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)
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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.

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84 Utilizing the DSM-5 Cross Cutting Measure to Characterize the Neuropsychiatric Correlates of Subjective and Objective Cognition

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Objective: Historically, psychiatric conditions and neurodegenerative diseases have been considered differential diagnoses in older adults with cognitive impairment. However, recent evidence has shown that neuropsychiatric symptoms may be prodromal for neurodegenerative disease. Subjective Cognitive Decline (SCD) is a potential marker for pre-clinical Alzheimer's Disease (AD) that is frequently related to mood disturbances. Delineating the relationship between neuropsychiatric symptoms, SCD, and cognitive impairment will help to define both the independent and combined utility of SCD and neuropsychiatric symptoms as markers of pre-clinical AD. This abstract uses the DSM-5 Cross-Cutting Measure (DSM-5 CC), a novel comprehensive screening tool for psychiatric symptoms, to examine the relationship between objective and subjective measures of cognition as they relate to neuropsychiatric symptoms.
Participants and Methods: 27 community dwelling, cognitively diverse older adults (78% female, mean age 71.9 ± 7) were enrolled in the Concerns about Memory Problems (CAMP) study. Inclusion criteria included the expressed concern about memory functioning by participants on a 5-item screener, while exclusion criteria were defined as previous diagnosis of neurodegenerative diseases and/or major stroke. All participants completed neuropsychological testing and study surveys including the DSM-5 CC. Participants completed Level 1 and all Level 2 (L2) forms of the DSM-5 CC. Spearman two-tailed non-parametric correlations and independent samples t-tests were conducted to examine the relationship between the DSM-5 CC and the 5-item subjective cognition screener, as well as the DSM-5 CC and objective cognition results.
Results: Subjective measures of cognition, as measured by answers to the 5-item screening measure, were significantly associated with DSM-5 CC measures. Question 1 on the SCD screener which asks, “Compared to others your age, do you have difficulty with memory or thinking abilities?” was associated with anger (p=.033) and depression (p=.018) L2 forms. Question 3, “Do any difficulties with memory or thinking abilities make it difficult for you to do things in daily life?)” was associated with the L2 forms for somatic symptoms (p=.016) and repetitive thoughts and behaviors (p<.001). Objective measures of cognition from neuropsychological testing also correlated with DSM-5 CC sub-scores. Digits Backwards Length (DBL) correlated with DSM-5 CC Level 1 Sum (r= -.57, p=.002). DBL (r=-.59 p=.001) and Digits Backwards Total Correct (DBTC) (r=-.47, p=.013) associated with somatic symptoms L2 and sleep L2 (DBL: r=,-.45 p=.019; DBTC: r=-.39, p=.044). Category Naming (animals) was also associated with anxiety L2 (r=-.42, p=.030).
Conclusions: Subjective and objective measures of cognition were each related to sub-scores of the DSM-5 CC. Interestingly, the associations were largely non-overlapping. These results highlight the importance of considering a wide range of neuropsychiatric symptoms in the assessment of SCD and cognitive impairment. Findings contribute to the growing body of literature suggesting that neuropsychiatric symptoms should be studied in conjunction with cognitive symptoms among older adults as co-occurring phenomena. Future directions will need to include longitudinal studies that can examine the prodromal nature of SCD and neuropsychiatric symptoms for Alzheimer’s and other neurodegenerative disorders.

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