

# [The years of age. fontes, et al. (2011)](https://assignbuster.com/the-years-of-age-fontes-et-al-2011/)

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The Fontes, et al. (2011) study investigated the impact of cannabis use on the development of the brain  prior to and subsequent to attainingthe age of fifteen years. The authors referred to several scholars who previouslyinvestigated these relationships, and they indicate that most of these studiessuggest that puberty is a stage of majorexposure to neurocognitive effectsrelated to substance misuse. incontrast, the authors point out that few important studies have attempted to measure the disparities in cognitive performance involvingchronic cannabis addicts who begun abusing cannabis prior to attaining fifteen years ofage, with chronic addicts who begunafter reaching fifteen years of age. Longitudinal, as well ascross-sectional structural brain imagingresearch demonstrate that the brain, prior to the reaching fifteen years of age, is under a complicated pathof development.

The motive of the study by Fontes, et al. (2011) was toprobe the executive functioning of persons who began chronic abuse of cannabisbefore reaching the age of fifteen, relativeto those who begun subsequentto reaching fifteen years of age. Fontes, et al.

(2011) assert that, while a number of studies have recognizedneuropsychological deficits related tochronic cannabis experience, there are study outcomes investigatingrecurrent cognitive impairments associated to chronic cannabisthat confirm contradictory viewpoints.  The authors continue to assert that some studiesdemonstrate that even subsequent to abstinence, individuals who are chroniccannabis addicts may continueto encounter considerableneuropsychological deficits. The authors allege that theseconflicting outcomes may bebased on the theory that the neurotoxic effects of cannabis differ in populations.

In this regard, when individuals below fifteen yearsof age are exposed to substances that are potentially neurotoxic, they becomemore liable to develop recurrent neuropsychological deficits, in comparison to older persons. Fontes, et al. (2011) asserts thatadolescents are at risk of defective cognitive effects related to the abuse ofcannabis. The authors allege that resultsfrom diverse studies imply that chronic cannabis addicts figure out complicated information significantlyslowly, while performancedeteriorates in cognitive overload dutiesas cannabis use increases. It is in this background that Fontes, et al. (2011) investigatedthe effect on executive functioning among 104 chronic cannabis addicts. While focusing on executive functioning, the groupwas divided in two sets, where 49 individuals were chronic users in theearly-onset category and 55individuals, late-onset chronic addicts and 44 cannabis-free controlsthat carried out neuropsychological duties. The control group involved individuals who not abused cannabis three months earlier or more than in five incidences across their lifetime.

Comparisons relating to neuropsychologicalmeasures were carried out by means of generalisedlinear model analysis ofvariance (ANOVA). In the study, Fontes, et al. (2011) held the theory that the early-onset group was likely to exhibit poor outcomes in cognitive tests thatevaluate executive functioning, in comparison to the late-onset group, and the healthy controls. The inclusion criteria employed for chronicusers of cannabis was males and females, between eighteen and fifty-five years of age, exhibiting DSM-IV cannabis abuse or addiction as stipulated by the Composite International Diagnostic Interview (CIDI).

The criterionfor exclusion entailed existingrecord of other DSM-IV Axis I disorders, excluding nicotine-relateddisorders as stipulated by CIDI; present usage of psychoactive drugs, record of head trauma with seizures for over fiveminutes, intellectual incapacity orapproximate IQ less than eighty, as well as irreparable hearing, visionor injury. Persons in thecontrol group were eligible forthe study on condition thatthey were between eighteen and fifty-five years of age, and did not abuse psychoactive substances, did not holda record of head trauma, and never diagnosed with Axis I DSM-IV disorders intheir lifetime. The study’s protocol was endorsed by the local institutional review board, while the respondents were under obligation to consent in writing, in line with the Federal University of Sao Pauloreview board. The study outcomes point out that the early onsetcohort are cognitively impaired in relation to controls, meaning that early use of cannabis is linked to negativeimpact on the brain. These outcomes correspond to former studies that investigated cognitive effects linked to earlyexposure to cannabis.

The study did not establish disparitiesin executive functioning outcomes between the late-onset group and the healthy group. In conclusion, the study findings imply thatearly-onset chronic users of cannabis but not display executive deficits, while the contrary is the case in the late-onset group. While the fundamental mechanisms maynot be entirelyunderstood, it is apparent thatexposure to cannabis at an early age might hold more significant detrimentalimpact on neurocognitive functioning.