Association of Dissociative Symptoms and Neurocognitive Dysfunction in Patients with Depression

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Introduction: Here we investigate association of dissociative symptoms and neurocognitive dysfunction in patients with major depressive disorder (MDD). We predicted that higher levels of dissociative symptoms among persons with MDD would be associated with lower scores on objective measures of frontotemporally mediated neurocognitive functions.

Methods: Two groups of patients, who met DSM V diagnostic criteria of recurrent MDD, were selected and matched according to gender, age and education. One group (13 patients, mean age 40.2, SD=4.8; 8 female and 5 male) consisted of patients having MDD and dissociative symptoms and second group (12 patients, mean age 42.2, SD=4.3; 8 female and 4 male) consisted of patients having MDD only.

The Hamilton Rating Scale for Depression (HAM-D) was administered to assess the severity of depressive symptoms.

To assess dissociative symptoms participants completed the Multiscale Dissociation Inventory (MDI).

To measure frontotemporally mediated cognitive functioning in patients of these two groups, following tests were administered:
1. Color Trails Test;
2. Wisconsin Card Sorting Test;
3. Conners’ Continuous Performance Test (CPT).

To examine group differences on clinical and neuropsychological scores, two-tailed independent samples t-tests was performed.

Results: Participants with MDD and dissociative symptoms performed significantly worse than patients with only MDD. MDI depersonalization scores were correlated with measures of processing speed, mental flexibility and sustained attention.

Color Trails Test Part 2 t-scores were negatively correlated with depersonalization symptoms, where lower t-scores indicate slower completion time.

Depersonalization symptoms on the MDI were also related to the CPT Hit Reaction Time Interstimulus Interval Change t-score variable (a measure of vigilance), such that higher levels of depersonalization were related to better performance in a less active environment (where stimuli were presented less frequently).

Conclusions: Our results suggest that dissociation, specifically depersonalization symptoms, is related to specific subtle impairments in neurocognitive functioning. Dissociative symptoms should ideally be assessed before treatment, as they may influence MDD treatment response. The findings point towards the need to further examine the impact of dissociation on functioning in patients with depression.