

time points at which one met criteria for MCI in that age range, and with MCI in the mid-fifties. Findings support the idea of a risk for greater cognitive decline in those exposed to AO earlier in their lives, and with a risk for developing MCI.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: mild cognitive impairment

Keyword 2: neurotoxicity

Keyword 3: cognitive functioning

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92 Biber Figure Learning Test Outperforms Other Cognitive Measures in Predicting Subjective Cognitive Decline

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Objective: Subjective Cognitive Decline (SCD), the perception of deteriorating cognition in the absence of apparent impairment on objective testing, has gained momentum in recent literature as a risk marker for AD. Traditional neuropsychological assessments, while typically inclusive of a word list learning task, often do not include a comparable figure learning task. Growing evidence suggests that nonverbal assessments may be particularly sensitive to the earliest cognitive changes associated with Alzheimer's disease. The Biber Figure Learning Test (BFLT), a visuospatial analogue to verbal list learning tasks, has been shown to associate with brain-based biomarkers of Alzheimer's disease (AD; hippocampal volume, amyloid load). This study investigates the utility of the BFLT in capturing SCD above and beyond other cognitive measures sensitive to AD progression.

Participants and Methods: 50 community-dwelling, cognitively normal individuals (78% White, 16% Black, 6% Other; 92% Non-Hispanic; 64% Female; Education M=17.1, SD=2.1; Age M=72.7, SD=6.2) participated in a study of SCD. All participants performed >-1.5 SD on clinical neuropsychological testing including a word list learning task. SCD was assessed using a 20-item scale querying individuals' perception of difficulty across a range of memory and non-memory abilities in relation to others of the same age. Participants completed the BFLT, Loewenstein-Acevedo Scales of Semantic Interference and Learning (LASSI-L), Short-Term Memory Binding (STMB), and Face-Name Associative Memory Exam (FNAME), previously established as being sensitive to pre-clinical AD, were examined as predictors of SCD. A multiple regression adjusted for demographics (age, gender, education) was used to investigate the extent to which BFLT Trial 1 (T1) predicted SCD above and beyond these other cognitive measures sensitive to AD progression. Trial 1 of the BFLT was used based on a separate abstract examining which BFLT score was most highly associated with SCD (Kann et al., pending acceptance).

Results: Adjusting for demographics, the present model accounts for 42% of the variance in SCD, while Biber T1 alone accounts for 20% and is the only significant individual predictor of SCD ($\beta=-0.55$, $p=0.004$). In contrast, other variables in the model independently accounted for less than 1% to 4% each (age $\beta=-0.23$, $p=0.15$; gender $\beta=-0.15$, $p=0.34$; education $\beta=0.06$, $p=0.66$; LASSI-L $\beta=-0.11$, $p=0.55$; STMB $\beta=-0.03$, $p=0.85$; FNAME $\beta=-0.10$, $p=0.64$).

Conclusions: The present study demonstrates the usefulness of the first learning trial of the BFLT as an independent predictor of SCD above and beyond other verbal and nonverbal measures sensitive to AD pathology. It also highlights the value of including even one trial of figure learning (< 5 minutes) in both clinical and research assessments seeking to capture cognitive changes which may be the earliest indicators of a neurodegenerative process. Ongoing longitudinal research is examining the predictive utility of the BFLT for future cognitive decline and transition to Mild Cognitive Impairment. Further research should explore the association between Biber T1, specifically, and neuropathological biomarkers of AD to further establish its utility as a portent of AD.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: neuropsychological assessment

Keyword 2: aging (normal)

Keyword 3: dementia - Alzheimer's disease

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93 Impact of Childhood Socioeconomic Status on Subjective Cognitive Decline

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Objective: Subjective cognitive decline (SCD) is increasingly being considered one of the earliest clinical signs of Alzheimer's Disease (AD). Certain characteristics of early life, such as childhood socioeconomic status (SES), have been associated with late life cognitive performance. Here we examine the extent to which childhood SES predicts SCD.

Participants and Methods: The current sample consisted of 55 healthy older adults (17 Male, 39 Female), aged 51 to 88 (M=73.14, SD=6.23) with a mean education of 16 years (SD=2.1 years). 21.5% of the sample self-reported as race/ethnic minorities (e.g., Hispanic or Non-Hispanic African American, Asian, Other.) Participants completed a 20-item SCD questionnaire assessing perceived cognitive difficulties in comparison to same aged peers, and objective cognitive testing. Childhood SES was assessed using two items. The first item asked the participant to utilize a modified MacArthur Scale of Subjective Social Status to identify where on the ladder they felt their family would have been placed during their childhood relative to others in the United States. This ladder has 10 rungs, with rung 1 associated with being the "worst off" and rung 10 associated with being the "best off". The second item asked the participant to rate their family's difficulty paying bills during their childhood. Linear regression models were used to examine the extent to

which childhood SES predicted SCD. Models were adjusted for education, referral source (clinical versus non-clinical), and objective cognitive testing. Age and gender were not associated with childhood SES or SCD, and as a result were not adjusted for in these models.

Results: On the MacArthur Scale, 20% of participants placed their family at rung 5, 38.2% placed their families at a rung lower than 5, and 41.8% placed their family at a rung higher than 5. When rating the difficulty their family faced paying bills, 3.6% of participants responded "extremely difficult", 16.4% responded "very difficult", 20% responded "somewhat difficult", 23.6% responded "slightly difficult", and 36.4% responded "not difficult". Linear regression models revealed a significant effect of childhood SES on SCD ($\beta=-.29$, $p=.045$, $SE=.90$; $\beta=-.35$, $p=.015$, $SE=1.68$).

Conclusions: Childhood SES, measured by subjective social status and family's difficulty paying the bills in childhood, was predictive of SCD in this study of cognitively healthy adults. This result highlights another characteristic of early life that may shape the path of cognitive aging. The predictive utility of childhood SES for SCD may also provide clinicians and researchers with further insight into the populations that may be more susceptible to experiencing SCD in later life. Future studies should utilize a larger sample size among a population with a greater range of childhood SES, to most accurately capture the effectiveness of childhood SES to predict SCD.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: memory complaints

Keyword 2: demographic effects on test performance

Keyword 3: quality of life

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94 Physical Activity, Emotional Functioning, and Cognitive Concerns During the COVID-19 Pandemic Among Older Adults in the US