

# Impact of the study of marijuana and suicide in Mexico

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In Mexico, amendments to the General Health Law and the Federal Penal Code have recently been approved to authorize the medical and scientific use of marijuana (Agencia EFE, 2017). This is a major change in legislation, albeit with a smaller scope than other countries, such as the Netherlands, where consumption has been decriminalized for decades, or Uruguay, which recently began the process of legalizing the production, distribution and use of marijuana for recreational purposes. Likewise, marijuana has been decriminalized and legalized in a number of states in the United States, where, despite changes at the state and federal level, both medicinal and recreational use remains illegal (de Alba, 2016).

Medicinal use of cannabinoids, such as marijuana and certain synthetic preparations, has been approved and included in several clinical guidelines of US medical organizations. The effectiveness of its therapeutic use for conditions such as multiple sclerosis or neuropathic pain has been proved by evidence from randomized clinical trials (DynaMed Plus, 2017).

Before considering the legal approval of recreational consumption, as has been suggested by various civil and academic organizations, it is essential to analyze the various components of the phenomenon. These include the implications it will have in areas such as the economy, national security and public health. An informed debate on the effects of marijuana, particularly in the field of mental health, calls for scientific evidence on the benefits, harm or adverse effects of its use. Since obtaining this evidence is a complex task due to the constraints on the use of clinical trials, the vast majority of current scientific literature has been produced on the basis of observational studies.

Recent years have seen the publication of important papers documenting the relationship between non-medical use of marijuana and health. To mention just a few, the articles by Volkow et al. (2014) and the book *Marihuana y salud*, coordinated by de la Fuente (2015) discuss the status of the evidence in relation to various mental disorders such as depression or abnormal cerebral development associated with use at early stages of development. The World Health Organization has published a report on the health and social effects of recreational cannabis use (WHO, 2016). This publication included the results of a systematic review of the association between marijuana and suicide (Borges, Bagge & Orozco, 2016), a mental health issue that had rarely been addressed in previous publications, yet one of great importance due to the magnitude of the problem of suicide, especially in middle-income countries (WHO, 2014).

The epidemiological study of substance use poses significant methodological challenges, such as the conceptual and operational definition of exposure to the substance (whether cannabis or TCH, the active substance), particularly in terms of frequency and quantity, in order to distinguish between the effects of acute (episodic) and regular (chronic) use, and cannabis use disorder. It is also important to distinguish between suicidal behavior (ideation, plan and intent) and consummated suicide.

The systematic review mentioned includes international research up to 2015 and suggests that there is a link between chronic cannabis use and suicidal ideation and intent, which becomes three times greater for suicide attempts when cannabis use is intense. This study also highlighted the lack of epidemiological studies addressing acute marijuana use and suicidal behavior and the limitations of chronic consumption studies due to the variety of definitions of exposure that have been used, the number of suicide cases observed and

the concentration of research in certain countries or geographic areas (Borges et al., 2016).

In the specific case of the population in the metropolitan area of Mexico City, the analysis of the cohort of the Mental Health Survey on Mexican Adolescents made it possible to estimate, for the first time in a representative epidemiological study in Mexico, that the eight-year for suicidal ideation and intent, is higher among marijuana users than non-users, particularly among those who begin to use it before adolescence, and those who used larger amounts of the substance during the year prior to the baseline measurement (Borges, Benjet, Orozco, Medina-Mora & Menendez, 2017). These results suggest, after considering the limitations mentioned above, that the results of international studies on this issue also apply to the Mexican population.

The specific example of the marijuana-suicide link is one of the many issues in the field of mental health that must be addressed when proposing a drug policy, meaning that there is a need for scientific literature that will contribute to defining informed public policies. In this respect, it is essential to produce scientific research and quality data on the Mexican population in the short- and medium- term.

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