

ABSTRACT

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Effects of cannabis use have been found to be widespread, affecting brain, neuronal systems, behavior, and epigenetics, in particular. These effects seem to be particularly prevalent in males and more profound when exposure occurs during the adolescent period. Cannabis use during the perinatal period may have implications on neurodevelopment and functioning. Multiple studies have conducted tests using rats, the results of which show possible cognitive changes in the hippocampus and prefrontal cortex that could last into adulthood. Altered drug reward and social behavior may be the consequence of these cognitive and neuronal changes. Further, the effects of cannabis may lead to epigenetics modifications, as a function of maternal and paternal changes to gene expression. These findings may be applicable to human cannabis use since the drug activates the endocannabinoid system of both animals and humans. Future research should focus on the possible long-term effects.