

Medical Marijuana: A Primer on Ethics, Evidence, and Politics

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Abstract and Introduction

Abstract

Controversy in the United States about the decriminalization of cannabis to allow health care providers to recommend it for therapeutic use (*medical marijuana*) has been based on varying policies and beliefs about cannabis rather than on scientific evidence. Issues include the duty to provide care, conflicting reports of the therapeutic advantages and risks of cannabis, inconsistent laws, and even the struggle to remove barriers to the scope of practice for advanced practice registered nurses. This article reviews the ethics, evidence, and politics of this complex debate.

Introduction

Advanced practice registered nurses (APRNs) and other caregivers in the United States face complex circumstances with the decriminalization of medical marijuana, the inconsistent reports of its advantages and risks, the needs of patients, and current trends. Today's society appears to be shifting from the view that medical marijuana is a criminal issue to seeing it as a health care issue. When practitioners discuss *medical marijuana*, they are generally talking about using marijuana, or cannabis, for palliative care. Since marijuana has been criminalized in the US, the discussion about its use in patient care most often arises where it is illegal not only under federal law but also state laws and when no alternative therapy has effectively relieved the suffering of a patient.

The goal of palliative care, also called "comfort care" or "compassionate care," is to improve the quality of life for a patient by preventing or relieving symptoms of disease or the side effects of treatments. Palliative care includes counseling and addressing symptoms, such as fatigue, nausea, insomnia, and pain. The nursing profession views palliative care, and specifically the relief of pain, as a patient right. Pain management is a core competency in nursing.^[1] The American Nurses Association (ANA) Code of Ethics and position are clear. "Nurses should be competent in the care of patients throughout the continuum of life. This includes the obligation for nurses to help manage pain and other distressing symptoms for patients with serious or life-limiting illness."^[2]

Both physicians and nurses have been criticized for undertreating pain.^[3,4] The position statement of the American Society for Pain Management in Nursing on this duty is unambiguous: "Nurses and other health care providers must advocate for optimal pain and symptom management..."^[5]

Medical marijuana is a volatile topic, but as the national debate grows, the need for APRNs to be informed about it also grows. This article provides a description of the ethics, evidence, law, and politics surrounding the controversy about access to cannabis for the relief of intractable patient symptoms in the US.

Background

The debate about medical marijuana arises not so much from the science of medicine as it does from our culture, history, conflicting values, and politics. The issue is not obvious. Most medicines come from plants. Why is this plant so stigmatized? Is it more dangerous than the poppy that is imported for most legally prescribed narcotics? What is the public health threat of cannabis? Must patients endure pain, nausea, and so on for the "greater good"? This debate creates an ethical dilemma for some of today's primary care APRNs, especially in states where the distribution and possession of medical marijuana, also referred to as therapeutic cannabis, are illegal.

The position of the ANA has been clear and consistent on the issue of access to marijuana for therapeutic use. In 1996, the ANA advocated support for the education for registered nurses and controlled trial research regarding the therapeutic efficacy of cannabis. In 2003, the ANA House of Delegates went on record as supporting nurses' "ethical obligation to be advocates for access to healthcare for all" including patients in need of "marijuana/cannabis for therapeutic use."^[6] In December 2008, the ANA reiterated their support of therapeutic cannabis (medical marijuana).^[7] Informed input from APRNs into the policy and law-making process during this time of critical change is key to expanding APRN responsibilities in practice.

The Ethical Debate

The underlying ethical debates in the push and pull to permit access to cannabis for therapeutic use in the US rely on ancient ethical virtues and can create a classic "ethical dilemma" in which both sides have ethical arguments to support opposing conclusions. *Nonmaleficence* is the ethical virtue that means "First, do no harm," a phrase often attributed to the ancient Hippocratic Oath. *Beneficence* is the virtue that can be described as to "do all the good you can." Those who focus on possible side effects of marijuana may argue nonmaleficence. Those who see the unrelieved suffering of a patient and who intervene to change laws denying that patient access to therapeutic marijuana are often driven to do so by a strong value of beneficence.

Those who highly value *paternalism* find in it the basis for opposing the medical use of marijuana. Paternalism means protecting those with less knowledge or ability from themselves, much as a parent protects a child. Those who study mind-altering drugs and their side effects, or those who know the limits on adolescent ability to make good judgments, sometimes conclude that the practitioner or policy maker has the critical expertise and believe that they should protect patients and young people from themselves, in this case by creating as many barriers to marijuana as possible. Conflict arises when those among us who value autonomy and respect for differences argue that the individual must make his or her own best choices. From this perspective, the role of the APRN and other health care professionals is to educate people about their options. Both those promoting paternalism and those promoting autonomy value beneficence (doing good) and nonmaleficence (avoiding harm), but they disagree on which should prevail.

There are many examples of this debate in public health. Most of us are aware of the rise and fall of the prohibition of alcohol consumption in the US with the passage of the 18th and 20th amendments to the US Constitution in the first half of the 20th century. Other well-publicized and more recent efforts include the attempt to ban the sale of large sugared soft drinks in New York City;^[8] a campaign to ban the distribution of bags of formula by nurses to new breastfeeding mothers in hospitals;^[9] and bans on smoking in public places, including an effort to ban the smoking of e-cigarettes.^[10] The arguments for these measures are similar to those in the debate surrounding medical marijuana, where beneficence

and autonomy (the options for palliative care) sometimes seem to conflict with paternalism and nonmaleficence (threats of harm, such as potential addiction).

Advocacy, or working to support a cause or the best interest of others, is another ethical virtue. As informed and trusted members of the patient care team, APRNs have an ethical duty to advocate for patients that arises from personal virtues, from the call to serve the greater good, and from the deontologic code of ethics of our professional organizations.

Medical Marijuana and Privacy

Related to patient autonomy is a patient's right to privacy (ie, to control his or her own body and his or her own personal information). The ancient Hippocratic Oath included the statement that "Whatever I see or hear in the lives of my patients, whether in connection with my professional practice or not, which ought not to be spoken of outside, I will keep secret, as considering all such things to be private."^[11]

When personal health information is likely to result in social stigma or negative consequences, such as when psychiatric, drug, or alcohol treatment information is released or when the patient is a celebrity, the duty to protect patient privacy is heightened. This special circumstance has long been an issue and is recognized under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 (PL 104–191; 42 U.S.C. §§1320d et seq.). The use of therapeutic cannabis is likely to be in this category, as long as its use remains illegal or continues to be viewed negatively by society. Even if medical use is a defense, association with a drug that many consider illicit could impact a person's ability to be employed or create other social handicaps. Therefore, caregivers, including APRNs, need to be prepared to extend these additional protections of privacy for a patient who is using medical marijuana.

Where the possession of therapeutic cannabis is illegal, patients have an additional concern about criminal penalties and may well be concerned about the protection of their information from release to organizations and individuals. HIPAA does exempt certain entities from the confidentiality requirement and grants them access to patient information without patient consent for the greater good of society. Law enforcement is not generally an exception. Examples of exceptions include public health reporting requirements and regulators like the US Department of Health and Human Services, which needs access in order to enforce HIPAA. APRNs can reassure their patients that most entities are not entitled to the patient's health records without the patient's consent, including the US Drug Enforcement Administration (DEA).^[12] HIPAA (the Privacy Rule, at 45 C.F.R. §§160 and 164) specifically limits access to identifiable health information, whether it is medication listings, discharge, or progress reports, including those cases in which DEA officers request information to show the patient's criminal intent. All health entities and caregivers are held accountable by HIPAA to protect patient privacy and generally are not required to expose the patient's past or present medical history, including prescriptions or drug use, to authority outside of that health entity.

Until recently, patients had few legal remedies when the privacy of their medical records was breached. Today, state and federal laws provide patients with legal remedies to compensate them for confidentiality breaches. The regulations issued under HIPAA that govern the privacy of personal health information also provide penalties for health care providers who fail to comply, including substantial fines and/or prison.

As the electronic health record becomes the rule, and diagnostic codes in the new *International Classification of Diseases, Tenth Revision* coding more accurately describe health issues (scheduled

for implementation in October 2014), new confidentiality challenges will emerge. APRNs and other caregivers should expect their professional organizations to help them stay on top of and to anticipate changing regulations, to provide input regarding exceptions for patients whose need for privacy protection is heightened, and to give guidance regarding compliance.

The Scientific Evidence: Benefits and Risks of Medical Marijuana

Marijuana consists of the dried flowers, leaves, and stems of the hemp plant, also known as *Cannabis sativa*. The hemp plant contains over 400 chemical compounds. More than 80 cannabinoids (C21-containing compounds) unique to the cannabis plant have been identified. A main psychoactive substance (mind-altering) is chemical delta-9 tetrahydrocannabinol (THC). THC's chemical structure is similar to anandamide, a natural lipid in the brain. Like anandamide, THC binds to CB-1 and CB-2 receptors to produce physiological effects, such as euphoria or pleasure, relaxation, appetite stimulation, alleviation of nausea/vomiting, pain relief, decreased muscle spasticity, and reduction of glaucoma eye pressure. The most common psychological effect is "euphoria"; however, among inexperienced users, sensations of panic attacks, anxiety, and depression have been reported.^[13] Smoking marijuana causes THC to pass rapidly from the lungs into the bloodstream, which carries the chemical to the brain and other organs throughout the body. It is absorbed more slowly when ingested orally.^[14]

Although inhaled marijuana is not federally approved for therapeutic use, some chemicals in THC have been isolated for prescription in the form of oral medications and classified as schedule III drugs. Marinol (dronabinol capsules [Par Pharmaceutical Companies, Woodcliff Lake, NJ]; see prescribing information at <http://www.marinol.com/>) and Cesamet (nabilone [Meda Pharmaceuticals, Somerset, NJ]; see prescribing information at <http://www.cesamet.com/patient-home.asp>) are controlled medications approved by the Food & Drug Administration. Both are prescribed for the treatment of side effects associated with chemotherapy in cancer patients. Dronabinol is also used to stimulate appetite, reduce weight loss in individuals with HIV, and treat spasticity in multiple sclerosis.

In 1999, the Institute of Medicine (IOM) completed an evidence-based report on what was known about the use of medical marijuana, which included a review of the suspected risks.^[15] The IOM found a risk of dependence but less risk than with benzodiazepines, opiates, cocaine, or nicotine; withdrawal symptoms that were mild compared with opiates or benzodiazepines (eg, Valium [diazepam (Roche, Basel, Switzerland)]); and adverse effects "within the range of effects tolerated for other medications" except for the risks associated with smoking. The IOM concluded that there is no evidence for the argument "that the effects of marijuana are causally linked to the subsequent abuse of other illicit drugs." The IOM did not find support for the singling out of marijuana as a "gateway drug," stating "because underage smoking and alcohol use typically precede marijuana use, marijuana is not the most common, and is rarely the first, 'gateway' to illicit drug use."

Nurses administer many medications that may cause addiction and are aware of their potential side effects. A recent review of the side effects of medical marijuana concluded that most were mild.^[16]

The American Medical Association (AMA) reviewed the randomized, double-blind controlled trials published on adverse effects of medical marijuana. It found that short-term use was associated with a number of noticeable side effects, but that these were all tolerable. However, because only short-term controlled trials are available in the US for the past 40 years, the AMA noted that knowledge of the effects of cannabis is very limited. Most of the research in the US must go through the National

Institute on Drug Abuse, which generally promotes the study of drug abuse in relation to marijuana and potentially addictive drugs, rather than the therapeutic effects or side effects.^[17]

The AMA found that in the short-term cannabis increases heart rate and may be related to orthostatic hypotension. Cannabis intoxication has been associated with impairment of short-term memory, attention, motor skills, reaction time, and the organization and integration of complex information. Smoked cannabis can cause relaxation and enhance mood. However, some individuals experience acute anxiety or panic reactions, confusion, dysphoria, paranoia, and psychotic symptoms (eg, delusions and hallucinations).

When inhaled or smoked, marijuana has side effects similar to smoking cigarettes, reducing the ability of the alveoli to kill fungi, bacteria, and tumor cells in the lungs. It can also produce "secondhand" smoke, resulting in similar risks to others who are in the same vicinity as the smoker. However, marijuana smokers, in general, smoke very little compared with other smokers, perhaps 3–4 puffs per day. In addition, alternative routes to smoking are under development.

The greatest risk of marijuana may not be any biological risks arising from its use, but the psychological and sociological risks of the DEA policy of harsh sentences for drug crimes, especially for low-level nonviolent offenses. This has resulted in the disenfranchisement and incarceration of a large segment of the US population, making the US not the world's leading marijuana researcher but rather the world's leading jailer. Pervasive racial targeting of blacks in the "war on drugs" makes this mass imprisonment even more threatening to our public health, safety, and welfare.^[18] The DEA has published a list of physical side effects, as well as the position statements of a variety of professional health care organizations on the use of cannabis, on its Web site. Even the statements published by the DEA reflect disputed claims and the unsettled status of marijuana in the US.^[19]

In 1999, the IOM concluded that the data on medical marijuana supported therapeutic benefits, particularly for "pain relief, control of nausea and vomiting, and appetite stimulation," primarily from the cannabinoid THC.^[20] The more recent AMA report described previously found support for the contentions that cannabis reduces nausea and vomiting among cancer patients, increases appetite and caloric intake especially in patients with reduced muscle mass, controls neuropathic pain (3 studies), reduces pain and spasticity for patients with multiple sclerosis (2 studies), and significantly reduces intraocular pressure in glaucoma patients (1 study).^[17]

One advantage of medical marijuana, compared with many other pharmaceutical interventions, is its relative safety as a drug. In 2010 in the US, 22,134 deaths were recorded from pharmaceuticals, and 9,429 additional deaths were from the use of unspecified drugs.^[21] No deaths caused by medical marijuana overdose have been confirmed in the US.^[22]

The AMA and IOM concurred on the need for the US to remove its barriers to research on the therapeutic value of cannabis. The international medical community, outside of the US, is conducting most of that research.

Politics and Medical Marijuana

Marijuana (cannabis) has been in use since ancient times to relieve a variety of symptoms.^[23] By the late 18th century, American medical journals recommended hemp for the treatment of inflamed skin, incontinence, and venereal disease.^[24] In 1854, the US Dispensary listed marijuana as having medicinal value.^[25] Until the 1930s, marijuana was prescribed for numerous medical conditions.^[26]

The use of marijuana remained legal in the US until 1937 when the federal government passed the Marijuana Tax Act, which provided a criminal fine for marijuana possession. By 1942, the legal use of marijuana in the US was eliminated.

Nevertheless, the use of marijuana as a recreational drug grew in popularity during the antiwar and counterculture social movements of the 1960s. Congress passed the Controlled Substances Act of 1970, 21 U.S.C. § 801, et seq., in response to their fear about this trend. It prohibited all therapeutic medicinal use of marijuana/cannabis by making it a schedule I drug (Public Law 91–513). Schedule I drugs, as APRNs know, are deemed to be highly dangerous, of no therapeutic value, and cannot be prescribed for any purpose.

One of the early attempts by a state to modify the impact of this federal law was in the Maryland legislature in January 1980 when a Republican member of the House of Delegates, Delegate Kach, introduced House Bill 273. This bill covered the essentials to allow patients access to cannabis for palliative care: "Marijuana – Medical Research and Treatment: FOR the purpose of providing for the dispensing of marijuana by qualified persons and physicians who are treating patients suffering from the nausea and ill effects of cancer chemotherapy or the ill effects of glaucoma; permitting the possession of up to a certain amount of marijuana by certain patients; and establishing certain procedures to protect the privacy of such patients." House Bill 273 failed to pass in Maryland's 1980 legislative session, but it laid the groundwork for future efforts.

Marijuana use remained illegal in all states until 1996, when California became the first state to allow the therapeutic use of marijuana.^[27] Voters in California passed the Compassionate Use Act (also known as Proposition 215) by a 56% to 44% margin.^[28] The passage of Proposition 215 allowed patients to receive a physician's recommendation to possess or grow marijuana for personal use. Faced with a growing body of evidence that marijuana has a significant margin of safety when used under a practitioner's supervision in the therapeutic regimen,^[15,29] more states began to pass legislation to protect the rights of their citizens to legally obtain inhaled cannabis for palliative care.

Today, 21 states, plus the District of Columbia, have laws authorizing the use of medical marijuana. The latest was Maryland. With the leadership of Democratic Delegate Morhaim, the only physician in the Maryland legislature, and with support from the state's nursing and medical professional communities, Maryland finally succeeded in passing a law to decriminalize and provide access to medical marijuana in April 2014.

States permitting medical marijuana generally have some form of patient registry and provide protection from arrest for possession of up to a certain amount of marijuana for medical use with qualifying medical conditions.^[30] However, as the AMA concluded, "the patchwork of state-based systems that have been established for 'medical marijuana' is woefully inadequate in establishing even rudimentary safeguards that normally would be applied to the appropriate clinical use of psychoactive substances."^[17]

In contrast to a growing number of states, federal opposition has continued. Because of federal constraints, most studies in the US today focus on exploring marijuana's potential for abuse. The DEA, the Department of Veterans Affairs, and the Department of Justice have all issued statements in recent years reinforcing the prohibition on the use of medical marijuana.^[25]

Despite the government's position in some federal agencies, US Attorney General Eric Holder announced in 2009 and again in 2011 that legally pursuing people who were using medical marijuana

was not a priority. So far, the federal government has not acted to enforce its laws against marijuana use in a state that has made it legal. The discrepancies among the positions of the federal agencies, the US Attorney General, and the various state laws have done little to help medical professionals or patients clarify the legal situation for those recommending or using therapeutic marijuana today.

Contemporary Issues: 2 Scenarios

What follows are 2 scenarios to assist the practitioner to more fully understand why this controversy persists. These scenarios were selected from legislative testimony to provide examples of the impact on real people and the complexity of the issues discussed in the medical marijuana debate in the US today.

Scenario 1

After Eva, a health care worker, was assaulted and struck in the head with a crowbar, she was plagued with migraine headaches and seizures. No medication relieved her symptoms. Her APRN helped Eva explore alternative therapies. A physician recommended that Eva try medical marijuana. It was the 1 medicine that consistently controlled her seizures and migraines, with minimal side effects. Although a medical recommendation for marijuana could be a legal defense to the crime of possession in her state, it was still a crime. In 2010, Eva was arrested, handcuffed, searched, fingerprinted, charged, and spent 12 hours in jail. At her hearing, she was found guilty of possession of paraphernalia and was given "probation before judgment" for 18 months. Her family spent \$1,250 for her lawyer and paid a \$250 fine. Her neurologist recommends that Eva continue to use medical marijuana. She feels like a criminal and dreads the times that she has to make a marijuana purchase. She believes that if she is arrested again, she will lose her job in health care. The person who was convicted of attacking Eva never spent any time in jail.

Scenario 2

John has over 33 years of law enforcement experience in 3 different state agencies, including 23 years with the state police. The majority of his work has been in the fields of narcotics and criminal investigation. He has either arrested or commanded personnel and task forces that arrested thousands for misdemeanor and felony drug crimes. Law enforcement in his state made 22,028 marijuana possession arrests in 2007. John identifies current laws as undermining the desire of "cops" to help those in need. The current policies "prevent cops from honestly helping cancer, HIV and other patients who use marijuana... prison... is costly and no place for suffering patients." He notes the dangers, physical, medical, and from the resulting "funding of corruption," of forcing patients into the illegal drug communities for marijuana purchases. Finally, he argues, "since the war on drugs started, police have had to spend so much time chasing nonviolent drug offenders, we no longer have time to protect citizens from violent criminals."

Implications for APRN Practice

Some APRNs may be skeptical about decriminalizing the therapeutic use of marijuana, as was Dr. Sanjay Gupta before he had to review the evidence in order to prepare a special report on medical marijuana for CNN in 2013.^[31] Others may be shocked by the zeal with which some individuals continue to prevent its legalization. Regardless of what one has heard up to now, it is time to support research on the therapeutic use of the 80-plus active ingredients identified in marijuana. This research must be overseen by institutions and agencies that have a broader or different charge than the

National Institute on Drug Abuse. It is a best practice and in the best interest of patients to base policies and clinical practice on unbiased, scientific evidence.

The ethical, research, and legal debates over medical marijuana have a clear impact on the practice of APRNs. As the trend toward decriminalization continues, new issues are surfacing for APRNs and their colleagues. If marijuana is available for caregivers to recommend as part of a therapeutic care plan, what practices will best control abuse? What educational requirements should a caregiver have in order to recommend therapeutic marijuana? Where marijuana becomes legal for recreational purposes, how will the APRN integrate this into the routine health assessment and health teaching of patients? If it is illegal for all purposes, what is the advocacy role of APRNs?

Determinations about safe and effective treatment for patients must come from research, professional practitioners, and decisions made by each patient. APRNs have the expertise and the credibility to guide lawmakers away from what the IOM called a "belief-based" policy and toward an evidence-based policy. APRNs must continue to seek unbiased, scientific facts in order to provide the information, counseling, and referrals needed to guide patients toward a decision regarding their therapeutic options that is both fully informed and appropriate for them. Joining with professional organizations, colleagues, legislators, and patients, APRNs can advocate for changes in our laws that remove barriers to practice and promote a healthier and more just society.

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This CE learning activity is designed to augment the knowledge, skills, and attitudes of nurse practitioners (NP) and assist in their understanding of the legal underpinnings of prescribing medical marijuana.

At the conclusion of this activity, the participant will be able to: A. Describe the ethical/scientific controversy of therapeutic use of marijuana in the US

B. Describe the political history/current policies/laws in the US on medical marijuana

C. Identify implications of medical marijuana status in the US for NP practice and patient care

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