

about the association of cognitive function with the composition of these networks in terms of the varying levels of closeness and supportive relationships. The present study explored whether social network size at different levels was differentially associated with cognitive function in a group of community-dwelling older adults.

Participants and Methods: 119 older adults (Mean age = 70.71) from the Maine Aging Behavior Learning Enrichment Study completed a neuropsychological test battery measuring language, verbal memory, visuospatial memory, working memory, executive function, and processing speed abilities. The number and closeness of participants' relationships was measured using a Hierarchical Mapping Technique based on the Social Convoy model, in which participants included the names of people in their relational network within inner (closest), middle (close), and outer concentric circles.

Results: Correlational analyses found that social network size at the total and middle-to-outer levels were statistically associated with education and better performance on measures of language, verbal memory, visuospatial memory, and executive function. However, no relationship emerged between the size of the innermost network level and cognitive function. Furthermore, statistically significant findings did not survive adjustments for the effect of education.

Conclusions: Broader levels of support, rather than greater intimacy, were statistically associated with better cognitive performance. Consistent with previous research, greater education was associated with larger social networks. Future research is needed to understand whether higher levels of education or other factors mediate the observed relationship.

Categories: Social Cognition

Keyword 1: cognitive functioning

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49 A Preliminary Neurocognitive Profile Characterization of Treatment Resistant Depression

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Objective: Major Depressive Disorder (MDD) subtypes have been shown to differentially impact psychiatric symptom presentation, clinical features, and functional abilities. While there is extensive research regarding MDD subtypes and clinical characteristics, there has been limited information regarding the relationship between MDD subtypes and neurocognitive functioning. In particular, the neurocognitive impact of the subtype of treatment resistant depression (TRD), defined as MDD that is unresponsive to treatment, is unknown. The aim of this preliminary study was to address this gap by characterizing the neurocognitive profile of TRD. We characterized the performance of older adults with TRD on measures across multiple neurocognitive domains, and explored whether performance varied based on age and education.

Participants and Methods: Data utilized were drawn from a broader NIMH-funded, randomized, controlled study conducted at the University of New Mexico that investigated the clinical and cognitive outcomes of varying pulse amplitudes during acute electroconvulsive therapy (ECT) in adults with MDD. Participants in the study were age 50+ with a diagnosis of MDD, and further delineated by subtype as TRD. For this analysis, we utilized demographic and baseline neurocognitive data collected prior to start of treatment for those diagnosed with MDD, recurrent, severe (TRD). Neurocognitive measures included the Delis Kaplan Executive Function System (D-KEFS) Verbal Fluency and Color-Word Interference Subtests, Hopkins Verbal Learning Test-Revised (HVLT-R), and the Wechsler Adult Intelligence Scale 4th Edition (WAIS-IV) Digit Spans. Demographic-adjusted scaled scores were computed, and descriptive statistics were used to characterize the demographic and neurocognitive features of the sample. Multiple Analysis of Variance (MANOVA) was used to investigate difference in performance across neurocognitive measures based on level of education, with age as a covariate.

Results: The sample (n = 42) had a mean age of 65 (SD=8), education level between 12 and 14 years, 66.6% were female and 93% were

Caucasian. DKEFS Verbal Fluency Category Switching Total Switching Accuracy fell in the Average range (Mean SS=9.5, SD=3.1), and Color Word Inhibition Total Completion Time fell in the Average range (Mean SS=8.5, SD=3.3). HVLRT-R Total Recall Correct fell in the Mildly Impaired range (Mean T=35.5, SD=9.9) and Delayed Recall Correct fell in the Mildly to Moderately Impaired range (Mean T=32.9, SD=11.0). WAIS-IV Digit Span fell in the Average range (Mean SS=9.5, SD=2.2). Results indicated that age did not adjust outcomes on the neurocognitive variables, Wilks's $\lambda=0.63$, $F(6, 23)=2.13$, $p=0.08$. We found no evidence for significant effect of level of education on neurocognitive functioning when controlling for the covariate of age, Wilks's $\lambda=-0.16$, $F(36, 103.7)=1.47$, $p=0.07$.

Conclusions: To our knowledge, this is one of two studies to examine neurocognitive functioning in patients with TRD. The analysis indicated generally intact performance in the neurocognitive domains of executive function (inclusive of verbal fluency, cognitive flexibility, and inhibition), auditory attention and working memory, and Impaired performance on indices of verbal learning and memory. Age did not impact performance on neurocognitive measures, and there was no significant effect for level of education. Further research is warranted to confirm these findings and further explicate the neurocognitive profile of TRD.

Categories: Mood & Anxiety Disorders

Keyword 1: depression

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50 BSI-18 as a Measure of Psychological Distress Across Different Domains in TMS Patients

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Objective: Transcranial magnetic stimulation (TMS) is an effective treatment for individuals with pharmacoresistant major depressive disorder (MDD), yet identifying which patients best respond remains an important area of inquiry. The Brief Symptom Inventory (BSI-18) serves as a screen for psychological distress, providing measures across three separate domains (e.g., somatization, depression, and anxiety) and one composite score (i.e., global severity index). The psychometric properties of the BSI-18 have been validated across multiple studies; however, it has sparsely been used to track changes in patient symptoms in response to intervention. Assessing patient symptom severity across these domains is imperative since these symptoms can negatively influence cognitive functioning. Accordingly, the current study utilized the BSI-18 to measure psychological distress across these different domains in patients receiving TMS treatment. We hypothesized that all domains of the BSI-18 would see a significant decrease after treatment, that elevated scores in specific domains would predict a less favorable response to treatment, and that measurement of depressive symptoms will be consistent across measures of similar scope.

Participants and Methods: Veterans ($n=94$) with MDD and met standard clinical TMS criteria were administered the BSI-18 before and after receiving an adequate dose of treatment (e.g., 30 sessions). Paired Samples T-test were used to compare the pre-treatment and post-treatment scores across domains.

Results: The results of paired sample t-tests indicated a statistically significant reduction in measures of global psychological distress ($t(93) = 7.99$, $p < .001$, Cohen's $d = .82$), as well as depressive ($t(93) = 8.34$, $p < .001$, $d = .86$), anxious ($t(93) = 7.64$, $p < .001$, $d = .79$), and somatic symptoms ($t(92) = 5.29$, $p < .001$, $d = .55$) after receiving treatment. Individuals with elevated levels of anxiety (e.g., BSI-A>63) saw a significant reduction in depressive ($t(62) = 8.15$, $p < .001$, $d = 1.03$), anxious ($t(62) = 8.34$, $p < .001$, $d = 1.05$) and somatic ($t(61) = 4.94$, $p < .001$, $d = .63$) symptoms. Lastly, two measures of depressive symptoms, the BSI-D and PHQ-9,