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SOCIAL STATUS DETERMINES THE PERFORMANCE EVALUATION IN OCD PATIENTS

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Hierarchical social relationships are inherent to many species including humans. People evaluate its own actions and achievements using social comparisons. In social scenarios, people are more inclined to monitor for threats and evaluate its own behaviour. Recently it have been reported evidence demostrating that medial frontal negativity (MFN), an electrophysiological index that reflects performance evaluation, is significantly enhanced in situations of social comparisons. A growing cognitive literature in psychiatry have reported similar effects in MFN in OCD patients. In these patients have been documented changes in the modulation of the ERP components, collectively referred to as medial frontal negativities (MFNs)(error related negativity (ERN) and frontal related Negativity (FRN)), which are related with the activity of the anterior cingulate cortex (ACC) and surrounding medial prefrontal regions. These alterations are related with reported difficulties to supervise the performance and to evaluate the conflictive information. In this research, we have explored how OCD patients process hierarchical social information. To this purpose, we have used a complex computarized game where patients are stimulated to compare their performance in a perceptual task, with players with different social status. As we expected, we have observed increased modulations of MFNs components in the group of OCD patients vs. control group. Interestingly, we have observed different modulations in MFNs in the patients according to the social status of the competitor. These effects suggest that the reported effects in OCD patients to monitorize the performance are differently modulated for the type of hierarchical comparison.

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