Neurocognitive Impairments in Major Depressive Disorder: A Clinical and Cognitive Perspective.

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Introduction

Major Depressive Disorder (MDD) is not only characterized by persistent low mood and emotional disturbances but also by notable neurocognitive impairments that significantly affect patients' daily functioning and quality of life. These impairments often persist even after the remission of mood symptoms, suggesting a distinct cognitive dimension within the disorder [1, 2, 3, 4, 5].

Clinically, patients with MDD frequently exhibit deficits in attention, memory, executive function, and processing speed. Such impairments can hinder occupational performance, interpersonal relationships, and treatment adherence. From a cognitive neuroscience perspective, these dysfunctions are linked to abnormalities in brain regions such as the prefrontal cortex, hippocampus, and anterior cingulate cortex—areas responsible for higher-order cognitive processing [6, 7, 8].

Neuroimaging studies reveal structural and functional changes in these regions, including reduced grey matter volume and hypoactivation during cognitive tasks. Furthermore, dysregulation in neurotransmitters such as serotonin, dopamine, and glutamate has been implicated in both mood dysregulation and cognitive deficits.

Early detection and targeted interventions, including cognitive remediation therapy, pharmacological strategies, and neurostimulation techniques, show promise in improving cognitive outcomes. Recognizing and addressing these cognitive impairments is essential for comprehensive treatment planning in MDD, promoting better recovery and long-term functionality [9, 10].

Conclusion

Neurocognitive impairments are a core and often overlooked feature of Major Depressive Disorder, extending beyond emotional symptoms and contributing to long-term functional disability. Understanding these deficits from both clinical and cognitive perspectives is crucial for early identification and effective management. Integrating cognitive assessments and targeted interventions into routine care can enhance treatment outcomes, support recovery, and improve the overall quality of life for individuals affected by MDD.

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***Received:** 27-May-2025, Manuscript No. AACPCP-25-167446; **Editor assigned:** 01-Jun-2025, PreQC No. AACPCP-25-167446 (PQ); **Reviewed:** 15- Jun-2025, QC No. AACPCP-25-167446; **Revised:** 22- Jun-2025, Manuscript No. AACPCP-25-167446 (R); **Published:** 29- Jun-2025, DOI:10.35841/AACPCP-9.2.216*

***Citation:** Verma A. Neurocognitive Impairments in Major Depressive Disorder: A Clinical and Cognitive Perspective. Cogn Psychol. 2025; 9(2):216*