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). HVLT-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 λ=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 λ=-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
Keyword 2: neurocognition
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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,

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had a statistically significant strong, positive relationship before (r=.66) and after (r=.88) treatment (all n=65 and p<.001).
Conclusions: The BSI-18 can detect changes in different domains of psychological distress as a function of TMS treatment. Unexpectedly, TMS patients with elevated levels of anxiety responded well to treatment despite comorbid anxiety often being associated with less favorable outcomes in treatment trials. The positive relationship of the BSI-D and PHQ-9 before and after treatment suggests the use of the BSI as a valid, additional measure of depressive symptoms.

Categories: Mood & Anxiety Disorders
Keyword 1: depression
Keyword 2: treatment outcome
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51 The Minimal Effect of Depression on Cognitive Functioning when Accounting for Performance Validity

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Objective: While much research has demonstrated a relationship between depression and cognitive deficits, most studies have neglected to include measurements of performance validity. The very small number of studies that have examined this relationship when accounting for performance validity have found that the relationship between depression and cognition is small or nonsignificant. The current study examined the relationship between depression (assessed through both clinical interview and self-report symptom measures) and multiple domains of cognition after accounting for noncredible performance on neuropsychological testing.
Participants and Methods: Participants were veterans referred for outpatient clinical evaluation. Among other tests that varied across patients, the neuropsychological battery included: California Verbal Learning Test - second edition (CVLT-II) total immediate recall across trials 1-5, short delay free recall, and long delay free recall; Trail Making Test; FAS and Animal Fluency; Rey–Osterrieth Complex Figure Test (ROCF) copy and 3-minute delay recall; and Wisconsin Card Sorting Test (WCST) categories completed, total errors, and percent perseverative errors. These tests represent domains that have previously been examined in relation to depression (e.g., memory, processing speed, executive functioning). Evaluations were conducted for clinical purposes, so that some individuals who were not administered certain tests have missing data. The first set of regression analyses (N=206) included age, sex, and education at Step 1, Beck Depression Inventory-2 (BDI-2) total score at Step 2, and pass or failure of Trial 1 of the Test of Memory Malingering (TOMM) at Step 3 as predictors of performance on the 12 test indices. The second set of regression analyses (N=559) mirrored the first but with Major Depressive Disorder (MDD) diagnosis at Step 2 instead.
Results: In the first set of analyses, after including TOMM in the model, only the relationship between BDI-2 and verbal fluency remained significant, but did not survive Bonferroni correction (p<.004). In the second set of analyses, before including the TOMM, MDD diagnosis was significantly related only to worse performance on Trails A and CVLT-II Short and Long Delay Free Recall, with small effect sizes (rp=.06–.15). When TOMM Trial 1 was included in the model, MDD diagnosis became a nonsignificant predictor of CVLT-II Long Delay Free Recall but remained a significant predictor for Trails A and CVLT-II Short Delay Free Recall (p<.05). After Bonferroni correction (p<.004), with TOMM Trial 1 included in the model, MDD diagnosis remained a significant predictor only of CVLT-II Short Delay Free Recall, with a small effect size (rp=.17).
Conclusions: After accounting for noncredible performance, there was little evidence for a relationship between depression diagnosis or symptoms and many cognitive domains. These results suggest that previously reported effects of depression on cognition are not mainly due to underlying neurological mechanisms, but rather to motivational factors. Future research could focus on the potential psychological mechanisms (e.g., negative attitudes, expectancy bias, low motivation, etc.) driving the

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