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The Marijuana Dilemma

After a long day of work or school, it is the human response to want to go relax and relieve some of the stress they have. People achieve this in many ways by exercising, watching television, having a drink, or more common in recent times; smoking marijuana. With an increase in the legalization of the drug, it is important to see if this is the right decision. Are the effects worth the long-term effects that it could be causing? That is something often overlooked by many people while looking for a quick way to achieve relaxation.

Consuming marijuana has become more acceptable in the United States every year and the change is for the worse. Many states have voted to make it legal, and more are still voting to legalize in the present day. To fully understand the reasons why marijuana should be illegal it is necessary to see its impact on various areas that are impacted by it. These impacts include the effects on the brain, kids, the black market, the safety of the community, and the knowledge behind the drug.

The first thing to look at while discussing this topic is the reason why it is such a controversial topic for many people. This topic matters because marijuana is a drug and is classified by one by the Drug Enforcement Agency (DEA), which is the branch of the government that is responsible for overlooking this area. They consider the drug to be a schedule one drug which means that it has no currently accepted medical use and has a potential for abuse. The drug being accepted for recreational use seems like an odd decision with this classification

under it. There are currently eighteen states that have legalized marijuana and a couple of others that have decriminalized it. The right thing to do for marijuana is to keep it illegal, but also have it decriminalized. The first aspect of the drug to take a look at is the common misconceptions that people have about it.

A huge misconception about the drug is that you can not get addicted to it. This just simply isn't true as there is tons of research out there that is never brought to the attention of the public and is only found if you look it up. However, it is more of a disorder that develops with the drug rather than a straight addiction. An interesting statistic that came out of one study done was, "An estimated 17% of youth who use marijuana develop a cannabis use disorder."

(Ladegard et al. 3) This disorder is similar to ones for harder drugs as these kids will experience a physical dependence on the drug. This includes symptoms such as anxiety, insomnia, restlessness, or irritability while not using the drug in a while. The main aspect of this problem is the stigma around marijuana that you can't get addicted to, so you will never experience withdrawal symptoms. Unfortunately, they can still develop a use disorder especially if they start indulging under the age of sixteen as these kids have a higher chance of growing dependent on the drug.

The amount of people that have this disorder is a surprisingly high number considering the legality of the drug. In 2015 there were around four million people who met the criteria of having a marijuana disorder and out of these people 138,000 of them sought out help. (National Institute on Drug Abuse) This number is surprising as at the time of this discovery there were only four states that had legalized the drug. Now that there are fourteen more states that have legalized marijuana this number is sure to have skyrocketed by now. There were definitely others at the time that have met the criteria for dependency but were never officially diagnosed by a

professional. The National Institute of Drug Abuse attributes the rise of dependency to the increased levels of THC in marijuana found today. (National Institute on Drug Abuse) They say in the 90s the level of THC was found to be less than 4% while in current times it is around 15% and it is to be at a higher potency. (National Institute on Drug Abuse) The potency of marijuana is another aspect of the drug that often has misconceptions about it.

The misconception of the potency of the drug is more for the safety of the users rather than the health effects. People usually do not account for the potency of the drug when consuming and base the amount they take on the THC levels. (National Institute on Drug Abuse) This is the most common in the case of consuming it by eating as these packages are usually advertised with the amount of THC in. There is a difference in the strength of the edibles even if both say that they contain ten milligrams of THC. This can cause serious issues and lead to an experience of anxiety or “greening out”, which consists of feeling nauseous and dizzy. This difference between potencies is just one reason why it is important to be careful while consuming marijuana. Besides the misconceptions of the drug, there are long-term effects on the person that people do not realize.

A major concern by most people who study the long-term effects of marijuana is the lasting effect that it leaves on the brain. A study that came out comparing the effects on the brains of people who consume the drug versus people who don't have some concerning results. “ Our findings provide evidence that heavy, chronic marijuana users have lower OFC gray matter volumes compared with nonusing controls.” (Filbey et al 4) This was a study done comparing the brain activity of people who do not use cannabis to people who heavily use it. The biggest concern they found was with the OFC gray matter volumes which are in the prefrontal cortex region of the frontal lobe of the brain. It is responsible for cognitive processes, intellectual

thinking, and decision-making. These people were found to think less about making decisions that were brought in front of them. This is a problem as it could lead to the person making irrational decisions when faced with serious problems. These decisions could be life-changing decisions that could be made without much thought, which is detrimental to them. That is just the tip of the iceberg when it comes to the long-term effects.

The next factor that poses serious concern among researchers is the lasting effects on memory. A short-term effect of marijuana that is well known is short-term memory loss, but this usually goes away when the high wears off. A study found that people who regularly smoke are found to have an abnormally shaped hippocampal region which is the part of the brain responsible for memory. (Crane) When given memory tests the marijuana users were found to do 18% worse. (Crane) This is concerning as memory loss is a very scary process to go through as you could forget memories and experiences that would otherwise be something fond to look back on. This is shown in the activity where everybody had to memorize fifteen words and 50% of marijuana users could remember one fewer word on average than those who do not consume it. (Crane) This does not seem like a big deal, but upscaling the number of words to be the equivalent of other scenarios like life experiences becomes more concerning. This is about 7% more of interactions will be forgotten in the long term compared to the memory of an average person who does not consume the drug. The long-term effects continue when it comes to the long-term happiness of the users.

The process of becoming happy comes from the neurotransmitter called dopamine and it can be altered by the heavy use of marijuana. “People who smoked a lot of marijuana tested positive for lower dopamine release in the region of the brain that also controls attention and impulsive behavior” (Crane) This is because the body gets used to the marijuana producing

dopamine and reduces the levels it produces. Therefore, when marijuana is not present in the system the overall dopamine levels will be lower. In the long run, it is not worth the extra dopamine for the short period if it will affect the amount of happiness you will receive in the long run. Another interesting fact that came out of this study was that most of the people started smoking at sixteen years old and were dependent on it by twenty years old. (Crane) This shows a relation between long-term effects starting in the youth. The next factor that hinders the reason why marijuana should be legal is the effects that it will have on kids.

When it comes to kids having access to marijuana the legalization of marijuana will just make it easier for them to get it. As of now, there are not many places that sell anything related to marijuana, but with the legalization, there will be many new stores selling it. The location of these shops affects the rate at which these kids become in contact with it. “A study that used Monitoring the Future data showed that eighth-grade students from schools located close to medical marijuana dispensaries (short traveling distance, 5 miles) were more likely to have recently used marijuana compared with those from schools located farther from dispensaries (25 miles)” (Marijuana Legalization and Youth 2) With the legalization of marijuana this would increase the number of dispensaries around which would mean more kids would be closer to one. Many people would be getting involved in the market as soon as they can. The market will be oversaturated at first which will probably mean at least one dispensary every five miles at first as there is lots of money to be made. According to this statistic kids who are closer to dispensaries are more likely to start consuming the drug at a younger age. Once they try the drug for the first time and they enjoy the effects it could lead them to constantly wanting it. This means that even when some of the dispensaries close these kids will still want to consume the drug. All they need

is one dispensary within five miles to get a liking for the drug. The long-term effects of the drug are bad for adults but even worse for the youth.

No matter what age the user starts consuming marijuana the long-term effects are going to be detrimental, however they are especially worse in kids. The first one relates to dependency on the drug. The earlier the person starts the more likely they are to become dependent on the drug. About 25% to 50% of people who start smoking in their youth and develop this dependency are found to use the drug daily. (Volkow) This is an alarmingly high number as daily use not only grows the effects but will also consume a fair amount of money for these people down the road. The biggest effect that they face is altered brain development. Research has found that smoking before the brain fully develops recalibrates the cytoskeletal dynamics, the part of the brain that tells the cells what to do, which harms learning and memory resulting in a lower IQ. (Volkow) This leads to the next effect, which is poor educational outcomes. The lower memory and IQ results in poor performance in school, which leads to a higher dropout rate. The last major effect on kids is diminished life satisfaction and achievement. (Volkow) This is concerning as these kids have their whole life ahead of them and they can achieve a countless amount of things. However, these kids are found to have lower goals than those who do not regularly use and will strive to achieve less during their time alive. Another concern among many is how the black market will react to the marijuana being legalized and whether it will still flourish.

The black market will still flourish even with the legalization due to a variety of reasons for both the sellers and the buyers. As mentioned earlier there will still be a ton of businesses that will enter the market, but there will still be small businesses that can not afford to enter. In

Oregon, where marijuana is legal, many small business owners reported that there were many legal requirements that were very expensive to fulfill. (Song 31) They had to have an expensive security system and tracking system among other requirements that cost a lot to acquire and maintain. (Song 31) This made it very expensive to run their businesses and did not allow them to legally sell their products. This drove many of them to enter the black market as the profit margins were much higher. These requirements are also keeping people who already sell illegally to enter the market legally. “Several interviewees in this article expressed their concern that there was no pathway to get licensed due to a number of regulatory restrictions such as tight local control, zoning rules, and high license fees.” (Song 32) They are already making a heavy profit doing it the way they have been doing, that makes no sense for them to pay the expensive requirements and go through all the trouble to enter the market legally. Another barrier for both sides is the taxes that they have to pay.

The taxes that each state requires are different from each other, but for the most part, they are all expensive. For the consumer’s the tax is something that could easily drive them away from the legal purchase and buying from the black market. An example of high tax rates in cannabis is Connecticut, which based its tax on Massachusetts’ rates. The rate is compiled of a 6.35% sales tax, 3% sales tax for the city, and tax based on the THC content of the product (10-15%). (How Will Cannabis Be Taxed?) This totals around 20% for the purchase of any marijuana-related goods. These prices are already higher than the equivalent would be on the street and the taxes don’t help the cause. For the people that consume marijuana frequently, the taxes on their purchases are going to add up quickly. They are going to prefer getting it from the black market as they will be able to get more for their money as it will be considerably cheaper. The higher tax rate also makes the people selling the drug increase the selling price as they want

to maintain higher net profit. If the taxes are ever raised in the future it will most likely result in a higher price on the item, so companies maintain their profit. The last factor to look at is the incidents the impact the drug has on driving.

The impact that marijuana has on the user's ability to operate a motor vehicle is frequently ignored. Just like how there is a BAC level for alcohol where it is not safe to drive there is a level of marijuana that is not safe to drive at. Having THC levels of 2 to 5 ng per milliliter is shown to be related to serious impairment of the drivers. (Volkow) These impairments that people face include slower reaction times, brain fog, and impaired motor coordination. (Volkow) These effects are even more emphasized when marijuana is mixed with a decent amount of alcohol. The combination of just those three effects makes it almost impossible to drive properly and drastically increases the chances of getting in an accident. This makes the roads unsafe for not only the driver of the vehicle but also the other drivers on the road. Something as small as a brake check, which commonly happens when driving on the highways, can create a huge accident due to the lack of awareness from the driver. These drivers were found to be three to seven times as likely to be responsible for causing accidents than sober people. (Volkow) The scariest thing about this is that people will feel these effects and still decide to get behind the wheel like nothing is affecting them.

One might think that people will be responsible enough to not drive after consuming marijuana recently, but that is simply not the case. A survey from Colorado and Washington provided the following statistic, "Approximately 43.6% of respondents reported driving a motor vehicle while high or feeling the effect of marijuana or hashish in the past year. The prevalence of driving a motor vehicle within 1 hour of consuming marijuana or hashish at least 5 times in the past 30 days was 23.9% among respondents."(Davis, et al 1) This was a survey among 865

people from Colorado and Washington where it has been legal for a couple of years now. Almost half of the people that responded to the survey admitted that they drive while under the influence of a drug. This is not as bad as the quarter of people who drive within the hour of consuming the drug. This is when the effects first start and for many people start the peak of their high where the effects are most prevalent. Having that many people driving consistently high is asking for there to be more accidents on the road. If this statistic stays true for the rest of the drivers when legalization spreads there will be a nationwide increase in accidents.

The number of accidents related to the use of THC also saw a significant increase throughout the years. Between 2008 and 2012 while marijuana was not legal in Washington 8.8% of fatal accidents involved a driver under the influence of THC. (Andrew Gross Manager, et al) In the following five years (2013-2017) when marijuana was legal, this number grew by over double to 18% of drivers. (Andrew Gross Manager, et al) This was just accounting for the fatal accidents involved in Washington and applying that statistic to all the states would show a dangerous amount of deaths due to impaired driving by THC. With the next result coming out next year it would not be far off to see this number rise even higher than it already is. Marijuana is more dangerous than what people give it credit for.

An argument for the legalization of marijuana usually starts with people saying that the drug should be used for medical practices. The only use of the drug is to treat lower pains like chronic pains as it is safer than opiates. (Grinspoon) It is not strong enough to numb the pain of serious pain like broken bones or post-surgery. (Grinspoon) This is helpful because marijuana has a much lower chance of addiction than opiates, so it is better for patients to use. The better solution for this problem is to use CBD-related products like oils or supplements. It provides the same effects as the THC, but without the euphoric effects. (Holland) It also has better side effects

with the worst being weight loss and appetite changes compared to the THC side effects of increased heart rate, coordination problems, and memory loss. (Holland) Marijuana is a combination of both THC and CBD, so it causes the effects and side effects of both of the components. The CBD is extracted from marijuana and contains less than .03% of THC. (Holland) Marijuana should not be legal on its own but should be used to make CBD products that can help people with a variety of products.

With marijuana being illegal there needs to be a punishment that fits the crime. Punishments used to be a lot worse than they are now that most states are getting on board with marijuana. In places such as Alabama, the punishment for having marijuana is a bit more extreme than it should be. A first-time offense with marijuana is a misdemeanor with a punishment of up to a year in jail and up to a \$6,000 fine. (Alabama Marijuana Laws) A repeat offense is a Class D felony with a punishment of one to ten years in jail and up to \$15,000 of fines. (Alabama Marijuana Laws) This is on the right track for a just system, but not quite there yet. For a first-time possession with personal use should only be a small fine and a decent amount of community service hours as this provides an inconvenience that could make them stop. The second offense should be an increase in both the fine and hours given. If they are caught a third time they should spend up to a year in jail and pay a fine. These first three should be no more than a misdemeanor and should be scaled by how much they have on them. This is a better system for people caught for personal use as it provides a punishment, helps the community, and doesn't ruin the user's life by throwing a felony on their record. Intent to sell however should mean jail time among first offenses because it is the best way to prevent it from getting to kids. This isn't what the final law should be, but it should be a variation of this that is scaled for the amount and doesn't ruin the offender's life.

Another point that is important to mention when discussing marijuana is whether it is a gateway drug or not. This does not have enough evidence for either side of the argument, but it is important to include so no misconceptions can be had about it. The argument that it is a gateway drug mainly pertains to the point that people like the feeling of getting high and want to move on to something harder. In some cases this is true, people build a tolerance and want to get very high, while for most people marijuana is just easier to find than the harder drugs they actually want to try. (Lopez) There are reasons that drive people to consume marijuana or to try alcohol that lead them to take harder drugs. These are more on factors such as boredom, depression, and peer pressure. (Lopez) The other argument is that getting weed from a drug dealer would get the person introduced to the harder drugs, so it should just be legalized. The author quotes the evidence in this as “There's some weak evidence behind this idea. After the Dutch liberalized their marijuana policies, a 2010 report by RAND researcher Robert MacCoun found "some evidence" for a "weakened gateway.” (Lopez) With this being the only evidence this claim does not work. While this argument doesn't help with the argument of keeping marijuana illegal it is important to inform people about it as it is a popular talking point about the use of it.

When it comes to the case of legalizing marijuana there is just too much evidence that supports the other side that can be ignored. With aspects about long-term effects that happen to people who regularly use it and worse long-term effects to kids, it is concerning to think about legalizing it. Some of the main points about legalizing it include eliminating the black market and using it for medical purposes. Many factors will keep the black market thriving and there are better alternatives than using straight marijuana to help with chronic illnesses. In states where it is already legalized it caused concern with motor vehicle usage while high. The punishment aspect is getting better with legalization as there are less severe punishments with legalization.

Although marijuana is headed in the direction of legalization the biggest thing that anyone can do before consuming the drug is to educate themselves on the drug. This will eliminate all misconceptions they could have about the drug and see all sides before consuming it so they can stay safe. Marijuana is a widely discussed topic and there is a lot of information that is available for everyone to see. The effects are not worth the risk to take the drug, but the biggest thing to take away is to stay safe and to stay educated on the topic so the best possible decision can be made.

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