

American Journal of Nursing, April 2001, Vol. 101, No. 4, pp. 61-69.

Policy Perspectives

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Therapeutic Cannabis

A patient advocacy issue.

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Marijuana, Mexican slang for the hemp plant, is its most common name in the United States. It's also known by other slang terms to those who use it recreationally: *pot*, *weed*, *reefer*, *herb*, *grass*, *ganga*. Yet it seems more fitting – and respectful to those who use it to ease their suffering, risking imprisonment if convicted – to call it by its scientific name, *cannabis*, when discussing its potential medical uses.

Patients across the United States are breaking the law by using this plant therapeutically. Cannabis, classified as a Schedule I drug, belongs to the most restrictive of the Drug Enforcement Administration's (DEA) five categories for psychoactive drugs. Drugs categorized as Schedule I must meet three criteria: the drug has high potential for abuse; the drug has no therapeutic value; the drug is not safe for medicinal use.

The federal government defends this classification, citing concerns about the validity of research showing the medicinal benefits of cannabis and the impact on society of legalizing its use (even for medicinal purposes only).^{1,2} The Office of National Drug Control Policy has said that efforts to “define marijuana as a ‘medicine’ fail to address the negative impact such legislation would have on the health of our youth or the nation’s scientific process of approving medications.”³

Yet advocates assert that the government's own study of the dangers of marijuana concludes that the prohibition of cannabis is more harmful than the drug itself,⁴ and that both Institute of Medicine (IOM) reports identify therapeutic applications for cannabis.^{5,6} They argue for its removal from Schedule I, noting that historical accounts and research support its use as a safe and therapeutic treatment for a variety of illnesses.⁷

In the past five years, eight states (California, Arizona, Alaska, Nevada, Oregon, Washington, Colorado, and Maine) and the District of Columbia have voted favorably on initiatives allowing patients to use the drug medicinally; in 2000, Hawaii passed a legislative bill supporting the use of medicinal marijuana. Similar legislation was introduced in 11 states in January and February 2001, and bills addressing various aspects of marijuana’s medical uses are

expected to be introduced in a minimum of 25 state legislatures during the 2001 legislative sessions.⁸

INSET: Kathy Nicholson, 49, lives in Santo Cruz, California, and has had rheumatoid arthritis since she was 12 years old. She has been smoking marijuana for pain management since age 20. Her marijuana is supplied by the Wo/Men's Alliance for Medical Marijuana (WAMM), a Santa Cruz collective of patients and caregivers providing support and medical marijuana, at no cost, to patients who have a physician's recommendation. Ms. Nicholson is pictured here inhaling marijuana smoke through a bong (water pipe). Federal laws that prohibit the use of medical marijuana supersede state laws; however, Santa Cruz's mayor, district attorney, and chief of police have vowed to protect WAMM's operation in accordance with California state law.

HISTORICAL REVIEW

The cannabis plant (*Cannabis sativa* and *C. indica*) was first used for medicinal purposes nearly 5,000 years ago, and it was introduced to Western medicine in 1839 by a British physician who found the drug to be safe and effective in the treatment of rabies, rheumatism, epilepsy, and tetanus.^{9,10} In the United States, the first extensive study of cannabis was completed in 1860 by the Ohio State Medical Society, which found the drug to be valuable in the treatment of stomach pain, childbirth psychosis, chronic cough, gonorrhea, and neuralgia.¹⁰ "Tincture of Cannabis" and other cannabis preparations were listed in the *Merck Manual* and the U.S. Pharmacopoeia until the 1940s.

In the 1930s, following the repeal of prohibition, marijuana was identified as an intoxicating "new" drug, leading to cannabis propaganda. In 1937, the Marihuana Tax Act was passed, which outlawed social use of the drug, and the passage of the Controlled Substances Act of 1970 effected complete prohibition of cannabis by banning its medicinal use. This empowered the DEA to regulate the use of psychoactive by placing them in schedules according to their abuse potential. As a Schedule I drug, marijuana is in a class with drugs such as heroin, LSD, mescaline, and psilocybin; Schedule II drugs include morphine, meperidine, and cocaine.

In the early 1970s, several organizations filed lawsuits to allow cannabis to be used therapeutically. This litigation culminated in a ruling by Francis L. Young, the DEA's administrative law judge, in September 1988, in which he stated, "It would be unreasonable, arbitrary and capricious for the DEA to continue to stand between those sufferers and the benefits of this substance in light of the evidence in this record."¹¹ However, the director of the DEA, John C. Lawn, rejected the ruling, and marijuana remains in Schedule 1.¹

Nearly a decade later; General Barry McCaffrey, director of the Office of National Drug Control Policy, requested that the IOM assess the therapeutic value of cannabis. In March 1999, after an 18-month study, the IOM concluded that cannabis has therapeutic value, is safe for human use (although scientific research is needed to develop alternatives to smoking), is not highly addictive, and is not a "gateway" drug.⁶ Despite these findings, the federal government hasn't changed its policy on medical marijuana and continues to assert that more research is needed.

CLINICAL INDICATIONS

Symptom management is the primary indication for therapeutic cannabis. In the early 1980s, six states conducted studies approved by the FDA to establish smoked marijuana's efficacy as an

antiemetic during cancer chemotherapy and as an appetite stimulant.¹² In May 1985, the FDA approved dronabinol, a synthetic version of delta-9-tetrahydrocannabinol (which is commonly called “THC” and is one of 60 cannabinoids found in *C. sativa*), for nausea and vomiting associated with chemotherapy. Further indication as an appetite stimulant, specifically used to combat the AIDS wasting syndrome, was added in 1992. Although initially categorized as a Schedule II drug, dronabinol was reclassified as a Schedule III controlled substance in July 1999, allowing for off-label indications.

Because cannabis is known to lower intraocular pressure, it's also been shown effective in preventing blindness from glaucoma.^{13, 14} Its euphoric effects, the aim for recreational users, have been shown anecdotally to benefit patients with depression, bipolar disorder and anxiety.¹⁵ Cannabis appears to work differently for pain management than do opioids, and this has led to interest in its use as an adjuvant therapy.¹⁶ And a recent study conducted in Spain demonstrated that cannabinoids had selective antitumor action with glioma cells in rats without any adverse effects.¹⁷

Much research is occurring in the area of neurologic disorders, especially for the treatment of spasticity, pain, seizures, and movement disorders,^{6, 18} and other research indicates that a nonpsychoactive cannabinoid, cannabidiol, is more effective in treating spasticity than is THC, the primary psychoactive cannabinoid.^{19, 20} Preliminary in vitro studies with rat nerve cells indicate that cannabidiol acts as an antioxidant and may prevent or reduce brain cell damage caused by ischemic strokes. And researchers at the National Institutes of Health are hopeful that cannabidiol's antioxidant effects may help in the treatment of heart disease as well as Alzheimer's and Parkinson's diseases.²¹

INSET:

State Nurses Associations That Support Therapeutic Cannabis:

Alaska Nurses Association

California Nurses Association

Colorado Nurses Association

Hawaii Nurses Association

Mississippi Nurses Association

New Mexico Nurses Association

New York State Nurses Association

North Carolina Nurses Association

Virginia Nurses Association

Wisconsin Nurses Association

POTENTIAL RISKS

Cannabis use is not without risk. As with other psychoactive substances, a possible side effect of acute cannabis use is impaired psychomotor performance. Patients should be cautioned not to operate machinery when using this drug.⁶ Other side effects include dry mouth, mild sedation, and increased appetite. Dysphoria may occur during acute intoxication, but it's more common in patients using synthetic THC than in those using the natural plant.²² In such cases, diazepam may be recommended.

Tachycardia may occur,⁶ and marijuana's effect on myocardial infarction (MI) gained nationwide attention when Mirtleman and colleagues presented findings from their study (“Triggering of Myocardial Infarction by Marijuana,” which was never published) at an American Heart

Association conference in March 2000.²³ The results show that a person's risk of MI was increased 4.8-fold within one hour of using marijuana; however, within two hours the risk dropped to 1.7-fold, suggesting a rapid decline in the effects of marijuana use. The researchers point out that compared to subjects who didn't use marijuana, those who used the drug were more likely to be younger, male, and smokers, and they were less likely to have hypertension, diabetes, or clinical coronary disease. The study concluded that further examination of the mechanisms by which marijuana increases MI risk is needed.

Physical dependence on cannabis is a minimal risk compared to that for commonly prescribed opioids or anxiolytics. Patients typically experience minor withdrawal symptoms, and they generally don't require gradual tapering off or medical treatment. Short-term residual effects of cannabis on memory and cognition have been reported,^{24, 25} but a recently completed longitudinal study provides "strong evidence of the absence of a long-term residual effect of cannabis use on cognition."²⁶ Damage to the immune system has been reported in animal studies, but these involved extremely high THC doses, and similar results haven't been seen in humans.⁶ The results of a recent analysis of patients with AIDS showed that cannabis doesn't interfere with the metabolism of protease inhibitors; the researcher also reported a greater weight gain among patients using cannabis.²⁷

Smoking is the greatest concern with chronic use, with an increased possibility of pulmonary infections or cancer.²⁸ Additional pulmonary problems have resulted from the use of adulterated cannabis supplies – production of the drug is unregulated because marijuana use is illegal, so safeguards aren't in effect to protect users from contaminated cannabis.⁷ Researchers are working to develop an alternative delivery system, such as a vaporizer, that would deliver the drug to the lungs for absorption without the harmful effects of smoking. And companies are developing sublingual lozenges, nasal sprays, rectal suppositories, and skin patches to bypass the risks linked to smoking and the erratic absorption associated with the oral route of delivery.²⁹

Cannabis has a wide margin of safety when used under medical supervision, and no overdose has ever been recorded. Research shows one would have to smoke 1,500 lbs. in 15 minutes to cause a lethal dose.¹⁹

INSET:

Common Arguments Against Therapeutic Cannabis

Marijuana is highly addictive: Compared to other, commonly used psychoactive drugs, marijuana is not highly addictive and has a low abuse potential. When used in recommended doses for medicinal purposes, marijuana is much less addictive than many Schedule II and III drugs.

Marijuana is a gateway drug: The 1999 report by the IOM finds that "There is no evidence that marijuana serves as a stepping stone on the basis of its particular drug effect."

The dosage can't be controlled: Prior to marijuana prohibition, when pharmaceutical companies created extracts and tinctures of cannabis, they were able to provide fairly uniform preparations of the drug. The government-grown marijuana, which is produced under crop management techniques, provides a relatively consistent supply that is processed in cigarette form.

A legal marijuana pill is already available: Dronabinol is a synthetic form of THC, which appears to cause more dysphoria than the combination of cannabinoids found in the natural plant. Research is demonstrating that other cannabinoids or combinations of cannabinoids show more therapeutic potential than does THC alone.^{1, 5}

Medical use of marijuana might encourage teens to use the drug: Lying to children and teenagers

about a drug's value sends a more troubling message. Children should be taught that all drugs and medicines present risks and that medicine should only be taken under a provider's supervision when the patient is sick.

CURRENT ACCESS

In 1976, the federal government allowed patients the only legal access to medical marijuana through the FDA's Investigational New Drug (IND) program. To qualify, a patient had to find a provider to validate the therapeutic value of the drug and complete a complicated application. Three federal agencies were involved: the FDA, for protocol approval; the DEA, for security of the controlled medicine; and the National Institute for Drug Abuse, for growing the plant and supplying the medicine.

In 1991, approximately 15 patients were receiving cannabis from the government through this program. More than 30 others were approved but hadn't yet received it, and hundreds of applications (mostly from AIDS patients) were awaiting approval. That same year, the Department of Health and Human Services closed the IND access program to all medical marijuana requests, except for those patients already receiving the drug. Today, only eight of the 15 patients are still living and can legally use marijuana in the United States.

INSET: Web Resources

The Alliance of Cannabis Therapeutics

<http://marijuana-as-medicine.org/alliance.htm>

Cheeo: Pro and Con Marijuana Links

www.cheeo.com

The International Cannabinoid Research Society

www.cannabinoidsociety.org

The IOM Report: Marijuana As Medicine: The Science Beyond the Controversy

www.nap.edu/books/0309065313.html

Medical Information on Marijuana

www.druglibrary.org/schaffer/hemp/medical/medical.htm

Patients Out of Time

www.medicalcannabis.com

Wo/Men's Alliance for Medical Marijuana

www.wamm.org

NURSING'S RESPONSIBILITY

After more than 60 years of prohibition, formal education is limited to the context of substance abuse. Patients who approach their care providers about using the drug medicinally are frequently labeled "drug abusers" or "drug seekers." Although care providers sometimes suggest the medicinal use of cannabis, they will rarely document their advice (to protect their licenses to

practice) or won't note its effect in the patient's record (to protect the patient).

Yet how can nurses remain silent while seriously ill people are denied access to an effective treatment? Patients need professional guidance about the safe administration of cannabis, and they need unadulterated supply. Two statements in the *Code for Nurses* require us to consider these concerns: "The nurse participates in the profession's efforts to protect the public from misinformation and misrepresentation and to maintain the integrity of nursing"; and "The nurse collaborates with members of the health care professions and other citizens in promoting community and national efforts to meet the health needs of the public."

If you were to listen to patients' reports of the benefits of cannabis or observe patients' responses to it, you would see its therapeutic value. If you were to review the drug's history, you'd see that it is widely used therapeutically throughout the world and that it has been banned in the United States for political, not medical, reasons.^{7, 30, 31} If you were to review the current literature about its safety and potential health benefits, you'd see that there's no basis for the continued prohibition of this treatment.^{6, 7, 11}

Patients need our help now. Ask your state association or specialty organization to formally support patient access to therapeutic cannabis by means of a resolution of position paper. (See State Nurses Associations that Support Therapeutic Cannabis, page 63.) Urge your state legislators to introduce supportive legislation. For assistance with the education of organizational leaders or the drafting of position papers, contact Patients Out of Time (see Web Resources, at left).

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