Medical Students are Unprepared to Counsel Patients About Medical Cannabis and Want to Learn More

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**Introduction**

Professional education on medical cannabis lags behind growing public interest and increasing legal availability of medical and recreational cannabis; most US adults now have access to some form of legalized cannabis. The Cannabis as Medicine Interest Group (CANMIG) at GW SMHS believes that future physicians should be adequately prepared to handle patients’ questions about cannabis as it relates to their health and well-being. This study investigated the extent to which medical students wish to learn about medical cannabis and assessed their subjective preparedness to counsel patients on this topic.

**Methods**

One-hundred and five allopathic medical students completed an online survey on their learning about medical cannabis in medical school. All participants were medical students here at GW, which is located in a city that has legalized medical and recreational use of cannabis.

**Study Population**

<table>
<thead>
<tr>
<th>Class Year</th>
<th>Participants</th>
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<tbody>
<tr>
<td>2022</td>
<td>21%</td>
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<td>2021</td>
<td>20%</td>
</tr>
<tr>
<td>2020</td>
<td>21%</td>
</tr>
<tr>
<td>2019</td>
<td>37%</td>
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Participants were spread across all four years of medical school; 37.1% were first-years, 20% were second-years, 21.9% were third-years, and 21% were fourth-years.

**Conclusions**

This survey clearly demonstrates the need to increase undergraduate medical education on medical cannabis, as it is overwhelmingly clear that the medical students at this school, regardless of class year, are not comfortable with their level of knowledge and would like to learn more while in medical school. Given the lopsided nature of these results despite DC’s legal “cannabis-friendly” location, the authors of this study think that it is reasonable to assume that most medical students across the country also feel similarly, although further work is needed to confirm this. Additionally, as legal medical and recreational cannabis likely becomes more accessible throughout the US, medical schools and medical education regulatory bodies should be strongly urged to adopt standards for cannabis education to ensure that future physicians can provide the best possible patient care.

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**Results**

**Figure 1.** Overall responses to the survey by class year. Participants were spread across all four years of medical school; 37.1% were first-years, 20% were second-years, 21.9% were third-years, and 21% were fourth-years.

**Figure 2a & 2b.** Student responses to the question “How much formal education have you received on medical cannabis in medical school?”

Sixty percent of participants claimed that they have received no cannabis education in medical school, and 38.1% endorsed “a little bit,” for a total of 98.1% of all participants; additionally, all outgoing fourth-year students selected one of these two options. Only two participants (1.9%) endorsed “a sufficient amount,” and zero responded that the topic was “frequently covered.”

**Figure 3a & 3b.** Student responses to the question “I believe there should be more formal education on medical cannabis in medical school classes.”

To this statement, 30.5% of participants strongly agreed, 46.7% agreed, five participants (4.8%) disagreed, and one, a first-year student, strongly disagreed.

**Figure 4a & 4b.** Student responses to the question “How prepared do you feel to counsel a patient on the health HAZARDS of cannabis use?”

Most participants (54.3%) felt “not at all prepared” to counsel patients on the health hazards of cannabis use. Only 14 (13.3%), half of whom were third-year students, but none who were fourth-year students, felt “prepared” or “very prepared.”

**Figure 5a & 5b.** Student responses to the question “How prepared do you feel to counsel a patient on the health BENEFITS of cannabis use?”

Similarly to the previous prompt regarding health hazards, the majority of participants (57.1%) felt “not at all prepared” to counsel patients on the health benefits of cannabis use. Only four participants (3.9%), all in the third-year class, felt “prepared” or “very prepared.” Again, no outgoing fourth-year students endorsed either of these two responses.

**Figure 6a & 6b.** Student responses to the question “How prepared do you feel to counsel a patient on the health HAZARDS of cannabis use?”

Most respondents (55.2%) have encountered a patient who was curious about medical cannabis. The proportion of participants who answered “no” decreased with each successive class year between the MS1 and MS3 years; for instance, over one-half of the participants who answered “no” were first-year students, who are in the preclinical stage of their education and have thus far spent the least amount of medical school in real-life patient interactions. First- and second-year students collectively comprised over three-quarters of negative responses, while over three-quarters of third- and fourth-year students answered “yes.”

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