



KNOWLEDGE AND BELIEFS ABOUT MARIJUANA FOR MEDICAL AND RECREATIONAL USE

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Abstract: Marijuana is the most widespread illicit drug in the world. Today, approximately 190 million people aged between 15 and 65 regularly use marijuana recreationally, while its medical use is also gaining popularity. Chronic abuse of the substance leads to severe consequences, such as addiction, changes in brain functions, and a variety of mental illnesses. However, there is a growing concern among the public about the potential negative impact of marijuana. A number of research articles devoted to the analysis of such effects attempt to identify how knowledge, perception, and other factors affect attitudes towards marijuana. The present paper aims to provide a critical analysis of the reviewed articles. The attitudes towards marijuana are formed through perceptions about the possible risks, social norms, and legal aspects. The key factors affecting these attitudes are gender, ethnicity, and socioeconomic factors. The degree of risk perception has declined throughout recent years, but it has not been correlated with increased use. The legalization of both medical and recreational use of marijuana makes this substance appear safer and more beneficial, as it is prescribed by the law. Social norms, which are primarily developed due to the perception of friends' marijuana use and external influence, determine the attitudes towards the use of marijuana, which leads to its "normalization" among young people. Thus, the governmental organizations should be attentive to the factors mentioned above and promote effective prevention programs, which would consider the diverse impact on the target audience in order to reduce the rates of abuse and change the perceptions of the population about the harmfulness of marijuana.

Key words: marijuana, medical use, recreative use, perception, knowledge, information sources

Submitted 02-06-2026, Revised 02-07-2026, Accepted 22-07-2026

INTRODUCTION

Marijuana is the most widespread illicit drug in the world, with approximately 190 million recreational users aged 15 to 65, and it is especially popular in developed countries and among young people. While marijuana use has not shown a significant level of addiction compared with other drugs and even alcohol, its combination with other psychoactive substances was found to be frequent (WHO, 2016). The countries with the greatest number of marijuana users are the USA, Canada, Australia, New Zealand, and western European states (Degenhardt *et al.*, 2013). In New Zealand, a 2020 referendum on recreational legalization narrowly failed, but debate over reform continues. Thousands of articles on the recreational or medical use of marijuana are published every year, and new theories and potential benefits are explored constantly. The reasons for marijuana use are numerous, but its association with alcohol use and adverse reactions at a young age remain among the most important issues (Haug *et al.*, 2017).

Sources of knowledge

The list of marijuana's medical indications is rather limited, while the numbers of studies proving the potential benefits

of its use are rather scarce. Thus, the only diseases for which the positive effect of marijuana was proven are childhood epilepsy, specific chronic pains, and vomiting or nausea accompanying the chemotherapy (Park and Wu, 2017). On the other hand, there is growing interest in the use of marijuana for the treatment of mental disorders, insomnia, anxiety, depression, or mood disorders, which are clearly not related to recreational use (Azcarate *et al.*, 2020). This article is about knowledge and perception of the public about the effects of marijuana, and about the particular factors affecting the decision to use it or not (Park *et al.*, 2020). Studies reported that approximately 75% of participants had talked to their parents, while only a third discussed health effects. Around 30% mentioned consulting health professionals about marijuana. Regarding sources of information, this is a worrying sign (Bull *et al.*, 2017; Karanges *et al.*, 2018). Literature review revealed that the amount of information and its quality determine the level of risk perception, leading to reduced use. The results confirmed the effectiveness of public campaigns, while such sources as parents and health professionals need attention (Leos-Toro *et al.*, 2020). Information from social media

about scientific research on marijuana is not always truthful and transparent, as it often serves specific purposes (Jarlenski *et al.*, 2018). The way information is presented in the media and how it shapes the perception of marijuana by young people has been of interest to researchers for quite some time now (Stryker, 2003). However, social media posts, news, and advertising change public opinion and often serve commercial purposes (Park, and Holody, 2018). Thus, policymakers, authorities, and parents should be aware of the content and target audience.

Perceptions related to Marijuana Consumption

Some researchers evaluated the perception of health risks associated with cannabis. 78% were concerned about physical and 43% about mental health, but only a half were worried about chronic use-associated health issues (Leos-Toro *et al.*, 2020; Spackman *et al.*, 2017). The numbers for physical and mental health were 41% and 42%, respectively, and even though almost 60% of respondents believed marijuana could be addictive, 65% of these individuals thought it was less addictive than other substances. While the cited studies produced almost identical results regarding mental health risk perception, the numbers for physical health were different, and both were conducted in Canada, where recreational use was not legalized yet. The perception of “descriptive norms” and “injunctive norms,” which refers to the perception of peers’ marijuana use, served as a basis for alternative hypotheses, which appeared to be a boundary-setting strategy. There was a generalized tolerance for light use, which was associated with positive social judgment, and a negative perception of heavy users (Robertson and Tustin, 2020; Pearson *et al.*, 2017).

The Role of Legislation

Even though the perception of potential recreational legislation and the current legal framework were assessed alongside the perception of potential risks associated with marijuana, medical and recreational marijuana legislation served as potential modifiers for many researchers (Robertson and Tustin, 2020; Boden *et al.*, 2020). Thus, only 27% of respondents were supportive of recreational legalization, while 50% were against, and 80% were overall in favor of medical marijuana legalization. The perception of leniency and light punishment if caught were also reported by the respondents. Recreational and medical marijuana legislation, which implied lower levels of control, decreased risk and wrongfulness perception by the participants. It is important to note that the researchers who worked with the targets of 40 years old and older and those who were under 25 years old produced different results (Pearson *et al.*, 2017; Wen *et al.* 2019).

Gender, Ethnicity, and Other Factors

The role of gender in marijuana-related perception was significant, as women were more interested in health risk information, while men focused on the details of legislation (Park and Wu, 2017; Bull *et al.*, 2017). At the same time, male respondents were generally more confident about their knowledge. Women associated health risk with the frequency of use and increased addictiveness ((Leos-Toro *et*

al., 2020). More negative attitudes towards marijuana use were also reported among females, which could be intensified by having children (Lee *et al.*, 2021). Thus, “women have greater protective factors and fewer risk factors of marijuana use than men” (Park *et al.*, 2020). Similarly to gender, ethnicity was associated with protective and risk factors (Lee *et al.*, 2021). Hispanics were more likely to communicate with their parents about marijuana, have knowledge about legal aspects, and be informed about negative health outcomes compared to African Americans and Whites. Whites, however, were more concerned about potential overconsumption during pregnancy and children’s potential access to marijuana in the household. Due to higher levels of marijuana consumption compared to other ethnic groups and a positive “Māori Ancestry” association with positive perceptions of marijuana-related legislation, American Indians and Māori were also identified as vulnerable populations (Prince *et al.*, 2017). Even though socioeconomic levels were not the focus of the researchers, the status appeared to be an important predictor of marijuana use rates among American Indians, who were reported to have high poverty rates in the USA. It was identified as an independent predictor of increased consumption levels, which was not explicitly mentioned in the conclusions. It might also be interesting to explore the potential association between ethnicity, socioeconomics, and migration with marijuana use and perceptions. The interaction between lower socioeconomics and higher rates of alcohol and marijuana consumption was identified (Boden *et al.*, 2020).

CONCLUSION

Marijuana for medicinal and recreational purposes is legal in many countries. However, recreational use is more common and can have negative consequences for young people. The source of information, its nature, and the way people receive it determine patterns of use. The factors associated with health literacy such as level of knowledge, risk perception, socio-cultural beliefs, and individual perceptions, influence decision-making in regard to marijuana consumption. Risk perception and social norms are significant predictors of attitude toward marijuana. It is essential to ensure that the information comes from reliable sources and is beneficial for the audience. Since the majority start consuming marijuana during the period of adolescence, schools, colleges, and universities are important settings for addressing the issue. Teaching students about health literacy can change their attitude if it is given enough attention and perceived as significant as different aspects of science such as mathematics.

Conflict of interest

Authors declare no conflict of interest.

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