keyword 1: aging (normal)
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Keyword 3: neuropsychological assessment
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12 Purpose in Life, Loneliness, and Subjective Cognitive Decline in an Ethnically Diverse US Sample

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Objective: Subjective cognitive decline (SCD), the self-reported experience of worsening cognitive abilities (Jessen et al., 2014), is associated with increased risk of developing Alzheimer's disease and Mild Cognitive Impairment. Modifiable factors such as purpose in life (PiL), the experience of living a meaningful life where one's life goals are attainable or being achieved (Boyle et al., 2009), and loneliness, an individual's perceived social isolation (Luhmann & Hawkley, 2016), are known to be associated with SCD. These relationships are understudied among ethnically diverse groups. Using an online survey, we examined associations between PiL, loneliness and SCD in older ethnically diverse individuals living in the US.
Participants and Methods: 870 older adults (126 Latino, 74 Black, 33 Asian, and 637 White; average age=67.0 [7.6]) completed an online survey including the Life Purpose Questionnaire, the Gierveld Loneliness Scale, and the Everyday Cognition scale (ECog), which measures subjective cognitive concerns in memory, language, executive function, and divided attention. Chi-square tests and analyses of variance were conducted to assess group differences in SCD and demographic/lifestyle predictors. Multiple regressions and correlations were conducted to assess the relationships between ethnicity and PiL with SCD, and the moderating effect of race/ethnicity. Multiple regressions and correlations were conducted to identify sociodemographic and lifestyle predictors of SCD in each study group.
Results: White participants were older ($p < .001$), and White and Asian groups had higher levels of education ($p = .009$) compared to Latinos. The White group had a higher proportion of female ($p = .016$) and middle-income ($p = .019$) respondents. Black participants had higher PiL ($p = .035$) and lower loneliness ($p = .047$) compared to White participants; there were no group differences in ECog ratings ($p = .143$).

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Regression results indicated that higher PiL associated with lower SCD in the whole sample (β=-.435, p<.001). The interaction between PiL and ethnic group was significant (β=.078, p=.025), suggesting the relationship between PiL and SCD was strongest in White participants, followed by Asian, then Latino, and finally Black participants. In Latinos, female sex (β=-.281, p=.004) and higher PiL (β=-.240, p=.034) predicted lower SCD ratings. In White participants, higher PiL (β = -.394, p < .001), and lower loneliness (β = .128, p = .003) predicted lower SCD ratings. Correlation analyses revealed no significant associations with SCD in the Black group, although the correlation between loneliness and SCD was trending (r=.222, p=.063). In the Asian group, greater PiL was associated with lower SCD ratings (r=-.439, p=.011).
Conclusions: Our findings suggest that PiL may be protective against SCD, particularly in Latino, Asian, and White adults. Differential predictive factors of SCD were also identified for our study groups, suggesting certain groups may benefit from specific targeted interventions. Overall, findings suggest that interventions geared toward increasing PiL and/or mitigating loneliness may help reduce SCD and the risk of cognitive decline in older adults in the US. As the current study was cross-sectional and faced sample size limitations in Asian and Black groups, future studies should include longitudinal assessment of these associations with larger and more representative samples to confirm our findings.

Categories: Aging
Keyword 1: mild cognitive impairment
Keyword 2: ethnicity
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13 Does White Matter Hyperintensity Burden Predict Antidepressant Treatment Response? A Meta-Analysis.

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Objective: Depression is a common problem among older adults and is further exacerbated by poor treatment response. The vascular depression hypothesis suggests that white matter hyperintensities (WMH) and executive dysfunction are main contributors to treatment non-response in older adults. While a previous meta-analysis has demonstrated the effects of executive dysfunction on treatment response, similar techniques have not been used to address the relationship between WMH and treatment response. Multiple commonly-cited studies demonstrate a relationship between WMH and treatment response, however, the literature on the predictive nature of the relationship is quite inconsistent. Additionally, many studies supporting this relationship are not randomized controlled studies. Critically examining data of well-controlled treatment response outcome studies using meta-analytic methods will allow for an aggregate evaluation of the relationship between WMH burden and treatment response.
Participants and Methods: A MEDLINE search was conducted to identify regimented antidepressant treatment trials contrasting white matter hyperintensity burden between remitters and non-remitters. Only regimented treatment trials for depressed outpatients aged 50 and older that had a pre-treatment measure of WMH burden and remitter/non-remitter comparison were included. Hedge's g was calculated for each trial's treatment effect. A Bayesian meta-analysis was used to estimate an aggregate effect size.
Results: Eight studies met inclusion criteria. The log odds ratios average was significantly less than zero (.25, SE=.12, p=.019), suggesting that there is a significant effect of WMH hyperintensity burden on antidepressant remission status.
Conclusions: The purpose of this meta-analysis was to rigorously evaluate randomized controlled trials to determine the relationship between WMH burden and antidepressant treatment response. Findings revealed that WMH burden predicted antidepressant remission, that is, individuals with high WMH burden are less likely to meet remission criteria compared to individuals with low WMH burden. Results suggest that it may be important to

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