

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

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

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**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

needs to be conducted regarding the equivalence of in-person vs. telehealth formats. This study is not without limitations. The small MCI group was segmented into in-person and telehealth groups, further reducing power to detect statistically significant results. The sample was also homogenous with highly educated, Caucasian women. Future research should aim to assess a larger, more diverse sample to identify whether RBANS is a reliable measure alone for assessing cognitive change over time via telehealth for MCI.

**Categories:** MCI (Mild Cognitive Impairment)

**Keyword 1:** assessment

**Keyword 2:** mild cognitive impairment

**Keyword 3:** teleneuropsychology

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### 83 Uncertainty Representation in Mild Cognitive Impairment: Comparing Internally Cued versus Externally Driven Uncertainty

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**Objective:** Choice response time (RT) increases linearly with increasing information uncertainty, which can be represented externally or internally. Using a card-sorting task, we previously showed that Alzheimer's disease (AD) dementia patients were more impaired relative to cognitively normal older adults (CN) under conditions that manipulated internally cued rather than externally driven uncertainty, but this study was limited by a between-subjects design that prevented us from directly comparing the two uncertainty conditions. The objective of this study was to assess internally cued and externally driven cued uncertainty representations in CN and mild cognitive impairment (MCI) patients.

**Participants and Methods:** Older participants (age > 60 years; N=49 CN, N=33 MCI patients)

completed a card-sorting task that separately manipulated externally cued uncertainty (i.e., the number of sorting piles with equal probability of each stimulus type) or internally cued uncertainty (i.e., the probability of each stimulus type with fixed number of sorting piles) at three different uncertainty loads (low, medium, high). Exploratory analyses separated MCI patients by etiology into possible/probable cortical neurodegenerative process (i.e., AD, frontotemporal dementia; N=13) or non-neurodegenerative process (i.e., vascular, psychiatric, sleep, medication effect; N=20).

**Results:** CN and MCI patients maintained a high level of accuracy on both tasks (*M* accuracy > .94 across conditions). MCI patients performed more slowly than CN on the externally and internally cued tasks, and both groups showed a significant positive association between uncertainty load and RT (*p*'s < .05). There was a group x load x uncertainty condition interaction (*p* = .05). For CNs, the slope of the linear association between load and RT was significantly steeper in the externally cued compared to internally cued condition. For MCI patients in contrast, RTs increased with load to a similar degree in both conditions. Exploratory analyses showed the MCI-neurodegenerative patients were significantly slower than MCI-nondegenerative and CN (*p* < .001). While the group x load x condition interaction was significant when comparing all three groups (*p* < .05), this was driven by the differences between CN and MCI patients described above; the MCI-neurodegenerative and non-neurodegenerative groups did not significantly differ in the strength of the RT-load association between the externally or internally cued conditions.

**Conclusions:** Overall, CN participants showed greater RT slowing with increasing load of externally driven than internally cued uncertainty. Though they were slower than CNs, MCI patients (even those with a possible/probable cortical neurodegenerative condition) were able to accurately perform an internally cued uncertainty task and did not show differential slowing compared to an externally driven task. This provides preliminary evidence that internal representations of probabilistic information are intact in patients with MCI due to a neurodegenerative condition, meaning they may not depend on cortical processes. Future work will increase the sample sizes of the MCI-neurodegenerative and non-degenerative groups.