



Youths' higher rate of pot use matters

By Jim Crittenden & Susan Tapert

Thursday, November 22, 2012

In the midst of rapid cultural and technological change, there isn't much that has stayed the same since the 1960s. Marijuana use among youth and the research practices to study its effects on the brain are no exception. Current methods to study the drug's influence on adolescents are allowing health professionals and researchers the ability to understand its impacts.

Researchers at the University of California San Diego find that youth may be more susceptible than adults to marijuana's neurological effects because young people's brains are still developing. They discovered that among adolescents, marijuana use is associated with verbal learning disadvantages, attention problems, short-term memory loss, difficulty with problem-solving and trouble exercising inhibition. The studies also show that youth marijuana users require more brain-processing power to complete tasks than nonusers. The studies utilize functional magnetic resonance imaging that measures brain activity by detecting changes in blood flow, allowing researchers to study varying patterns in the brain when tests are given to those using marijuana and those who do not.

In another recent study, reported to the National Academy of Sciences, researchers examined the effects of marijuana use on brain development among 1,000 people in New Zealand. Those who started using marijuana before the age of 18 experienced a significant drop in their IQ score that persisted 25 years later. They also discovered that the more people smoked marijuana, the greater the reduction in their IQ. This is not good news for a generation that is going to have to achieve advanced degrees in order to stay competitive in a struggling economy and a highly competitive global market.

These studies are crucial in understanding how marijuana use interferes with normal adolescent development of the brain so that we can identify, at this critical time, those interventions that are successful in preventing first-time use.

This research is especially troubling to those who work closely with youth. Many educators have seen an increase in first-time use and youth are accessing marijuana at younger ages. Recent surveys suggest that high school students are more likely to smoke marijuana than cigarettes and that regular marijuana use is at a 10-year high among high school seniors, according to the University of Michigan's "Monitoring the Future" survey.

Given the health consequences of marijuana use, it's ironic that high-school students in San Diego County, ninth- and 11th-graders perceive marijuana to be less harmful than cigarettes, according to the California Healthy Kids Survey, San Diego County, 2009-11.

Rather than conveying an ambivalent attitude toward marijuana use among young people, communities need to educate their youth about the ways that marijuana affects their health.

Statistics point to an increase in marijuana consumption among our youth and 3 out of 5 high school seniors report that marijuana is “fairly easy” or “somewhat easy” to get, according to the California Healthy Kids Survey, San Diego County, 2010.

This upward trend, especially in San Diego County, may be blamed on a number of contributing factors. The continuous legal debate over marijuana legalization, the proliferation of dispensaries and glorification of marijuana in our culture may all be playing a part in these higher rates.

According to the University of Mississippi’s Potency Monitoring Project (2010), marijuana’s average potency more than tripled in the last two decades. Higher levels of tetrahydrocannabinol (THC), marijuana’s primary psychoactive ingredient, are particularly troubling in light of recent studies showing that developing adolescent brains are particularly vulnerable to the effects of marijuana exposure.

This is reminiscent of the tobacco issue, when many young people said they did not know the long-term risks of smoking. Yet the long-term health implications of smoking marijuana on a regular basis are coming to light today. We know that in 2009 the California Office of Environmental Protection Agency added marijuana smoke to the Proposition 65 list as a cancer-causing carcinogen.

As parents, educators and health professionals, we have an obligation to maintain safe and drug-free environments so that children can make healthier decisions when so much is at stake. The current research has to be made available in a way for the kids and their parents to understand. These are important times in young people’s lives when certain decisions made once may have lifelong negative impacts on their futures.

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