

Deficits in Perceptual and Musical Memory in Individuals with Major Depressive Disorder

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Abstract : Introduction: One of the least explored cognitive functions in relation with depression is the one related to musical stimuli. Music perception and memory can become impaired as well. The term amusia is used to define a type of agnosia caused by damage to basic processes that creates a general inability to perceive music. Therefore, the main objective is to explore performance-based and self-report deficits in music perception and memory on people with major depressive disorder (MDD). Method: Data was collected through April-October 2021 recruiting people who met the eligibility criteria and using the Montreal Battery of Evaluation of Amusia (MBEA) to evaluate performance-based music perception and memory, along with the module for depression of the Mini International Neuropsychiatric Interview, and the Amusic Dysfunction Inventory (ADI) which evaluates the participants' self-report concerning their abilities in music perception. Results: 64 participants were evaluated. The main study, referring to analyzing the differences between people with MDD and the control group, only showed one statistical difference on the Interval subtest of the MBEA. No difference was found in the dimensions assessed by the ADI. Conclusion: Deficits in interval perception can be explained by mental fatigue, to which people with depression are more vulnerable, rather than by specific deficits in musical perception and memory associated with depressive disorder. Additionally, significant associations were found between musical deficits as observed by performance-based evidence and music dysfunction according to self-report, which could suggest that some people with depression are capable of detecting these deficits in themselves.

Keywords : depression, amusia, music, perception, memory

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