

## Related Cognitive Impairments, or Uncomplicated Alcohol Use Disorder

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**Objective:** Assessment of learning potential in patients with cognitive disorders in individuals with alcohol-related cognitive disorders (including Korsakoff's syndrome; KS) is highly relevant, as this may help to tailor interventions, guide treatment planning and help to optimize care. However, studies on assessing learning potential or learning ability using neuropsychological assessment in relation to changes in everyday activities during the course of treatment are scarce. In this study we examined whether verbal and visuospatial learning curves could be used as an index of learning ability in relation to everyday activities before and after a treatment program.

**Participants and Methods:** We examined the episodic learning ability of patients with KS (N=137), other alcohol-related cognitive impairments (ARCI; N=164), and uncomplicated alcohol use disorder (AUD; N=49). For this, we calculated the learning curves for the California Verbal Learning Test (CVLT) and the Location Learning Test - Revised (LLT-R) and examined their association with ratings of everyday activities by the patient and his/her professional caregiver using the Patient Competency Rating Scale (PCRS) before and after a 10-12 week treatment program following admission to the Korsakoff Centre.

**Results:** For both verbal and visuospatial memory, the AUD group had a steeper learning curve than the ARCI patients, who in turn had a steeper learning curve than the KS group ( $p < .01$ ). While the VLGT total score was related to the PCRS in all patient groups (Pearson  $r > .38$ ,  $p < .01$ ), this was only the case for the KS group for the LLT-R total score ( $r > -.29$ ,  $p < .01$ ). However, the learning curve estimates of both tests were neither related to the PCRS absolute scores (for patients and caregivers, before and after treatment) nor to the  $\Delta$ PCRS scores during the course of the treatment program.

**Conclusions:** Episodic learning ability, as measured with the learning curves of the CVLT and LLT-R, were unrelated to the patients

everyday activity level as measures by the patients themselves or their professional caregiver. The results will be discussed in relation to other tools for assessing the learning potential of cognitively impaired patients, such as dynamic testing.

**Categories:** Dementia (Non-AD)

**Keyword 1:** Korsakoff's syndrome/Wernicke's encephalopathy

**Keyword 2:** alcohol

**Keyword 3:** neuropsychological assessment

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## 66 An Examination of Racial Disparities on Dementia Types in the Black Community

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**Objective:** There is limited and inconsistent research exploring diagnosis, treatment, and prevention of dementias amongst Black Indigenous People of Color (BIPOC). By 2050, it is suspected that the White population will significantly decrease and BIPOC groups will comprise the majority of the US population yet BIPOC are historically underrepresented in dementia research. Prior research indicates apolipoprotein 4 allele (APOE-4) status is associated with a greater risk of developing Alzheimer's disease in Black individuals when compared to non-Hispanic Whites. Investigating the racial disparities in dementia will expand our knowledgebase of risk for dementia types in the Black community to better meet the evergrowing population needs. The current study explored the impact of racial identity on global cognitive functioning, independent of age, education, and APOE e4 status.

**Participants and Methods:** Participants were drawn from the Alzheimer's Disease Neuroimaging Initiative (ADNI) study and consisted of five pairs of Black and White individuals ( $n = 10$ ) matched based on age, education, and APOE status. Global cognitive performance was measured by the total Mini Mental Status Examination (MMSE) score. Notably, only five Black individuals in phase 1 of

ADNI met inclusion criteria. It was hypothesized Black individuals would be more cognitively impaired than their White counterparts. A matched pairs t-test was utilized to examine the relationship between global cognitive performance and race.

**Results:** Black and White individuals' MMSE scores did not significantly differ ( $p > .05$ ). The mean MMSE performance of White participants (26.40) was less robust than Black participants (27.80).

Findings are inconsistent with current research, indicating that BIPOC individuals are disproportionately impacted by AD, with increased severity of cognitive impairment. There is a profound need for more research in preventative interventions and recruitment of BIPOC individuals who have been historically marginalized in cognitive research trials to help better understand diagnosis, treatment, and prevention of AD in BIPOC.

**Conclusions:** The observed commensurate global cognitive functioning performance between matched Black and White individuals is not consistent with prior research findings demonstrating increased risk of developing dementia amongst BIPOC. This study's small sample size reflects a significant barrier to detecting clinically meaningful differences. Efforts to address the recruitment crisis, underreporting, cultural influences, and overall mistrust of research among BIPOC is warranted. Inclusive research is critical to dismantling health disparities.

**Categories:** Dementia (Non-AD)

**Keyword 1:** apolipoprotein E

**Keyword 2:** minority issues

**Keyword 3:** clinical trials

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## 67 Prospective Memory Accuracy and Speed in Mild Cognitive Impairment and Alzheimer's Disease

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**Objective:** Prospective memory (PM) is the ability to execute a planned action in the future (e.g., remembering to take medication before going to bed). Prior work has suggested that PM failure can account for 50-80% of reported memory problems. Research has also shown that PM becomes increasingly impaired in the Alzheimer's disease (AD) process. To our knowledge, most PM studies use PM accuracy as a measure of PM performance. However, examining the speed of the response as it relates to the AD process remains relatively unexplored. In this study, we examined both PM accuracy and speed in healthy aging, mild cognitive impairment (MCI), and AD.

**Participants and Methods:** Participants included healthy older controls (N=65), persons with MCI (N=70), and persons with AD (N=11). The PM task was embedded within a working memory task as PM demands often occur during an ongoing activity in everyday life. For the working memory component of the PM task, participants were shown a series of words and asked to continuously monitor the words while maintaining the last 3 in memory. All words were displayed within 1 of 6 background patterns. For the PM component, participants were asked to press "1" on the keyboard whenever they were shown a particular background pattern on the screen. PM abilities were measured using the median response time and total accuracy.

**Results:** Age was correlated with PM accuracy. An ANCOVA, controlling for age, and examining the impact of diagnosis on PM accuracy, was significant. Post-hoc tests revealed a trend toward the AD and MCI groups being less accurate than healthy controls. In contrast to accuracy, age was not related to PM speed. An ANOVA examining the impact of diagnosis on PM accuracy found that the AD group responded faster than healthy controls. The MCI group did not show differences in speed from the healthy control and AD groups.

**Conclusions:** Overall, the pattern of results differed in accuracy and speed of PM performance. There was a trend for the MCI and AD groups being less accurate than the controls, with no difference in performance between the