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Residual effects of cannabis use on attentional bias towards fearful faces

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Abstract

Cannabis use has increased since legalization in various states within the United States of America. Although much of the research on the neurological and psychological effects of cannabis has been on non-human animals, the current research suggests that it can have anxiolytic effects and also decrease some cognitive functioning (e.g. memory, emotional processing, etc.). Individuals with high anxiety have been suggested to have increased attentional bias towards threat-related stimuli. The current study measured event-related potential (ERP) during a dot-probe task with fearful and neutral facial expression to examine the residual effects of cannabis use on attentional bias. The results indicated that there was reduced attentional bias, as measured by the P1 component in cannabis users, which is similar to low anxious individuals. Additionally, there was no difference between users and non-users in N170, indicating that the residual effects of cannabis did not interfere with face processing. However, an exploratory correlation indicated that higher cannabis use was associated with reduced N170 towards fearful faces. Cannabis use was associated with enhanced N2pc, which would indicate greater spatial

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