

Medical Students' Attitudes, Knowledge, and Beliefs about Medical Cannabis: A Qualitative Descriptive Study

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Abstract

Background

There has been increased attention given to understanding the uses of medical cannabis (MC) for symptom management of various medical conditions. Physicians receive minimal training in medical school and rely mostly on anecdotal evidence; by proxy, medical students generally do receive formal training in MC. It is unknown how medical students perceive MC, including its efficacy, appropriateness in medicine, its possible adverse effects, and its value for patients. This study investigated medical students' perceived knowledge, beliefs, and attitudes toward MC to better understand their knowledge about and attitudes toward MC.

Method

Using a semi-structured interview guide, eight focus groups were conducted with 83 medical students via Zoom virtual meeting platform (Zoom Video Communications, Inc., San Jose, California, United States) in June 2022. The interviews were guided by the following content areas: (1) beliefs about cannabis' therapeutic utility, (2) perceived knowledge about MC, (3) the role of the physician regarding MC, (4) concern for cannabis' adverse effects, and (5) MC education in the school curriculum. Data were analyzed using thematic analysis, an iterative, systematic process of coding patterns, and emerged themes in the interview data to explore medical students' perceptions about MC. Themes were validated based on whether each theme captured distinct parts of the interview data and whether their content cohered meaningfully.

Results

Four themes emerged from the focus group interviews investigating medical students' perceptions of MC: (1) erroneous beliefs about MC, (2) unreliable sources of information, (3) mixed attitudes toward legalization, and (4) desire for MC education while in medical school. Attitudes regarding MC in general, including legalization, varied by United States state of origin of the student and exposure to MC (e.g., use by family member).

Conclusion

MC seems to be a significant issue for medical trainees who might be required to recommend it to patients and manage coexisting therapies. Cultivating new knowledge about students' perceptions and perceived knowledge about medicinal options and dosing of MC is critical for medical educators as they design undergraduate curricular initiatives for future physicians.

Categories: Pain Management, Health Policy, Integrative/Complementary Medicine

Keywords: medical education curriculum, focus groups, qualitative, beliefs, attitudes, education, medical marijuana, medical cannabis, medical students

Introduction

Recent attention has been given to the efficacy of medical cannabis (MC) for symptom management (e.g. as an anti-emetic and analgesic for pain) for post-traumatic stress disorder (PTSD), Crohn's disease, ulcerative colitis, Alzheimer's disease, multiple sclerosis, muscle spasms, and epilepsy among other medical conditions [1-15]. Well-controlled clinical trials indicate that MC can be an effective option (as a single or add-on treatment) in treating non-responding chronic pain in certain adults, but this type of evidence is lacking for other conditions [16-19].

Along with its potential therapeutic benefits, adverse effects from cannabis use have been documented, such as neurocognitive deterioration including memory impairment [15,16,20-25]. What is also likely is cannabis use in children and young adults carry a higher risk for long-term deficits [25]. In addition, smoking cannabis has been seen to produce carcinogens such as nitrosamines, polycyclic aromatic hydrocarbons, not unlike

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