

Medical Marijuana From Medicine, Legal And Islamic: A Review

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Abstract

Possessing, processing and distributing marijuana or cannabis is illegal in many countries, especially Malaysia. Individuals guilty of that act may face imprisonment and even a death sentence even though cannabis oil and its derivative in the medical field have become more prevalent and have been legalised in many countries and recently in Thailand, a Malaysian neighbour. The Malaysian government is also evaluating and detailing the users and will have its final stand by 2022. Various studies proved marijuana to be beneficial for specific medical conditions. Thus, this paper aims to explore the current evidence of the use of medical marijuana from medical, legal and Islamic views. The literature search was conducted online using various platforms such as google scholar, Pubmed, ScienceDirect, Medline EBSCO host and DOAJ. The search term includes "medical marijuana", "cannabis oils", "cannabis law", "Medical Marijuana Law", "cannabis", "marijuana legal", and "Islamic perspective". The content further discusses the medical perspective of marijuana, including its pharmacology, potential benefits and risks. In addition, the legal and Islamic views of medical marijuana, especially regarding the medical marijuana laws and Islamic rulings on marijuana use, will also be discussed.

Keywords: *medical marijuana, legal, medicine, an Islamic perspective*

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1.0 Introduction

In 2018, a young Malaysian citizen was sentenced to death for possessing, processing, and distributing processed marijuana for medical purposes. He was arrested in 2015 for having 3.1 litres of cannabis oil, 279 grams of compressed cannabis and 1.4 kilograms of a substance containing tetrahydrocannabinol (THC). However, due to heavy criticism and public debate, the Malaysian government decided that his death sentence would be put on hold (The Star Online, 2019a). This is not the only case related to the distribution of medical marijuana. Another similar case involves a former armed forces captain, who faced 14 charges of possessing cannabis weighing about 97.995 kilograms. The police detained him for selling cannabis allegedly mixed with food for therapeutic purposes (The Star Online, 2019b). Recently, a celebrity was also caught and alleged to possess a marijuana plant at home. He claims to have used it for his mental illness (Hilmy, 2022).

2.0 2.0 Problem Statement

Marijuana use is illegal in Malaysia, where possessing marijuana may be sentenced accordingly, including imprisonment and mandatory hanging to death (Laws of Malaysia Act 234, 1980). Therefore, the cases mentioned before triggered public outrage in Malaysia, thus instigating the talk about whether to legitimise marijuana for medicinal purposes. There is potential that the use of medical marijuana will be legalised; however, the mechanism is still unclear. Other than Malaysia, some countries, including Uruguay and Canada, have legalised marijuana regardless of its use for medicinal purposes or recreational uses, as there is evidence that marijuana may provide certain health benefits (Laursen, 2018). Therefore, in this concept paper, the issues on medical marijuana will be explored and reviewed, primarily focusing on the medical point of view, legal basis and Islamic perspective,

3.0 Methodology

Through the above problem statements, we conducted this review paper with the aims to i) define the current definition of medical marijuana and its pharmacology, ii. the health benefits and unwanted effects of marijuana used in the medical field, and iii. The legality and Islamic perspective of using medical marijuana. An extensive literature review was done using a few terms in the online database, such as google scholar, Pubmed, ScienceDirect, Medline EBSCO host and DOAJ. The search term includes "medical marijuana", "cannabis oils", "cannabis law", "Medical marijuana Law", "cannabis", "marijuana legal", and "Islamic perspective".

4.0 Medical Marijuana

Marijuana, also known as cannabis, is the most commonly abused illicit substance worldwide, with approximately around 183 million individuals having utilised the substance in the year 2014 (World Drug Report 2016, n.d.). Marijuana goes by a variety of street names such as Aunt Mary, BC Bud, blunts, boom, chronic, dope, gangster, ganja, grass, hash, herb, hydro, indo, joint, kif, Mary Jane, mota, pot, reefer, sinsemilla, skunk, smoke, weed, and yerba (Gold, M. S. (2013).

4.1 Definition

Medical marijuana is a vague term which can encompass two out of 3 definitions based on the form of its cannabinoids. Cannabinoids may be classified into three forms as follows (Bostwick, 2012):

1. Endocannabinoids are arachidonic acid by-products produced in human tissue like another endogenous neurotransmitter.
2. Phytocannabinoids are the various constituents found in the *Cannabis sativa* plant, including the two components, tetrahydrocannabinol (THC) and cannabidiol (CBD) which are the most therapeutically significant.
3. Synthetic cannabinoids, a pharmaceutical form of THC and CBD.

4.2 Pharmacology

Marijuana is extracted from a plant called *Cannabis sativa*, comprised of various natural constituents, and the total number has kept expanding. The constituent was able to be distinguished over the most recent decades. By the end of 2012, a total number of 545 compounds had been identified, which can be divided into two classes which are cannabinoids and non-cannabinoids (ElSohly, M., & Gul, W. (2014)). The two essential components that add to marijuana's therapeutic value are tetrahydrocannabinol (THC) and cannabidiol (CBD) which belongs to cannabinoid. The most active compound in the *Cannabis sativa* plant is THC, which accounts for 5% to 15% of the total natural compounds in the plant. However, since the THC-to-CBD proportion is different in different marijuana plants, the standardisation of the dosage becomes demanding and problematic (Capriotti, 2016).

THC and CBD bind to receptors called cannabinoid receptors, thus inhibiting multiple neurotransmitters such as acetylcholine, dopamine, and glutamate and also affecting γ -aminobutyric acid, *N*-methyl-D aspartate, opioid and serotonin receptors. The two known cannabinoid receptors are CB1 and CB2 receptors. The distribution between these two receptors differs where CB1 receptors are distributed mainly in the brain and CB2 receptors concentrated predominantly on cells of the immune system, which may explain the anti-inflammatory and analgesic properties of marijuana. The stimulation of cannabinoid receptors by active components of marijuana produces various effects such as euphoria, altered sense of time, analgesia, increased appetite and impaired memory. THC, the essential psychoactive component of marijuana, creates the effect of euphoria and may as well cause psychosis.

On the contrary, CBD is the nonpsychoactive component and is deduced to be a serotonin receptor agonist, which gives antianxiety and probably antipsychotic effects as well. Studies demonstrated that the 1 to 1 THC to CBD ratio has the most therapeutic potential and the least unfavourable effects (Capriotti, 2016; Hill, 2015).

Relying on the route of exposure, the pharmacokinetics of THC may differ. For example, medical marijuana may exist as inhaled or ingested marijuana. Comparing these two different form of marijuana, inhalation of marijuana has a more rapid onset of action which can be as early as 15 to 30 minutes but can last only up to four hours, whilst oral ingested marijuana produce an effect only after 30 minutes to three hours with, however, 12 hours clinical outcomes (Capriotti, 2016).

4.3 Potential Therapeutic Uses

Medical marijuana is commonly prescribed for conditions such as acquired immunodeficiency syndrome (AIDS) patients, cancer chemotherapy and pain. For example, in AIDS patients, medical marijuana can be prescribed to stimulate appetite. In cancer, it can be prescribed whether as antiemetic agents or analgesics in chemotherapy treatment or pain. Other than that, MM can also be used to reduce intraocular pressure in the case of glaucoma

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and also as an antispasmodic agent in neuromuscular disorders (Capriotti, 2016; Kramer, 2014; American College of Physicians (ACP), 2008).

4.3.1 Appetite Stimulation And Antiemetic

The US FDA has approved two types of oral synthetic forms of THC, particularly appetite stimulants and antiemetic agents, and the clinical trials supporting these indications are abundant. (Kramer, 2014; ACP, 2008; Haney et al., 2007 ;Musty & Rossi, 2001). Clinical trials have proven that either ingesting or smoking medical marijuana resulted in appetite stimulation and increased the intake of calories, thus leading to gaining weight among patients with HIV/AIDS wasting syndrome. In a study by Haney et al. (2007), dronabinol, the synthetic form of THC and marijuana, was administered to 10 subjects who were marijuana smokers with positive HIV. The results of this study indicated that marijuana and dronabinol dependently boosted the daily caloric intake and body weight in these ten subjects (Haney et al., 2007). Other researchers also studied the antiemetic effect of medical marijuana in chemotherapy patients. Musty & Rossi (2001) reviewed to investigate the effect of smoked cannabis and oral THC on chemotherapy-induced nausea and vomiting (CINV). The study was done by obtaining unpublished technical reports from 6 states in the US which have done clinical trials with *C. sativa* to analyse its potency in chemotherapy-related nausea and vomiting. They concluded that the symptoms of nausea and vomiting are 70 to 100 per cent relief in patients who smoked marijuana. At the same time, those who consumed oral THC experienced 76 to 88 per cent relief of symptoms.

4.3.2 Glaucoma Treatment

One known risk factor for developing glaucoma is increased intraocular pressure (IOP). Smoked marijuana and oral THC can lead to a reduction of IOP by approximately 25 per cent of reduction. However, the effects are only short-term, about 3 to 4 hours, and there is a dose-response relation as high doses are needed for effect to manifest. Moreover, since glaucoma patients are usually elderly with comorbidities, medical marijuana became contraindicated to that group of people as marijuana produces psychotropic effects and acute systemic side effects such as hypotension and tachycardia. This occasion eventually led to the development of topical marijuana, which is thought to have a lower risk of causing adverse side effects. However, studies revealed that topical marijuana produces an insignificant effect on IOP (Kramer, 2014; Tomida, 2004). Therefore, the American Academy of Ophthalmology, supported by reviews done by the National Eye Institute (NEI) and the Institute of Medicine (IOM), concluded that there is an absence of added benefit or decreased risk of the use of marijuana in the treatment of glaucoma compared with the available pharmaceutical agents currently in the market as there is no scientific evidence demonstrating those outcomes (<https://www.aao.org/complimentary-therapy-assessment/marijuana-in-treatment-of-glaucoma-cta--may-2003>, 2014).

4.3.3 Analgesic Properties

Many studies have explored the effects of diverse forms of marijuana as an analgesic, and the results are mostly convincing. For example, in one study by Abrams et al. (2007), a randomised controlled trial involving 50 adult subjects with painful HIV-associated sensory neuropathy revealed that smoking marijuana resolved pain better than placebo. In another study by Wilsey et al. (2013), rather than smoked marijuana, the marijuana was vaporised, and the results revealed that vaporised marijuana is also better than a placebo in resolving neuropathic pain. Another study has also investigated the effects of smoked marijuana and oral THC on pain induced by cold pressure tests. The study's results demonstrated decreased

pain sensitivity, inclined pain tolerance and reduced pain intensity ratings in both forms of marijuana compared to placebo (Cooper, 2013).

4.4 Unwanted Effects Of Marijuana

Although clinical trials may have proven the potential benefits of marijuana in the medical field, several matters are needed to be considered, most notably regarding the adverse health effects of medical marijuana in short-term or long-term use.

4.4.1 Acute side effects

One of the acute side effects of marijuana use is the impairment of short-term memory, thus resulting in difficulty in learning and retaining information. Short-term marijuana use also leads to motor coordination deterioration, mainly related to driving, affecting individuals' driving skills and increasing the risk of motor vehicle accidents. Furthermore, the use of marijuana impairs judgement which causes a higher risk of sexual behaviours that contribute to the transmission of sexually transmitted diseases. Rarely consuming marijuana can provoke psychotic symptoms and paranoia, mainly if consumed in high doses (Capriotti, 2016; Hill, 2015; Wilsey et al., 2013)

4.4.2 Long Term Use

Despite the benefits that marijuana can give, long-term marijuana use can result in a risk of addiction. This is particularly burdensome, especially if it involves marijuana use in the adolescent age group, where 17 per cent of those who use marijuana, starting from teenagers, develop a marijuana addiction. There is also marijuana withdrawal syndrome with symptoms of irritability, dysphoria, craving, anxiety and irritability, specifically when chronic marijuana consumption is halted immediately, thus causing difficulty in discontinuation and may cause relapse. The increased susceptibility to drug addiction may be explained by the effect of marijuana use on the reactivity of dopamine neurons which control the brain's reward system, where marijuana reduces those neurons' activity. Other than the addiction to marijuana itself, individuals may also develop addictive behaviours involving multiple substances, making marijuana a possible role as a gateway drug (Capriotti, 2016; Hill, 2015; Pacula & Smart, 2017).

As the brain development in adolescents is active, they are more vulnerable to the side effects of any substances. Adults who smoked marijuana as teenagers regularly, when compared to unexposed adults, experienced impairment in neural connectivity, meaning fewer fibres in specific brain regions such as the precuneus, the fimbria, the subcortical region and in the prefrontal area. All those regions serve different functions, including alertness, learning, memory, executive function and processing habits and routines. Disturbance of these functions caused significant problems in work, school and relationships (Capriotti, 2016; Hill, 2015; Pacula & Smart, 2017)

Furthermore, chronic marijuana use may have a linkage with mental illness. Regular use of marijuana may be related to the risk of having anxiety, depression and psychotic illness, especially in individuals with predisposing genetic factors. It can negatively affect the course of those disorders (Hill, 2015; Pacula & Smart, 2017).

5.0 Legal Perspective

Currently, marijuana and its cannabinoids are listed as Schedule I drug in the US. In contrast, substances categorised in this group have a high risk of abuse, are not accepted medically and

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have an absence of acknowledged safety for use under therapeutic supervision. Therefore, under federal law, health care practitioners can be indicted for prescribing medical marijuana. However, two pharmaceutical forms of cannabinoids have been approved by the US Food and Drug Administration (FDA): dronabinol and nabilone; hence can be prescribed legally in the US. However, they are approved for only two indications: chemotherapy-induced nausea and vomiting and anorexia associated with weight loss in acquired immunodeficiency syndrome patients. (Hill, 2015; Kramer, 2014).

5.1 Marijuana Policies

For medical marijuana to be discussed and reviewed from legal aspects, it is vital to understand the legal definition of various policies revolving around marijuana, including prohibition, decriminalisation, medical marijuana and legalisation. Prohibition can be defined as a law that maintains the criminal status of any action related to marijuana possession, use, cultivation, sale, or distribution. Decriminalisation is a policy that does not define possession for personal use or casual distribution as a criminal offence. In the US, medical marijuana laws (MMLs) remove state penalties for the benefit of marijuana for medicinal purposes under specified conditions. Lastly, legalisation removes criminal and monetary penalties for the possession, use, and supply of marijuana for recreational purposes. (Pacula & Smart, 2017).

5.2 Medical Marijuana Laws (MMLs)

In the United States (US), it all started in the early 1600s when marijuana was firstly introduced and remained the primary industry in the US until the mid-1800s. Physicians and pharmacists utilised marijuana throughout the period to treat various medical conditions. However, in the early 1900s, marijuana was prohibited for recreational and medicinal purposes. In the year 1970, marijuana was classified as a Schedule I drug. In 1996, criminal penalties for using, possessing and cultivating marijuana were removed in California, becoming the first in the union to approve medical marijuana, thus implementing exemption from prosecution for physicians who prescribed medical marijuana to their patients. Since then, 34 states, the District of Columbia, Guam, Puerto Rico and the US Virgin Islands have authorised medical marijuana or cannabis program (Mark Anderson et al., 2013; State Medical Cannabis Laws, n.d.)

As mentioned before, medical marijuana laws (MMLs) remove the penalties under state laws for using, possessing and cultivating medical marijuana. Although the laws vary between states, patients with approval or certification from a physician and physicians who recommend marijuana to their patients are protected from prosecution. Patients who are covered by MMLs are variously defined. One of the definitions is those diagnosed with debilitating medical conditions, which may differ from state to state but commonly include HIV-AIDS, cancer, glaucoma, epilepsy, chronic pain and so forth. Patients should also have documentation from their doctors implying that they would benefit from medical marijuana and that the health risks are less likely to outweigh the potential benefits. These laws also allow an authorised custodian to attain marijuana on the patient's behalf. Moreover, most state laws restrict the quantity of marijuana possessed or cultivated by patients or caretakers (Mark Anderson et al., 2013; Hoffmann & Weber, 2010)

However, there are certain flaws in these state laws. Most of them still lack the obligation that physicians who recommend medical marijuana to patients must provide fundamental revelation regarding the risks and benefits needed in informed consent. Other than that, state laws do not manage marijuana's quality and do not emphasise the means of accessing theemphemphasise .

5.3 Marijuana Law in Malaysia

The law regarding marijuana in Malaysia is put under the Dangerous Drugs Act 1952, where individuals may be convicted of drug trafficking. Drug trafficking includes all acts such as manufacturing, importing, exporting, storing, hiding, buying, selling, giving, receiving, depositing, handling, transporting, carrying, shipping, sending, transmitting, procuring, supplying or distributing any dangerous drugs. Concerning marijuana, someone is considered to be trafficking medications if found in his possession 200 grams or more of marijuana and, if proven guilty, may be sentenced to the mandatory death penalty. Individuals arrested in possession of fewer than 200 grams of cannabis will be punished with imprisonment of at least two to five years and compulsory canning at least three to five times. Planting or cultivating marijuana may be convicted with life imprisonment and canning at least six times. (Laws of Malaysia Act 234, 1980). To date, the government and lawmakers have not yet drafted a new policy to legalise the use of medical marijuana in the medical field as a treatment option.

6.0 Islamic Perspective

6.1 Marijuana Use Under Sharia Law

Under sharia law, marijuana is categorised as narcotics, which is any substance that can make a person feel sluggish, deprives sensation, and covers the mind. In the early years of the Islamic era, drugs or narcotics were not defined, even in the holy Quran or Sunnah. Therefore, the determination of prohibition of marijuana use by the jurists is based on the rulings of intoxicants such as alcoholic beverages. God forbids alcohol for its intoxicating nature and harmful effects on the human body and mind. It is also considered dirty and abominable as the Qur'an as it says, "*You who believe, intoxicants and gambling, idolatrous practices, and (divining with) arrows are repugnant acts- Satan's doing- shun them so that you may prosper.*" (Surah Al-Ma'idah: verse 90).

Furthermore, there is the word of the Prophet Muhammad PBUH which means "every intoxicant is *Khamr*, and every intoxicant is prohibited." (related by Muslim from Ibn Umar). Even in the context of harming, marijuana, one of the hallucinogens that can cause hallucinations that alter mood and mind and often create imaginary power, is more destructive as it can lead to addiction, delusion, behavioural disorders, chronic illnesses, and, at worst, can lead to death. Thus, in terms of Islamic ruling, it is more prohibited. (JAKIM : E-SMAF V1, n.d.)

The Quran prohibits harming and endangering oneself as in verse "*Spend in God's cause: do not contribute to your destruction with your own hands, but do good, for God loves those who do good.*" (al-Baqarah 2: 195). In terms of Maqasid sharia, marijuana destroys two main things preserved by shari'ah: life and intellect. Therefore, based on fiqh, all forms of harm must be eliminated, making marijuana and all kinds of drugs must be shunned. (JAKIM : E-SMAF V1, n.d.)

There is no explicit *dalil* from the Quran and *hadith* that cites the ban of the use of marijuana since it may not have been used at the time of the Prophet Muhammad PBUH in Mecca (Ghiabi et al., 2018), even though it was used by people in India and Iran as early as 1000 BC (Nahas, 1982). However, the Muslim community began using it several centuries after the death of the Prophet PBUH. Al-Qarafi stated that the imams of the four sects (*madhhab*), Abu Hanifah, Malik, al-Shafie, and Ahmad, never discussed marijuana since it had not yet been introduced to the Islamic country during their time (Al-Qarafi, 2010).

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Ibn Taimiyyah said it was introduced before the Mogul army's onslaught on Islamic nations as one of their war strategies. Still, another theory holds that a group of Sufi practitioners led by Sheikh Haidar introduced it. He has encouraged his disciples to conceal marijuana usage from the public (al-Saghnaqi, 2016; al-Zarkashi, 1990; Ibn Taimiyyah, 2005). However, the use of marijuana by Sheikh Haidar's followers must be amended since it is thought that the plant referred to as *hashish* is not, in fact, marijuana but rather another plant (Serjeant, 1972).

Due to the lack of explicit *dalil* against the ban of marijuana usage in the Qur'an and the *hadith*, Muslim scholars have begun to search for additional justifications related to marijuana. This is because the Qur'an and the *hadith* of the Prophet PBUH do not precisely explain each law and situation but instead provide essential guidance as a reference that may be used for any new circumstance if there is a similarity in terms of '*illah*' (the reason behind the prohibition) (Tantawi, 2021).

The majority of classical and modern Muslim scholars equate marijuana usage with alcohol (al-Jawziyyah, 1994; Allam, 2022; al-San'ani, 2006; al-Zarkashi, 1990; Ibn Taimiyyah, 1997; Salim, 1940; Shabal, 2022). Alcohol is prohibited because it induces intoxication and undermines mental stability. This circumstance applies equally to those who ingest marijuana, regardless of the intake mode.

According to the Prophet Muhammad PBUH, all intoxicants are banned (Al-Bukhari, 2002; Al-Naisaburi, 2000). In other narration: "Anything that intoxicates when consumed in big numbers is also forbidden when consumed in little quantities" (Hanbal, 1996; Ibn Hibban, 1993). Al-'Aini cites the opinion that the late Muslim scholars have reached a consensus (*ijma'*) on the ban on marijuana consumption (al-'Aini, 2000). On the other hand, some experts take a strict stance and assert that people who support the legalisation of marijuana are *zindiq* and *mubtadi'* (Salim, 1940).

Similarly to alcohol, marijuana can also contribute to several additional adverse effects without negating the positive ones. Allah The Almighty says in Surah al-Baqarah, verse 219: "The sin (and evil) in alcohol is greater than its good." Marijuana consumption also contradicts *maqasid syariah*, which urges Muslims to preserve the five *daruriyyat al-khams*, particularly those that relate to marijuana as life, intellect, and money (Allam, 2022). Additionally, marijuana has more damaging and severe consequences than alcohol. Thus, it is nonsensical to prohibit alcohol while marijuana remains legal (Salim, 1940). The harm is not confined to health harm alone; it also interferes with a Muslim's ability to worship Allah.

7.0 CONCLUSION

Many promising data have been achieved using marijuana in humans to treat specific medical conditions such as chronic pain, glaucoma, chemotherapy-induced nausea and vomiting, HIV/AIDS wasting syndrome, etc. Nonetheless, it is still unfair to say that using marijuana as an alternative treatment is entirely safe. Many concerns still need to be considered, including the safety and efficacy of marijuana as a medical treatment for various conditions, thus requiring more large-scale research, especially in the local context involving Malaysian subjects, to explore more on it. Furthermore, the current law regarding marijuana needs to be reinforced to ensure irresponsible individuals are not misusing medical marijuana. Finally, the Islamic ruling on marijuana use for therapeutic purposes should be discussed more to prevent confusion, particularly among the Muslim community.

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