

completed a brief, 5-item SCD screener along with cognitive testing including the MMSE and a clinically validated list-learning test, the Selective Reminding Test (SRT). **Statistical Methods:** Spearman 2-tailed correlations were conducted to assess the relationship between the two screening measures, and their relationships to the SRT. Outcome measures on the SRT included total recall (max: 72) and delayed recall (max: 12). All cognitive measures were demographically adjusted with normative data. **Results:** The mean total for the SCD screener was 2.1 ± 1.1 , and the mean MMSE score was 29.2 ± 1.2 . The SCD screener was associated with MMSE scores ($r = -.39$, $p = .043$), SRT Total Recall ($r = -.43$, $p = .024$) and Delayed Recall ($r = -.42$, $p = .031$) measures. MMSE scores did not associate with either SRT outcome ($p > .05$). **Conclusions:** Results support the utility and validity of a brief subjective cognitive decline screener for identifying those who may be experiencing memory dysfunction. The brief SCD screener outperformed the MMSE, an existing and widely used objective screening measure. Associations between the SCD screener and SRT outcomes support the validity and utility of the brief screener and recapitulate previous findings with the more extensive version of the SCD questionnaire (Chapman et al. 2021). Ongoing research is focusing on the utility of the screener in frontline clinical settings and translation of the screener into Spanish.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: aging disorders

Keyword 2: mild cognitive impairment

Keyword 3: memory complaints

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80 The Association between Periodontal Disease and Self-Reported Cognitive and Functional Decline at Age 60 in a Large, Multicultural Cohort Study

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Objective: We assess the association between self-reported history of periodontal disease diagnosis with self-reported cognitive and functional decline at age ~60. We also investigate (1) the roles of social background, demographic characteristics, education, and adolescent test scores in confounding that association and (2) the role of cardiovascular disease in mediating that association.

Participants and Methods: We use data from a nationally representative sample of 13,525 people who participated in the 2021 wave of the High School & Beyond (HSB) cohort study. HSB began in 1980 with a nationally-representative sample of American 10th and 12th grade students; these students have been followed up on six occasions since 1980, yielding extraordinary and prospectively-collected life course data on all key measures for a large, multicultural sample.

In 2021, HSB sample members were evaluated with neuropsychological tests that evaluated list learning and memory, semantic and letter fluency, and working memory. They were also asked to self-report memory and functional decline using the AD8, using a cutoff of 2 or more items for significant concerns. Mild Cognitive Impairment will be identified using an algorithm validated in a similar sample of middle aged participants.

Sample members were also asked in 2021 whether a medical professional had ever diagnosed them with periodontal disease; those responding affirmatively were then asked the years in which they started and stopped having periodontal disease.

Measures of social and economic background; demographic characteristics; and educational contexts, opportunities, and attainments were measured prospectively—and in great detail—in the surveys administered in the 1980s. Critically, almost all sample members completed a series of cognitive tasks during adolescence, allowing us to address a key set of confounders in the relationship between periodontal disease and MCI. Markers of cardiovascular disease were measured in both 2013 and 2021.

We estimate logistic regression models predicting significant cognitive and functional concerns as a function of periodontal disease history; we also estimate models that account for confounders, including social background,

demographic characteristics, education, and cognitive skills during adolescence; finally, we estimate models that account for the mediating role of cardiovascular disease. All models account for the clustered sampling design of HSB and employ sampling weights to account for HSB's complex sampling design and selective attrition from the panel.

Results: About 15% of the cohort has been diagnosed with periodontal disease, and nearly one in five had significant cognitive and functional concerns.

People with a history of periodontal disease were more likely to report significant cognitive and functional concerns. This association remains substantive and statistically significant after adjusting for confounders. All else equal, the odds of people with a history of periodontal disease having an AD8 score of 2 or higher were about 60% greater than the odds of those not reporting periodontal disease. Very little of this association can be attributed to cardiovascular disease as a mediating pathway.

Conclusions: People with a history of periodontal disease are at greatly elevated risk of self-reported cognitive and functional concerns at age ~60. This supports evidence—never before collected at this scale in a long-term, representative cohort study—that oral pathogens may contribute to cognitive well-being over the life course.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: social processes

Keyword 2: academic achievement

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81 Occupation Complexity Mediates the Association between Education and Self-Reported Cognitive and Functional Decline in 60-Year-Olds

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Objective: We ask about the degree to which the association between (1) the quantity and quality of people's education and (2) midlife self-reported concerns about cognition and daily function is mediated by occupational complexity. The overarching hypothesis is that amount and quality of education provides people with access to better jobs, including jobs that are more cognitively complex. Occupational complexity, in turn, may be protective against cognitive impairment. If true, this means that part of the poorly-understood connection between education and cognitive impairment can be attributed to occupational complexity.

Participants and Methods: We use data from a nationally representative sample of 13,525 people who participated in the 2021 wave of the High School & Beyond (HSB) cohort study. HSB began in 1980 with a nationally-representative sample of American 10th and 12th grade students; these students have been followed up on six occasions since 1980, yielding extraordinary and prospectively-collected life course data on all key measures for a large, multicultural sample.

In 2021, HSB sample members were evaluated with neuropsychological tests that evaluated list learning and memory, semantic and letter fluency, and working memory. They were also asked to self-report memory and functional decline using the AD8, using a cutoff of 2 or more items for significant concerns. Mild Cognitive Impairment will be identified using an algorithm validated in a similar sample of middle aged participants.

HSB surveys gathered information about sample members' labor force activities in every survey between 1980 and 2021, including information sufficient to code verbatim reports of occupations to the standards of the 2010 Standard Occupational Classification. We have linked these codes for sample members' 2013 and 2021 occupations to the O*Net database, which includes extensive information about the cognitive complexity (and other attributes) of every occupation.

Measures of key confounders—including social and economic background; demographic characteristics; educational contexts, opportunities, and attainments that are associated with labor force outcomes; adolescent achievement test scores; and aspects of midlife occupations besides complexity (e.g., how well they pay)—were measured prospectively and in great detail in the