Cannabis Addiction: a review

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Introduction

Cannabinoids are constituents of the marijuana plant (cannabis sativa plant). The main psychoactive ingredient is delta-9-tetrahydrocannabinol, known as THC. Marijuana effects vary based on individual factors and are produced by binding to the brain’s specific receptors called cannabinoid receptors [1]. Its action has been known for centuries due to its recreational and medicinal properties. It’s most common mode of use is smoking. Cannabis is generally considered not to be an addictive drug; however, cannabis dependence is a recognized medical pathology whose supposed prevalence is increasing in many countries as its availability becomes more widespread and its use becomes more widely accepted. So what is the difference between addiction and addiction, and what about cannabis in this regard?

Difference between addiction and addiction

Many people mistakenly believe that addiction is a physical phenomenon, while addiction refers to a psychological state. However, the reverse is true. Addiction refers to a compulsive behavior that leads a person to repeatedly search for a specific stimulus despite its adverse effects on a “normal” lifestyle, such as gambling addiction or addiction sexual [2]. Dependence refers to a physiological condition that prevents a person from living normally without using a substance, and to stop consuming the substance without serious adverse effects (“lack”). Users may also increase their tolerance to the substance over time, prompting them to increase doses to achieve the same effects. A person can be “addicted” without being dependent, and vice versa (many people are physiologically dependent on pharmaceuticals without showing compulsive addictive behavior, for example). However, users who are physiologically dependent on a prescription drug may begin to exhibit addictive behavior. Conversely, many compulsive consumers for recreational purposes will become physiologically dependent, only after prolonged heavy consumption. For psychiatrists all over the world, the definition of “substance dependence” in the DSM (Diagnostic and Statistical Manual of Mental Disorders) implies elements related to addiction as well as addiction. Typically, physiological dependence will result from prolonged compulsive use.

What is cannabis addiction?

According to this definition, the term “cannabis addiction” does not appear to be an exaggeration: many cannabis users for recreational purposes exhibit compulsive behavior to some extent, and heavy users or daily users may suffer adverse consequences in their everyday lives — such as the difficulty of getting into regular routines, including work, physical exercise, even regular feeding. The very idea that cannabis can cause physiological dependence is rejected by a large number of casual users and for recreational purposes. Many people think that cannabis simply does not add to it. However, various studies have shown that the lack and other symptoms were manifested in heavy consumers. Therefore, cannabis dependence is recognized as a clinical syndrome in DSM, according to the same general criterion as other disorders of substance dependence. It is therefore possible to become addicted to cannabis: typically, recreational users will begin to exhibit addictive behavior, and become addicted after prolonged heavy drinking. As with other drugs, the diagnosis of...
substance dependence on cannabis involves elements related to both addiction and physical dependence. However, the likelihood of developing cannabis addiction and dependence is much lower than with other drugs, even those that are legal [3].

Evidence of cannabis addiction

Large consumers have been shown to develop tolerance to cannabis, and have also shown symptoms of shortage in the event of a sudden stop to consumption. Symptoms include irritability, loss of appetite, sleep disturbances, anxiety, irresistible urge for cannabis, mood swings and increased body temperature. Generally, the symptoms of cannabis deficiency appear as early as the first day after cessation of use, reach their peak on the second or third day and are negligible at the end of the first week. According to a study conducted by the National Institute of Drug Abuse (NIDA) in 1994, cases of cannabis-dependent addictive use concern about 9% of people who smoked cannabis at least once [4]. This is much lower than other common addictive substances such as alcohol, cocaine, heroin and nicotine (15%, 17%, 23% and 32%, respectively). For individuals who have repeatedly smoked cannabis, the risk of dependence increases to about 33%, and for cannabis users, the risk of dependence is at least 50%. According to a study conducted in Australia in 2002, compulsive use is more frequent among dependent cannabis users than among dependent alcoholics [5]. The symptoms of the deficiency seem to be as frequent among cannabis users as in alcoholics, whereas the cases of development of tolerance are much less frequent [6].

What people are at risk to cannabis dependence?

Risk factors related to the development of cannabis addiction and dependence are broadly comparable to other illegal drugs, and are generally inextricably linked to lifestyle and socio-economic status [7]. At the most basic level, young men have a higher risk of developing cannabis addiction than any other demographic group, and the earlier the consumption, the greater the risk of dependence. However, beyond this, people in socio-economic precariousness are more likely to develop substance dependence. There is ample evidence to suggest that most of the “perceived” negative consequences of substance dependence can in fact be attributed to socio-economic status. A pivotal study published last year demonstrating that low birth weight and other side effects attributed to cocaine use during pregnancy were directly related to socioeconomic status and not to the consumption of cocaine itself [8]. Thus, it is difficult to assess the extent to which cannabis dependence is the cause of secondary effects such as poor school or work performance, financial hardship and problems of social ties, and to what extent factors are determined by socio-economic precariousness and other criteria.

How is cannabis addiction managed?

There is currently no prescription treatment for cannabis dependence. However, there are indications that several existing therapeutic programs are likely to reduce the trend towards compulsive use. Behavioral and cognitive therapy (CBT) has been shown to be very effective in reducing compulsive cannabis use [9]. Other forms of therapies are likely to help large consumers reduce their doses or stop using them, such as motivational improvement and family therapy. Of course, it would be dishonest to claim that prolonged heavy use of any drug can be entirely safe and without negative consequences, without clear empirical evidence that this is indeed the case. However, many large cannabis users are unaware of the warning signs of compulsive and dependent behavior and continue to consume excessively cannabis, believing that long-term damage will be negligible. Existing literature indicates that although such cases are rarer than with other addictive substances, cannabis can cause physical dependence. Those concerned about their excessive or compulsive use should therefore consult a professional as soon as the problem seems to be beyond control.

The consequences of cannabis use

Cannabis can diminish learning abilities [10]. In the current state of knowledge, memory does not seem to be affected beyond the time of the effects of cannabis, i.e. a few hours. This amnesia is multiplied in case of consumption associated with alcohol. The use of cannabis can translate a psychic malaise - sometimes unsuspected - that can be transformed into paranoia, crises of anguish, feeling of oppression. There are also some cases of acute cannabis psychosis. At the neuro-psychiatric level, the substance may diminish attention, aggravate or reveal psychic disorders like any psychotropic drug. An amotivational syndrome (demotivation) can occur, as well as lack of self-esteem, intemperance, depression and suicidal tendencies. There is a correlation between prolonged use of cannabis and depression in some patients, but it remains unclear whether cannabis produces depression or whether
depression promotes chronic consumption [11].

Is there an effect on reproduction and pregnancy?
Regular consumption of joints in humans contributes to a decrease in fertility. During pregnancy, cannabis use may interfere with fetal brain activity, delaying brain development in utero. The teratogenicity of cannabis use during pregnancy seems clinically insignificant [12].

Does cannabis affect memory?
Memory is affected by cannabis use. American scholars have discovered that cannabis disrupts brain memorization processes by disrupting the electrical functioning of the hippocampus [13], a key brain structure for memory activation. The main active substance in cannabis, THC, also blocks the release of an important neurotransmitter in the hippocampus, acetylcholine, affecting the electrophysiological functioning of the brain. Acute and chronic marijuana use may cause undesirable effects on cognitive process and perception, mainly regarding object size and perception of object distance. Marijuana smoking is reported to impair accurate color discrimination, to increase visual reaction time and sensitivity to light [14]. A particularly severe behavioral impairment associated with marijuana smoking is a decrease in the accurate detection of light stimuli in the peripheral visual field. This last point results in enhanced risk of automobile accidents following recent marijuana consumption [15].

What are the usual symptoms of cannabis dependence?
Several symptoms can sign the state of cannabis dependence. The user gradually loses control over his consumption, the quantities and the frequency of use increase, which is the sign of the beginning of dependence on cannabis. It tries unsuccessfully to limit the consumption, or even to stop the cannabis. He devotes a large part of his time to getting supplies and then to consuming cannabis in search of sensations of relaxation, even euphoria [16]. He feels an uncontrollable desire to consume cannabis. He no longer fulfills certain obligations in the professional (or school) context given his cannabis use. He continues to use cannabis despite the appearance of relational and communication problems in the professional and private sphere caused by the effects of cannabis. He reduces or interrupts his extra-professional (or out-of-school) activities. He regularly consumes cannabis in situations that are dangerous to him or others: for example, while driving. Dependence is therefore a continued cannabis use although the user recognizes the harmful consequences on different aspects of his life. The use of cannabis can cause a slight euphoria accompanied by a feeling of calm; visual perceptions and alertness are altered. It can occur heart palpitations, cravings, dry mouth and swelling of the blood vessels with red eyes. In some cases may appear a “bad trip”: anguish, tremor, choking feeling and nausea. Stopping cannabis leads to a withdrawal syndrome that lasts for several days after stopping: mood fluctuations, anxiety and irritability, anger, restlessness and aggression, sleep disorders are frequent signs of cannabis withdrawal. They may also be associated with decreased appetite and weight loss.

How to treat cannabis addiction?
There is no specific treatment for cannabis dependence or even for the weaning of cannabis. Treatment programs for cannabis dependence exist: in a group or individual, in hospital or outpatient settings. Cannabis withdrawal, in its initial phase, may require prescription medication to relieve the symptoms of lack [17].

Any process of care must help the consumer to become aware of the consequences of cannabis dependence on his physical and psychological state, as well as his life in general. The aim of the support is to help the user discover his internal resources so that he can consider stopping cannabis and then initiate a cannabis withdrawal. Mobilizing family and family support is an important factor in achieving long-term cannabis withdrawal. Therapeutic support helps consumers understand the origin of their cannabis use and dependence, their meaning and the place they took in their life: consumption in order to avoid stressful situations and / or consumption - pleasure having drifted into a cannabis addiction [18]. It should help to overcome its fragilities, for example in case of anxiety disorder or associated personality disorder. Symptoms associated with cannabis dependence become blurred after cessation of use, but the risk of relapse remains high and requires prolonged accompaniment. The risks of cannabis use and dependence should not be underestimated: depression, delusional puffiness and early schizophrenia are not uncommon.

Conclusion
Like all drugs, be it tobacco or alcohol, cannabis is often associated with a mood disorder and especially...
bipolar disorder [19]. Bipolar disorder is characterized by significant fluctuations in mood that affect the person in his / her way of thinking and behavior, but also in those around him or her. This is a medical condition that is sometimes difficult to diagnose and treat. Patients with bipolar disorder suffer from substance abuse in a proportion of 60 to 65%. In patients with addictions, the prevalence of bipolar disorder is about 20%. Bipolar disorder should be considered according to the spectrum approach, as some patients may have manic or hypomanic episodes or episodes induced by substances or medications. Furthermore, one of the most difficult aspects to treat in bipolar disorder is the depressive component, which is often encountered in a population of drug addicts. The withdrawal of cannabis can only take place after having treated the disorder of the mood but often the dependence persists.

References