The Good and The Bad Side of Cannabis

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Abstract

The topic of this research paper is The Good and The Bad Side of Cannabis. The student researcher chose this topic because he believes that knowing the good and the bad side of cannabis can help make a more informative decision that could benefit the user. The student researcher gathered information from a survey he distributed to his peers, questionnaires given to experts, academic and non-academic sources, to support his claims. Based on the data that the student researcher collected, he found that cannabis has three different fields, recreational, medicinal, and industrial. This study is important because people may encounter some problem with their cannabis experience, and knowing what caused or will cause it can help to stop or prevent it.

Introduction

Anyone can get involve in cannabis, whether it’s for recreational, medicinal or industrial purposes. Recreational purposes are what majority of the people want, because they want to experience the feeling of getting “high” and some of its health benefits. Some want to use cannabis specifically for medicinal benefits without getting high. And some, even those who don’t use it can do business in cannabis. People can cannabis through smoking, eating, vaping, or applying the active components directly on the skin. Times are changing, various states and countries have already began legalizing this plant despite being a schedule one drug. This plant seems to be very helpful to people, but every coin has two sides, knowing the negative side is equally beneficial to everyone. So, what are the good and bad side of cannabis?

Literature Review

The student researcher will review some of the literature that he’ll use for the final research paper. The purpose of the literature that the student researcher chose is to clarify or extend the thesis, support his claims, and focus on some of the examples that the student researcher claims.

First, an article that the student researcher found on EBSCOhost created by Canada Newswire his year claimed that the misunderstanding of cannabis led into prohibition for decades, but then recent evidences from studies and research showed that some part of the cannabis plant are non-psychoactive, the plant can be basically used of medicinal, recreational and industrial purposes. This literature expands the thesis of the student researcher by giving some insights of what happened, its uses, and possibilities of cannabis.

Second, the student researcher also has information from an article written by Maxwell and Mendelson on 2017 that states how a law gave more attention to cannabis from the people, those who did not know anything about cannabis tried using it after knowing that it can be used for medical purposes such as dealing with nausea, sleep disorder, chronic pain and neuropathic pain. The student researcher will use this literature for giving an example onto how the use of cannabis increase and examples on recreational and medicinal use.

Third, the student researcher found an article called Highs and Lows of Cannabis (2004) on EBSCOhost that talks about the ups and downs of cannabis. It states that, one official report after another concludes that cannabis is not a bad product. The article also talks about how businesses such as paper companies are afraid of their hemp competitors, cannabis has a lot of uses and that includes industrial and medicinal purposes. However, the article mentioned how cannabis can cause unpleasant side effects such as blocking the formation of memories and increase the risk of experiencing psychosis after taking a huge dose. This literature is for expanding the thesis by giving out examples of the bad and good of using cannabis for recreational, medicinal, and industrial purposes.

Lastly, A research conducted by Volkow, Baler, Compton, & Weiss (2014) resulted in the conclusion that cannabis use can cause adverse effects. Using cannabis can affect the cognitive and motor funtion, and can cause unwanted consequenses. Repeated cannabis use during adolescence can affect the brain and endanger social, educational and professional achievements. Future predictions after legalizing cannabis can lead to increase of users and more exposure of teens to this plant. This articles talks about how using cannabis recreationally can be harmful to the user, especially the ones at the adolescence stage.

Methodology

The student researcher used different types of sources to support his claims in the research paper. A survey was given out by the student researcher to his peers that are currently attending the Northern Marianas College, the survey cosists 10 questions that focuses towards the same topic of the research paper to gather useful information. Letters to experts were also used to gather information. Each letter contains an invitation to answer a short questionnaire, the questions were based on the proffession of each experts. Most of the academic sources that have been gathered came from EBSCOhost, some of the academic sources came from Google Scholar. All of the non-academic sources were searched on a Google Search Engine. A website suggested by the student researcher’s instructor was used to paraprase most of the paragraphs. Turnitin was also used to improve the essays overall and receiving comments from the student researcher’s peers. These are the types of sources and tools that were utilized throughout the research project so far, more tools and types of sources might be used in the future.

Results and Analysis

Cannabis has been a hot topic these recent years, getting legalized for medicinal and recreational use in some countries and majority of the states in the U.S. Cannabis has some proven benefits that could help the user, but it could also be harmful in some way. The student researcher believes that no matter how good a product is, it is important to know the bad in it as well. Whether cannabis is used for recreational, medicinal, and industrial purposes, knowing both sides of the coin can help the people to make a better decision.

The student researcher will start with the recreational use. People use cannabis for recreational purposes to intentionally alter or change their consciousness to experience happiness and relaxation. This is possible with the help of the active components found in cannabis such as Delta9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). Recreational cannabis can increase the appetite, use of tissue fats and gives the user the feeling of relaxation, but also can affect reaction time, motor control, and damages the developing brain. Based on what Sansone wrote on 2014, the active components like delta9-tetrahydrocannabinol and cannabidiol interacts with the endocannabinoid system, these components can enhance the user's feeling of hunger and relaxation by aiding with the production of Ghrelin in the small intestine, and Dopamine in the brain. Yamada & Takashi wrote an article on 2012 how the small intestine produces a hormone called Ghrelin be responsible for increasing how much food a person can eat without feeling satiated, encourages the feeling of hunger, and boosts the utilization of fatty tissues or triglycerides. On 2018, Brophy wrote an article that states that a neurotransmitter called Dopamine can help gain motivation, experience euphoria, and the feeling of being rewarded even with just eating a food that an individual craves. Dopamine additionally is connected to the pathways to the brain and interact with a person's mood, learning abilities, memory and attention. Three experiments that were conducted by Kvalseth (1977) regarding human reaction time and motor control with three experienced marijuana users and three non marijuana users in total of 6 volunteers. every experiment consists of 1 experienced marijuana user, 1 unexperienced marijuana user, dose of THC with less than 10% of concentration, and tasks were given to the volunteers after taking a dose. Experiment 1 concluded with both volunteers showing a decrease in their reaction time while doing the tasks given to them. Experiment 2 was the same as experiment 1 but with a dose of THC not over 16%, and concluded with a significant decrease in their reaction time. Experiment 3 focused on the volunteer's motor control skills, 3 tasks were given to the 2 volunteer, a dose were given before taking the task and gradually increase the concentration of THC. Experiment 3 concluded into showing a significant decrease with the volunteer's motor control skills. All 3 marijuana users performed better than the new marijuana user, Kvalseth believes that it's because they built a tolerance to THC and are used to the feeling of being high. The student researcher believes that consuming cannabis before or while driving can be a hazard on the road, but depending on the person. Volkow, Baler, Compton, & Weiss wrote a book on 2014 that talks about how cannabis can create problems. Consuming cannabis will disrupt the user's cognitive and motor function, that can result into undesirable outcomes. Also, if the user is still in the adolescence stage or their brain is still developing, using cannabis can endanger the user's social, educational, and professional achievements by damaging the brain. Future predictions by Volkow and the others is that when cannabis is legalized, it will increase the exposure of cannabis to a lot more people.

The student researcher will talk about medicinal cannabis next. People turn to cannabis to help deal with pain, seizures, and nausea, but it is difficult to get the exact dose needed, and users can develop dependency. Ware and his colleagues (2010) conducted an experiment on male and female adults age around 21 to 45 to find out the relation between pain and cannabis. The volunteers have no experience in using cannabis and suffer from neuropathic pain after going through a surgery, the volunteers were given a dose of Delta 9-Tetrahydrocannabinol or THC with less than 10% of concentration with a little mix of Cannabidiol or CBD 3 times a day for 5 consecutive days. Ware said that the volunteers felt uncomfortable after using cannabis for the first dose of the day, but enjoyed if after the 3rd dose. The next 4 consecutive days were all the same, the volunteers experienced relaxing sleep, calm mood, and reduced the feeling of neuropathic pain. The THC and CBD were slowing down the speed of neurons traveling in the nervous system, delaying and weakening the messages being sent through the nerves Perucca published an article on 2017 about treating epilepsy with cannabis. Perucca said that there are a lot of strains of cannabis out there and they all are unique inside, strains that consist a higher ratio of CBD to THC are suitable for dealing with seizures because of the psychoactive property of THC may increase the chance of getting a seizure. CBD is known for its soothing effects, and it can even calm down the nerves of the user that is having a seizure. Maxwell and Mendelson (2017) wrote an article about the user increase of cannabis. They reported that people got curious when they found out that cannabis has been legalized in their state or country, because cannabis use to be a schedule 1 drug and still is in different countries. It says in the article that a survey was given asking the process on how they got to know cannabis, most people answered that they got curious on how cannabis can help medicinally and hoping that it could help with some of the illness that they experience daily. they tried cannabis extracts first because it does not have any psychoactive property and gives a relaxing feeling that could help with nausea, irregular sleeping pattern, chronic and neuropathic pain. According to Miller (2017), nausea is commonly caused by drug side effects, food poisoning, motion sickness, pregnancy, binge drinking alcohol, sometimes strong unpleasant smells, migraine, head injury and chemotherapy. Nausea is commonly followed by symptoms such as dizziness, faintness, dry mouth, diarrhea, fever, and abdominal pain as stated in Miller’s (2017) report. Cannabis is also good for managing nausea and based on Kerr (2018), THC works as an anti-nausea when it binds in the CB1 receptors in the brain and it reduces vomiting, the uplifting side effects of THC can also be therapeutic to others if not too intense. CBD also gives a helping hand when it comes to managing nausea, Kerr (2018) reported that “The non-intoxicating cannabinoid CBD interacts with serotonin releasing receptors, and when given in relatively small doses has been shown to help alleviate both nausea and vomiting. CBD can also be effective in easing anxiety, which can help patients manage the against of chronic nausea.” If nausea is caused by chemotherapy and radiation, cannabis can provide a better result than other prescription drugs out there a THC and CBD both shows promising results in labs and at home. Simon (2018) wrote an article that explains why it’s so hard to dose marijuana, apparantly marijuana contains some 500 chemicals that interact in ways scientists are [just beginning to understand](https://www.wired.com/story/why-no-gadget-can-prove-how-stoned-you-are/). And really, how you end up feeling depends as much on your physiology and state of mind as it does on the plant. The uncertainty is especially challenging given how potent cannabis has become. One study found that THC levels have gone up [three-fold since 1995](https://www.livescience.com/53644-marijuana-is-stronger-now-than-20-years-ago.html), thanks to selective breeding. Suryadevara, et al. (2017) concludes that all of the experiments related to using cannabis in patients that have chronic brain disorder led to developing a dependancy when used in the long-term, which can increase the risk of depression and anxiety over time, and may cause some drawbacks.

And lastly the student researcher will discuss the good and bad side of the industrial use of cannabis. it’s not just the flower or buds that can be used in a cannabis plant, but also its seeds, stems leaves and roots, in some way, cannabis can be used for alternative fuel, fabric and medicine related used, but faces market challenges, and blood clog. an article that the student researcher found on EBSCOhost written by Molarikova, Ivanova and Harvland (2015) found out that industrial cannabis or hemp can be used as an alternative fuel source. Energy is one of the most important commodities in the world today, and hemp is an outstanding alternative because it grows fast, requires low maintenance, and produce in high biomass yields. Although hemp is very easy to produce, it does not give a huge profit today because of the price of the final product and the situation of the market. Hemp basically offers low production labor and gives an above average profit; it like a complementary product that gives additional income and ecological biofuel. Hawkes (2015) expands that Supporters of commercial hemp production say that hemp fibers are longer, stronger, more absorbent and more mildew-resistant than cotton, and are ideal for generating a cash crop to be used in the textile industry.

Fabrics made of at least one-half hemp block the sun's UV rays more effectively than other fabrics. They also point out that over 30 industrialized democracies do distinguish hemp from marijuana. International treaties regarding marijuana make an exception for industrial hemp. Currently, most hemp used in the United States is imported from Canada and China, places where hemp farming is a profitable and stable industry. an article that the student researcher found on EBSCOhost created by Canada Newswire his year claimed that the misunderstanding of cannabis led into prohibition for decades, but then recent evidences from studies and research showed that some part of the cannabis plant are non-psychoactive, the plant can be basically used of medicinal, and industrial purposes. Collins (2018) states that for much of the last century, U.S. domestic markets for industrial hemp products have been primarily supplied by Canada and China. The sales value of hemp-based products was over [$688 million in the United States in 2016](http://www.hempbizjournal.com/market-size-hemp-industry-sales-grow-to-688-million-in-2016). Industrial hemp is produced commercially in over 30 countries worldwide, with France being the largest producer of industrial hemp in the world. Ameya (2019) claims that Hemp oil can adversely affect anticoagulants and blood platelets that can lead to the thickening of blood. Blood clotting can lead to a heart attack. People with blood clotting deficiencies and disorders can treat such conditions by consuming hemp seed oil. However, you might want to speak to your physician and thoroughly discuss hemp seed oil benefits and side effects before its usage.

Conclusion

a student researcher is writing a research paper about the *Good and Bad Side of Cannabis* to let the readers know that even if cannabis gives benefits, people shouldn’t bet their money on it because there are still things to look out for specifically for its medicinal, recreational and industrial use. People usually use cannabis for medicinal and recreational purposes, when the Endocannabinoid system gets stimulated by the active components found in cannabis such as delta9-tetrahydocannabinol (THC) and cannabidiol (CBD) it gives positive side effects but also negative effects. As for the industrial use, some species of cannabis such as hemp is easy and fast to grow depending on the season, but still faces problems in law, competitors, and profits. The purpose of this academic summary is to give the readers a basic idea by adding what is going to be talked about throughout the research paper.

# References

Borphy, K. (2018, October 18). What Is Dopamine? Understanding the “Feel-Good Hormone”. America: University Health News Daily. Retrieved from https://universityhealthnews.com/daily/depression/what-is-dopamine-understanding-the-feel-good-hormone/

C., A. (2019, may 20). 9 Unexpected Side Effects Of Hemp Seed Oil. StyleCraze. Retrieved from https://www.stylecraze.com/articles/unexpected-side-effects-of-hemp-seed-oil/#gref

Collins, A. A. (2018, july 2). industrial Hemp Production. Pensylvania, United States: PennState Extention. Retrieved from https://extension.psu.edu/industrial-hemp-production

Kerr, S. (2018). *MANAGING NAUSEA WITH CANNABIS.* Northern California: Hawaiin Ethos.

Kvalseth, T. O. (1977, September 7). Effects of Marijuana on Human Reaction Time and Motor Control. *45*, 935 - 939. Trondbeim, Norway: Division of Industrial Management.

Miller, B. J. (2017). *What is Nausea?* EVERYDAY HEALTH.

Newswire, C. (2019, February 11). Cannabis Regulations Ease as Public Opinion Shifts. United States of America, Canada, and United Kingdom: Financialbuzz.com. Retrieved from http://web.b.ebscohost.com/ehost/detail/detail?vid=8&sid=9d813185-c4f0-493d-8452-a7ef35e848a4%40pdc-v-sessmgr05&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=201902110900CANADANWCANADAPR.C8670&db=bwh

Perucca, E. (2017, December 17). Cannabinoids in the Treatment of Epilepsy:. *Hard Evidence at Last?* Journal of Epilepsey Research . doi:10.14581/jer.17012

Sansone, R. A., & Sansone, L. A. (2014, July-August). Marijuana and Body Weight. *11(7-8)*, 50-54.

Simon, M. (2018, February 28). Why It's So Hard to Dose Weed. Wired. Retrieved from https://www.wired.com/story/why-its-so-hard-to-dose-weed/

Suryadevara, U., Bruijnzeel, D. M., Nuthi, M., Jagnarine, D. A., Tandon, R., & Bruijnzeel, A. W. (2017, August). Pros and Cons of Medical Cannabis use by People with Chronic Brain Disorders. *15(6)*, 800-814. Bentham Science. doi:10.2174/1570159X14666161101095325

Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. (2014, June 5). Adverse Health Effects of Marijuana Use. *370, 23*, 2219-2227. US National Library of Medicine Nationa Institute of Health. doi:10.1056/NEJMra1402309

Ware, M. A., Wang, T., Shapiro, S., Robinson, A., Ducruet, T., Huynh, T., . . . Collet, J.-P. (2010, October 05). Smoked cannabis for chronic neuropathic pain:. *A randomized controlled trial*. CMAJ. doi:https://doi.org/10.1503/cmaj.091414

Yamada, H., & Takahashi, K. (2012). Ghrelin: Production, action mechanism and physiological effects. 153. New York: New York : Nova Science Publishers, Inc. .