patients to healthy controls, (b) matched control group on age, education, or IQ, and (c) standardized neuropsychological testing. Exclusion criteria included: (a) diagnosis of Axis I disorders (other than alcohol dependence), (b) comorbidity with other disorders that impact neuropsychological functioning, or (c) not published or translated into English. Twenty-seven articles (AD n= 840 and HC n = 881) were analyzed in this study.

Results: The TMT-A evidenced a statistically significant and medium effect size estimate (g = 0.624, p < 0.001). The heterogeneity of TMT-A was statistically significant (Q=61.935, df=26, p=0.000) and moderate (I2=58.021%). The meta-regression analysis between duration of alcohol use in days and TMT-A was not statistically significant (Q=0.012, df=1, p=0.913).

Conclusions: TMT-A detects psychomotor speed deficits associated with alcohol dependence. Duration of alcohol use did not affect TMT-A performance, suggesting that other factors may have moderated this relationship. Further research should analyze other factors that affect psychomotor performance in alcohol dependent individuals.

Categories: Addiction/Dependence
Keyword 1: alcohol
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6 Semantic and Phonemic Fluency in Alcohol Dependent Individuals

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Objective: Verbal fluency consists of semantic and phonemic fluency and is often used to detect verbal ability and executive control (Shao et al., 2014). While research has found general verbal fluency impairments in chronic alcohol use, few studies have examined semantic and phonemic fluency separately (Stavro et al., 2012; Stephan et al., 2017). This meta-analytical study examines the performance of abstinent alcohol-dependent individuals on semantic fluency (categories) and phonemic fluency (letters).

Participants and Methods: As part of a larger study, two researchers independently searched eight databases, extracted required data, and calculated effect sizes on neuropsychological data in alcohol dependent (AD) individuals. Inclusion criteria for articles were: (a) comparison of abstinent alcohol-dependent patients to healthy controls, (b) matched control group on age, education, or IQ, and (c) standardized neuropsychological testing. Exclusion criteria included: (a) diagnosis of Axis I disorders (other than alcohol dependence), (b) comorbidity with other disorders that impact neuropsychological functioning, or (c) not published or translated into English. A total of 31 articles (AD n=1,080 and HC n=1,090) was analyzed in this study.

Results: Semantic fluency evidenced a statistically significant and medium effect size estimate (g = 0.632, p < 0.001). The heterogeneity for semantic fluency was statistically significant (Q=152.468, df=20, p=0.000). Phonemic fluency evidenced a statistically significant and medium effect size estimate (g = 0.572, p < 0.001). The heterogeneity for phonemic fluency was also statistically significant (Q=236.697, df=24, p=0.000).

Conclusions: Deficits in semantic and phonemic fluency are both associated with alcohol dependence. Although some previous research has reported more frontal lobe impact of alcohol, which would be expected to impact phonemic more readily than semantic fluency, this is not evident in the current data. There are many possible reasons for this failure to observe this dissociation meta-analytically. Some potential reasons include the possibility that alcohol affects multiple regions of the brain, that both these measures are affected by alcohol but miss the subtlety associated with frontal damage, or the likelihood that when studies are aggregated in meta-analysis the heterogeneity results in a regression to the mean effect size. These and other reasons are not mutually exclusive and future research should attempt to examine these and other hypotheses.

Categories: Addiction/Dependence
Keyword 1: alcohol

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7 Evaluating the Feasibility of a New Hybrid Teleneuropsychology Screening Service for Individuals with Opioid Use Disorders: Lessons Learned

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Objective: Opioid use disorder (OUD) has been declared a national public health emergency leading to increased enrollment in medication assisted treatment (MAT) programs. Cognitive deficits are seen among those with OUD which can persist even with MAT. Moreover, cognitive deficits predict poor community and treatment outcomes. Neuropsychological evaluations can identify, diagnose, and provide treatment recommendations, and are associated with improved outcomes in non-substance use patient populations. Yet, patients with OUD rarely undergo neuropsychological assessment when participating in opioid use treatment. Teleneuropsychology (TNP) may increase access to care but has not been evaluated with people with substance use disorders (SUDs). This project used a mixed-method design to evaluate the feasibility and impact of a pilot hybrid TNP service with new patients with OUDs entering a MAT program.

Participants and Methods: Participants were ≥18 years old and new patients enrolling in MAT for OUD. Participants were excluded if they planned to move out of town within six months or were pending incarceration. Participants were identified by triage questions at MAT intake based on frequency of relevant co-occurring conditions indicating those with greatest need. Positively triaged individuals were referred to the TNP service which was conducted by a hybrid approach (i.e., patient presents to the clinic and is evaluated from a separate room using video-teleconferencing technology). We aimed to schedule participants within two-weeks of 30-days from intake to the MAT program. Consented participants completed questionnaires of feasibility and acceptability (e.g., satisfaction, usefulness) after undergoing a screening TNP evaluation and feedback of the results and recommendations. Participants also were invited to undergo a brief qualitative interview to further assess facilitators and barriers.

Results: Of 57 individuals screened positive, 51 were referred, and 14 were reached to offer TNP. Ten (71.4%) agreed to the TNP evaluation and scheduled an appointment, though 50% had the first appointment scheduled within two weeks of 30-days after intake to MAT. Seven (70%) did not keep the first appointment (no show or cancellation) or were rescheduled due to clinic scheduling. Three were reached to reschedule. All three were unable to keep the appointment, but one did reschedule and keep the third appointment. Of the 4 who attended TNP, only 1 (25%) was within two weeks of 30-days after intake. Of those who attended the TNP appointment, 100% completed the protocol, 75% were satisfied with the evaluation overall, 75% found the evaluation useful, and 67% would recommend TNP to others (one participant did not respond to this question).

Conclusions: Neuropsychological assessment may provide valuable information to improve treatment for those with OUDs. This pilot project revealed that individuals with OUDs can tolerate and are satisfied with a screening TNP evaluation and find the evaluation useful. The primary barrier was reaching referred patients. Treatment engagement among those with SUDs is a common challenge. Those with counselors who coordinated with the clinic schedulers were more likely to be reached and scheduled, suggesting support for regular case management. Other lessons learned and potential future steps are discussed.

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8 The Battery for Executive Functions in Addiction: Validation of a Novel Screening Tool