

The madness of medical marijuana and marijuana legalization

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The march is on. Right now, there are approximately 50 legislative initiatives aimed at legalizing or decriminalizing marijuana for medical or recreational use in various U.S. states and territories. As of August 2016, 25 states and the District of Columbia have enacted laws to legalize medical marijuana, and 5 states and the District of Columbia have legalized recreational marijuana.

Considering the lack of *real* evidence to support marijuana use, the evidence of marijuana's deleterious effects, and the context of and outrage about the nation's opioid epidemic, it is hard to understand the continuous push to legalize marijuana. In 2015, in reaction to 2 review articles^{1,2} describing possible benefits and adverse effects of marijuana use, D'Souza and Ranganathan³ summarized the reasons why we should not legalize marijuana. By the way, neither review presented any strong evidence supporting marijuana use. Whiting et al¹ found moderate-quality evidence supporting cannabinoid use for chronic pain and spasticity, and low-quality evidence suggesting that cannabinoids could help relieve nausea and vomiting from chemotherapy, gain weight in HIV infection, sleep disorders, and Tourette's disorder. Hill² found evidence supporting marijuana use for chronic pain and spasticity due to multiple sclerosis (it is not clear what Hill meant by "psychiatric" problems in the title of his article). Whiting et al¹ noted a number of short-term adverse effects associated with cannabinoids, such as dizziness, dry mouth, nausea, fatigue, disorientation, drowsiness, confusion, loss of balance, and hallucinations.

Neither review really addressed the psychiatric consequences of marijuana use beyond abuse (more specifically, *Cannabis*-related disorders) itself. D'Souza and Ranganathan³ emphasized a small but established risk of symptom exacerbation and relapse of a psychotic disorder with marijuana use and suggested contraindications to marijuana use, such as schizophrenia, bipolar disorder, and substance dependence. The authors also warned about cross-tolerance between cannabinoids and opioids, and the possible critical negative role of cannabinoids in brain devel-

opment and maturation. They wrote that adolescent exposure to cannabinoids has been linked to affective, behavioral, cognitive, and neurochemical consequences that last into adulthood. Interestingly, none of the articles mentioned the results of a study⁴ showing the persistent neuropsychological decline associated with adolescent use of marijuana, including decrease in IQ.

During the last year, more disquieting evidence of negative impact of marijuana use—beyond exacerbation of psychosis and schizophrenia—or lack of evidence of efficacy pertinent to psychiatry appeared. Zorrilla et al⁵ demonstrated that continuous marijuana use is associated with higher risk of symptom recurrence and lower functioning in bipolar disorder and quitting marijuana could improve outcomes. In an observational study of veterans, Wilkinson et al⁶ found that using marijuana after treatment for posttraumatic stress disorder (PTSD) was associated with worse, more severe PTSD symptoms, more violent behavior, and alcohol use. This finding is important in view of the frequent anecdotal evidence touting marijuana use for PTSD. In a prospective longitudinal study, Blanco et al⁷ found that in the general population, *Cannabis* use is associated with an increased risk of substance use disorders. These findings also should be considered in the context of the fact that more

high-potency marijuana (eg, skunk; 15% tetrahydrocannabinol concentration) has become available, and is associated with an increased severity of dependence in young people, paranoia, and negative effects on memory.⁸ Interestingly, it seems that the marijuana “industry” is following the practice of the tobacco industry that made cigarettes more addictive by increasing nicotine levels and enhancing nicotine’s physiological impact. We should not forget that it took us many years to undo the damage of tobacco, and we still are not done. We should reverse this deleterious process with marijuana much earlier than we did with tobacco.

Last but not least, a recent study⁹ suggests that men with a history of early, heavy *Cannabis* use are at a 40% higher risk of death than those without a history of *Cannabis* use.

In view of the data I describe and still developing evidence of the negative effects of marijuana on mental illness and marijuana’s lack of demonstrated efficacy in most touted indications, it is hard to understand the continuous effort to legalize marijuana for medical or recreational use. Maybe it is a sign of some collective “reefer madness” that psychiatry in particular, and medicine in general, need to oppose much more strongly and forcefully. ■

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