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EXECUTIVE FUNCTIONS AND IMPULSIVITY IN ALCOHOL DEPENDENCE: FOCUS ON DRINKING BEHAVIOUR

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There is increasing consensus on the notion of addiction as a brain disorder characterized by longstanding changes in cognitive functioning, especially in so-called executive functions. Recent evidences indicate that specific components of executive functions, considered the domain of the frontal lobes, including dysfunctional impulsivity, could be considered a hallmark of addiction.
Aim of the present study was to explore the domain of executive functions in abstinent non comorbid alcohol dependent subjects, in comparison with matched non clinical controls. Any relationship with impulsivity and drinking behaviour (binge drinking) was also investigated.
We used a selective battery of neuropsychological tests designed to assess several components of executive functions, including fluency, working memory, analogical reasoning, interference and cognitive flexibility, attention, concentration, problem solving strategy and abstract reasoning. BIS-11 was also administered to explore impulsivity levels.
Significant differences in many of the domains explored between alcohol dependent patients and controls have been founded. Intriguingly, impulsivity in alcoholics seems to not inhibit cognitive performance. Data about binge drinking will be also presented.
Our results show that alcohol dependent patients present a weaker performance in all the domains referable to executive functions when compared to controls. Disruptions in inhibitory control are central to many theories of addiction; the inhibitory activities of the Frontal and Prefrontal Cortex, are particularly important when an individual needs to over-ride a reflexive response, such as a craving response to drug-related cues.

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