

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

Correspondence: John Robert Warren,
University of Minnesota, warre046@umn.edu

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

Jessie Himmelstern¹, John R Warren¹, Eric Grodsky², Chandra Muller³, Koit Hung³, Adam Brickman⁴, Jennifer Manly⁴

¹University of Minnesota, Minneapolis, MNU, USA. ²University of Wisconsin-Madison, Madison, WI, USA. ³University of Texas-Austin, Austin, TX, USA. ⁴Columbia University, New York, NY, USA

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

surveys administered between the 1980s and 2021.

We estimate logistic regression models predicting significant cognitive and functional concerns as a function of educational contexts, opportunities, and outcomes; we also estimate models that account for the confounders listed above. Our main focus is on coefficients for education in models that do and do not include occupational complexity as a mediator. All models account for the clustered sampling design of HSB and use sampling weights to account for HSB's complex sampling design and selective attrition from the panel.

Results: Nearly one in five cohort members had significant cognitive and functional concerns; rates are lower for non-Latinx Whites and for better educated people. Associations between educational contexts, opportunities, and outcomes (including attainment) are robust, even after adjusting for confounders.

Between one quarter and one third of the conditional association between education and self-reported cognitive and functional concerns can be attributed to occupational complexity.

Conclusions: Occupational complexity is an important pathway through which more and better education protects people from concerns about cognitive and functional decline at about age 60.

Categories: MCI (Mild Cognitive Impairment)

Keyword 1: social processes

Keyword 2: mild cognitive impairment

Keyword 3: academic achievement

Correspondence: John Robert Warren, University of Minnesota, warre046@umn.edu

82 Face-to-face versus Telehealth Assessment Differences among Cognitively Healthy Older Adults and those with MCI

Karysa Britton¹, Alyssa De Vito², Matthew Calamia³

¹Butler Hospital, Providence, RI, USA. ²Brown University, Providence, RI, USA. ³Louisiana State University, Baton Rouge, LA, USA

Objective: The Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) is a well validated and reliable clinical assessment tool that can be used for

characterizing cognitive function in older adults. The RBANS has been shown to reliably discriminate between Alzheimer's disease (AD), mild cognitive impairment (MCI), and cognitively healthy (CH) individuals. While the RBANS has traditionally been administered in a face to face setting, administration is also feasible via telehealth. Due to the COVID-19 pandemic, cognitive assessments were unexpectedly moved to telehealth formats. Given this, the current study assessed whether differences emerged between face to face and telehealth RBANS scores in both individuals who were CH and had MCI.

Participants and Methods: A total of 61 individuals ($N_{CH} = 27$, $N_{MCI} = 34$) completed baseline and 1-year follow-up visits in the current study. The sample was predominantly female ($N = 43$, 70.5%), identified as white ($N = 57$, 93.4%), and were well educated ($M_{Years} = 15.93$). Participants completed the RBANS form B at an in-person baseline visit and form C at a one year follow-up visit. Higher RBANS scores indicate overall better cognitive performance. As expected, CH individuals performed better than those with MCI on immediate memory, language, attention, delayed memory, and total score. There were no significant differences found for the visuospatial index. Repeated measures ANOVAs were conducted to assess whether differences in RBANS performance existed based on test administration method.

Results: Group differences between testing formats were observed in CH individuals on immediate memory [$F(1,37) = 9.10$, $p < .01$], language [$F(1, 37) = 9.41$, $p < .01$], and total score [$F(1,37) = 6.56$, $p < .05$], with higher performance in those who completed the follow-up session in-person. There were no differences in baseline performance on any RBANS index between those who received an in person versus telehealth format (p 's $> .05$). No differences were observed in the MCI group. There were no significant differences observed between the CH and MCI group on demographic factors.

Conclusions: Results from the current study suggest that CH counterparts experienced a greater degree of difference in scores between testing formats, whereas individuals with MCI did not. The lack of difference in MCI individuals may be due to less room for variability over time for this group given already low scores. These results suggest that while telehealth has been shown to be a viable option for RBANS administration in some samples, further work