

# [The to chronic cannabis that show contradictory](https://assignbuster.com/the-to-chronic-cannabis-that-show-contradictory/)

The Fontes, et al. (2011) studyinvestigated the impact of cannabis abuse on brain development prior to and subsequentto attaining the age of fifteen years. The authors referred to several scholarswho previously investigated these relationships, and they indicate that most ofthese studies suggest that puberty is a stage of significant exposure to neurocognitiveeffects linked to substance abuse. On the other hand, the authors point outthat few important studies have endeavoured to measure the disparities incognitive performance involving chronic addicts of cannabis who begun abusing cannabisbefore attaining the age of fifteen years, with chronic addicts who started afterreaching the age of fifteen. Longitudinal, as well as cross-sectionalstructural brain imaging research have demonstrated that the brain, prior tothe reaching fifteen years of age, is under a complicated course of biological development.

The motive of the study by Fontes, et al. (2011) was to probe the executivefunctioning of persons who began chronic abuse of cannabis before attaining theage of fifteen years, compared with those who started after attaining the ageof fifteen years. According to Fontes, et al. (2011), while several studies have established neuropsychological deficits linked tochronic cannabis exposure, there are study outcomes investigating recurrent cognitiveimpairments linked to chronic cannabis that show contradictory viewpoints.  The authors continue to assert that somestudies demonstrate that even after practicing abstinence, chronic cannabisaddicts may continue to experience considerable neuropsychological deficits. Theauthors explain that these conflicting findings may be based on the hypothesisthat the neurotoxic impact of cannabis differ among populations. In thisregard, when persons of less than fifteen years of age are exposed tosubstances that are potentially neurotoxic, they become more liable to develop recurrentneuropsychological deficits, in comparison to older persons.

Fontes, et al. (2011) asserts thatadolescents are at risk of defective cognitive effects related to the abuse ofcannabis. Puberty is a stage in which the brain seems to be defenceless to theneurotoxic impact of cannabis. The authors allege that results from diversestudies imply that chronic cannabis addicts process complicated information significantlyslowly, while performance deteriorates in cognitive overload responsibilitiesas lifetime use increases. It is in this context that Fontes, et al.

(2011)investigated the effect on executive functioning among 104 chronic cannabisaddicts. While focusing on executive functioning, the group was divided in two sets, where 49 individuals were chronic users in the early-onset category and 55 individuals, late-onset chronic users, as well as 44 healthy controls that carried outneuropsychological responsibilities. The control group involved individuals whohad not abused cannabis in the previous three months, and less than five timesin their lifetime. Comparisons concerning neuropsychological measures werecarried out through a generalised linear model analysis of variance (ANOVA). Thesechronic users of cannabis were initially under care at the Substance UseDisorder Program, Federal University of Sao Paulo.

In the study, Fontes, et al. (2011)held the hypothesis that the early-onset group (prior to 15 years of age) waslikely to exhibit poor performance in cognitive tests that evaluate executive functioning, in comparison to the late-onset group, and the healthy controls. The inclusioncriteria employed for chronic users of cannabis was males and females, between eighteenand fifty-five years of age, exhibiting DSM-IV cannabis abuse or addiction as stipulatedby the Composite International Diagnostic Interview (CIDI).

The criteria for exclusionentailed present record of other DSM-IV Axis I disorders, excluding nicotine-relateddisorders as stipulated by CIDI; present usage of psychoactive drugs, record ofhead trauma with seizures for above five minutes, intellectual incapacity or approximateIQ less than 80, as well as irreparable hearing, vision or injury. Persons inthe control group were eligible for the study on condition that they werebetween eighteen and fifty-five years of age, and did not abuse psychoactive substances, did not hold a record of head trauma, and never diagnosed with Axis I DSM-IVdisorders in their lifetime. The study’s protocol was endorsed by the localinstitutional review board, while the respondents were under obligation toconsent in writing, in line with the Federal University of Sao Paulo reviewboard. The study findings point out thatthe early onset cohort are cognitively impaired in relation to controls, implying that early use of cannabis is linked to negative impact on the brain.

These outcomes correspond to preceding studies that investigated cognitive effectslinked to early exposure to cannabis. The study did not establish disparities inexecutive functioningperformance between the late-onset cohort and the healthy cohort. In conclusion, the study findingsimply that early-onset chronic users of cannabis but notdisplay executive deficits, while the contrary is the case in the late-onsetgroup.

While the fundamental mechanisms may not be entirely understood, it isapparent that exposure to cannabis at an early age might hold more significantdetrimental impact on neurocognitive functioning.