

Asberg Depression Rating Scale, and a measure of verbal episodic memory (WMS-IV Logical Memory) as part of a larger neuropsychological battery. Data were collected from baseline to three years as part of a larger NIMH-supported longitudinal study. Two-level linear mixed-effect models were fitted to predict memory. State and trait anxiety were used as time-varying predictors. The between-person (level 2) and within-person (level 1) effects of anxiety on memory were assessed controlling for the time trend, age, education, gender, race, and change in depression over time.

Results: Plot trajectories across variables revealed a negative correlation such that as anxiety decreased, memory improved over time. Hierarchical linear mixed-effect models revealed that average state anxiety was a marginally significant between-person (level2) predictor for memory [$B=-0.041$, $t(128)=-1.8$, $p=0.083$]. Individuals with greater average state anxiety were more likely to experience memory decline compared to those with lower average state anxiety. In addition, the within-person effect (level 1) of state anxiety was significant [$B=-0.096$, $t(253)=-2.7$, $p=0.007$]. As an individual's anxiety increased over time, their memory declined. Trait anxiety showed a significant within-person effect on memory [$B=-0.087$, $t(254)=-2.0$, $p=0.048$], but a non-significant between-person effect [$B=-0.005$, $t(124)=-0.06$, $p=0.95$].

Conclusions: Anxiety appears to increase the risk of memory decline in older adults with major depression, a cohort who are already at risk of cognitive decline. Changes in anxiety increased risk of memory decline even when accounting for changes in depression over time. Although the causal link between anxiety and cognitive impairment remains unclear, it is possible that anxiety and worry may compete for cognitive resources necessary for demanding tasks and situations, detracting from abilities, such as attention and working memory. Older adults with depression may also have difficulty coping adaptively with anxiety, which may negatively affect cognition. Finally, presence of anxiety may represent a form of mild behavioral impairment, a prodrome of cognitive decline leading to dementia. Overall, the present study highlights the negative impact of anxiety on memory performance, indicating that treatment interventions targeting anxiety in older adults are essential to help prevent cognitive decline.

Categories: Mood & Anxiety Disorders

Keyword 1: aging disorders

Keyword 2: anxiety

Keyword 3: memory complaints

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60 Recognition of Emotional Words: Relationship Between Rumination, Depression, Objective and Subjective Cognitive Impairment

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Objective: Cognitive impairment in depression could present as subjective and objective, but the intensity of subjective impairment is higher and is not correlated with the deficits measured by neuropsychological tests. Subjective cognitive impairment lowers quality of life and is associated with the severity of depression. Among depressive patients, negative emotional bias is present. It is better memory for negative or positive information than for neutral information. We hypothesized that rumination is associated with subjective cognitive impairment.

Participants and Methods: The study was performed through the online PsyToolkit platform. The study sample consisted of 168 healthy controls and 93 patients with depression were enrolled in the study. Participants completed questionnaires and performed a memory task that contained emotional words. The forty words were chosen from the Nencki Affective Word List. The list for memory test consists of 5 words from each Category: Happiness, Anger, Fear, Sad, Disgusting, and Neutral, and 10 words from category 'Unclassified' to balance the valence and arousal of the set. After 15 minutes, they recognized old words from the list of 80 words. Half of them were the same as in the first part, and other words were new, chosen with the same criteria. Depression symptoms were measured using the Beck Depression Inventory-II, subjective cognitive impairment with the Perceived Deficits Questionnaire-20, and intensity of rumination with the Polish Questionnaire of Rumination.

Results: Subjective cognitive impairment and rumination were higher in patients with

depression. They also had a higher error rate than healthy controls $U = 6462.5$; $p = .021$, especially in words from the neutral ($U = 6292$; $p = .008$) and happiness category ($U = 6585$; $p = .031$). However, there was no association between subjective cognitive impairment and performance in memory tasks. The regression analysis showed that depressive symptoms and intensity of rumination are better predictors of subjective cognitive deficits than objective performance on a memory task. The results of PDQ-20 were correlated with the error rate of words from categories: Happiness ($r = -.162^{**}$), Sad ($r = -.116^*$) and Neutral ($r = -.145^{**}$). Words from categories Happiness, Disgust and Neutral were significantly better recognized than Unclassified, Fear or Sad group of words $\chi^2 F(6) = 132.685$; $p < .001$. In MDD group recognition of Disgust words were statistically highest than Anger and Fear words $\chi^2 F(6) = 36.795$; $p < .001$. The recognition of Happiness and Neutral word were not significantly different to other words.

Conclusions: Cognitive problems are common in depression and affect quality of life. Subjective cognitive impairment is more closely related to rumination than objective cognitive impairment among healthy participants and patients with major depressive disorder. Emotional bias among depressive patients has been partially confirmed. Emotional impact is important for memory of words and subjective perception of cognition.

Categories:

Neuropsychiatry/Psychopharmacology

Keyword 1: depression

Keyword 2: emotional processes

Keyword 3: cognitive functioning

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61 Increased Apathy Post-Laser Ablation for Refractory Obsessive-Compulsive Disorder

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Objective: Severe OCD is often nonresponsive to pharmacological and behavioral therapies and thus surgical interventions are emerging. Surgical interventions have proven to be efficacious for treating refractory OCD, however limited publications suggest 22-40% of patients experience transient apathy and disinhibition post-surgery (McLaughlin et al., 2021). Apathy is highly associated with the same brain regions, the prefrontal cortex, striatum, and thalamus, which have also been implicated in OCD symptoms (Le Heron et al., 2018). Prior research noting post-surgical changes in apathy in OCD either used physician observations or less precise surgical methods (i.e., gamma knife or radiofrequency ablation). Apathy has also been highly associated with depression and executive dysfunction (Raffard et al, 2020) and often not co-assessed in prior studies. The newest intervention, cutting-edge MR-guided laser interstitial thermal therapy (LITT), limits damage outside the region of interest by precise control of thermal application in real-time. Thus, the current case series aims to investigate objective patient-reported change in apathy, disinhibition, depression, and executive dysfunction following anterior capsulotomy via this newest surgical approach for OCD.

Participants and Methods: In this retrospective study, the responses of ten consecutive patients pre- and post-LITT on the following measures were examined: Frontal Systems Behavior Scale (FrSBe), Beck Depression Inventory-II (BDI-II), and Yale Brown Obsessive-Compulsive Scale (Y-BOCS). Reliable Change Index (RCI) was used to evaluate meaningful change in pre- and post-LITT self-reported levels of apathy, disinhibition, executive dysfunction, along with depressive symptoms. Per prior published guidelines, patient-reported Y-BOCS (range 0-40) scores were used to measure OCD symptoms with 24-34 % score reduction representing partial and 35% or greater score reduction representing full response (Pepper et al., 2019).

Results: Seven patients (70%) were male, with a sample mean age of 38.4 (SD=13.6) and a mean of 14.6 (SD =2.27) years of education. Mean Y-BOCS score decreased from 32 (SD=5.3) before surgery to 18.8 (SD=11.1) after. Over 65% had partial or full response in OCD symptoms post-surgery. Six patients endorsed increased apathy, with others endorsing no change. Half of the non-responders reported this increase in apathy. The cohort remained relatively stable in disinhibition and executive