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# Medical Utility of Cannabis Sativa

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## ABSTRACT

Cannabis Sativa (Marijuana) is a crop which is grown all over the world. The plant is one of the most hated, maligned and detested any where in the world and huge sums of money and efforts are being expended to annihilate its production, distribution, marketing and consumption. Cannabis sativa is erroneously believed to cause deleterious health problems among other controversies. However, studies have shown that this plant, apart from being regarded as one of the five sacred crops, has a lot of medical, recreational, commercial and social uses. Evidences have also shown that marijuana is useful in the control and management of chronic diseases such as HIV/AIDS, Cancer, Asthma, Glaucoma, Cachexia, Hypertension, Depression, etc. Nevertheless, further research is required to make this wonderful plant more useful to humanity.

***Keywords:*** Marijuana, Cachexia, Glaucoma, Asthma, Neuralgia, Rheumatism, Hysteria, Tetrahydrocannabinol, Canabis Sativa, Cancer.

## INTRODUCTION

Marijuana is a wonderful plant that is known and grown all over the world. This plant is so popular and revered to the extent that it was worshipped in India (Andrich, 197). The plant has a lot of uses commercially, agriculturally, medically and socially. The leaves, the stems including the outer covering of the back are very useful. While the leaves are smoked recreationally, the stem has been known to be used for producing the strongest rope and pot (Maisto Sahzio & Connors, 1999) ship builders used marijuana ropes in ship sails. Evidence have also shown that the hemp fibers were employed in the production of clothes and pots. According to Maisto, Galizio & Connors, (1999), Hemp fibres were also used for house building in Southern Africa.

Medically, Indian hemp has been used in the treatment of diseases and health problems such as HIV/AIDS, glaucoma, eye problems, cachexia, treatment of pain, muscle spasticity, convulsion, insomnia, asthma, hypertension, depression etc. Moreover, cannabis was consumed for recreational purposes. Besides, cannabis is being used as a shampoo and for other cosmetic purposes. In addition, the cultivation of cannabis is a lucrative business that yields substantial revenue to producers and marketers locally and internationally.

Despite its widespread uses, Indian hemp is the most maligned, misunderstood and hated plant in recent times. The hatred was so much all over the world that millions of dollars were spent in exterminating the production of this valuable crop. Thousands of hectares of Indian hemp farms were destroyed, producers, marketers, distributors and users of the crop were prosecuted, persecuted and jailed. Even, individuals who do not know much about the utility of the crop were coarsed into hating it.

Nevertheless, the popularity and uses of cannabis is growing. For example, increased use of marijuana, was attributed to alcohol prohibition in the U.S. in 1920. This prohibition increased the price of alcohol and made it less convenient to secure thereby making marijuana a more acceptable, accessible and available recreational alternative. Also, increased awareness of the uses of marijuana for the control and management of diseases made the crops acceptance a promising one though further research should be conducted. Sequel to the foregoing, this paper examined the controversy surrounding cannabis sativa, the medical utility of the plant and made some recommendations on the need for more studies to be conducted about general uses of marijuana and the specific medical utility of the sacred plant.

### Cannabis Sativa

Cannabis sativa, more commonly known as marijuana, is a hemp plant that grows freely throughout the world. The cannabis plant most commonly is known today as a potent psychoactive substance, but for many years it was harvested primarily for its fiber. These strong hemp fibers were employed in the production of rope, clothes and ship sails (Maisto, Galizio and Connors, 1999). The earliest known evidence of the use of cannabis occurred more than 10,000 years ago during the Stone Age. During this time, archeologists of a Taiwanese site have discovered pots made of fibers presumed to be from cannabis plant.

Cannabis later spread to Asian countries and it was adopted in India, where it served a religious function. The Atharva Veda, one of the oldest books of Hinduism, included Cannabis as one of the five sacred plants and worshiped it (Aldrich, 1977). This provided the plant with the protection and reverence engendered by cultural or religious acceptance.

The use of cannabis for recreation and as an intoxicant later spread through Asia to Europe. Despite what appeared to some as attractive features of Cannabis and hashish, the use of this drug did not immediately become extensive In Europe. Infact, wide spread use of Cannabis for its psychoactive properties in Europe did not occur until the 1960s when it was reintroduced by among others, tourists from the Untied States (Bloomquist, 1971). However, attention became focused on the

medical utility of Cannabis sativa when it was discovered to be effective in the control and management of chronic health problems such as HIV / AIDS, Cancer, Cachexia, Glaucoma, Nausea and Vomiting, Asthma, Hypertension etc. (Plasse et al, 1991, Cohen and Andrysiak, 1982, Helper and Petrus, 1976, workshop on the Medical Utility of Marijuana, 1997).

**Marijuana Controversy**

There are three hypothesized social \ environmental consequences of Cannabis use that have received attention, the role of marijuana in enhancing interpersonal skills, the effect of Cannabis on aggression and violence, and the role of marijuana use in what has been called the amotivational syndrome. Many users of marijuana have said they use the drug because it enhances their social skills and allows them to be more competent in social situations. Another claim dietings in U.S to the 1920s newspaper articles in New Orleans is that marijuana causes the user to be aggressive and violent. However, the overwhelming conclusion drawn from the available data, including surveys, laboratory investigations and field studies, is that Cannabis use is not causally related to increases in aggression and violence. When aggression is observed, it probably is more a function of the beliefs and characteristics of the individual drug user (Cherek, Roache, Egli, Davis, Spiga and Cowan, 1973). According to the them, levels of aggression actually decrease following Cannabis use.

The third, and perhaps most controversial, social/environmental consequence of Cannabis use is the amotivational syndrome. The terms was independently used in the late 1960s by Mc Glothlin and West (1968) and Smith (1968) to describe the clinical observation "that regular marijuana use may contribute to the development of more passive, inward turning, amotivational personality characteristics" (Mc Glothlin and West 1968). The list of behaviours proposed as part of the syndrome include apathy, decreased effectiveness, lost ambition, decreased sense of goals, and difficulty in attending and concentrating.

Although there does not seem to be much question that the clustering of these characteristics occurs in some marijuana users, the causal influence of Cannabis is not clear (Brick, 1990). Also, there is some debate, about just how commonly the syndrome occurs, with some citing it as a fairly infrequent occurrence (NIDA, 1982). In addition, anthropological investigations of heavy Cannabis users in other countries generally have not found the presence of the amotivational syndrome (Carter, 1980, Carter and Doughty, 1976, Comitas 1976, Page 1983), and laboratory studies on Cannabis use in human have not supported the hypothesized syndrome (Foltin, Fishman, Brady, Kelly, Bernstein and Nellis 1989; Foltin, Fishman, Brady, Bemstan, Caprioti, Nellis, and Kelly, 1990).

Furthermore, survey studies do not always find the differences between marijuana users and non users that would be expected if marijuana caused these clustering of effects. Also, the amotivational syndrome has been seen in youths who do not use marijuana and is often not seen in other daily users of marijuana. Thus, it would seem that both preexisting personality characteristics as well as some drug effects together probably account for the clustering labeled as the amotivational syndrome, when it occurs and not just Cannabis sativa alone.

Further to removing ambiguities on assumed deleterious consequences of marijuana use, the LaGuardia Commission Report was created by the New York Academy of Medicine at the request of New York City Mayor Fiorelle LaGuardia. This study was a truly multidisciplinary in nature. It included coordinated input by physicians, psychologist, pharmacologists and sociologist. Data were gathered on marijuana use and effects in "tea pads" as well as in laboratory settings. The general finding of the study was that marijuana use was not particularly harmful to the user or to society at large. The report failed to find evidence for the claim that aggression, violence, and belligerence were common consequences of marijuana smoking.

However, a report focusing on medical uses of marijuana was prepared by an advisory Panel Convened in 1997 by the National Institute of Health (Workshop on the Medical utility of marijuana, 1977). The panel reported that there were sufficient indications that Cannabis sativa has medicinal benefits for at least several disorders and that the National Institute of Health should support research in this area.

**Medical Utility of Cannabis Sativa (Marijuana)**

Cannabis sativa is a plant whose utility has been under estimated and thus abandoned. It is the purported negative aspect of this commercial crop that has been expounded thereby leading to its ostracization to the detriment of its values to mankind. Cannabis has a long history of use for medical and health purposes, with the earliest documentation attributed to Shen Nung in the twenty – eight century B.C. Shen Nung purportedly recommended the use of Cannabis to his people for its medical benefits. Shen Nung, a mythical Chinese emperior and pharmacist speculated that Cannabis was used in this period in China for its sedative properties, treating pain and illness, countering the influence of evil spirit, and its general psychoactive effects (Abel, 1980; Nahas, 1973).

Cannabis use generally spread from China to surrounding Asian countries of particular note was its adoption in India, where Cannabis served a religious function. The Atharva Veda, one of the oldest books of Hinduism, includes it as one of the five sacred plants (Andrich, 1977). This provided the plant with the protection and reverence engendered by cultural or religious acceptance.

Also, a physical evidence for the use of marijuana as a medicine was uncovered by an Israeli scientist who found residue of marijuana with the body of a young woman who apparently died in child birth 1,600 years ago. The discoverers suggested that the marijuana was used to speed the birth process and to ease the associated pain. Indications that Cannabis had been used during childbirth previously had been found in Egyptian Papyri and Assyrian tablets ( Martin et – al 1993).

More systematic uses of Cannabis as a therapeutic agent did not occur until the 1800s. For example, the Paris Physician Jacques Moreau used Cannabis in the mid 1800s to treat mental illnesses (Bloomquist, 1971).

Much greater legitimization of the medical use of marijuana was provided by Dr. William O 'Shaughnessy, the Irish Physican who in an 1838 treatise described the use of Cannabis for a number of problems, including rheumatism, pain, rabies, convulsion and cholera (Maisto, Galizio and Connors 1999). According to Maisto, Galizio and Connors, (1999), Cannabis also was used widely in the United States for a number of complaints. It was recognized as a therapeutic drug well into 1900s. in the dispensatory of (USA) for example, Cannabis was recommended for neuralgia, gout, rheumatism, rabies, cholera, convulsion, hysteria, mental depression, delirium tremens and insanity.

The therapeutic uses of marijuana today are much more circumscribed. For the most part, synthetic products such as Levontradol, Nabilone, and Marinol, that chemically resemble the Cannabinoids have been used in current treatment efforts (Sussman et – al, 1996, Ungerleider and Andrysiak,1985). These synthetics are used because they provide the active elements of tetrahydrocannabinol (THC) in a more stable manner, Synthetics also can provide better solubility. Nevertheless, it was Cannabis THC that opened he way for the synthesis. And rapid effect is experienced when marijuana is smoked than when the synthetic THC is taken orally. Therefore, marijuana in its natural form is more efficacious and faster in action than synthetic THC.

There has been a recent resurgence in efforts to legalize, marijuana for medicinal purposes. Much of this effort has been spurred by an increased use of marijuana by AIDS patients who claim that marijuana reduces the nausea and vomiting caused by the disease and because it stimulates appetite, thus helping them to regain weight lost during their illness. The sympathy for this position led to the establishment of "Cannabis clubs" on several major cities in the United States. These organizations purchases marijuana in bulk and provide it, in some cases, free to patient with AIDS, Cancer and other diseases.

Specific health problems for which cannabis is prescribed in synthetic forms are:

1. **Glaucoma:** Glaucoma is a generic term used to denote ocular diseases involving increases in intraocular pressure. This pressure damages the optic nerves and represents the leading causes of blindness in the United States (Maisto, Galizio and Connor 1999). While drug and surgical interventions are available, their effectiveness is variable. Cannabis has been shown to decrease intraocular pressure, therefore, it is preventive, although patients have experienced side effects regardless of whether the Cannabis was administered orally, through injection or by smoking (Hepler and Petrus, 1976).
2. **Nausea and Vomiting:** Cannabis and THC synthetics have been used to counter the nausea and vomiting frequently associated with chemotherapies for cancer. Positive outcomes have continued toe emerge from the use of marijuana by cancer patients and particularly lthat children undergoing cancer chemotherapy may benefit from administration of orally administered high doses of Cannabinoids (Martin et al, 1993). Even though THC has some side effects, many patients undergoing chemotherapy find the THC side effects an acceptable price to pay.
3. **Cachexia:** Cachexia is a disorder in which an individual physiologically "wastes away" often due to HIV infection or Cancer. Based partly on anecdotal reports that marijuana use is associated with increased frequency and amount of eating, it could be proposed that marijuana be used with patients with cachexia to stimulate appetite and thus weight gain. Besides, appetite and weight may also produce strength and a sense of well being. These anecdotal reports have some empirical support. Plasse et al (1991) found a relationship between marijuana ingestion and appetite. Accordingly, some individuals experiencing disorders that include cachexia have been turning to marijuana to stem the tide of weight loss and to gain weight.
4. **Other Medical Uses:** Literature, according to Maisto, Galizio and Connors (1999), have shown that Cannabis and THC synthetics have been used to a much extent in the treatment of pains, muscle spasticity, convulsant activity, insominia, hypertension, asthma and depression. However, the data in support of these uses have been equivocal (Workshop on the Medical Utility of Marijuana, 1997). More research is needed to identify the utility of Cannabis in medical treatment of these and other disorders.
5. **Agricultural and Commercial Uses of Cannabis Sativa:** The Cannabis plant for many years was harvested primarily for its fiber. These strong hemp fibers were employed in the production of rope, clothes and ship sails (Maisto, Galizio and Connors 1999). Archeologists at a Taiwanee site also discovered pots made of fibers presumed to be from the Cannabis plant. In the North American Colonies, the Cannabis plant was raised for fiber by the Jamestown settlers in Varginia in 1611. Not long after, this hemp plant was firmly entrenched as a basic stable crop and was cultivated by George Washington, among many others. Cannabis was harvested in New England starting 1629,it remained a Core U.S Crop until after the civil war. The center of this hemp production was Kentucky, where it was a major crop product for decades, all for its fiber content.
6. **Recreational Uses:** Cannabis was consumed for recreational purposes, though, only to a limited degree, and descriptions of its psychoactive effect were not common. However, the 1920s marked a wider use of Cannabis. Increased use of marijuana was attributed to alcohol prohibition. According to Brecher (1972), not until the eighteenth amendment and the Volstead Act of 1920 raised the price of alcohol beverages and made them less convenient to secure and inferior in quality did substantial commercial trade in marijuana for recreation use spring up, and the popularity soared, and that popularity has remained strong ever since.

## CONCLUSION AND RECOMMENDATIONS

Cannabis sativa (marijuana) is a wonderful and sacred plant that is grown all over the world. It is a plant which is plagued, ignorantly, with suspicions and controversies that greatly prevented its usefulness to mankind. Apart from being used for recreational purposes, Cannabis sativa is useful for the treatment of some chronic diseases which defied medical cure such as HIV/AIDS, Cancer, Asthma etc. Marijuana is also a plant that has some commercial and economical value.

Consequent upon these values, it is recommended that:

1. Cannabis Sativa should be legalized so that it can provide employment for the producers, distributors and traders of the commodity.
2. More researches should be carried out on Cannabis Sativa so that mankind could harness the Medical, commercial, Agricultural, Social, Recreational and Economic utility inherent in then crop.

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