Consensus Statement | **Medical Education**

Developing Medical Cannabis Competencies
A Consensus Statement

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Abstract

IMPORTANCE The use of medical cannabis continues to expand rapidly across the US, yet most health care practitioners and trainees report feeling unprepared to counsel patients or integrate cannabis into care. Despite its clinical relevance, standardized education on medical cannabis remains absent from most medical school curricula.

OBJECTIVE To develop a consensus-based set of core competencies for educating medical students about medical cannabis, including its clinical utility, risks, legal landscape, and evidence base.

EVIDENCE REVIEW Between February and October 2023, a modified Delphi process was conducted with 23 experts representing a broad range of clinical and academic expertise. Through 2 rounds of anonymous, web-based surveys, panelists provided quantitative ratings and qualitative feedback on draft competencies. Competencies and subcompetencies were iteratively revised by the research team and re-evaluated by the panel. Final inclusion of competencies required a mean score of 4 or higher (on a 1 to 5 scale) on both importance and wording appropriateness. Subcompetencies were reviewed for comprehensiveness and educational value.

FINDINGS The expert panel included 14 physicians across multiple specialties, along with nurses, a pharmacist, and individuals with leadership roles in academic medicine. An initial list of 9 competencies was refined and consolidated into 6 core competencies: (1) understand the basics of the endocannabinoid system; (2) describe the main components of the cannabis plant and their biological effects; (3) review the legal and regulatory landscape of cannabis in the US; (4) describe the evidence base for health conditions that are commonly managed with cannabis; (5) understand the potential risks of medical cannabis use; and (6) understand basic clinical management with medical cannabis. Each competency is supported by 2 to 7 subcompetencies, resulting in 26 subcompetencies reflecting granular topics, such as patient safety, vulnerable populations, structural inequities, and interdisciplinary care.

CONCLUSIONS AND RELEVANCE These consensus-derived competencies provide a structured, evidence-informed foundation to guide the integration of medical cannabis into undergraduate medical education. Aligned with competency-based education principles, the implementation of the proposed framework can help ensure that future clinicians are equipped to provide informed, evidence-based, and patient-centered guidance on medical cannabis use.

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Key Points

Question What core competencies should guide undergraduate medical education to prepare future clinicians to address medical cannabis?

Findings This consensus statement used a modified Delphi process involving 23 experts, yielding 6 consensus-based core competencies covering cannabis pharmacology, legal frameworks, clinical evidence, risks, and clinical management. Each competency is supported by subcompetencies that provide more granular learning objectives.

Meaning These competencies offer a structured foundation for integrating medical cannabis into medical education; by addressing a critical knowledge gap, they can enhance clinician preparedness, support evidence-based counseling, and help future physicians engage patients in informed, evidence-based discussions about cannabis use.

+ **Invited Commentary**

+ **Supplemental content**

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Introduction

The cannabis plant has been an integral part of traditional medicine since ancient times in China, India, and the Middle East.[1-4] Cannabis preparations became part of the pharmacopeia in Europe and the US in the 19th century and into the 20th century as analgesics and anticonvulsants.[5,6] In 1937, cannabis became subject to a large federal excise tax in the US, effectively ending its legal use.[7] Cannabis and cannabinoid products were explicitly made illegal in 1970 under the Controlled Substances Act. Since the 1990s, the pendulum has swung in the other direction, with laws and regulations that allow access to medical cannabis proliferating in US states and globally.[8] Access to medical cannabis expanded due to state-level statutory changes that legalized medical use. These legal changes were driven more by sociopolitical changes, eg, patient advocacy and shifting public attitudes, than scientific evidence.

Extensive basic research has characterized the pharmacological properties of cannabis and its active compounds, underscoring their therapeutic potential.[9] There is good-quality clinical evidence for the therapeutic benefit of cannabis for medical conditions, such as pain, muscle spasticity, and chemotherapy-induced nausea and vomiting.[10-12] The Department of Health and Human Services recently recommended that the Drug Enforcement Administration (DEA) reschedule cannabis to a less restrictive schedule III, reflecting its potential medical utility for certain conditions and low abuse liability.[13] Rescheduling would also enhance clinical research on medical cannabis by loosening the current restrictions.[14,15] Moreover, as a plant, cannabis is not a standardized substance; *medical cannabis* is a generic term referring to a range of products with diverse compositions of active compounds and varying routes of administration. That cannabis has been studied for decades as an illicit substance of abuse further complicates its introduction as a treatment modality.[16]

Although cannabis is federally illegal, medical cannabis is currently legal in 38 states, the District of Columbia (DC), Puerto Rico, and 3 US territories.[17] There were an estimated 3.86 million patients registered for medical cannabis use in 34 states and DC in February 2023.[18] Access to medical cannabis varies by jurisdiction but typically requires certification or recommendation by a licensed health care practitioner registered to certify and enrollment in a state-specific medical cannabis program. Factors that can prevent eligible patients from gaining access include limited access to a registered health care practitioner, high costs with no insurance coverage, stigma and misinformation about cannabis, and institutional regulations that may prohibit health care practitioners from certifying patients for medical cannabis. These factors may lead to disparities in access to medical cannabis, especially for vulnerable populations, such as patients with low income. Despite the evolving legalization of medical cannabis and the upsurge in its use, health care practitioners remain unprepared to advise patients about its potential risks and benefits.[19-21]

Physicians and other health care professionals have repeatedly reported low levels of perceived knowledge of medical cannabis,[22] underscoring a significant gap between their professional expertise and patient needs.[23,24] Medical students similarly report a lack of education and feeling unprepared to counsel patients on medical cannabis.[25] In a national survey of US medical school curriculum deans, 66.7% reported that their graduates were not at all prepared to prescribe medical cannabis.[21] Despite growing educational needs, medical cannabis was mentioned in only 9% of medical school curricula in the 2015 to 2016 academic year.[21]

Medical cannabis was first legalized at the state level in 1996 in California. Thus, for nearly 3 decades, medical education about medical cannabis has lagged behind its widening use. This is probably due to factors such as continued illegal status of cannabis at the federal level (schedule I classification), stigma, and inconsistent state regulations. For medical trainees to be aptly prepared to advise patients on medical cannabis and integrate it into their practice when appropriate, standardized education on medical cannabis should be designed and implemented. Because contemporary medical education is based on defined core competencies, a set of medical cannabis competencies is a critical first step in guiding such a standardized education.[25] Therefore, the

objective of this study was to develop consensus-based medical cannabis competencies to guide medical education on the topic.

Methods

The George Washington University Committee on Human Research institutional review board granted an exemption for this study on September 30, 2022, because it involved minimal risk to participants. All participants provided informed consent. This study followed the Accurate Consensus Reporting Document (ACCORD) reporting guidelines.[26]

The Delphi Method

Delphi is a valid and widely accepted method for achieving consensus among experts.[27] Initially developed by the RAND Corporation in the 1960s,[28] Delphi is a structured procedure that facilitates expert consensus development. Consensus is obtained through iterative rounds that elicit feedback via semistructured questionnaires. The input of each round is synthesized and fed back to the panel in the subsequent round.[29] To spur honest opinions and avoid social desirability bias, participants remain anonymous to one another.[30] This method is particularly useful for emerging areas of knowledge that are underinvestigated,[31,32] such as medical cannabis. Delphi has been used in health care research to reach consensus on various subject matters, including diagnostic criteria,[33] best practices of care management,[34,35] and health care policies,[36] and to develop competencies for medical education.[37-42]

Participants

We designed our expert panel to include individuals with relevant clinical or academic expertise in medical cannabis or with current or past leadership roles in academic medicine or medical education. Through their professional network, the core research team (Y.Z., L.M.T., R.I., and M.K.) identified 36 potential participants who met these criteria. To achieve representation of diversified perspectives in terms of career stage, professional background and roles, clinical specialties, and research expertise, we identified individuals such as a first-year family medicine resident, a divisional chief in an academic medical center, and a former medical school dean. Out of 36 individuals contacted and invited by email to participate as members of the expert panel, 23 (63.8%) agreed and completed both rounds of the Delphi procedure. This sample size is within the accepted range for our methodological framework.[43] The expert panel included a pharmacist, 2 registered nurses, and 14 physicians with diverse specialties. Panel members had gained their expertise through diverse professional experiences, including clinical practice with patients using medical cannabis, clinical and basic research on cannabinoids and their therapeutic applications, and self-directed learning. No remuneration was provided to panel members.

Procedures and Analysis

Our Delphi process had 2 rounds and was conducted entirely via web-based questionnaires (using the Qualtrics online survey platform). In the development stage, the core research team held multiple discussions to develop a preliminary list of medical cannabis competencies for this study. This list was based on (1) their expertise in research and clinical practice with medical cannabis, including their literature review of medical cannabis education among health care trainees[25]; (2) previous published works on competencies for integrative medicine and alternative therapies (eg, Ring et al,[44] Locke et al,[45] Brett et al,[46]); and (3) a technical assistance publication on addiction counseling competencies by the Substance Abuse and Mental Health Services Administration.[47] The preliminary list included 9 competencies.

In round 1 (February to April 2023), participants provided information on their age, gender, and race (with a predefined list of mutually exclusive categories: American Indian or Alaska Native, Asian, Black/African American, Native Hawaiian or Other Pacific Islander, White, or prefer not to answer),

as well as their professional characteristics (affiliation and years since earning highest degree). Participants then provided qualitative and quantitative feedback on the preliminary list of competencies. For each of the 9 competencies, participants rated the importance of the competency on a 5-point Likert scale, with 1 indicating not at all important and 5, extremely important. For each competency, we additionally asked participants to suggest any revision(s) to the wording if deemed necessary, to suggest 1 to 3 subcompetencies to further support the core competency, and to share any other thoughts or suggestions. Finally, participants suggested how much time should be allocated to teaching medical cannabis to undergraduate medical students so they could master the competencies. We also provided space for free-text feedback about the project in general.

The core research team synthesized all feedback received during round 1. To refine the wording and reduce redundancy, considerable revisions were made per the expert panel's suggestions. Based on the panel feedback in round 1, we outlined a list of subcompetencies for each competency.

In round 2 (August to October 2023), the revised list of competencies and subcompetencies was presented to the expert panel. For each competency, participants rated the importance of the competency on the same 5-point Likert scale. Participants also rated the appropriateness of the wording for that competency on a 5-point Likert scale, with 1 indicating not at all appropriate and 5, extremely appropriate. We determined a priori that a mean score of 4 or greater on both importance and wording appropriateness would be required for core competencies to be included in the final list.

Participants responded to the following questions regarding each set of subcompetencies: (1) "Keeping in mind that this is for medical school curricula, please rank the overall comprehensiveness of this list of subcompetencies" (on a 5-point Likert scale, with 1 indicating very poor and 5, excellent); (2) "Keeping in mind that this is for medical school curricula, please rank the overall value of this list of subcompetencies" (on a 5-point Likert scale, with 1 indicating very low and 5, very high). No a priori threshold was applied to the questions related to subcompetencies. There was also an opportunity to provide free-text feedback about each competency and its associated set of subcompetencies.

Following round 2, the core research team reviewed the feedback and provided the expert panel with a point-by-point response to each comment. Based on the panelists' feedback, minor revisions were made, and the final list of competencies (and subcompetencies) was compiled.

Results

Of 23 participants, 11 (48%) were female and 11 (48%) were aged 60 years or older. There were 2 Asian participants (9%), 3 Black/African American participants (13%), 17 White participants (74%), and 1 participant (4%) preferred not to answer. Fifteen participants (65%) held an MD or DO degree, 4 participants (17%) held a PhD or DrPH, 2 participants (9%) held a master's degree (MSN and MBA), and 2 participants (9%) held a bachelor's degree (BSN and BA). Thirteen participants (57%) reported earning their highest academic degree 21 years ago or more. **Table 1** provides more information about the characteristics of the expert panel.

Round 1

Table 2 shows the preliminary list of competencies and the mean, SD, median, and range of the importance ratings assigned to each competency during round 1. The expert panel gave high ratings to all competencies; the lowest mean (SD) rating was 3.52 (0.59) (competency 3), the highest was 4.65 (0.57) (competency 4), and all medians were 4 or 5 (Table 2).

The expert panel suggested considerable revisions to all the competencies, which the core research team synthesized. In response, the core research team made lexical changes and consolidated several competencies, resulting in a reduced list of 6 core competencies. For example, based on panel feedback in round 1, competency 5 ("Describe the physical, mental, and social effects of *Cannabis sativa*") was consolidated into other competencies. Elements of this competency were integrated into the final competencies addressing risks (competency 5) and evidence base for health conditions (competency 4) to streamline the framework and avoid redundancy.

Participants provided insightful recommendations regarding subcompetencies, which facilitated the development of a comprehensive list of granular learning objectives. For example, we included a subcompetency about the effect of tetrahydrocannabinol intoxication on driving under the competency that focuses on potential risks, based on the feedback of 6 panelists. The core

Table 1. Characteristics of Expert Panel Members Who Completed Both Delphi Rounds

Characteristic	Participants, No. (%) (N = 23)
Gender	
Female	11 (48)
Male	12 (52)
Age, y	
≤40	4 (17)
41-50	4 (17)
51-60	4 (17)
61-70	8 (35)
≥71	3 (13)
Race and ethnicity	
American Indian or Alaska Native	0
Asian	2 (9)
Black/African American	3 (13)
Native Hawaiian or Other Pacific Islander	0
White	17 (74)
Prefer not to answer	1 (4)
Profession	
Physician or physician-investigator (with MD or DO)	15 (65)
Researcher (with PhD or DrPH)	4 (17)
Other	4 (17)
Time since earning the highest academic degree, y	
1-5	2 (9)
6-10	3 (13)
11-15	1 (4)
16-20	4 (17)
≥21	13 (57)

Table 2. Preliminary List of 9 Core Competencies for Medical Cannabis in Medical Education and Their Importance Ratings (Round 1)

Competency	Importance rating[a]	
	Mean (SD)	Median (range)
1. "Understand the basic physiology of the endocannabinoid system."	4.08 (0.73)	4 (3-5)
2. "Understand the main components of the *Cannabis sativa* plant."	4.00 (0.79)	4 (2-5)
3. "Understand the history of cannabis policy and politics."	3.52 (0.59)	4 (2-4)
4. "Describe the health conditions that are most commonly treated with *Cannabis sativa* along with the evidence base to support or refute such use."	4.65 (0.57)	5 (3-5)
5. "Describe the physical, mental, and social effects of *Cannabis sativa*."	3.82 (0.93)	4 (1-5)
6. "Understand how to initiate a treatment plan with medical cannabis for patients with respect to cannabis route, dose, frequency, and recognizing potential interactions with other medications."	4.47 (0.89)	5 (2-5)
7. "Understand the potential physical, psychological, social, and occupational risks of medical cannabis use."	4.00 (0.90)	4 (1-5)
8. "Recognize 'red flags' with respect to cannabis use disorder, cannabis hyperemesis syndrome, and other problems associated with medical cannabis use."	3.82 (1.02)	4 (1-5)
9. "Understand state and federal regulations for health care providers[b] regarding the recommendation of medical cannabis."	3.95 (0.76)	4 (3-5)

[a] Importance was rated by 23 expert panelists on a 1 to 5 Likert scale, with 1 indicating not at all important and 5, extremely important.

[b] In this context, *providers* indicates health care practitioners.

research team adapted the recommendations to generate a list of subcompetencies for each of the 6 core competencies. The purpose of the subcompetencies is to provide more granular learning objectives to support the core competencies. The full results of round 1, including the 6 revised competencies and the associated subcompetencies, are provided in eAppendix 1 in the Supplement.

The expert panel had varied opinions regarding the time to be allocated to medical cannabis throughout undergraduate medical education. The estimated time ranged from 1 to 40 hours, with most participants suggesting 8 to 10 hours. This feedback conveyed the challenges of including a complex topic in an already intensive and overloaded medical school curriculum. Seven participants (30%) mentioned that educational materials related to medical cannabis should be integrated throughout the standard 4-year curriculum in both preclinical and clinical years. For example, one participant suggested that the endocannabinoid system be part of pharmacology; another participant mentioned that cannabis could be a valuable example of how to incorporate patient values and preferences into a patient-centric model of care.

Round 2

Table 3 presents the revised list of 6 core competencies presented to the expert panel in round 2 and the mean and range of ratings of their importance and wording appropriateness. Table 3 also shows the mean and range assigned for the comprehensiveness and value of each set of subcompetencies. Because the list of competencies was revised and condensed, we could not directly compare the importance ratings between rounds. However, the expert panel generally gave higher importance ratings in round 2, with a mean (SD) of 4.48 (0.28), compared with 4.03 (0.34) in round 1. The experts also considered the wording of the competencies to be appropriate, with a mean (SD) of 4.39 (0.22). A further round was deemed unnecessary because the mean scores for importance and wording appropriateness were equal to or greater than 4 for all 6 competencies.

In response to the expert panel's qualitative feedback, the core research team made minor revisions to the wording of 3 competencies and modified the content of 11 subcompetencies (out of a total of 26 subcompetencies). The core research team provided the expert panel with a point-by-point response to their comments and suggestions. The **Box** presents the final list of 6 medical cannabis competencies. The final list of core competencies and their associated sets of subcompetencies, representing our complete study results, is presented in eAppendix 2 in the Supplement.

Table 3. List of Competencies for Medical Cannabis in Medical Education and Their Ratings (Round 2)

Competency	Mean (range)			
	Competencies[a]		Subcompetencies[a]	
	Importance[b]	Wording appropriateness[b]	Comprehensiveness[b]	Value[b]
1. "Understand the basics of the endocannabinoid system."	4.67 (2-5)	4.48 (3-5)	4.81 (2-5)	4.76 (1-5)
2. "Describe the main components of the cannabis plant."	4.05 (1-5)	4.05 (2-5)	4.19 (1-5)	3.71 (1-5)
3. "Review the history and policy of cannabis in the US and the implications for medical practice."	4.29 (1-5)	4.19 (2-5)	4.57 (2-5)	4.14 (2-5)
4. "Describe the evidence base for health conditions that are commonly managed with cannabis."	4.81 (1-5)	4.57 (2-5)	4.67 (1-5)	4.71 (1-5)
5. "Understand the potential risks of medical cannabis use."	4.67 (1-5)	4.43 (3-5)	4.62 (1-5)	4.48 (1-5)
6. "Understand how to initiate and maintain a treatment plan with medical cannabis."	4.43 (1-5)	4.62 (3-5)	4.67 (1-5)	4.52 (1-5)

[a] Core competencies and subcompetencies were rated by 23 expert panelists.

[b] Ratings used 5-point Likert scales. Importance (to the overall goal of clinical competencies) was rated with 1 indicating not at all important and 5, extremely important; wording appropriateness, with 1 indicating not at all appropriate and 5, extremely appropriate; comprehensiveness with 1 indicating very poor and 5, excellent; and value (as part of a medical school curriculum), with 1 indicating very low and 5, very high.

Discussion

While medical cannabis is controversial as a treatment modality,[22,48] its use has been continuously increasing in the US.[49] Patients frequently seek guidance on medical cannabis dosage, efficacy, and interactions,[50-53] yet many health care practitioners feel unprepared to address these questions. However, to date, there is little education on medical cannabis in US medical schools and no standardized curriculum on the topic. In a modified Delphi procedure, we identified consensus-based medical cannabis competencies. The 6 core competencies cover areas from the endocannabinoid system and the pharmacology of the cannabis plant to understanding the potential risks and therapeutic benefits of using cannabis for different indications in different populations. These competencies can enhance both evidence-based and patient-centered approaches to the integration of medical cannabis into clinical practice. Timely and first of their kind, these competencies can guide medical educators as they engage with their responsibility of providing medical students with up-to-date, evidence-based knowledge about medical cannabis.

Competency-based medical education (CBME) is "an outcomes-based approach to the design, implementation, assessment, and evaluation of medical education programs, using an organizing framework of competencies."[54] Delphi processes have been used effectively to develop structured competency-based guidance for curriculum development and assessment in different areas.[41,55,56] Nevertheless, several challenges to CBME have been identified, including variability in implementation across institutions, limited time, and the need for faculty development.[57-59] In line with the CBME approach, our medical cannabis competencies provide a roadmap for a standard level of competence that physicians-in-training should strive for by graduation from a US medical school. Competencies contribute to bridging the gap between patients' need for accurate information and physicians' lack of knowledge to provide such guidance.[52,60-62] Medical cannabis competencies may face unique curricular challenges related to regulatory complexities, stigma, and evolving legal landscapes. As the next steps, we envision piloting these competencies in several medical school curricula, followed by a systematic evaluation of their impact on learners' knowledge, skills, attitudes, and confidence.

Medical cannabis laws are heterogeneous across US states.[63] There are currently no national standards for medical cannabis education. In certain states (eg, New York, Florida), health care practitioners authorized to give access to medical cannabis must complete training on cannabis laws, pharmacology, and patient safety,[64,65] but the scope and depth of this training vary considerably. Additional variability exists in practice patterns and readiness among health care practitioners authorized to certify medical cannabis, underscoring the importance of standardized minimum competencies to enhance practitioner preparedness.[66-69] These competencies aim to equip students not only with factual knowledge of federal and state laws, but also with the critical thinking skills needed to navigate legal ambiguities and institutional constraints in their future practice.

In addition, patients use cannabis for medical purposes without being certified or registered and in states where medical cannabis is illegal.[70] Regardless of the legal landscape, clinicians should be well-informed as they maintain nonjudgmental and honest discussions with patients about their cannabis use and its health implications. Therefore, these competencies are pertinent to clinicians in

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Box. Final Version of the Medical Cannabis Competencies for Medical Education[a]

1. Understand the basics of the endocannabinoid system.
2. Describe the main components of the cannabis plant and their biological effects.
3. Review the legal and regulatory landscape of cannabis in the US.
4. Describe the evidence base for health conditions that are commonly managed with cannabis.
5. Understand the potential risks of medical cannabis use.
6. Understand basic clinical management with medical cannabis.

[a] The complete version of the competencies is provided in eAppendix 2 in the Supplement.

all states; educational programs should be tailored to include state-specific guidelines about the roles that clinicians have as related to medical cannabis and their professional and legal liability.[71] The competencies may also be adapted, with applicable changes, for other countries or for training programs for other health care practitioners (eg, nursing, physician assistant). Furthermore, cannabis is currently legal for nonmedical adult use in 24 states,[17] underscoring the need for health care practitioners to possess foundational knowledge applicable to all contexts of cannabis use. The existing framework could be expanded to include considerations for nonmedical use, ensuring health care practitioners are prepared to address the full spectrum of patient needs.

We recognize the challenges of adding new educational content on a contentious topic to medical school curricula with numerous competing subjects required for graduation, especially given institutional constraints on and limited funding available for educational innovation. In addition to finding teaching time in a crowded schedule, other challenges include addressing stigma and misperceptions about cannabis use and logistical barriers, such as a lack of trained faculty and variations in state laws. These challenges can be addressed by embedding cannabis-related content into existing courses, such as pharmacology, public health, and clinical medicine, as well as offering short electives or workshops. Faculty training programs with state-specific educational materials can ensure consistency and clarity. Curricular adoption may also be facilitated by including medical cannabis–related content in licensing examinations, such as the US Medical Licensing Examination and Comprehensive Osteopathic Medical Licensing Examination, which play a central role in shaping medical education. Issues related to the practical implementation of the competencies, including teaching methods, faculty training, curriculum integration, and time allocation, were beyond the scope of this Delphi process and warrant further investigation and stakeholder engagement.

Limitations

This study has several limitations. The selection of experts for a Delphi study can directly influence its outcomes,[72] and our results may be subject to selection bias. However, the Delphi method typically does not require random or representative sampling; instead, experts are purposefully selected based on their applied knowledge and expertise.[43] The goal of this endeavor was not to highlight the benefits of cannabis but rather to conceptualize a comprehensive overview of needed competencies with balanced perspectives. The diversity of the expert panel—spanning diverse health care professions, clinical specialties, career stages, and roles in medical education—ensured that a range of viewpoints were considered. While the anonymized Delphi process does not attribute specific contributions to individual experts, this approach minimizes dominance by any one perspective, allowing for a collective consensus. One limitation of our selection process was that the expert panel did not include individuals with expertise in both medical cannabis and undergraduate medical education. Medical cannabis is such a new (and uncommon) component of medical education that we were not aware of any potential panelists with such dual expertise. Our findings may be subject to sample bias, as we do not know how the characteristics of expert panelists compare with those who declined participation. Another limitation of this study was the lack of diversity in the expert panel in terms of age, race, and career stage; only 6 members (26%) of the expert panel self-identified as a race other than White, only 4 members (17%) were aged 40 years or younger, and 13 members (56%) were 21 years or more into their careers. In combination with recruitment through the research team's professional networks, these imbalances could have biased our findings in unknown ways, potentially limiting the diversity of perspectives on educational priorities or emerging pedagogical approaches. Several panelists disclosed industry affiliations, all of which were transparently reported. Such affiliations are not uncommon among medical experts and did not influence any aspect of the study's design, analysis, or interpretation. Furthermore, the classic Delphi typically has 4 rounds, although 2 or 3 rounds may be sufficient for achieving consensus.[43] All the competencies met our predefined threshold (means ≥ 4) in round 2, which we deemed sufficient to finalize the list of competencies without further rounds.

Conclusions

For this consensus statement, we used a modified Delphi procedure to generate a consensus-based list of core medical cannabis competencies. These learning objectives contribute to bridging a considerable educational gap. The competencies were developed collaboratively, emphasizing outcome-driven training, standardization, and alignment with health care needs, in line with the principles used and endorsed by the Association of American Medical Colleges and the Accreditation Council for Graduate Medical Education. With the upsurge in medical cannabis use, the proposed competency framework is readily adaptable to a variety of educational settings and teaching modalities. These proposed competencies should serve as the basis for educational programs, ensuring the next generation of health care practitioners is aptly informed to manage the care of patients who use medical cannabis or those considering this treatment modality.

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SUPPLEMENT.
eAppendix 1. Medical Cannabis Competencies (for Delphi Round II)
eAppendix 2. Medical Cannabis Competencies (Final and Complete Version)