

Science MATTERS! ... IN CONNECTICUT

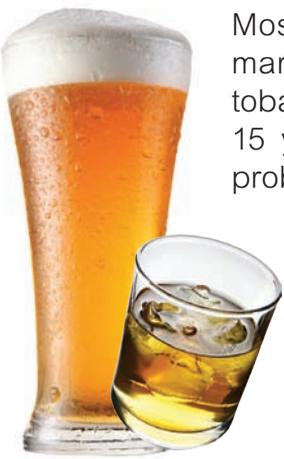
Marijuana and Your Future



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Legalization of marijuana

for both recreational and medicinal use is steadily growing in the United States and its use has also been steadily increasing among both adolescents and young adults over the last decade. Additionally, most users in the US, regardless of age often do not consider marijuana a drug of abuse and perceive potential harm to be quite low.



Most people start using marijuana, alcohol and tobacco at approximately 15 years of age. Serious problems for heavy users typically begin to occur around the age of 18 for marijuana, 21 for alcohol and 20 for cigarettes. Some studies indicate that heavy marijuana use affects the developing brain, particularly in the areas of **cognition** and behavior. Both of these brain functions can affect a users' future success.



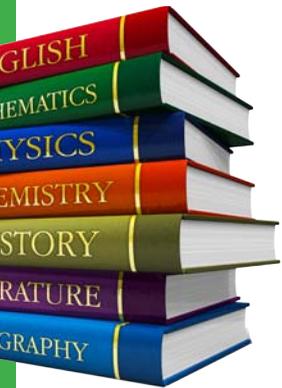
Our research examined several life achievements in young adults in relation to heavy marijuana and alcohol use over time. The Collaborative Study of the Genetics of Alcoholism, young adult sample collected from 6 different sites that cross the US included 1165 individuals, 44% male and 56% female. This subject interview data was from a larger database that was collected over 8-10 years. Life success was defined in relation to marital status, educational achievement, employment, and social economic potential in early adult life.

Our research found that:

1. Young men who were heavy users of marijuana and alcohol were most negatively affected. By their early 20's they were less likely to be married, fewer obtained a college degree, were more likely to be unemployed and had lower social economic potential [earning power].
2. Girls who were heavy users of marijuana and alcohol were less likely to obtain a college degree and had less overall social economic potential as young adults.

"Have you ever thought of the effects that marijuana can have on your future?"

SKILLS AND KNOWLEDGE



I am currently a resident in psychiatry but other members of the team have training in genetics, statistics, psychology and other areas of science that relate to adolescent development. I work daily with many individuals who abuse a variety of substances. Through conversations with my adolescent patients, I have realized how many of them use marijuana regularly with limited knowledge of its possible short-term and long-term consequences. This peaked my interest in marijuana research. When I looked into the existing literature, I found there was very little research conducted on the long-term effects of marijuana use. I decided to do additional

research in the area and formulated my hypothesis. I was able to find two fantastic mentors with many years of experience to help me with this study. There were many statistical analyses run on a large amount of data that was collected over many years.

WORDS to know

Marijuana: (also commonly known as Weed, Pot, Reefer, Grass, Dope, Ganja, Mary Jane, Hash, Herb, Skunk, Blunt, Ganja) Shredded, green-brown mix of dried flowers, stems, and leaves from the plant Cannabis sativa

Cognition: the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses

Comorbid: the simultaneous presence of two or more chronic diseases or conditions in a patient

Hypothesis: a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation.

Polysubstance users: Being a user of more than one substance, e.g., marijuana, alcohol, tobacco, cocaine, etc.

Overall, the study found that heavy marijuana and alcohol use does negatively impact life achievement for young adults, particularly in males. Generally, individuals, including adolescents and young adults, should educate themselves on anything that they are putting into their bodies as there may be negative consequences. Something may be legal but also detrimental to your health.



Meet the Scientist

I was always interested in biology and the life sciences. I found the inner workings of the body and brain fascinating. My interests led me to study biology in college and go on to medical school. I am currently studying to be a psychiatrist at UConn and I love what I do. Additionally, I have always valued volunteering. One activity that I really enjoy is the pet therapy work that my husband and I do with my dog (@therapyjake).

For Students and Teachers Making Curriculum Connections, see the following:

Connecticut State Department of Education (CSDE) - Common Core State Standards (CCSS): Mathematics

- CCSS.Math.Practice.MP1 Make sense of problems and persevere in solving them
- CCSS.Math.Practice.MP3 Construct viable arguments and critique the reasoning of others
- CCSS.Math.Practice.MP5 Use appropriate tools strategically

CSDE - Next Generation Science Standards: Scientific and Engineering Practices

- Asking questions and defining problems; developing and using models; planning and carrying out investigations; analyzing and interpreting data; using Mathematics and computational thinking; constructing explanations and designing solutions; engaging in argument from evidence; and obtaining, evaluating, and communicating information.

Hyperlinks:

- <https://today.uconn.edu/2017/11/booze-pot-teen-years-lesser-life-success/>
- <http://kidshealth.org/en/teens/marijuana.html>
- <https://teens.drugabuse.gov/drug-facts/marijuana>

