P-38 - THE IMPACT OF ECSTASY UPON PROSPECTIVE MEMORY AND RELATED CENTRAL EXECUTIVE PROCESSES

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Introduction: The prolonged use of MDMA or ´ecstasy´ has been associated with a range of memory deficits, including impairments in prospective memory (PM: remembering future activities or events). What is not clear is the extent to which ecstasy users' PM problems might be underpinned by more general central executive problems within memory (CE: a set of processes underpinning the organisation and flow of information within memory).
Objective: The present study extended this research by examining whether persistent use of ecstasy damages prospective memory independent of CE.
Methods: An existing-groups design was utilised, comparing ecstasy users with a non-user group as the independent factor. Scores on the Cambridge Prospective Memory Test (CAMPROMPT: an objective measure of time- and event- based PM) constituted the PM dependent measure and scores on the Reverse Digit Span task (RDS: an objective CE task) constituted the CE dependent measure. Age, mood, and other drug use (alcohol, smoking, cannabis) were also measured.
Results: After observing no between-group differences on age, mood, and other drug use, ecstasy users performed significantly worse on the CAMPROMPT and RDS than did the non-users. After controlling for RDS scores, the difference between users and non-users on CAMPROMPT disappeared.
Conclusion: The finding that ecstasy users showed reduced performance on the CAMPROMPT after controlling for CE performance suggests strongly that objective PM performance is underpinned by CE functions, suggesting CE deficits may be at the heart of ecstasy-related PM deficits.

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