Cannabis as A Treat From Depression

Depression is a very complex mood disorder that affects millions of Canadians, affecting one in five Canadians yearly. This illness affects the persons' mental state and daily activities, such as socializing with others, going to work and getting up in the morning. Depression can lead to various diseases and can lead to suicide and overdose. Overdose due to mental illness is a predominant issue in North America, many individuals suffering from depression are advised to either go to therapy classes or ingest antidepressant pills and other prescribed pills. Drugs would appear to be an unfit diagnosis for many people due to the reasoning that overdose rates caused by depression have steadily increased. When psychological therapy does not successfully alleviate a person's depression, they are prescribed drugs. These drugs seem unhelpful because they have many negative side effects that worsen the illness. Also, when the antidepressant drugs do not work, many people with this illness feel forced to take more pills or other drugs, which usually have side effects and may also lead to overdose. This issue has led to a considerable amount of awareness for mental illness and overdose issues in North America.

Cannabis has recently become popular in medical research and has become legal in many cities in North America. Fortunately, scientists have come to the conclusion that cannabis is a natural drug that has proven to positively affect cancer patients. This discovery has led scientists to wonder if Cannabis can decrease depression in Canadians and beneficially aid mild to severe depression. Further research can provide more insight into improving the quality of life for people living with this debilitating illness and decrease the rates of overdose, suicide and drug addictions. This can drastically affect medical science by providing scientists with information and results needed to decrease the symptoms of depression thus helping people with mental illness live better lives. This research, however, can produce negative results compelling medical scientists to figure out another way to treat patients with this mood disorder. Focus should be put on the chemical formation and the healthy and unhealthy side effects of cannabis and whether it has similar effects as other drugs. Consideration should also be directed on this newly researched drug to figure out if cannabis can make a significant difference for adults with depression.

Evidence for the "yes" side (several paragraphs):

Numerous experiments have shown the chemical formation of cannabis to alleviate depression in many adults. The plant contains terpenoids which give it its smell and flavour. Terpenoids are responsible for the health benefits of many different spices and vegetables. Cannabis means that the plants come from the genus Cannabis1, these plants have many secondary metabolites (the end result of a person's metabolism)2, the two most common metabolites are tetrahydrocannabinol and cannabidiol also known as THC and CBD. These metabolites have the most biological effect on a human. THC is proven to relieve pain1 and is the major phytocannabinoid compared to CBD which a secondary phytocannabinoid in the cannabis plant3. Plants with a higher CBD concentration ratio than THC are proven to affect a person's mind to a lesser extent because it weakly binds to the cannabinoid 1 receptor in the brain that affects the euphoric sensation a person experiences.

Cannabinoid 1 or CB1 receptor and CB2 receptor are expressed throughout the brain and nervous system of a person, these regions of the body process the person's mood, memory, pain and other psychological functions.1,2 The CBD metabolite can positively affect these processes by relaxing a person and calming them psychologically so they do not feel the symptoms of depression. This can help individuals with depression reduce their negative thoughts, feelings and behaviours.

In a survey done by Kleckner et al., scientists reviewed cancer patients because anxiety and depression seem to be the most common reaction to the disease and its treatments. They discovered there was promising evidence that CBD can adjust the mood regulation of the patient with depression. To prove this discovery, the scientists used rats to see if their predictions were feasible, they concluded that THC raised anxiety in the rats while CBD prevented these effects from occurring.2 Although this experiment is generalized towards cancer patients, it can be assumed to have the same results towards people who do not have cancer but have depression and proves that the chemical formation of the cannabis plant is beneficial for adults who have depression.

The instant and constant usage of cannabis helps calm the symptoms of depression and can help the person feel relaxed. Depression has many unwanted symptoms that may lead to a person feeling helpless and hopeless. Emotional symptoms from this illness include constantly feeling sad, irritability, anxiety, difficulty making decisions, feeling worthless and having constant thoughts of death or suicide4. Also, physical symptoms include constant fatigue, change in appetite, headaches, aches, pains and lightheadedness. These symptoms contribute to the unwillingness to perform daily activities and an unhealthy mental state3,4.

To understand the influence of cannabis in individuals who self-administered medical cannabis, Sith, S., et al., used an app named The Relief App4, this app records one's behaviour and how it corresponds to initiate change when using cannabis, the side effects, their symptoms and their natural cannabis consumption on a daily basis. From May 2016 to December 2017, the University of New Mexico analyzed all of the apps. Consumers' data found that the use of cannabis relieved symptoms while a small percentage said they experienced development in their symptoms. Additionally, the most common side effects were relaxed, peaceful and comfortable, while a lesser amount of individuals experienced forgetfulness, feeling foggy and dry mouth4. This experiment shows that individuals with depression and depressive symptoms have benefited effectively from the constant use of cannabis rather than individuals who only have pain symptoms4. This experiment concludes that people can use cannabis as an effective alternative to prescribed drugs for the reason that many natural cannabis users use cannabis to help other issues rather than just mood disorders. This shows that the constant use of cannabis helps individuals with depression and depressive symptoms.

Previously, individuals suffering from depression were prescribed antidepressants and other drugs to relieve symptoms, many new studies show that cannabis is a more effective alternative to these drugs. From the experiment with The Relief App, researchers can conclude that the use of cannabis works more effectively with few side effects4, rather than using opioids and other prescribed drugs which lead to negative side effects and possible overdoses. There has been a drastic rise in the number of deaths due to overdosing on drugs, this is prompting an increase of awareness especially in North America.

The stigma of mental health issues causes individuals to feel shame, feel avoided and inferior to

others within their community. This prevents individuals from seeking help and receiving the treatment needed for decreasing depression5. A study shows that more than 20.1 million people have abused a substance due to a lack of treatment5. Alcohol is the most popular substance to be abused in the United States of America with 136 million people and opioids are abused by 11.8 million people. Unfortunately, the root cause of this abuse stems from doctor-prescribed drugs. There has also been an increase in suicides in America5. Many of these are due to overdose and drug addiction.

Minerbi et al., studies state that CBD in cannabis does not put an individual in a “high state”, it has antioxidant effects, improves the immune systems and noticeably reduces addiction1. As proven accurate by many experiments, CBD in cannabis has more beneficial side effects thus proving to be a better alternative than prescribed drugs. As The Relief App study shows, individuals are using cannabis (individuals ingest cannabis, use cannabis topical etc.) for reasons other than mental illness rather than prescribed drugs considering there are less negative side effects4. Therefore, cannabis will positively affect adults with depression and decrease deaths due to overdose.

Evidence for the “no” side (several paragraphs):

There are many unwanted side effects to the long term and short term use of cannabis for users with depression. It is more common to purchase cannabis with a higher THC concentration ratio than CBD7; THC is proven to give an individual a euphoric sensation which leads to many unwanted side effects.

These negative side effects include memory loss, impaired motor coordination and control and altered judgement when experiencing this sensation.7 When a great amount of highly concentrated THC cannabis is ingested it causes an individual to feel paranoia and psychosis. When individuals who have ingested cannabis for an extended amount of time, decide to take a break they will experience withdrawal symptoms which can include sleeping issues and nightmares.7

In the research Mammen, et al. conducted, scientists discovered that people with mood disorders (depression) are more likely to use cannabis compared to individuals who use cannabis recreationally. While cannabis will help acute depression, individuals with mild to severe depression who use high-frequency cannabis will further develop this illness. This will lead to other serious mental issues and addiction to the THC in cannabis. These negative side effects indicate that cannabis does not make a significant difference for individuals with depression.

Cannabis is similar to other drugs, in which individuals using it can get addicted to the drug and want a better “high”. Cannabis use disorder occurs with frequent Cannabis users. Frequent users take cannabis to feel relaxed which alleviates their depression. When used multiple times the user starts to get immune to the euphoric sensation of the drug, needing more of the drug to get the same sensation and even moving onto more dangerous drugs to feel the same response as before.

Lowe, D.J.E, et al., The experiment displays that this disorder correlates to major depressive disorder in individuals who use cannabis frequently compared to those who use it occasionally6. Panlilios’ experiment on rats show that the frequent cannabis reward causes the rat to become

addicted and needing higher doses of THC as they grow older.7 The over-usage of drugs causes the person’s depression to increase if not continuously ingesting the drug, thus the mental illness becomes worse instead of better.

The medical use of Cannabis has recently been accepted in the western world thus has not been researched enough to understand the full effects of the drug9. This leads to many scientists to have inconclusive research. They are uncertain if there are more advantages or disadvantages, the harm cannabis can carry out on an individual or if they need to change various variables in their research or not. What is recently deemed certain is that severe depression has become worse with the use of cannabis. As Lowe, D.J.E, et al., experiments offer no clear or minimal evidence conducted in the experiments due to their lack of knowledge on the drug. Cannabis does not make a difference for depression because there are not enough tests and knowledge about the drug.