UConn study focuses on marijuana-using, dependent teens

Statistics show that smoking pot lowers IQ, hinders memory and thought process

By Sloan Brewster
Senior Staff Writer

Despite perceptions on the street and among teenagers, pot can be harmful.

A common mantra about marijuana smoking is that it can kill brain cells, but Dr. Yifrah Kaminer, a professor of psychiatry and pediatrics at the University of Connecticut School of Medicine and Alcohol Research Center, said it can actually reduce a person's intelligence quotient and cause immediate losses in working memory and thought process.

"People who've been smoking marijuana for more than 10 years actually reduced their IQ by eight points," Kaminer said. "The bottom line is: it affects areas of the brain for thought process and working memory. It's problematic on the immediate level as well as on long-term usage."

Beyond that, smoking too much weed has been linked to early onset schizophrenia, he said. Research using neuroimaging technology has shown that people with schizophrenia and those who use marijuana are affected in the same area of the brain.

"The increasing number of kids who smoke increases the number of cases of early onset schizophrenia," Kaminer said.

Kaminer does not believe a theory that driving while high is less dangerous than driving while intoxicated, either, he said. He pointed to statistics taken in France where it was discovered that a high percentage of fatal accidents were caused by stoned drivers.

Marijuana can definitely increase the risk of road crashes, Kaminer said. "The bottom line is: it affects areas of the brain for thought process and working memory. It's problematic on the immediate level as well as on long-term usage."

Another problem Kaminer sees is what he called an "explosion in marijuana usage among our teens." Since 2008, there has been a continued increase in using marijuana, accompanied by the perception that it is less harmful than it actually is, he said.

A possible reason for the spike is that medicinal marijuana has been legalized in 16 states, including Connecticut, Kaminer said. In addition, pot in general is becoming decriminalized in states, also including Connecticut, and possession of a small amount is punished by a fine rather than jail time.

To combat this issue, Kaminer is heading a study at the UConn Alcohol Research Center. The study was made possible by a grant from the National Institute on Drug Abuse. More than just a study, it is considered free of charge, state-of-the-art treatment. "Research protocols are the best treatments available," Kaminer said. "Here at UConn, we have been assessing and treating alcohol and marijuana usage since 1995."

He is looking for adolescents who are dependent on or abuse marijuana who would be willing to participate in the study, which is ongoing and began six months ago.

Abuse and dependency on pot are no different than they are with alcohol and other drugs, he said. They are the same for alcohol, cocaine and marijuana.

"We mean adolescents who use marijuana and it causes a certain level of dysfunction, most commonly in school such as school attendance and engagement in school work," he further explained.

Signs of abuse also include decreased memory and changes in social behavior. Signs of dependency are "a little bit heavier," Kaminer said, adding that, while in the past marijuana was not included in the list of drugs that cause dependency, at least 30 percent of marijuana users develop symptoms when they stop using.

Symptoms include problems sleeping, anxiety, rapid or accelerated heartbeat and others.

Teenagers accepted into the study attend two individual sessions and three group sessions. If they respond, they return after three, six and nine months. If they do not respond well, they continue to phase two, which Kaminer said is a more individualized 10-week intervention involving specially tailored cognitive behavioral therapy as well as intervention with family and "an ecological aspect."

Kaminer compared the individualized therapy to a student doing poorly in school. Help for that student would be based on the subjects in which he was performing at a low level, Kaminer said. It is much the same with treatment. "We try to focus on the weakness, the area that needs more training," he said.

To receive more information, or to enroll in the research study, contact Rebecca at 860-679-8178 or burke@uchc.edu.

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-Professor of Psychiatry and Pediatrics Yifrah Kaminer