HPNA Position Statement

The Use of Medical Marijuana

Background

Until 1937, cannabis, the scientific genus name for marijuana, was widely prescribed in the United States for a variety of conditions including pain, mental illness, and anxiety. *The Marihuana Tax Act of 1937* began the restriction of its use, and the *Controlled Substances Act of 1970* completely prohibited all therapeutic medicinal use of marijuana in herbal form.[1] Contrary to popular belief, pharmaceutical cannabinoids such as dronabinol and nabilone are classified as Schedule II medications similar to opioids, while the U.S. Food and Drug Administration (FDA) and U.S. Drug Enforcement Administration (DEA) classify the herbal form of marijuana as a Schedule I medication. This definition states that it has "no currently accepted medical use," placing it into the same category as street drugs with a high abuse potential, such as heroin, Quaaludes, lysergic acid diethylamide (LSD), and 3,4 – methylenedioxymethamphetamine.[2]

Many states have held public voter initiatives to approve the medicinal use of marijuana. To date, 20 states, as well as the District of Columbia, have enacted laws that allow the use of "medical marijuana."[3] Specific to nursing, the newly enacted laws and regulations about medical marijuana do not delineate nor describe advanced practice registered nurse (APRN) involvement in certifying or recommending patients for medical marijuana. While marijuana remains a Schedule I drug at the federal level, the U.S. Department of Justice has publically stated that they will not use resources to reverse individual state laws legalizing medical marijuana nor to prosecute individuals who act to dispense marijuana according to those state processes.[4]

Description of Marijuana

Although marijuana has a long history of human use, it has only been in the last 25 years that its chemical elements have been identified. The two main active chemical components are the focus of medical use are cannabinoids (chemical constituents of cannabis that bind to cannabinoid receptors). One is delta-9-tetrahydrocannabinol (THC), the primary psychoactive component. The other is a non-psychoactive constituent, cannabidiol (CBD).[5] Cannabidiol, a potent anti-

inflammatory compound, has been reported to reduce the symptoms of diabetes mellitus type I in mouse models.[5,6]

The concentration of 9-tetrahydrocannabinol (THC) in various forms of marijuana ranges from less than 0.2% in fiber-type hemp (also known as ditch weed) to 30% in the flower buds of highly hybridized sinsemilla. The strength of cannabis has increased over time, with cultivators crossing strains to achieve higher THC content.[7] In 1980, the average THC content was 2%. By 1997, it had risen to 4.5%, and concentrations reached 8.55% in 2006.[7]

Although the therapeutic indications for cannabinoids have been well documented for some conditions (e.g., human immunodeficiency virus [HIV] wasting, chemotherapy-induced nausea, vomiting), less information is available about other potential medical uses.[8] Marijuana has been used to decrease spasticity, pain, and tremor in some patients with multiple sclerosis (MS), spinal cord injuries, or other trauma, as well as to decrease suffering from chronic pain.[8-10]

Marijuana in its plant form can be smoked, vaporized, added to foods, or used as an elixir. The side effect profile of marijuana includes increased heart rate, vasodilation, and dizziness. Long-term effects of inhaled marijuana include pharyngitis, rhinitis, asthma, bronchitis, emphysema, and lung cancer. For approximately 10% of the population, marijuana becomes addictive, and some believe that it is a "gateway drug" for other recreational substances.[7,11] For an even smaller percentage of the population, the drug may cause psychosis, particularly in those individuals with a predisposition towards psychosis. There are reports of marijuana being infected with organisms that can lead to pulmonary complications (e.g., Aspergillus fungal infection) or laced with other psychoactive substances (e.g., phencyclidine [PCP], embalming fluid). Smoking marijuana can leave particulates in the lungs that can be harmful.[7,12]

There is a lack of expert consensus regarding potential benefits (e.g., analgesia, anxiolysis), adverse effects, and dosing recommendations for smoking or ingestion of cannabis. Most research on herbal preparations has been done outside the United States. In the United States, research has focused on the cannabinoids.

Pharmaceutical Delta-9-Tetrahydrocannabinol (THC)

There are two FDA-approved medications that contain cannabinoids. Nabilone (Cesamet®), a synthetic cannabinoid similar to THC, is approved for chemotherapy-induced nausea and vomiting.[7,13] Dronabinol (Marinol®), a synthetic THC, is approved for the management of HIV-related anorexia and chemotherapy-induced nausea and vomiting.[14] It is useful for anxiety and to increase appetite, but it is relatively ineffective as an analgesic (at best, it may be a weak analgesic). Studies reveal dronabinol is a weak antiemetic. Some patients find relief from nausea and vomiting, but find it too sedating. Cost and insurance coverage may limit access to these drugs.

Newer compounds that include both THC and cannabidiol and thereby act on both cannabinoid receptors (CB_1 and CB_2) are in clinical trials. The proposed benefit of incorporating two compounds is analgesia without euphoria. One such compound, nabiximols (Sativex®), delivered via a sublingual spray, has been shown to be effective in the treatment of neuropathic pain.[6,15] This agent is approved for use in Canada and in some countries in Europe, but is not approved in the United States.

Quality Concerns

Even in states that have sanctioned medical marijuana, there are no existing state laws that address customary medication production issues, such as quality control, potency, or access.[16] Quality control relates to production of cannabis (i.e., plant growth occurs in a healthy environment without pesticides, storage assures non-contamination and prevents animal access, consistent administration supplies standardized cannabis).[3] Although there is recognition of the variance in potency by plant type, there are no descriptions or ratings of plant types, or indications of what varieties may be most useful in what clinical situations. There are no dosing recommendations.

Patient registration for medical marijuana access varies. There is no description of a preferred mechanism of access (e.g., by referral, prescription, a specific contact). In most states, the petitioner needs to be certified as a patient with a disabling medical condition, to be issued an identification card by the state, and then to access marijuana in state-sanctioned dispensaries.[3] There are also no clear consistencies on guidelines for persons supplying medical marijuana, indications for use, and application for access.[3]

Other National Association Statements

In 1999, the Institute of Medicine (IOM) issued their report *Marijuana and Medical Use: Assessing the Science Base.* In their review, they found that cannabinoids have a role in pain modulation, control of movement, and memory. Specifically, they determined that it could ameliorate nausea and vomiting in chemotherapy and as an appetite stimulant for HIV wasting. They recommended further research into delivery mechanisms of both synthetic and plant cannabinoids. There was also discussion of research into side effects, particularly with the use of smoked cannabis.[17]

In 2001, the American Medical Association (AMA) stated that, "Until such time as rapid-onset cannabinoid [marijuana] formulations are clinically available, our AMA affirms the appropriateness of compassionate use of marijuana and related cannabinoids in carefully controlled programs designed to provide symptomatic relief of nausea, vomiting, cachexia, anorexia, spasticity, acute or chronic pain, or other palliative effects. Such compassionate use is appropriate when other approved medications provide inadequate relief or are not tolerated, and the protocols provide for physician oversight and a mechanism to assess treatment effectiveness."[18]

In 2008, the American Nurses Association (ANA) reaffirmed its support of therapeutic marijuana. They stated that there was a need to educate nurses about the facts of THC, its medicinal effects, and the therapeutic use of cannabis in cancer, HIV, spinal cord pain, and glaucoma.[19]

In 2008, the American College of Physicians (ACP) released a position statement on *Supporting Research into the Therapeutic Role of Marijuana.* They supported research and funding for the evaluation of the therapeutic effects of marijuana as well as the creation of a research grade of cannabis. In addition, they encouraged the use of non-smoked forms of THC, which have been found to be beneficial. They strongly encourage reclassification of marijuana from a Schedule I drug. Finally, they advocate for exemption from federal prosecution, civil liability, and professional sanction for those physicians who prescribe marijuana and those patients who use marijuana.[8]

In 2009, the AMA made a request to change marijuana's category as a Schedule I drug to allow research, with the "goal of facilitating the conduct of clinical research and development of cannabinoid-based medicines, and alternate delivery methods. This should not be viewed as an endorsement of state-based medical cannabis programs, the legalization of marijuana, or that scientific evidence on the therapeutic use of cannabis meets the current standards for a prescription drug product."[18]

Position Statement

Education

- Hospice and palliative nurses must understand the medical use of marijuana and cannabinoids. In particular, they should be familiar with the conditions in which medical marijuana and cannabinoids might be beneficial, based on the current evidence base for patients with cancer (i.e., nausea, vomiting), HIV cachexia and wasting, spasticity in spinal conditions, MS, and glaucoma, just as they would understand the evidence base of all treatments.[9,17]
- Hospice and palliative nurses should provide patients and families with education and resources about medical marijuana and pharmaceutical delta-9-tetrahydrocannabinol as secondary treatment in certain conditions.
- Hospice and palliative nurses should provide evidence-based resources on the use of medical marijuana including articles, websites, and information from professional organizations.[9,20]

Practice

- Hospice and palliative nurses must obey the state laws under which they are licensed, including those that regulate access to medical marijuana.[9]

- Hospice and palliative nurses should not recommend particular routes or preparations of medical marijuana.[21]
- Hospice and palliative APRNs should not practice out of their prescriptive authority, because neither the FDA nor DEA grant prescriptive privileges for medical marijuana.

Research

- HPNA supports the American College of Physicians, American Medical Association, and the Institute of Medicine in calling for the creation of a research grade of cannabis to allow further research on the evaluation of the therapeutic effects of marijuana.

Definition of Terms

Schedule I: Drugs, substances, or chemicals defined as drugs with no currently accepted medical use and a high potential for abuse. Schedule I drugs are the most dangerous drugs of all the drug schedules with potentially severe psychological or physical dependence. Some examples of Schedule I drugs are 4-methylenedioxymethamphetamine (ecstasy), peyote, heroin, lysergic acid diethylamide (LSD), marijuana (cannabis), and methaqualone.[2]

Schedule II: Drugs, substances, or chemicals defined as drugs with a high potential for abuse, less abuse potential than Schedule I drugs, with use potentially leading to severe psychological or physical dependence. These drugs are also considered dangerous. Some examples of Schedule II drugs are amphetamine and dextroamphetamine (Adderall®), cocaine, dextroamphetamine (Dexedrine®), fentanyl (Actiq®, Duragesic®, Fentora®), hydromorphone (Dilaudid®), meperidine (Demerol®), methamphetamine, methadone (Dolophine®), methylphenidate (Ritalin®), oxymorphone (Opana®), oxycodone (OxyContin®, Roxicodone®), and oxycodone and acetaminophen combination products (Endocet®, Percocet®, Roxicet®, Tylox®).[2]

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