



## **Exploring the Reasons behind the Usage of Cannabis among Sri Lankan University Undergraduates**

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### **Authors' contributions**

*This work was carried out in collaboration with all authors. Author DK designed the study, helped with the thematic analysis and conducted the final editing of the manuscript. Author APDS wrote the literature review collected the data and conducted the thematic analysis. Author NDUV wrote the first draft of the article, the discussion section and completed the references. All authors read and approved the final manuscript.*

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### **ABSTRACT**

Adolescence is a test of new and different behaviors and part of the natural process of separating from parents, gaining acceptance and popularity with peers, developing a sense of identity, autonomy, independence, and maturity, seeking fun and adventure, and or rebelling against authority. Hence, according to the view of some adolescents, engaging in alcohol, tobacco, and the use of other drugs may be seen as a functional way of achieving independence, maturity, or popularity along with other developmental goals. Cannabis is the most commonly used illegal drug in most countries. Many university students are taking cannabis and other illicit drugs. The main objective of this research was to identify the reasons behind the usage of cannabis among Sri Lankan undergraduates, undergraduates' attitudes towards the use of cannabis, and Cannabis subculture of undergraduates. The purposive sample included six undergraduates who are excessive users of cannabis. Three participants were from the University of Peradeniya and the other three participants were from the University of Colombo. The study used a qualitative research design comprising of semi-structured individual interviews and the data were analyzed using thematic analysis. The results showed that the most influential reasons to use cannabis

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were, to reduce stress and anxiety, being an early user, the special feeling felt after using cannabis, to enjoy life and due to the freedom afforded at University; to maintain relationships and to build new relationships with others; to be a hero among others, a perceived increase in academic performance and because cannabis is always available at the university premises. It is important to pay attention to this debilitating issue among our future generations.

*Keywords: Cannabis; undergraduate; early adulthood.*

## **1. INTRODUCTION AND LITERATURE REVIEW**

Cannabis is the most commonly used illegal drug in most countries (UN World drug report, 2006) [1] and many university students use cannabis and experiment with other illicit drugs [2]. In the 1990s the use of cannabis increased highly among young people and is now becoming more common than tobacco in some countries [3,4]. These changes may be due to the ready availability of the drug, the increasing social disapproval of cigarette smoking, stern drinking and driving laws, and perceptions that cannabis is safe or less harmful than cigarettes or alcohol. The increase in the use is of concern because cannabis may be a gateway to the utilization of other drugs and it may cause psychiatric illnesses [5]. Cannabis can be smoked as a cigarette (joint), but may also be smoked in a dry pipe or a water pipe known as a "bong." It can also be mixed with food and eaten or brewed as a tea. Sometimes users open up cigars and remove the tobacco, and they replace it with a pot called a "blunt." Joints and blunts are sometimes laced with other, more powerful drugs, such as crack cocaine or PCP (phencyclidine, a powerful hallucinogen) [6].

Early adulthood is the main period for experimentation with different behaviors and lifestyles. Early adolescents are trying to experiment with new behaviors for many reasons and those usually tend to be related to psychosocial development [7]. A test of new and different behaviors is a natural process of separating from parents, gaining acceptance and popularity with peers, developing a sense of identity, autonomy, independence, and maturity, seeking fun and adventure, and or rebelling against authority [7]. Unfortunately from an adolescent's point of view, engaging in alcohol, tobacco, and other drug use may be seen as a functional way of achieving independence, maturity, or popularity along with other developmental goals [8,9]. Hence, we can see an interconnection between early adulthood and the use of cannabis among university students. Therefore, it is important to know the main

reasons behind the usage of cannabis among undergraduates, undergraduates' attitudes towards the use of cannabis, and Cannabis subculture and undergraduates.

### **1.1 History of Cannabis**

The oldest known written record on cannabis use comes from the Chinese Emperor Shen Nung in 2727 B.C. Ancient Greeks and Romans were also familiar with cannabis, while in the Middle East, the use of cannabis spread throughout the Islamic empire to North Africa (Foundation for a Drug Free World, 2008). In 1545 cannabis spread to the western hemisphere where Spaniards imported it to Chile for its use as fiber. In North America cannabis, in the form of hemp, was grown on many plantations for use in rope, clothing, and paper. Cannabis sativa grows wildly throughout many tropical and humid parts of the world. The seeds of cannabis have been used for animal feed, its fiber for hemp rope, and its oil as a vehicle for paint. Cannabis is a dioecious plant, which means it comes as separate male and female plants. Male plants are taller and thinner and have flower-like pods which contain the fertilizing, pollen-generating anthers. The female plant is darker and shorter and has short hairs protruding at the end of the bracteole pods [6].

### **1.2 Why People Use Cannabis**

Capler [10] wrote an article about "why people use cannabis?" She mentions various uses of cannabis such as social use of cannabis; medical use of cannabis; and spiritual use of cannabis. Her research found that 50% of Canadians have tried cannabis at some point in their lives. About 14% of Canadians are current users. Capler states that it will be easier to find ways to enhance the benefits and reduce potential harm to individual cannabis users and the wider population.

### **1.3 Reasons behind the Usage of Cannabis among Undergraduates**

Much research was conducted to find out about the reasons behind the use of cannabis among

undergraduates. The study of Stewart, Karp, Pihl & Peterson [11] on anxiety sensitivity and self-reported reasons for drug use among university students showed that the majority of the sample were using some kind of substance and the most frequently cited reasons for substance use were excitement-reduction, tension-reduction, and fear-avoidance. Sell and Robson [12] studied about Perceptions of College Life, Emotional Well-being, and Patterns of Drug and Alcohol Use among Oxford Undergraduates. According to the research, cannabis is the most used illegal drug. Fifty seven percent (57%) of students have used cannabis, 23% were currently using and 16% have first used at Oxford. According to the Oxford undergraduates, it is very easy to obtain drugs in the college, and the source of cannabis almost always is another university student. They mentioned the pursuit of pleasure (60% of responses) followed by stress reduction (22%) and finally social pressure (19%) as the reasons for drug usage among them. The study showed that drug or alcohol use did not correlate with physical or emotional problems.

Webb, Ashton, Kelly & Kamali [2] undertook a study about "Alcohol and drug use in UK university students" using ten universities. Through the questionnaires, they asked Information about drinking of alcohol, the use of cannabis and other illicit drugs, other lifestyle variables, and subjective ratings of anxiety and depression. According to results the drug that was used most frequently was cannabis. 60% of the men and 55% of the women used cannabis once or twice, and 20% of the sample (23% of men and 16% of women) used the drug weekly or more often. They reported (1) pleasure (75% of men, 72% of women) as the main reason for taking drugs. Other reasons were: (2) social pressures (19, 18%), (3) anxiety/stress (13, 14%), and (4) curiosity (12% of both men and women). The studies showed that many university students, across faculties and throughout the UK are drinking alcohol above sensible limits, taking cannabis, and experimenting with other illicit drugs.

Mazanava, Dunn, Connors, and Mai-Lee [13] found that lifetime use of illicit drugs by students nationally in Australia in 2010 was approximately 29.1%, compared to 37.4% reported here in Sri Lanka [14] including higher rates of cannabis (25.5% nationally versus 36.4%), ecstasy (9.3% versus 20.4%), and cocaine use (5.3% versus 14.3%); whereas heroin use reflected national rates (0.2% versus 0.3%). Staying awake,

concentration/focus on attention, improved memory, and improved marks were the main reasons for students using drugs.

#### **1.4 Undergraduates' Attitudes towards the Use of Cannabis**

According to Prabodha and Maduranga [15], the usage of alcohol, tobacco, and cannabis among university students was not high in Sri Lanka. Oshikoya and Alli [16] studied the perception of drug abuse amongst Nigerian undergraduates. The results showed that 86.5% claimed they were aware of drug abuse but contrarily they demonstrated poor knowledge and awareness about it. The most common drug of abuse seen by most of the students was Marijuana. But they were unable to identify the predisposing factors to drug use and the attending risks. 48% of students believed that drug addicts could be rehabilitated, 25.5% believed that they could be treated in the hospital. Only 21.2% of students would associate with the drug addicts after they were rehabilitated and 46.8% would never marry or would not allow their family member to marry a drug addict.

#### **1.5 Cannabis Subculture and Undergraduates**

Azumi [17] reported about cannabis subculture among university undergraduates. According to him usually, students tend to use some specific words to address cannabis. These words include: "Ganja", "Joint", and "Gas". Azumi stated that students usually tend to use hints like "we don't use liquids, we only use gas!" He also mentioned two types of cannabis in use in the Sri Lankan universities. They are KG ("Kerala Ganja") and Local Cannabis ("Local").

Usually, among cannabis users, the person who does considered the expert who cut and roll the cigarette is called the "Loku Ayya- big brother". He knows how to cut cannabis into small pieces using scissors and how to mix it with tobacco and roll the joint. He doesn't use the whole cigarette while rolling the joint if there are only 4-5 members.

The cannabis subculture is a little different from village to university users. In the village when there are 3-4 members, the big brother "Loku Ayya" will light the joint and smoke 4-5 times "Hithumathe - according to his wish" and give it to the next person. Usually, they sit in a circle. According to this method, everyone can smoke

as much as they wish to smoke. But, when cannabis cigarettes are used at university hostels, there are always about 10-15 students present. Then “Loku Ayya” will decide the method which is used to smoke. There are many methods of smoking called, “Taxiyak gahanawa (striking a taxi)”, “Salaka” (coupon), “Koochchiye yanawa” (traveling in train).

**Taxiyak Gasima-** According to this method “Loku Ayya” will light the joint, smoke one time, and pass it to the next person to pass it around to others. Here everybody will get only 1 chance and hence smoke equally. To ensure equality one cigarette also will pass around everybody and it reminds everybody that they are passing a taxi. Some specific words were related to this taxi method.

**Salakayak Gasima-** In this method “Loku Ayya” will decide the amount of smoking per one person. Usually, it is more than one time and normally 3 times or more.

**Koochchiye Yama-** They use this method when they have a lot of cannabis. They will roll more than one joint and will finish all of them. They will light 2 or 3 joints at the same time and as before it will go around the circle.

The majority use cannabis very fairly and systematically according to their subculture. People who use cannabis usually tend to eat a lot of sweets. They believe that eating sweets can keep intoxication much longer. The majority of cannabis users become very lethargic after using cannabis. A few become philosophical and believe that they can understand very deep concepts. Others tend to behave like jokers while some become very silent. When students go to buy cannabis they say that they are going to “kellak ganna yanawa - buy a piece”.

## 2. METHODOLOGY

The present study attempts to explore the reasons behind the usage of cannabis among Sri Lankan undergraduates. The study followed the qualitative research design using semi-structured interviews that included a list of open-ended questions based on the research topic area. Thematic analysis was used to analyze the data collected from the interviews. The researchers

selected 6 participants, 3 students from the University of Peradeniya and 3 students from the University of Colombo, using the purposive sampling method. All participants were male undergraduates between the ages of 20-25. The sample was chosen deliberately, drawing attention to participants who are excessive users of cannabis at the university. A portable audio recorder was used to record the interviews.

Participants had to answer a set of pre-planned questions related to the topic of research, in order to gather relevant and substantiated information from the participants' experiences. Questions were created using four main areas. They were: early childhood (first use of cannabis, peer groups, family background, and education); the reasons which were influential for them to use cannabis and the reasons which were influential for others to use cannabis; influence of cannabis on their academic life, and how being in the university impact the use of cannabis. All six interviews were conducted on a one-on-one basis. Although each of the six participants was questioned using the same questions much flexibility was required and participants were given sufficient opportunity to explain their opinions and ideas about the topic of the study. Participants were allowed to express themselves and were allowed to ask for any clarification of questions if they do not understand what information was being sought. Non-verbal communications such as voice tone, body position, and facial expressions were also observed during the interviews. Each interview lasted about 15-30 minutes.

## 3. RESULTS

Analysis of the data revealed eight main reasons for using cannabis. They are, to reduce stress and anxiety and solve problems; Being an early user; Cannabis feeling, to enjoy life and due to the freedom afforded at University; to maintain relationships and to build up new connections with others; to become a hero among others; due to the availability of drugs; for academic purposes; and finally, due to its cheapness and no side effects compared to other drugs; The eight themes were discussed in the interviews. Table 1 showed the participants' responses about the main reasons behind the usage of cannabis.

**Table 1. Main reasons behind the usage of cannabis**

	1	2	3	4	5	6	7	8
P1	√	√	√	√	√	√	X	X
P2	X	X	√	√	X	√	√	√
P3	√	√	√	√	X	X	√	X
P4	√	√	√	√	X	X	√	X
P5	√	√	√	√	√	√	X	√
P6	X	√	√	√	√	X	√	X

*P = Participants    √= Yes    X= No*

*1 = To reduce stress and anxiety and to solve problems.*

*2 = Being an early user.*

*3 = Cannabis feeling, to enjoy life and due to the freedom afforded at University.*

*4 = To maintain relationships and to build up new relationships with others.*

*5 = To become a hero among others.*

*6 = Due to the availability of drugs.*

*7 = For academic purposes.*

*8 = Due its cheapness and no discernible side effects compared to other drugs.*

*The letter "P" is used to represent the participants and the numbers 1-8 indicate the eight main reasons which were disclosed at the interviews*

### 3.1 To Reduce Stress and Anxiety and to Solve Problems

According to participants one of the main reasons to use cannabis is to reduce stress and solve problems. Within the sample, 4 people are using cannabis to reduce their stress, anxiety, and as a solution for their problems. They think that this drug helps them to open up and to talk with others about their problems. Especially, this drug helps them to tell personal matters to someone without any shyness. Hence, they become very relaxed about the problem and try to solve it more efficiently. They also mentioned that with the help of this drug they can do heavy work which is otherwise impossible without any stress or tiredness. If someone wants to be alone and very free to think about anything without stress they recommend cannabis. According to them, it is possible to write poems and listen to music with deep meaning with the help of a free mind after using cannabis. They said that cannabis has the power to relax their minds and calm their bodies down than any other drug. According to them, there is no worry, no pain, no stress, and no tension if they take a little amount of cannabis.

“While I’m using that drug there is an inner tendency in myself to tell my problem to another person. So even though it may be an embarrassing thing I can tell it openly” (P-01).

“In normal day to day life, we can reduce the tiredness and stress we feel while we are doing heavy work” (P-02).

### 3.2 Being an Early User

Out of 6 participants, 5 were early cannabis users. Three have started at A/L classes, one in grade 8, another one in grade 7 and only one has first started at the university. The early users mentioned their community and their peer groups as the major factor for trying cannabis. Their parents and teachers did not care about what they did. Those participants got much freedom to do anything they like. They started to try this drug with older friends. One person said that they took cannabis, cigarettes, and beer to school but that they never got caught. After taking cannabis when they went home their parent never caught them. So these 5 participants first used cannabis as teenagers and continued it when they came to university. The university subculture helped them to easily and strongly continue their practice. The person who tried cannabis for the first time at the university did so due to the influence of the early users.

“For the first time, I used cannabis after A/L exam. But normally villagers are using cannabis. So I have already seen them and felt their smell. A lot of people and friends asked me to use a little bit. With those invitations, I also felt that I should use and feel the drug” (P-01).

“For the first time, I used cannabis in the middle of grade 7. Usually my friends and I went to the ground to play cricket. During that time we saw older friends were doing something. At that time those older friends were very friendly with us. Without any reasons automatically we also started to take cannabis with them” (P-06).

### **3.3 Craving for the Cannabis Feeling, to Enjoy Life and Due to the Freedom Afforded at the University**

Many in the sample mentioned that there is a specific feeling for cannabis which was not available with other drugs. They crave for that feeling alone or with a group. They don't worry about the headcount just getting the feeling. Participants said that they didn't acquire this specific feeling the first time they used cannabis. But, with time they acquired it, and now, they are enjoying it well. Some participants said that they tried this drug because the heavy users are always emphasizing the feeling that they get from this drug.

They also believe that they are really enjoying their life and having fun because of this drug. One participant said that his main reason to use cannabis daily is to keep this feeling as much as he can. There is also huge freedom for them in the university. There are no parents, caregivers, dear ones, police, or any the person to stop their drug usage and they don't have to be afraid to use them. In their childhood also, they didn't have any restrictions from their parents or caregivers, so they lived as they wish.

"Then when you use it, again and again, it starts to feel different. That was before I entered the university. I think that feeling is different than other drugs. That feeling is hard to explain. But I think in general our movements and thoughts were slow. It is a condition that makes us think and feel slowly about everything we do and that feeling increases with the unity of friends" (P-01).

### **3.4 To Maintain Relationships and to Build Up New Connections with Others**

This is the other very strong factor which was accepted by every participant from our sample. They believe that with cannabis they can maintain existing relationships and build up new ones. They said that in male hostels all the seniors and juniors and students from other faculties get together at various times to use cannabis. So they believed that if they also join and use cannabis with those people it is a huge privilege and that otherwise, it will be a huge loss for their whole university life. They give much value to relationships and do not want to shirk from them. They said that when the majority use cannabis they also automatically tend to use cannabis with the majority.

Some participants highlighted a very important factor. When a student has previous experience using cannabis, after entering university they quickly start relationships with students who are using cannabis within the university premises. Also students without any previous experience with cannabis but who have a desire to use cannabis also very quickly start relationships with people who are using cannabis in the university. Sometimes not only with the undergraduates but with outsiders who also have gathered to use cannabis. They just want to meet new people and build up new contacts. They strongly emphasize that cannabis is a very important and helpful factor in building up strong relationships among groups, develop unity within friends, and help make new contacts with others. It has that power to collect people together.

"University life motivated us to use cannabis. When someone arrived at the university who is already using cannabis they will quickly meet the people who are using cannabis at the university. When someone arrived at university with the likelihood to use cannabis and if they meet the people who are using cannabis at the university then very quickly they join to use cannabis with them. But it is impossible to say that using cannabis is 100% influenced by the university. This is because cannabis can sometimes be used with outsiders and as with as many as 10 different groups" (P-02).

"They believe that usage of cannabis creates relationships between students. If I didn't use cannabis I might have become an outcast. Since a majority used it I also used it. When students stay at the hostels they tend to imitate the behaviors of others and use it" (P-01).

### **3.5 To Become a Hero among Others**

From the sample, 3 people mentioned this as a reason to use cannabis. According to them, their cannabis usage helped them gain respect from others helping them to get a huge group of students behind them. If they faced any problems they just had to give a call to someone from the group and they will come to assist them without any conditions. So always these people are protected by others. Some participants stated that when they first came to the university and stayed at the hostels, seniors came to them and asked about cannabis use. If freshers were aware of cannabis and were experts about it, the seniors and their fellow peers respected them. So even the students who were not aware of

cannabis started to become interested in it. They also stated that if someone is really mature, they should have experience and knowledge of these kinds of things and that, as a man, they should try these things at least once in their life.

"When they give the cannabis and cigarettes on to my hand and say, roll it over yourself as before because you are the expert for it, then I can't ignore it. Because I can't miss my place and the respect they have for me. I'm the elder brother of our gang. Not everybody can take that place. It requires perfect experience, contacts, knowledge, and personality" (P-05).

"When we attained a function without drugs we felt chaotic. But when we are high we can stay there with pride" (P-06).

### **3.6 Due to the Availability of Drugs**

Three out of six participants highlighted this reason as their major reason to use cannabis at the university. They stated that cannabis is a drug that was very common and available at every moment at universities. According to them, there are 3 main ways that this drug is available. One is when students visit their homes or go out of the university premises they usually bring cannabis when they come back. The second is that drug dealers come to university themselves and sell the cannabis. The final way is that within the university premises there are a lot of places where they sell cannabis to students. Hence, participants said that cannabis is now readily available at university premises and that if they have money they don't have to worry about finding them. Another factor that makes cannabis readily available in universities is the fact that within university premises there are no police or campus security to catch them or stop them. Therefore dealers come to university without any fears which is another reason why cannabis is always readily available. Every student doesn't get to stay at hostels. So some students stay at boarding places or come from their own homes. These students also habitually visit the hostels when they want to use cannabis and they bring and share their drugs with other students.

"Usually in the university students sell cannabis to each other. They go outside of the university and bring the cannabis. Some outside cannabis dealers come to the university and sell to students. Some places inside the university also sell them. Those things happen without any fears" (P-01).

"I can't stop using cannabis because I never get a chance to go to any place free of cannabis. Due to that situation, I keep on using it until I feel I have had enough. Soon after someone brings the drug from a boarding house and asks me to share it, I use it without ignoring the request" (P-05).

### **3.7 For Academic Purposes**

The majority of the sample stated that cannabis helps them to increase their concentration and does help them perform better in their academic works. They believe that cannabis has a special power to calm down their body and mind for them to study well. Therefore, sometimes they use cannabis before the lectures to listen to lecturers well before exams to remember well and before starting to study to keep their concentration and study well. They think that with the help of cannabis they can stay awake the whole night and study and think deeply about everything.

"Lots of people use cannabis for concentration. It helps to solve mathematical problems and to pay attention to the lessons and to organize the answers. Therefore, it helps at the exams" (P-03).

"This is not a barrier for academic success. I also study while using these things. It has never become a problem" (P-06).

### **3.8 Due to its Cheapness and No Discernible Side Effects Compared to Other Drugs**

Only two participants directly highlighted these reasons for the use of cannabis. According to them, they can't spend much money on drugs because they are still undergraduates, and they depend economically on their families. They emphasize that with cannabis being cheap any middle-class people such as them can afford it. They also mentioned that with cannabis they can achieve the same high as other high-cost illegal drugs such as heroin. They also believe that there are no side effects of this drug. When they drink alcohol, the next day they have negative side effects such as difficulty waking up and eating, having to vomit, or engaging in any physical activity. But they said cannabis just makes them feel hungry and sleepy without making them tired. They said that alcohol makes a person steal, quarrel, murder, rape, and face many road accidents but that when someone

used cannabis they become calm and quiet. They do not try to steal, murder, rape, or face accidents. In fact, they do everything very carefully. So they strongly recommend cannabis over any other drug including alcohol.

“Price of cigarettes and alcohol was increased. Now if two or three university students get together and buy a bottle of arrack it cost about Rs.1500. Additionally, if they buy bites, sandy, and cigarettes they have to spend about Rs.2000. But those 4 students can do the same thing using cannabis for Rs. 200-250” (P-02).

“After using alcohol the next day it is difficult to eat and physically very painful. It has those kinds of side effects. But cannabis has no side effects. Alcohol also makes you vomit and reduce your appetite whereas cannabis increases the appetite and there are no physical illnesses” (P-05).

#### **4. DISCUSSION**

The results section highlighted eight reasons that the participants thought of as influential in their cannabis usage. In this section, we try to elucidate as to why those reasons were seen as fundamental by the participants.

##### **4.1 To Reduce Stress and Anxiety and to Solve Problems**

Four participants mentioned that the above was the main influential factor for them to use cannabis. They think that this drug helped them to become open and talk with others about their day-to-day problems. They also stated that it is possible to write poems, listen to music with the help of a free mind that provides a deeper understanding and that cannabis has the power to relax their mind and calm their body than any other drug.

According to biology, cannabis plants contain a chemical compound called cannabinoids. The ones that get the most attention are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). THC triggers our brain to release large amounts of dopamine, a naturally occurring “feel good” chemical. It is what gives a pleasant high. It may heighten sensory perception and perception of time. CBD, on the other hand, acts as an antagonist to THC. It does the opposite. CBD does not have psychoactive effects, but it does have beneficial effects. It reduces pain and muscle spasticity and can make a person more

relaxed. According to the National Institute on Drug Abuse (2019), there may be an association between cannabis use and some mental health disorders like depression and anxiety. The amount of cannabis that can push someone from relaxed to anxious can be very small.

Cannabis users are recommending cannabis as a solution for problems and they say it reduces stress and anxiety. But, doctors and experts never recommended cannabis to people who need to reduce their stressors. When someone takes drugs regularly or heavily, it directly affects their brain. It changes the chemistry of the brain. Due to that effect, people will forget things. Memory loss is not a solution for day to day life problems. Using cannabis to reduce day-to-day life problems is a flight from the problems. The reality is, although they feel relaxed, free or any other kind of a comfortable feeling for a short time, at the end of the intoxication their problems will still be there without any solutions. This situation will increase their stress, fear, and anxiety.

Similarly, they mentioned that when they use cannabis they can do any hard work without tiredness and that they enjoy the work. But, the truth is that THC's effects on our dopamine levels will make us lazy and feel tired.

##### **4.2 Being an Early User**

Out of 6 participants, 5 were early cannabis users, and as they stated all of them tried this while they were schooling. The most important misfortune was that parents, teachers, and no responsible party ever tried to stop them or advised them. The participants mentioned that they took cannabis, cigarettes, and beers to schools and homes but that they never get caught. Lack of proper supervision of parents, teachers, and any other responsible caregivers helped cause early use of cannabis.

University administrators are responsible for the students who are at the university even if they are early adults. Institutions are difficult to maintain without rules and regulations. But, at the university, there are no rules and no one cares about students. Many times students attend lectures after using cannabis. Lecturers don't pay enough attention to that issue. In hostels, there are administrators like wardens, sub wardens, academic sub wardens, etc. But they also don't seem to pay enough attention to this matter.



### **4.3 Craving for the Cannabis Feeling, to Enjoy Life and Due to the Freedom Afforded at the University**

Participants mentioned that there is a specific feeling for cannabis which was not available with other drugs. So they always crave for that feeling and they tried to feel that with a group or alone. Hence, it is important to understand the biological process of cannabis which makes them feel that way.

As stated earlier, cannabis produces chemical compounds called cannabinoids, specifically delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). THC is the most psychoactive compound. When we smoke cannabis, THC gives us the feeling of being high. The more THC we have, the more powerful the high. Further, our brain is made up of neurons and neural circuits. Neurons are long; dangly cells that like to keep their distance from each other. To bridge the gap or synapse, chemicals called neurotransmitters deliver messages by traveling from one neuron to another and attaching onto molecules called receptors. There is a special kind of neurotransmitter called an Endo-cannabinoid. When we experience pain, inflammation, stress, or have issues related to fear or anxiety, our body releases Endo-cannabinoids, which go to our Endo-cannabinoid system and help get rid of those unwanted sensations. Endo-cannabinoid is the body's version of cannabis.

Since the cannabinoids in cannabis look and act the same as the kind our body makes, they're able to slip by and latch onto the cannabinoid receptors in our brain. There are two types: CB1, which are mostly located in areas of the brain that are associated with learning, memory, reward, anxiety, pain, and movement control, and CB2, which are associated with the immune system. The cannabinoids throw our usual system out of whack, boosting certain signals and interfering with others. So yes, this drug is different from other drugs and makes us crave for the cannabis feeling.

Participants also mentioned about their freedom. As they said, there is massive freedom at the university. There are no parents, guardians, police, or any the person to stop drug use. So, they don't have to be afraid to use drugs and they live as they wish. The freedom afforded helps in their quest to achieve a cannabis high. The participants mentioned that they didn't have

any restrictions from their parents or caregivers when they were at home. Until children mature, elders should guide them to follow the correct path. These participants never got that kind of guidance from their elders and hence they easily got engaged with drugs.

### **4.4 To Maintain Interpersonal Relationships**

Interpersonal relationships occur when two or more people interact with each other. These interactions may be brief or long-lasting. The different types of interpersonal relationships include: Family, Professional relationships, Friends, Romantic relationships, online acquaintances, People met through everyday interactions, and People met through participation in a group or community.

Even though participants mentioned that they used cannabis to maintain relationships it harms interpersonal relationships. Cannabis can destroy families and lead to disharmony in the workplace. The substance abuser will usually find solace in the company of other cannabis users. This group will support cannabis use and provide the individual with a sense of belonging to a community. Belonging to such a group can make it more difficult for the individual to break away from addiction. Peer pressure directly influences an individual's behavior. It has repeatedly been shown in studies that cannabis use is first introduced by friends. It can be especially difficult for young people to ignore the persuasive tactics of their peers. Those who have low self-esteem will be the most vulnerable. Once people have bowed to this peer pressure it can be a slippery slope. According to experts, it will usually be necessary to build a new network of friends who support abstinence to be successful in recovery.

According to participants cannabis is a very important and helpful factor in building up strong relationships among groups, develop unity within friends, and making new contacts with others. Cannabis users will look to other cannabis users for fellowship who may come from the university as well as from outside. The functions of this group will include physical assistance such as sharing cannabis or lending money, a resource for advice and information, emotional support, and appraisal of how the individual is performing within the group. Cannabis distorts perceptions and emotions and users don't cope well with life's stresses or interpersonal conflicts. Their

emotional maturity seems to stop when they begin to use cannabis. Some researchers show that cannabis users have measurable deficits in interpersonal skills including empathy, acceptance, warmth, and genuineness. Cross-sectional studies of young adults revealed that regular use of cannabis is predictive of multiple failed relationships.

A lot of research shows that loving; committed relationships require emotional availability and a shared commitment to interpersonal growth and deeper levels of intimacy. Unfortunately, cannabis users are highly resistant to the pleas of their family or friends. When confronted about their emotional distance or lack of intimacy, users will deny, rationalize, and blame others for their difficulties. As a result, most users become defensive, refuse help, and remain in their sad, drug-induced reality indefinitely. Even though they believe cannabis does help relationships it is largely a myth. What happens is that they fail to continue their most important relationships.

#### **4.5 To Become a Hero among Others**

Usually, males are more extroverted than females'. Their testosterone directs them to take risks and to try to stand out among others. These characteristics lead some males to abuse drugs. They think that abusing drugs may make them a hero among others.

Participants mentioned that cannabis usage led others to respect them and to have a huge gang behind them and that if they had any problems the gang will help without any conditions. This is a huge cognitive error in their perception. They need to realize that people are generally selfish and act to fulfill their interests. Normally people are with us if only they can gain something from us. Though they may believe that they become heroes among their fellows, it is a mere illusion. Their partners, family members, lecturers, and peers who are not using cannabis will eventually reject them, not just as heroes but as human beings of worth.

#### **4.6 Due to the Availability of Drugs**

Dealing cannabis or using them is a punishable offence in Sri Lanka. Yet, the majority of the participants mentioned that they used cannabis because they are very common in universities and available at any time. Drug dealers can be easily found near any university. But, no one in the university pays enough attention to this issue. Police also know that cannabis is available at

universities but they don't get involved. Unrestrained freedom and 24-hour availability of cannabis help undergraduates to use it without any fear.

#### **4.7 For Academic Purposes**

Another pseudo claim of cannabis users in university was that cannabis help with their academic work. As mentioned before, our body makes its own version of cannabis. Because the cannabinoids in cannabis look and act the same as the kind our body makes, they're able to slip by and latch onto the cannabinoid receptors in our brain. Especially here it's very important to talk about CB1, which is mostly located in areas of the brain that are associated with learning, memory, reward, anxiety, pain, and movement control. Hence, cannabis will have a positive effect if we take a very small amount of cannabis.

Nevertheless, a large dose of cannabis will affect our academic performance negatively because a large amount of cannabis means a large amount of THC will enter our body and have an adverse effect. Our participants are not taking a small dose of cannabis. Therefore, it will affect them negatively. In the hippocampus, THC changes the way the cannabis user's process information, so their judgment may be impaired. The hippocampus is responsible for memory, so it may also be difficult for them to form new memories when they are high. Researches show that cannabis has a negative effect on attention, memory, and learning [18]. It can last for days or weeks after the acute effects of the drug wear off, depending on the person's history with the drug. Consequently, someone who smokes cannabis daily may be functioning at a reduced intellectual capacity most or all of the time [19]. Considerable evidence suggests that students who smoke cannabis have poorer educational outcomes than their nonsmoking peers. For example, a meta-analysis of 48 relevant studies found cannabis use to be associated with reduced educational attainment (i.e., reduced chances of graduating) [20]. A recent analysis using data from three large studies in Australia and New Zealand found that adolescents who used marijuana regularly were significantly less likely than their non-using peers to finish high school or obtain a degree. They also had a much higher chance of developing dependence, using other drugs, and attempting suicide [21].

A study by the National Institute on Drug Abuse showed several negative effects on a user's daily life such as decreased motivation, which can

affect one's school and work performance. Experts found that cannabis use contributed to university students skipping more classes, spending less time studying, earning lower grades, dropping out of university, and being unemployed after university. Hence, we have to accept that there is a negative relationship between cannabis use and academic retention and performance. Therefore, we can conclude that cannabis use negatively affects the academic performances of undergraduates in Sri Lanka.

#### **4.8 Due to its Cheapness and No Discernible Side Effects Compared to Other Drugs**

Regrettably, we have to agree with the participant's observation that cannabis smoking is cheaper than drinking alcohol and definitely cheaper than any other illegal drug. Strict law enforcement, both societally and at the university premises may drive up the price of cannabis out of reach of many students. Although not ideal, that may be one way of stopping our undergraduates from smoking cannabis. Also, several studies have linked cannabis use to lower-income, greater welfare dependence, unemployment, criminal behavior, and lower life satisfaction [22,23]. Therefore, although it may be relatively cheap to buy cannabis, the users spend a lot more money in the long run because of reduced economic benefits

The participants also stated that cannabis poses a lot fewer side effects even when compared to legal drugs such as alcohol. But unfortunately, cannabis can cause immediate and long-term negative side effects than positive ones though the users are not aware of them. By using systems in our body one by one we can explain many side effects and very few positive effects of cannabis.

##### **4.8.1 Respiratory system**

Much like tobacco smoke, cannabis smoke is made up of a variety of toxic chemicals, including ammonia and hydrogen cyanide, which can irritate the bronchial passages and lungs [24]. If someone is a regular smoker, they are more likely to wheeze, cough, and produce phlegm. They are also at an increased risk of developing bronchitis and lung infections. Cannabis may aggravate existing respiratory illnesses, such as asthma and cystic fibrosis. Cannabis smoke contains carcinogens, so it may increase their risk of lung cancer too. However, according to

the National Institute of Drug Abuse [25], there is no conclusive evidence that cannabis smoke causes lung cancer.

##### **4.8.2 Circulatory system**

Normally THC moves from the lungs into users' bloodstream and throughout the body. Within minutes, their heart rate may increase by 20 to 50 beats per minute [26]. That rapid heartbeat can continue for up to three hours. If they have heart disease, this could raise their risk of a heart attack. One of the telltale signs of recent cannabis use is bloodshot eyes. The eyes look red because cannabis causes blood vessels in the eyes to expand. THC can also lower pressure in the eyes, which can ease symptoms of glaucoma for a few hours [27]. More research is needed to understand the active ingredients in cannabis and whether it is a good treatment for glaucoma. In the long term, cannabis has a possible positive effect on their circulatory system. Research isn't conclusive yet, but cannabis may help stop the growth of blood vessels that feed cancerous tumors. Opportunities exist in both cancer treatment and prevention, but as mentioned before the research is inconclusive.

##### **4.8.3 Central nervous system**

The effects of cannabis extend throughout the central nervous system (CNS). Cannabis is thought to ease pain and inflammation and help control spasms and seizures. Still, there are some long-term negative effects on the CNS to consider [28]. THC triggers the brain to release large amounts of dopamine, a naturally occurring "feel good" chemical [29]. It is what gives them a pleasant high. It may heighten their sensory perception and their perception of time. In the hippocampus, THC changes the way they process information, so their judgment may be impaired. The hippocampus is responsible for memory, so it may also be difficult to form new memories when they are high.

Changes also take place in the cerebellum and basal ganglia, brain areas that play roles in movement and balance. Cannabis may alter their balance, coordination, and reflex response [26]. All those changes mean that it is not safe to drive. One participant emphasized that cannabis never causes road accidents. Some studies on the effects of cannabis upon on-road driving found more modest impairments than those caused by intoxicating doses of alcohol because

cannabis-affected people drive more slowly and take fewer risks [30]. But especially on highways and in emergencies cannabis users face a dilemma because they drive very slowly. However, the idea that cannabis helps to drive safely is biologically rejected because cannabis and THC produce dose-related impairment in reaction time information processing, perceptual-motor coordination, motor performance, attention, and tracking behavior [31].

Very large doses of cannabis or high concentrations of THC can cause hallucinations or delusions. According to NIDA [32], there may be an association between cannabis use and some mental health disorders like depression and anxiety. But more research is needed to understand the connection. Especially people who have schizophrenia may want to avoid cannabis as it may make their symptoms worse. When users come down from the high, they may feel tired or a bit depressed. In some people, cannabis can cause anxiety. About 30 percent of cannabis users develop a cannabis use disorder. Addiction is considered rare, but very real. Symptoms of withdrawal may include irritability, insomnia, and loss of appetite [33]. In people younger than 25 years, whose brains have not yet fully developed, cannabis can have a lasting negative impact on thinking and memory processes [34]. Using cannabis while pregnant can also affect the brain of the unborn baby. The child may have trouble with memory, concentration, and problem-solving skills [35].

#### **4.8.4 Digestive system**

Cannabis can cause some stinging or burning in the mouth and throat while inhaling. It can also cause digestive issues if taken orally. For example, oral THC can cause nausea and vomiting because of the way it is processed in their liver [36]. It may also damage the liver. Conversely, cannabis has also been used to ease symptoms of nausea or upset stomach. An increase in their appetite is common when taking any form of cannabis, leading to what many call "the munchies" [37]. This is considered a benefit for people who are being treated with chemotherapy for cancer. For others who are looking to lose weight, this effect could be considered a disadvantage.

#### **4.8.5 Immune system**

THC may adversely affect the user's immune system [38]. Studies involving animals showed

that THC might damage the immune system, making them more vulnerable to illnesses [39]. Further research is needed to fully understand the effects of cannabis. The covid-19 virus also may have a devastating effect on cannabis users.

## **5. CONCLUSION**

The cannabis plant was of significant importance in ancient times. Its fiber was used to form the thread for hemp rope that was used for weaving, its seeds were cooked and eaten and were made a gruel and drank and was used as an herb. Further, it was used to make papers and used as oil for cooking. Its heartwood was taken to build houses and vehicles, and it also was used for painting and for smoking. But, today it is used only for smoking, has so many negative effects on one's body, and is illegal in Sri Lanka.

This study found eight (8) main factors that influence the undergraduates in Sri Lankan universities to use cannabis. The three most influential factors among them were craving for the cannabis feeling, enjoying life, and freedom afforded at the University; maintaining interpersonal relationships, and being an early user. It is important to offer preventative psychological support to undergraduates who are at a high risk of using cannabis and to educate the society of the factors that positively influence the use of cannabis. With the help of the society we should try to change the attitudes of undergraduates towards cannabis use and minimize the factors which influence them to use cannabis.

## **CONSENT**

As per international standard or university standard, participant's written consent has been collected and preserved by the author(s).

## **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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