

Pot Can Trigger Psychotic Symptoms For Some, But Do The Effects Last?

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In the "American Sniper" murder trial, prosecutors successfully countered Eddie Ray Routh's plea of not guilty by reason of insanity by saying that he just seemed psychotic because he was high. But scientists continue to argue over whether marijuana-induced psychosis is always short-lived or if there's a deeper connection at play.

Nobody would question that marijuana can make some people temporarily experience psychotic symptoms, says Dr. Nora Volkow, the director of the National Institute for Drug Abuse at the National Institutes for Health. "But can cannabis by itself trigger the schizophrenic disease? That's not so clear," she says.

Volkow says it's important to make that distinction. Drugs like marijuana or methamphetamine can make someone experience symptoms like paranoia, hostility and disorganized thinking. But that's very different from a chronic, persistent psychotic disorder like schizophrenia. "You can have a psychotic episode from the use of marijuana without it turning into schizophrenia," Volkow says. "It's very distressing, but you'll get out of it."

Still, some researchers are convinced that marijuana contributes to the development of schizophrenia. There have been nine studies following hundreds to thousands of people for decades looking for a connection between marijuana use and psychosis.

All but one of these studies suggest that marijuana use is associated with schizophrenia. Sir Robin Murray, a psychiatrist at King's College in London, says that evidence changed his mind about weed. "Even I, 20 years ago, used to tell patients that cannabis is safe. It's only after you see all the patients that go psychotic that you realize – it's not so safe."

But NIH's Volkow says that these studies don't prove that marijuana use causes the schizophrenia; they only show that people with schizophrenia are more likely to also be weed smokers.

She says it could still be the other way around – that psychosis makes people want to smoke pot rather than the pot making people psychotic. "People who have an emerging schizophrenic disorder may be consuming marijuana," she says, "trying to self-medicate because they just don't feel right."

There are other problems with these studies as well. Cannabis smokers also are more likely to use other drugs, including ones that are known to induce brief psychotic episodes. At least one other study found that people with schizophrenia were more likely to have a drug addiction in

general. That makes it difficult to say if the people in these experiments developed schizophrenia because they were smoking weed or because of other factors.

"But what is also clear, if you do have a vulnerability to schizophrenia and you smoke [cannabis]," Volkow says, "it's likely to trigger an episode. It's likely to advance the [disease]." She says when people with certain risky genes associated with psychosis smoke, the risk of developing schizophrenia goes up sixfold, according to a 2005 study. But for someone without those genes, Volkow says the evidence suggests "you can smoke all the marijuana you want and it will make no difference whatsoever."

If marijuana abuse is causing schizophrenia, the damage is probably being done during people's early years, according to Krista Lisdahl, a clinical neuropsychologist at the University of Wisconsin in Milwaukee. For most, psychotic disorders develop in the late teens while the brain is still developing. "After 25 or 30, when the brain is done with its major neurodevelopment," Lisdahl says, most people are unlikely to develop schizophrenia and smoking probably won't change that. On the other hand, she says, most people including her who've studied cannabis and mental health have seen that the earlier someone starts smoking, the more likely it is they'll develop a disorder in general.

"It does look like there is an increased risk for schizophrenia" from smoking weed overall, Lisdahl says. But she also agrees with Volkow. "Some experts believe that [cannabis] might induce schizophrenia in someone who wasn't vulnerable, but in my opinion that hasn't really been proven."

One thing to note, Lisdahl says, is that more people smoke cannabis today than ever in history. If the connection between weed and schizophrenia is solid, then the number of people with schizophrenia should also be going up. But it hasn't. The fraction of people who have the disorder still hovers at around 1 percent.

But public health officials say they have seen an increase in the number of blazed people showing up to the emergency room in the grip of a fleeting psychotic episode. Volkow says there's been a "very dramatic increase ... that may have to do with a much more potent marijuana." Black market, medical and recreational marijuana have all been steadily increasing their THC content over the past decade, and according to national emergency department data, visits involving cannabis increased 52 percent from 2004 to 2011.

Murray says that only strengthens the case that cannabis increases the risk for schizophrenia. A recent study he published in *The Lancet* suggests that abusing marijuana with around 15 percent THC content, which is common among growers today, could quintuple the risk for schizophrenia. "We think about 5 percent of people will go psychotic instead of 1 percent. That [still] means over 90 percent of people who smoke the high-potency will be OK," he says.

If all this is true, then the irony of the "American Sniper" case is that both sides may have been right. It's possible that Eddie Ray Routh could have experienced a brief psychotic episode from smoking weed that day. But if he has genetic vulnerabilities toward schizophrenia, then years of cannabis abuse could have triggered the full-blown psychological disorder that the defense said

he has. And while the science of marijuana and madness remains unsettled, both scenarios appear quite plausible.