

May 19, 2023

MEDICAL MARIJUANA CONSIDERATIONS FOR SEVENTH-DAY ADVENTISTS

Institute for the Prevention of Addictions Andrews University International Commission for the Prevention of Alcoholism and Drug Dependency

Gary Hopkins, MD, DPH, Duane C. McBride, PhD, Curt VanderWaal, MSW, PhD, Alina M. Baltazar, MSW, PhD; Peter Landless, MB, BCh, FACC

Purpose

Public Advocacy for the benefits of medical marijuana has resulted in a complex series of issues for the Seventh-day Adventist Church. The purpose of this document is to briefly describe marijuana and its possible medical uses and to help inform the safest and best practice of medical marijuana use in the institutions of the Seventh-day Adventist Church and by its members.

Short History of Marijuana Law and Policy

Marijuana, also known as cannabis, is one of the oldest psychoactive plants known to humanity. Its use for medicinal, ritual, and recreational purposes goes back several thousand years (Pisanti, 2019). Globally, marijuana is the most commonly used psychoactive substance after caffeine and alcohol (World Health Organization (WHO), 2022). The legality of cannabis use varies greatly by country in terms of its production, distribution, and use for medical or recreational purposes.

In most nations, three major international treaties regulate national policies and regulations: The United Nations Single Convention on Narcotic Drugs ratified in 1961 (WHO, 2022), the Convention on Psychotropic Substances, 1971 (WHO, 1971) and the 1988 Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (WHO, 1988). In 1970, through the Controlled Substance Act, the United States classified marijuana as a Schedule I drug, in the same class as heroin. This means that, at the U.S. federal level, marijuana is judged to have no medical value (National Center for Biological Information (NCBI), 2013).

Marijuana policy varies greatly across the world, ranging from highly restrictive to highly permissive laws. Some countries make possession of even small amounts punishable by several years in prison (World Population Review, 2023). However, in recent years, several countries have shifted policies closer to decriminalization that makes possession of a small amount of marijuana a minor offense. Most recently, as of the date of this paper, eight nations - Canada, Georgia, Mexico, Thailand, Malta, South Africa, Belize, and Uruguay - have legalized marijuana for recreational use. In addition, the District of Columbia plus 22 states and two territories in the U.S. as well as the Australian Capital Territory (containing the Australian capital city of Canberra and some surrounding Townships) have legalized recreational marijuana for personal use. The list of countries and subunits who are actively working toward marijuana legalization is on the increase.

The Movement toward Medical Marijuana

The global legalization of marijuana followed years of advocacy for the use of marijuana for medicinal purposes. As of early 2021, over 40 nations allowed the medical use of marijuana, with a few other countries allowing only the use of medications derived from marijuana in pill form. See the following Wikipedia site for a complete list of all countries and their cannabis use laws. The United States Food and Drug Administration has approved one cannabis-derived medication, Epidiolex® (cannabidiol) and three synthetic cannabis-related medications, Marinol® (dronabinol), Syndros™ (dronabinol), and Cesamet® (nabilone). These medications require a physician's prescription. There is some evidence that Epidiolex® may help a rare seizure disorder in children (Food and Drug Administration (FDA), 2020a). See the US Food and Drug Administration website for understanding the process of approval of these medications. Note that these medications are in pill form and not inhaled.

While at the federal level in the U.S., cannabis is illegal and is listed as a Schedule 1 drug, 38 states, three territories, and the District of Columbia allow the medical use of cannabis products. In addition, as of April 24, 2023, 22 states, two territories, and the District of Columbia have legalized small amounts of marijuana for adult recreational use (National Conference of State Legislatures, 2023). In other states where marijuana remains completely illegal, the enforcement of marijuana laws for personal possession and use is often a low priority, although this can vary within state governmental units such as counties, cities, and townships. This makes the situation complex in the U.S. since the federal government could seize all medical marijuana assets in states that have declared it to be legal. At this time, the federal government has decided not to strictly enforce federal laws at the state level (National Conference of State Legislatures, 2022b).

In many U.S. states and across the globe, marijuana is a very unusual "medicine", particularly since it is often grown at home and smoked. It may be the only "medication" that citizens in some countries can grow/produce on their own without regard to potency and dosage level. Generally, medical marijuana, particularly in smoked form, is not regulated in terms of dose, purity, or amount by government regulatory agencies. It is very important to follow the laws, policies, and regulations of the area of the world in which one lives. As noted above, medical marijuana laws vary significantly, and those laws need to be followed by church members.

CBD, THC, Hemp and Cannabis Plants

In discussing medical marijuana, it is important to understand the differences between cannabidiol (CBD) and tetrahydrocannabinol (THC). CBD generally contains few of the psychoactive chemicals that cause people to get "high", while THC is highly psychoactive, meaning that people get "high" or experience altered states of consciousness when they use products which contain this compound. These are two discrete natural compounds found in cannabis plants that are used for different medicinal purposes. Although the cannabis plant contains hundreds of untested and active chemicals, CBD and THC have been specifically identified as having possible therapeutic benefits. While many individuals grow their own cannabis plants and smoke the dried plant for its psychoactive effect, both CBD and THC can be extracted and converted into a multitude of forms such as oils, pills, edible products, and topicals; each with varying dosages. The marijuana plants, grown and smoked, may contain as many as 670 unique chemical compounds of which over 100 are cannabinoids, and at least 69 of which are known to cause negative health effects (Graves et al., 2020).

Hemp plants are cannabis plants that contain less than 0.3% dry weight THC and in fact, because of this, according to the 2018 Agriculture Improvement Act, also referred to as the Farm Bill (USDA, 2018), hemp is no longer considered to be a part of the definition of marijuana in the U.S. Controlled Substance Act. In contrast, marijuana plants are cannabis plants that contain higher concentrations of THC. Hemp plants are used in a variety of ways including the making of rope, paper, clothing, textiles, paint, and animal feed, among others. Hemp seeds are sometimes used in food and the oil can be used to create creams, soap, or other products. A growing number of countries have legalized hemp for industrial purposes and some countries regulate levels of THC that are allowed in hemp plants. Psychoactive properties are virtually or completely non-existent in food and drink that specifically use hemp products and consumers should not generally be concerned about getting high or having an altered consciousness as a result of using these products. CBD can also be extracted from the hemp plant or from the marijuana plant and while it is psychoactive it is not intoxicating (i.e., it does not make you "high"). CBD is sold in the form of gels, gummies, oils, supplements, extracts, and more (Healthline, 2022).

The Significant Possibility of Mislabeling and Contamination

While products containing CBD generally do not have the psychoactive properties found when THC is present, a great deal of caution is needed. The popularity of CBD products combined with the fact they are unregulated in most countries leads to the possibility that what is on the market may not actually be what is claimed. A 2017 letter was published in the Journal of the American Medical Association in which 84 CBD products were purchased and analyzed. Not surprisingly, the authors found serious over- and under-labeled concentrations of CBD oil, with less than one-third accurately labeled. Their laboratory analysis also found just over one-fifth of the products contained detected amounts of THC, the main psychoactive and intoxicating agent in marijuana (Bonn-Miller et al., 2017; Rubin, 2019). Contamination with heavy metals such as lead, copper, and nickel of CBD products prompted the U.S. Federal Drug Administration to recall at least one brand (FDA, 2020a). While these products are being sold everywhere, consumers must be wary.

Possible Medical Uses of CBD

Currently, the only Food and Drug Administration (FDA)-approved CBD-based drug is Epidiolex (cannabidiol), an oral solution for the treatment of seizures associated with two rare and severe forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome (FDA, 2020b). However, pure CBD does not cause intoxication or euphoria (the "high") that comes from tetrahydrocannabinol (THC).

CBD is very commonly used without physician supervision for symptoms related to joint pain, anxiety, insomnia, pain relief, and others. It should be noted that there is little scientific evidence for the efficacy of CBD. Documented side effects of CBD include nausea, fatigue, and irritability. CBD can also increase the blood level of the blood thinner coumadin/warfarin, and it can raise levels of certain other medications in the blood when taken at the same time. It is unclear if topically applied CBD products such as lotions or creams are absorbed systemically and have the same effect as those taken by mouth. However, those who take coumadin/warfarin should use a high degree of caution. Currently, the FDA does not regulate the safety and purity of non-prescription CBD in any form (Harvard Health Publishing, 2021). The claims for the medical benefits for CBD are almost unlimited. A Harvard University report (2021) listed some of the benefit claims for CBD, including being a cure for cancer and useful for managing anxiety, but these claims are not substantiated by robust clinical trials. Trials are needed to document effectiveness and safety for specific medical issues, including dosage levels and frequency of use. In summary, CBD is an unregulated substance with little evidence of effectiveness. Because CBD is unregulated, there are issues with the purity of the substance, and it may not be clear what other ingredients are in CBD.

If you decide to try CBD, first talk with your doctor or pharmacist to make sure that it does not interact with your other medications. Because there are no intoxicating effects or addiction potential from the use of CBD, employers, government agencies, and schools have generally not developed policies regulating CBD use other than to perhaps warn individuals that most of the claims of CBD efficacy are unproven.

Medical Marijuana with THC Content

Generally, when people speak of medical marijuana, they are talking about the smoked or edible forms of the cannabis plant, not the FDA (or similar country/national medication control bodies)-approved medications containing CBD or THC. The negative consequences of early onset and long-term, regular marijuana use in smoked form have been well documented. They include a variety of substance use disorders (SUD), cognitive decline, psychosis, amotivational syndrome, cannabis hyperemesis, and driving impairment. It should be noted that many medications that are widely used also have similar potential for abuse and significant physical and mental health consequences (Lac & Luk, 2018; National Institute on Drug Abuse (NIDA), 2019; Volkow et al., 2021).

One of the most common claims for medical marijuana is that it helps with pain control. The evidence for this claim is complex. In a systematic review of research data, Nugent and colleagues (2017) as well as Mücke and colleagues (2018), found that there was limited evidence that cannabis may reduce neuropathic pain, but that

there was not sufficient evidence for relief of other types of pain. Of those studies reviewed, sample sizes were small and tended to be of limited generalizability. Both of these reviews concluded that any type of pain relief may be outweighed by the negative mental health consequences of cannabis. In any decision to use medical cannabis, it is important to examine the known risks against the possible benefits for its use.

The FDA has approved three oral medications that contain THC: dronabinol capsules (Marinol®), dronabinol oral solution (Syndros™) and nabilone (Cesamet®), which are used to treat nausea that may be caused by chemotherapy. The process of FDA approval was noted earlier in this report. These medications are also approved to help increase appetite in patients with extreme weight loss caused by acquired immunodeficiency syndrome (AIDS). Continued research might lead to more medications. The United Kingdom, Canada, and several European countries have approved nabiximols (Sativex®), a mouth spray containing THC and CBD. It is used to treat muscle control problems caused by multiple sclerosis, but it is not approved by the U.S. FDA (NIDA, 2020). These decisions were based on recommendations from a 2017 National Academies of Sciences, Engineering, and Medicine report. This report also indicated that there was moderate evidence that medical cannabis had some effect on sleep apnea and fibromyalgia.

The following paragraphs in italics are derived from the National Academies of Sciences, Engineering, and Medicine (2017, p. 13-21) report noted above and provide the basis for FDA review of possible cannabis-based medications.

More specifically, this report indicates that there is evidence that cannabis or cannabinoids are effective for the treatment of chronic pain in adults, treatment of nausea and vomiting associated with chemotherapy, and in treating multiple sclerosis spasticity symptoms. There is moderate research support for the effectiveness of cannabinoids for sleep disturbance associated with sleep apnea syndrome, fibromyalgia, and multiple sclerosis. The report indicates that there is limited evidence that cannabis or cannabinoids are effective in increasing appetite and increasing weight loss associated with HIV/AIDS, improving symptoms of Tourette Syndrome, or improving anxiety symptoms associated with public speaking in individuals with social anxiety disorders.

There is limited evidence of a statistical association between cannabinoids better outcomes following traumatic brain injury or intracranial hemorrhage. There is limited evidence that cannabis or cannabinoids are ineffective for improving symptoms of dementia, improving intraocular pressure associated with glaucoma, reducing depressive symptoms in individuals with chronic pain or multiple sclerosis.

There is no or insufficient evidence to support or refute the conclusion that cannabis or cannabinoids are effective treatment for irritable bowel syndrome, cancers, including glioma, cancer associated anorexia cachexia syndrome and anorexia nervosa. Some other conditions that have shown lack of evidence for effectiveness in treatment included epilepsy, spasticity in patients with paralysis the spinal cord injury, symptoms associated with amyotrophic lateral sclerosis, Chorea and certain neuropsychiatric symptoms associated with Huntington's disease, achieving abstinence in the use of addictive substances, mental health, and individuals with schizophrenia.

There is limited evidence of a statistical association between cannabis use and figuring of acute myocardial infarction, ischemic stroke or subarachnoid hemorrhage, decreased risk of diabetes and increased risk of prediabetes. There is substantial evidence of a statistical association between cannabis smoking and worse respiratory symptoms and more frequent chronic bronchitis episodes. There is limited evidence however of a statistical association between cannabis smoking and increased risk of developing chronic obstructive pulmonary disease when controlled for tobacco use. There is moderate evidence of a statistical association between cannabis use including inspiratory distress among pediatric populations in the United States where cannabis is legal.

There is substantial evidence of a statistical association between maternal cannabis smoking and lower birth weight the offspring. There is limited evidence of a statistical association between maternal cannabis smoking and pregnancy complications for the mother and admission of the infant to a neonatal intensive care unit.

There is substantial evidence for an association between cannabis use and schizophrenia and other psychosis with frequent use and moderate evidence for a statistical relationship between cannabis use and cognitive impairment in learning and memory.

Any consideration of the potential benefits of medical marijuana must be balanced by an awareness of the documented potential physical and mental health consequences of marijuana use (also see Mücke and colleagues, 2018).

In trying to develop a framework for the use of medical marijuana within the Seventh-day Adventist Church and its institutions, several factors should be kept in mind:

- 1. There are many dangerous and potentially addictive medications that are legal, medically prescribed, and appropriately used that are also sometimes abused. Adventist policy for these substances focuses on legal and appropriate medical use and supervision. Examples would be narcotic analgesics and benzodiazepines.
- 2. Medical marijuana/cannabis is often very loosely regulated and is rarely medically monitored. Dosage, purity, and efficacy are generally unknown. These concerns apply to homegrown marijuana as well. There is therefore no blanket recommendation for use of marijuana.
- 3. Although it is likely impossible to fatally overdose from marijuana and the addiction potential is lower than opiates and alcohol, marijuana in any form that contains THC has significant psychotropic properties that are associated with addiction, cognitive decline, psychosis, amotivational syndrome, and driving impairment.
- 4. Products made from hemp (soaps, oils, clothing) usually contain no psychoactive properties and are generally considered safe for use.
- 5. The scientific evidence supporting the efficacy of CBD and THC is limited.
- 6. Pure CBD is not intoxicating or addictive. While its efficacy is unproven, its use does not appear, at this time, to be related to any significant negative consequences. However, individuals who use CBD should be counseled regarding its unregulated manufacture and distribution, the potential for mislabeling and contamination, as well as its limited scientific efficacy. Still, the use of CBD carries a caution because of the possibility of contamination.

- 7. The use of medical marijuana should be limited to prepared medications that have been approved by agencies such as the U.S. Food and Drug Administration, the European Medicines Agency, or other medicine regulatory authorities (MRAs) in countries that have rigorous scientific standards for safety and regulation.
- 8. Those who decide to use medical marijuana in pill or tablet form should be clinically assessed by qualified medical staff and monitored consistent with the laws of their respective countries and should disclose their use to their physician and pharmacist so that they can be screened for possible drug interactions.
- 9. Issues associated with the ingestion of medical marijuana are complex and poorly understood.
- 10. Medicinal marijuana has been shown to significantly negatively affect the development of the brain of adolescents.
- 11. Many individuals believe that only the smoked/vaped form of medical marijuana is effective, but this form of ingestion is not medically recommended due to psychoactive effects and negative lung and immune system consequences. Also, no one should be exposed to secondhand marijuana smoke (American Lung Association, 2017). The use of smoked/inhaled marijuana is to be avoided because of the associated risks.
- 12. From a biblical point of view, the use of any substance which distorts reality or facilitates disassociation from reality is a dangerous practice and cannot be generally recommended. We are to "keep our heart [mind] with all diligence, for out of it are the issues of life" Proverbs 4:23. Any intoxicant or addictive substance is therefore not to be recommended without consideration of its psycho-spiritual effects.

Summary

In short, we are approaching this issue as we would any addictive drug, bearing in mind that medications such as narcotic analgesics, benzodiazepines, and other readily available and legal substances cause addiction and devastation, but when used appropriately, may bring relief and even save lives.

Evidence-based research is showing some benefits of medical marijuana in specifically indicated and controlled circumstances as discussed earlier in this report. However, much more research is needed to better understand the benefits and risks of its use. The cardiopulmonary effects of smoked marijuana are definite and dangerous. Because of these side effects, we advise against this method of cannabinoid delivery or use. When used for medical purposes, there should be trained medical supervision, a purified form of the substance, and calibrated, safe dosage. It is essential to bear in mind that the long-term use of marijuana in adults, adolescents, and children can lead to mild to long-term cognitive and psychological problems including impaired mental concentration.

Conclusion

If used, medical marijuana must be given for definitive diagnoses for which there is published, peer-reviewed evidence for its use. It must be medically supervised. The smoked form is damaging to the lungs and immune system and should be avoided.

This framework should provide peace of mind to those who are directed by a qualified healthcare provider to use the substance medicinally in the aforementioned circumstances and encourage others to not be judgmental.

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