Review

A Pragmatic, Person-Centered View of Cannabis in the United States: Pursuing Care That Transcends Beliefs

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Abstract

Background: Rates of cannabis use are increasing in the United States, likely as a result of changes in societal attitudes and expanding legalization. Although many patients report wanting to discuss the risks and benefits of cannabis use with their clinical providers, many providers hold conflicting beliefs regarding cannabis use and often do not engage patients in discussion about cannabis. This dilemma is underscored by the limitations imposed on cannabis related research, and lack of empirically based best-practice guidelines for clinicians when addressing cannabis use with patients.

Objectives: We aimed to briefly summarize clinician and patient attitudes toward cannabis use and review current clinical guidelines and provide suggestions to assist health care providers and clinicians in increasing their comfort and skill in discussing cannabis use with patients.

Methods: A narrative review on attitudes toward cannabis use and clinical guidelines was performed to summarize the literature and provide evidence-based recommendations.

Results: Attitudes toward cannabis use have been shaped by personal and political factors and contribute to clinician hesitance in speaking with patients about the topic. Administrative barriers have hindered the development of clearer public health guidelines that might enable the dissemination of evidence-based information on the health effects of cannabis use and might ultimately lead to better health outcomes.

Conclusion: Not discussing cannabis use with patients may be a crucial missed opportunity for harm reduction. In the absence of empirically supported best-practice guidelines, a person-centered approach can facilitate conversations on the harms and benefits of cannabis use.

Keywords

cannabis use, cannabis use disorder, person-centered, evidence-based guidelines, harm reduction, mental health

Introduction

A growing body of research documents the potential health effects of cannabis and cannabinoids. Cannabis use is found to be helpful in treating chemotherapy induced nausea and vomiting, chronic pain, and reducing spasms for multiple sclerosis.[1] It has also been found to improve some short-term sleep problems.[1] Although limited, there is some evidence that cannabis or cannabinoids are effective for treating weight loss in people living with HIV, and improving symptoms of Tourette syndrome, social anxiety, and posttraumatic stress disorder.[1] As evidence expands regarding health effects of cannabis use, clinicians and other health care professionals should prepare to converse with their patients about it.

Clinicians face uncertainty in whether and how, to discuss cannabis use with their patients. The clinical importance of discussing substance use with patients is well established,[2] yet clinicians seldom initiate these discussions.[3,4] Despite believing that medical cannabis is a legitimate medical therapy, nearly half of primary care health care providers (HCP) surveyed did not feel prepared to answer questions about qualifying medical conditions that would make their patients

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eligible for medical cannabis.[5] In studies among oncology HCPs, approximately 70% did not believe they had sufficient knowledge to make recommendations for medical cannabis to patients[6] and nearly half of the HCP surveyed reported not asking about cannabis use in the past month.[7] Similarly, another survey among HCP found that there was a limited understanding of medical cannabis and that most were obtaining their information through news media, patients, and other providers.[3] Systems level barriers, including but not limited to space and privacy in the clinic, inability to refer to treatment for substance use disorders, and time restrictions also inhibit HCP ability to discuss substance use with their patients.[8]

A majority of patients who use cannabis to manage medical symptoms report they have not fully disclosed information about their cannabis use to their primary care providers.[9] Although patients report wanting to discuss cannabis use with clinicians, they are reluctant to do so because they fear it will impact their care, they may feel shame, and they may not be ready to discuss their substance use with providers.[10,11] We argue this may be a crucial missed opportunity to address health concerns that go unnoticed from cannabis use.

The purpose of this narrative review was to describe and synthesize information on attitudes toward cannabis use to provide guidance to HCPs that may be hesitant, unwilling, or unable to inquire about cannabis use; this includes but is not limited to primary care providers, nurses, psychologists, psychiatrists, clinical social workers, and counselors. In this narrative review we focused on summarizing the following research questions, (1) what is the historical context for understanding present day attitudes about cannabis use within the U.S.; (2) what are some factors that may contribute to the hesitance, unwillingness, or inability to ask about cannabis use among clinicians; and (3) what evidence-based guidelines may help clinicians better understand and address cannabis use with their patients?

Methods

Iterative searches were conducted through online databases (e.g., PubMed) and search engines (Google Scholar) from July 2020 to July 2023. Using a combination of the following terms and search themes, we reviewed relevant articles and references: "cannabis policies," "marijuana," "cannabis," "cannabis use disorder," "cannabis use benefits and harms," "clinician and patient attitudes toward cannabis use," "clinician's perceptions of risks and benefits of cannabis use," "harm reduction approaches to cannabis use," "clinician perception of barriers to discussing cannabis use with patients." To capture a wide breadth of articles on risks, we used the terms "risks," "harm," and "costs." To identify relevant articles on benefits of cannabis use, we used "benefits," "help," and "symptom reduction."

To capture clinicians and patients' perceptions and attitudes toward cannabis use, we varied the terms "physician," "psychologist," "clinician," "patient," "client," "healthcare consumer," "attitude," and "perception." To identify benefits and barriers to conversations about cannabis, we used the terms, "patient interest in discussing cannabis/marijuana use with physician/doctor," and "barriers to cannabis use conversations with patients." Identified literature was then read and synthesized focusing on the research questions.

Review

Historical Context for Understanding Present Day Attitudes About Cannabis Use Within the U.S

In the United States (U.S.), cannabis was viewed as an acceptable, helpful medicinal substance, commonly made into tinctures for oral ingestion, and was added into the "*Pharmacopoeia of the United States*" in the early twentieth century.[12] Societal attitudes toward cannabis soon began to shift, in response to a range of factors. During the prohibition era, public attitudes toward intoxication in general were negative, leading to a climate of less tolerance for cannabis use given its potential psychoactive effects.[13] Researchers reviewing the history of cannabis coverage in the New York Times found that from the 1800s to 1930s, coverage increased from only eight mentions of the word to 133 times during the prohibition era.[14,15] Headlines frequently cited violent events fueled by cannabis[16] or negatively connected cannabis with racial or ethnic minority groups.[17]

Despite the lack of evidence regarding harms from cannabis, in 1942, the drug was removed from the *Pharmacopoeia of the United States.* The U.S. Controlled Substances Act later placed tight regulations on cannabis use even for medical purposes: cannabis has been listed as a Schedule 1 substance since 1970, placing it in the most restrictive category of substances, indicating that there is significant possibility of danger or harm from use of the drug.[18]

The Shifting Tide of Cannabis Use in a Dynamic Policy Landscape

Following its placement as a Schedule 1 substance, cannabis use in high school teens actually increased during the 1970s and did not see a decrease until the following decade before rising again during the 1990s.[19] Studies suggest increases in teen cannabis use are explained by decreases in their perception of risk and disapproval of cannabis.[19] In

2022, U.S. society was more accepting of cannabis than ever before, with nearly 90% of U.S. adults supporting either medical (30%) or medical and recreational (59%) legalization.[20] Since the 1990s, societal attitudes toward cannabis in the U.S. have become significantly more accepting.[21] This has been linked predominantly to cohort effects (i.e., generational changes leading to population-wide shifts in attitudes and perspectives). Accompanying this increasing acceptance of cannabis use is the decrease in the perception of associated harms.[22]

Accepting attitudes toward cannabis use are shaping public policy toward legalization of cannabis for medical and recreational use, with the emergence of many state-level policy changes to legalize and decriminalize cannabis over the last decade.[23] Nationwide, as of 2015, public support for legalization is at an all-time high, with majority support from all generations except for the Silent Generation (born roughly between 1928 and 1935, around the time of prohibition and the Marihuana Tax Act). Only 35% of that generation compared with 71% of millennials, 66% of Generation X, and 56% of baby boomers endorses support for full legalization of cannabis.[24] While cannabis remains a schedule 1 controlled substance and is tightly regulated by the federal government of the U.S., state-level laws across a majority of states have expanded the legalization of cannabis for medical and/or recreational use.[25] As of April 2023, medical cannabis use has been authorized in 38 states, three territories, and the District of Columbia. As of June 2023, recreational, non-medical use of cannabis is permitted in more than half of those locations, including 23 states, two territories, and the District of Columbia.[25] While some states (e.g., Vermont) expanded legalization of cannabis through the legislative process, most states did so through ballot measures, with approval by a majority of voters.[25]

The terms "legalization" and "decriminalization" are often used interchangeably with inconsistent definitions, which can lead to confusion.[26] Legalization means the removal of any legal prohibitions against cannabis, so anyone could freely sell, purchase, and consume it. Decriminalization indicates removal of criminal sanctions related to cannabis; thus, while cannabis laws remain in place, a person would not be criminally prosecuted for purchasing or using cannabis. Sometimes, this may apply to the purchase and use of cannabis but not the sale of cannabis.[26] Cannabis remains illegal at the federal level, thus states that have "decriminalized" cannabis do not have the power to fully "legalize" cannabis.

Data from 2021 show that cannabis was the most popular illicit substance in the U.S., with 52.5 million people (18.7%) over the age of 12 years using cannabis in the past year.[27] Among people aged 12 years of age or older, past year cannabis use between 2002 and 2008 ranged between 10.1% and 11%, followed by the greatest annual change in use from 2018 to 2019 (15.9%-17.5%, respectively).[28] Across national studies in the U.S., the prevalence of cannabis use among adults has increased over time.[29] However, in epidemiological studies, changes in the estimated prevalence of Cannabis Use Disorder (CUD) vary, likely due to methodological differences. Results from the 2021 National Survey on Drug use and Health (NSDUH) suggests that nearly 6% of people that were 12 years of age or older had a CUD in the past year.[27] The shifting attitudes and policies also correspond to shifting demographic trends in the use of cannabis. Cannabis use rates are greatest among minoritized communities,[30,31] with the greatest past year rates of cannabis use among persons of two or more races (24.1%), American Indian and Alaska Native people (21.0%), and Black or African American people (19.35%) compared to a 17.5% national use rate.[32] Cannabis use rates tend to be greater among sexual minority people, with the most pronounced elevations among bisexual women (40% of whom use cannabis compared with 10% of heterosexual women and 26% among lesbian/gay women).[33] Though evidence is limited regarding the rates of cannabis use among gender minority populations, there appear to be high rates of use among transgender individuals.[34]

While some earlier studies suggested cannabis use rates were greater among individuals with lower incomes and those without college degrees,[30] this is not consistent with recent trends. Data from 2019 reflect that recent cannabis use rates were *lowest* among those at the highest poverty levels, higher among those with some college and college degrees compared to lower education experience, and highest among those with full-time employment compared to those with less employment.[32] Recent data also reflects greater cannabis use rates among those with no access to health insurance (23.7%).[32] It appears likely that increasing rates of cannabis use are due to increasing legislation that supports both recreational and medical use of cannabis.

State of Research Limits Available Public Health Guidance. The National Institutes of Health (NIH) began funding studies on the medical use of cannabinoids in 2015, with an estimated $198 million spent on cannabinoid research in 2021.[35] Research progress is stymied by regulatory and supply barriers, including federal law that creates strict barriers to cannabis research, as well as extensive regulatory requirements and restrictions on the specific types of cannabis plants that can be included in research studies.[36,37] Navigating the DEA requirements for Schedule 1 controlled substance research takes time, and researchers can get trapped in bureaucratic gridlock.[36] Limitations on obtaining cannabis for research purposes include required supply through NIH/National Institute on Drug Abuse (NIDA), which is often unable to supply sufficient cannabis for all ongoing studies at a given time.[36] The NIDA-supplied cannabis plants also do not

reflect the variable strengths of cannabis available in current markets in terms of tetrahydrocannabinol (THC) concentration. For example, two 2015 studies used NIH-approved cannabis plants with THC concentration between 3.5 and 7%, whereas the THC concentration of cannabis available in current markets can measure up to 35% in medical programs and 45% in recreational programs.[37,38] Results of studies that use these lower-concentration plants may therefore not be accurately representative of the effects of cannabis that is being marketed and used in the real world.[37,39]

Factors That May Contribute to the Hesitance, Unwillingness, or Inability to Ask About Cannabis Use Among Clinicians

Unclear Public Health Guidance Leads to Uncertainty for Clinicians. Providers and patients agree that clinicians "should" ask about substance use.[11] A significant majority (86%) of people that use medical cannabis report substituting cannabis for pharmaceutical medications, and 69% of those acknowledged their medical providers were not fully aware that they were doing so.[9] Further, recent findings from a clinic that routinely screens patients for cannabis use in primary care revealed that only 2% of patients had any information about medical cannabis use documented by providers in their electronic health record, despite the fact that 9% of patients in this clinic self-reported using cannabis for medical reasons.[40] Importantly, patients increasingly want to discuss cannabis specifically with their providers,[10] but providers are left to rely on guesswork or their own attitudes and beliefs[3,4] rather than to base the information and recommendations they provide on empirical data that may not exist.[41]

In the absence of evidence-based guidelines regarding cannabis use, providers tend to view cannabis as either harmful or helpful. Currently, a plurality of providers across clinical disciplines hold negative attitudes about cannabis, or believe it is objectively harmful to patients.[42-44] In contrast, many care providers have come to believe that cannabis is not a high-priority problem,[45] or is a helpful harm reduction strategy that reduces reliance on substances such as alcohol and prescription painkillers.[46,47] Indeed, many physicians hold opposing beliefs within themselves about cannabis risks versus benefits.[4] Attitudes toward cannabis are becoming even more divided as legalization and use of cannabis increases.[48] In a recent survey, a majority of healthcare providers "strongly" or "somewhat" agreed that cannabis was helpful for treating cancer, terminal illnesses, and chronic pain, despite evidence that either refutes or only partially supports those beliefs.[36] Most providers also endorsed wanting to learn more about cannabis and acknowledged significant gaps in knowledge regarding whether cannabis would be helpful for treating health conditions, and how its use would interact with other treatments. Thus, half of these same providers who believe cannabis is a helpful medical treatment for some conditions also reported that they did not feel ready to and did not want to discuss cannabis with patients.[5]

With the absence of evidence-based recommendations and guidance about the potential harms of cannabis,[41] other literature demonstrates that health care providers face uncertainty when talking to clients about their cannabis use.[3,49] This uncertainty exists in a context of increasing societal acceptance toward cannabis use, including decreasing rates of Americans who believe that cannabis use once or twice weekly is harmful (now at 29.2%). Many health care providers are inconsistent in how they talk to patients,[49] while some avoid talking about cannabis use altogether.[50] In an article titled "Anything Above Marijuana Takes Priority",[45] a researcher examined obstetric providers' perspectives on whether to discuss cannabis use during pregnancy with their clients. They found that these healthcare providers commonly chose to discuss the *legal* implications of cannabis use during pregnancy and avoided discussing the medical impacts. Avoiding these discussions of cannabis use may be a missed opportunity.[49] For instance, there is substantial evidence of the statistical association of maternal cannabis smoking and lower birth weight[51] and some (limited) evidence of the statistical association between maternal cannabis smoking and pregnancy complications as well as neonate admission to the neonatal intensive care unit.[52]

What Evidence-Based Guidelines May Help Clinicians Better Understand and Address Cannabis Use With Their Patients?

Re-Framing Dichotomous Thinking About Cannabis Use. We present the idea that providers might change dichotomous thinking about cannabis to better address patients' advice seeking and inquiries. Rather than considering cannabis as *harmful* versus *helpful*, the more relevant question for health care providers is: what role is cannabis playing for the patient in front of them? Implicit in this re-framing is acceptance that at the population level, cannabis use represents neither a definitive pathway to robust health, nor a harm-reduction panacea.

Potential Harms. For some, cannabis use may be associated with deleterious consequences, including fetal harm, cognitive impairments, functional impairments including impaired driving, and CUD.[53] Rates of CUD appear to be relatively stable corresponding to overall rates of use within the population, showing a consistent increase proportional to the increasing use of cannabis.[54] Based on

existing data, between 10 to 30% of people that use cannabis are likely to develop symptoms consistent with CUD.[55] This translates to CUD being twice as prevalent as any other illicit substance use disorder by number of individuals diagnosed.[55] While there are high rates of treatment seeking for problematic cannabis use, actual treatment rates are low: only 13% receive treatment within the last year, and ~8% receive treatment specific to cannabis use.[55]

Potential Benefits. Even with the increase of cannabis use and CUD, it is important to note that the majority of individuals who use cannabis do so without harm.[56] Cannabis use is a source of perceived or actual health benefit for many. Cannabis has been considered as a way of reducing patients' reliance on potentially more-harmful substances such as alcohol[46] or opiate painkillers.[47] Further, studies have examined "compassionate use" of cannabis in clinical populations, and found cannabis or cannabinoids to be effective in helping patients manage and ameliorate symptoms associated with cancer treatment, chronic pain, glaucoma, and multiple sclerosis pain and spasticity.[57]

Assessment. A variety of screening measures can be used to assess for cannabis use and CUD. A systematic review found 25 instruments that assessed for CUD, quantity of cannabis use, and problems related to use.[58] Additionally, brief screening tools for CUD may be implemented in settings where time with patients may be limited, including primary care and other clinical settings.[59,60] Screening measures can assist with distinguishing and assessing the physical and mental health effects of both medical and recreational cannabis use. This is critical given the poorer overall health and greater psychological problems that have been observed among those who use recreationally.[61] Additionally, people that use cannabis recreationally may be at higher risk of other substance use problems.[62,63] Routine screening and use of the electronic health records can help identify patients with CUD or that may be at risk of developing CUD and facilitate discussions on the advantages and disadvantages of CUD treatment from a provider and patient perspective.[64] As detailed above, both medicinal and recreational cannabis use are common in the U.S., and clinicians across disciplines should be prepared to discuss any type of cannabis use with their patients.

Risks Versus Benefits at the Person Level. In clinical practice, the risks and benefits of cannabis are best weighed at the level of the individual. This aligns with a burgeoning literature in clinical psychology which has empirically demonstrated that idiographic, person-specific consideration of clinical phenomena leads to more accurate understanding of human behavior and its consequences, compared with generalizations from population to individual.[65-69] It also aligns with the older theory of person-centered nursing which sees nursing care as responsive to individual patient needs and which should result in positive health improvements.[70] Healthcare providers are encouraged to consider *for whom and under what* conditions cannabis may pose a problem, rather than struggling with making a unilateral recommendation based solely on whether cannabis is considered a problematic substance at the population level.

There is evidence that cannabis use may be riskier for particular subgroups of the population, and these risks should be weighed collaboratively with the patient alongside any therapeutic benefits to obtain a person-specific assessment of, and strategies to mitigate, possible harms to that individual. For example, early initiation of cannabis use (that is, onset of use before age 18) has been linked to nearly a two-fold increased risk of developing CUD.[71] Therefore, educating younger patients about this risk and counseling them to delay initiation of cannabis use may be a useful harm-reduction strategy. Further, individuals with a personal or family history of other psychopathology, including attention deficit hyperactivity disorder (ADHD), depression, psychosis,[72] bipolar disorder,[73] or other substance use problems,[74] may experience increased risk of harm from cannabis use. Such individuals would benefit from increased attention to harm-reduction strategies (e.g., reducing use, carefully monitoring consequences of use) or considering abstinence (i.e., selection of alternative coping behaviors and avoiding cannabis use). Thoroughly assessing and discussing these and similar findings with patients may aid both in identifying person-specific risks of cannabis use and in identifying person-specific countermeasures to address those risks.

To accurately assess both the helpful and unhelpful consequences of cannabis, clinicians can educate clients in a technique such as functional analysis of behavior,[75] which involves examining the triggers or antecedents that motivate each instance of cannabis use, and evaluating the outcomes or consequences of that use. This approach can be applied at the level of the person to aid client and clinician in collaboratively identifying the person-specific risks versus harms of cannabis use. Additionally, by responding to patient-driven questions about cannabis and by offering an evidence-based foundation to support sharing information on the potential harms or benefits of cannabis use for each patient, providers are engaging in the most fundamental aspects of patient care: the inclusion of respectful, interpersonal and collaborative decision-making, and a focus on person-centered outcomes including care satisfaction and patient well-being.[70]

Limitations

This review has several limitations to consider. First, this narrative review provided a summary of topics with cannabis use that could have consisted of their own systematic review. For example, attitudes toward cannabis use among health care professionals, advantages and disadvantages of

cannabis use, and factors that may be linked with cannabis use are topics to further explore systematically and further enhance evidence-based treatment and practices. Second, we did not create a flow chart with details on how many studies were selected and it's likely that other search terms (e.g., nurses, cannabis screening, assessment, and interventions, and cannabis use guidelines) may have yielded additional results and information about cannabis use. Third, one major criticism of narrative reviews are that they may be more biased because they selectively choose evidence that helps strengthen an argument.[76] However, the broadness of narrative reviews may help elucidate research questions that are under-explored and avoid unnecessary repetitive conclusions that may arise in systematic reviews.[76]

Conclusion

A history of split attitudes toward cannabis use, a complicated cannabis policy landscape, and a relative lack of empirical research on cannabis to inform best clinical practices have formed a problem for clinicians when it comes to best-practice recommendations and engaging patients in discussion of cannabis use and its impact on wellness. This problem has become especially pressing in light of expanded cannabis legalization and use, and rising rates of CUD. As we have learned from public-health approaches clinicians can help address cannabis problems by engaging patients in conversation about their cannabis use. In Tables 1 and 2, we present a set of action steps grounded in empirical evidence that may aid clinicians in the goal of discussing cannabis use with clients. Table 1 presents "internal" items to inform clinician mindset and can be undertaken prior to any interactions with patients. Table 2 offers "external" items to facilitate the conversation in clinical settings with clients/patients about cannabis use. By considering the recommendations outlined below, clinicians can increase their preparation to engage clients in discussions about cannabis use, which may help ameliorate actual and potential problems as we wait for the cannabis research literature to better inform clinical practice.

Table 1. Internal Action Items: Preparing the Clinician Mindset.

What to do	Why	How
Education		
Pursue education and training regarding the continuum of the benefits and harms of cannabis for health complaints and problems, including levels of evidence and where evidence is lacking.	To inform clinicians' views, learn which information about cannabis is evidence-based, and amass resources/information to share with patients. Education should be sought out often since information changes frequently.	Examine empirical, evidence-based sources such as those published by the U.S. Substance Abuse Mental Health Services Adminsitration (SAMHSA) and the National Institute on Drug Abuse (NIDA). Subscribe to cannabis-related listservs and workgroups to keep up on the most frequent literature in this area. The Centers for Disease and Control is another helpful resource on information about cannabis use, including the different ways it is used.[77] The American Society of Regional Anesthesia (ASRA) and Pain Medicine guidelines for the perioperative use of cannabis.[78] In Canada, Access to Cannabis for Medical Purpose Regulations (ACMPR)[79]
Tailor the learning to the particular needs of each individual and pay attention to population-specific concerns.	Cannabis use can function differently, and have different outcomes, in different individuals. Studies have shown several factors (age, history of mental illness, or substance use, certain personality traits) that predict greater risk of harm from cannabis use.[57,72,73]	Pursue evidence-based training in cultural considerations, and learn more about particular factors that may differently impact substance use in different groups (e.g., minority stress).[34]
Become informed about cannabis use and CUD-related resources in your local community, such as harm-reduction groups or recovery groups.	If clients express an interest in stopping or decreasing their use, providing a referral will allow the clinician to help them access care while remaining within the scope of their own work with the patient.	Consult the SAMHSA website[80] for a comprehensive list of treatment resources in your local area if you practice in the United States. In addition to abstinence-based recovery groups (e.g., 12-step groups such as Alcoholics Anonymous or Narcotics Anonymous), look for local harm-reduction groups or resources for individuals who may want to modify cannabis use.
Reflection		
Reflect on any beliefs about cannabis use (either positive or negative) and evaluate the extent that these beliefs are substantiated by the current literature.	By becoming aware of one's beliefs and the potential biases they may bring, clinicians may develop more effective and objective ways of discussing cannabis use with patients.	Reflect on your beliefs, using these questions as a template: How do your beliefs impact your behavior related to cannabis use, including how you talk about it with others? How do your beliefs impact interactions with patients? How do your beliefs impact your clinical practices?
Identify barriers to discussing cannabis use with patients, such as time constraints or discomfort.	Awareness of barriers may lead to greater problem-solving to address the barriers, at both individual and structural levels.	Reflect on things that have prevented or negatively impacted discussions with past patients about cannabis.
Discussion.		
Seek opportunities for consultation and supervision to discuss with other clinicians issues related to cannabis use—preferably clinicians who work with the same or similar populations.	Open discussions can help identify blind spots or offer useful suggestions. These discussions can also provide an opportunity to work through opposing tensions surrounding a clinician's own beliefs, check-the-facts and obtain information to reduce impact of bias. Engaging other clinicians in dialog may generate structural solutions and institutional policies to address potential barriers.	It may be useful to role-play with other clinicians, develop strategies for how to discuss cannabis use by sharing and learning what has worked successfully in the past, incorporate cannabis into the case formulation (e.g., its functional impact, how it serves or hinders client/patient goals) and get feedback on this from other clinicians.

Table 2. External Action Items: Changing Patient Interactions.

What to do	Why	How
Directly assess/monitor cannabis use patterns	Understanding the full picture of a client's substance use is necessary to assess health impacts and potential for harm reduction.	Be specific and concrete: how much cannabis was used? What method of use? How frequently? Consider using screening measures or structured cannabis use assessment tools.[59]
Determine how cannabis use serves the client	Cannabis use can serve different functions for different people. Understanding the role cannabis use plays in a person's life can support overall therapeutic alliance with the patient, help identify ways of engaging in the behavior more safely, begin to identify alternative strategies that can serve a similar function if the goal is to reduce cannabis use, and identify motivations for change.	Ask about intended goals of cannabis use—how does it make their life better or improve their health? Also, be sure to ask about problems it causes, or how it interferes with goals and values. How might it be both helpful and harmful? Encourage clients to keep an "antecedents, behaviors, consequences" log to help them identify harmful or helpful patterns.
Demonstrate curiosity and non-judgment: you're not pushing the client to change, simply learning with them about their behavior and its pros/cons	Research has shown a motivational, non-confrontational style is best to discuss substance use in primary care.[81] A recent meta-analysis found that this type of approach has been shown to be helpful for cannabis use.[82]	Utilize approaches such as motivational interviewing.[83,84] The Motivational Interviewing Network of Trainers (MINT) is an excellent resource.[85] These resources can help generate ideas for specific techniques and phrases to help clients reflect on their reasons for change.
Provide referrals to local harm-reduction and recovery-support resources.	Research in primary-care settings has shown that implementing a procedure of screening, brief intervention, and referral for substance use treatment (Screening Brief Intervention Referral to Treatement or SBIRT) is an effective early-intervention strategy to prevent substance use problems from worsening.[86]	Maintain a current list of local community resources to easily disseminate this information if clients express an interest in stopping or reducing cannabis use. Hargraves et al[86] published best-practice guidelines for implementing screening and referral procedures in primary care.

Author contribution

HB, JP, AP, JS, MT, and AF contributed to the study conception and design, analysis and interpretation and manuscript preparation. All authors reviewed the results and approved the final version of the manuscript.

Declaration of Conflicting Interests

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