Endophenotype Model in Obsessive Compulsive Disorder: Identification of Risk and Protective Factors

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Obsessive Compulsive Disorder (OCD) is a neuropsychiatric disorder highly prevalent, characterized by intrusive thoughts and repetitive behaviors that are difficult to control despite preserved insight into their excessive or irrational nature. Current treatments can benefit only 60-70% of patients, and untreated OCD persists and becomes chronic. The fundamental challenge in identifying novel therapeutic targets is our limited understanding of underlying biological mechanisms, so identifying neuropsychological outcomes that provides a crucial step in understanding the pathophysiology of the disease. To investigate the cognitive dysfunction associated with OCD we measured visual memory and learning (PAL), response inhibition (SST) and mental flexibility (IED) of 20 patients with OCD, 20 siblings and 20 controls using Cambridge Neuropsychological Test Automated Battery focus on endophenotype approach., For the PAL test we observed a significant difference between controls and siblings and between controls and patients. The difference between sibling and patients was not significant, demonstrating that visual memory and learning are risk factors. Using similar statistical criteria, we concluded that the IQ of execution and the visual discrimination were protective factors. When analyzing possible mediators and moderators of OCD, the resilience protection factor and the experiential avoidance risk factor was correlated with PAL and IQ. Finally, our hypothesis is that visual memory and learning are risk factors (endophenotype) for the disorder that together with higher experiential avoidance became critical for the development of the symptoms. Thus, if we can intervene in these endophenotypes, it may be possible to improve the symptomatology of the disorder.

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