Exploring University Student's Experiences when Using Cannabis: A Qualitative Inquiry

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Abstract

Cannabis use is increasing especially in younger individuals in Nova Scotia. In the university setting, there is a growing body of literature seeking to understand why individuals choose to use cannabis for management of symptoms. As one third of Nova Scotians 15 years and older report consuming cannabis it was important to understand the perspectives and experiences of university students. Young adults utilize cannabis for wide ranging symptoms, anxiety, depression, social acceptance, and pain and many are not managed by a health care professional. Therefore, we sought to understand why students choose to use cannabis. We utilized a qualitative descriptive approach to seek rich, thick descriptions. We interviewed six young adults using a semi-structured approach. University ethics were sought and granted. A letter of information and informed consent were utilized. Interviews were conducted following pandemic guidelines and utilizing an e-platform. Data was transcribed verbatim. The researchers read, re-read, and thematically analyzed the transcripts. Themes were identified following a thematic analysis process. Findings were shared with participants and presented at a university research event. The following themes emerged from the data: (1) perceived benefits of cannabis on ones' symptoms; (2) perceived risks of cannabis use; and (3) reasons for use instead of medically prescribed medications. This small qualitative study shares the experiences of university students using cannabis to manage symptoms. Participants self-medicate their symptoms, e.g., anxiety, depression, and social and family stressors. They engage in a trial-and-error process to get the right amount of cannabis to manage symptoms. They also use cannabis to numb stressors and to feel normalized in social situations. Participants also described risks associated with cannabis use, overuse and unanticipated side-effects including risk of addiction. Finally, they choose cannabis as there continues to be stigma associated with discussing mental health issues with their physician, and it is easy to access cannabis without a prescription. More research is needed to fully understand the role of cannabis as it shifts its use and access with legalization.
Keywords: interviews, experiences, perceptions, thematic analysis, university students

Background to the Study

The National Institutes of Health (2021) reported historic high use of cannabis among university-aged adults. This population is of interest as Canada released a national framework, the Cannabis Act (2018) legalizing sale (from government sanctioned locations), growth, and use of cannabis – a term interchangeably used with marijuana and referring to products derived from the dried components of the cannabis (or marijuana) plant (Government of Canada, 2020) – for recreational usage among adults (Government of Canada, 2018), thereby making the substance more available in community. Approximately 50% of Canadians reported to have consumed cannabis on at least one occasion, and since legalization, the highest percentage of cannabis usage was reported to occur in Nova Scotia (Statistics Canada, 2020). Specifically, one third of Nova Scotians above 15 years reported using cannabis in the third quarter of 2019. While cannabis was used prior to legalization, its use is now more accepted and it is one of the most common recreational substances used in Canada, second to alcohol (Canadian Centre on Substance Abuse, 2007).

Since 2016, cannabis has been utilized in Canada for a broad range of medicinal purposes, yet its benefits are not fully understood (Shapiro, 2019). Researchers report cannabis use alleviates physical symptoms (e.g., depression, anxiety), many users are not managed with physician supervision (Sexton et al., 2016). There is mixed evidence as to whether cannabis use does or does not increase the risk of the developing or exacerbating mental health disorders (de Graaf et al., 2010; Fairman & Anthony, 2012). Researchers also reported negative effects, exacerbation of symptoms, and the risk of developing depression (Buckner et al., 2007; Lev-Ran et al., 2013; Horwood et al., 2012; Rasic et al., 2013), social anxiety (Feingold et al., 2016), and psychosis (Childs et al., 2011; Hosseini & Oremus, 2019; Maloney-Hall et al., 2020). Kim et al. (2019) also reported increased anxiety in females using cannabis in the Canadian undergraduate population.

Although there is a growing body of literature, most studies are quantitative, investigating cause-and-effect relationships, correlations, and associations. Few studies explore the experiences of university students and their perception of the barriers and facilitators to cannabis use. Therefore, we sought to understand why university students choose cannabis as a means of self-medication for physical and emotional symptoms. The aim of the research was to explore the experiences of university adults (18-28 years) using cannabis including what symptoms they sought to self-treat with the substance.

Literature Review

Quantitative

In the literature, there is evidence for the therapeutic use of cannabis including management of pain, anxiety, and depression (Kosiba et al., 2019; Sexton et al., 2016). Of concern, is that persons consuming cannabis for medical symptoms do so without supervision of a physician or health care team. As well, they seek to self-medication symptoms of anxiety and depression; this is a common practice among young adults and university students (Buckner et al., 2007; Wallis et al., 2019).

Individuals consuming cannabis daily or weekly are reported to experience less depressed moods, improved positive emotional effects, and fewer somatic complaints compared to individuals that did not consume cannabis (Denson & Earleywine, 2006). Yet, whether cannabis increases the risk of anxiety and depression is unclear (Danielsson et al., 2016; de Graaf et al., 2010; Fairman & Anthony, 2012; Feingold et al., 2016). However, cannabis usage has been associated with increased hospitalizations for mental health reasons, particularly psychosis thereby increasing health system demands (Galvez-Buccollini et al., 2012; Maloney-Hall et al., 2020).

Cannabis use disorder is defined by "nine pathological patterns classified under impaired control, social impairment, risky behavior, or physiological adaptation; this activity will focus on cannabis misuse and related components – states of intoxication and withdrawal and cannabis use disorder" (Patel & Marwaha, 2022, para 3). There is a strong association between cannabis use disorder and social anxiety (Buckner et al., 2014; Kim et al., 2019). Buckner et al. (2012) reported that social anxiety in males was significantly and positively related to cannabis use disorders, conformity, and coping motives. Social anxiety in females was described to have no relation to cannabis use disorders, suggesting males with social anxiety may use cannabis to alleviate negative affect and anxiety symptoms, and to cope with and avoid scrutiny. Further research describes that individuals need to avoid distressing internal states is related to a strong positive relation between cannabis use and approaches to coping socially (Buckner et al., 2014). Buckner et al. (2017) reported the risk of engaging in false safety behaviours (behaviours that alleviate anxiety in the short-term but contribute to symptom exacerbation in the long-term), particularly consuming cannabis to alleviate anxiety symptoms, are significantly related to the severity of symptoms and cannabis use disorder in dually diagnosed individuals.

Qualitative

In the qualitative literature, there is a growing number of studies focusing on university students and their descriptions of why they choose to use cannabis. In an early study, Mehghrajani et al. (2005) explored cannabis use in 12-15 and 16-19 aged adolescents, parents and professionals working with young people. They reported wide-ranging beliefs about the risks of cannabis use and misuse, and that the role of education and parents were important. Rebgetz and colleagues (2015) studied participants (mean age 23) and reported that persons seeking to recover from cannabis use and who had lived with psychosis, required education and support to sustain cessation and prevent relapse. Kilwein and colleagues (2020) studied 46 male participants in five focus groups. The researchers reported that cannabis culture was shifting with legalization and becoming somewhat normalized. Participants were aware of harms and that use may affect their position in their social group. In a recent qualitative review, Reid (2020) highlighted the stigma associated with cannabis use is being tempered with legalization of the substance but has not been fully mitigated. Reid further recommends more research be conducted focusing on the experiences of colour, women, and adult populations with the goal of understanding cannabis use as it becomes legalized.

Aim of the Study

Therefore, based on the literature presented we sought to understand the experiences of university students utilizing cannabis.

Materials and Methods

Framework Guiding this Study

We utilized a qualitative descriptive interview methodology (Sandelowksi, 2000). This approach supported collection of rich, thick descriptions of university students' experiences. The data themes are therefore presented in practical, everyday language. This approach supports the understanding of individuals' experiences while choosing to use or using cannabis within the university community setting. As well, we leaned into a naturalistic inquiry approach (Lincoln & Guba, 1985). This approach respects the researcher as an instrument and resource to reach the study participants of interest as the primary researcher was an undergraduate nursing student. Trustworthiness was foundational to the study as it increases the study rigor through dissemination of the findings to the participants and university community (Lincoln & Guba, 1985). The primary author presented the findings at the university-wide research month.

Ethical Considerations

This study was approved by Cape Breton University's Research Ethics Board (2021-067).

Setting and Participants

The study was conducted in an Atlantic Canada university. Participants were given a letter of information and informed consent was obtained. Participants could leave the interview at any time and have their interview data removed from the study. Adults (18+) were eligible if they spoke English and were willing to share their experiences of using cannabis for symptom management. Recruitment posters were posted to a popular social media platform (i.e., Facebook) and snowball sampling was used to recruit participants from the university community over two months (Braun & Clarke, 2013; Palamar et al., 2018). We adhered to the coronavirus disease (COVID-19) guidelines (Health Canada, 2021).

We sought six-10 participants for this study due to the pandemic and time constraints (Braun & Clarke, 2013). Six participants were recruited, each participated in interviews which were completed by phone and an e-platform (45-60 minutes). To maintain privacy, the researcher left his video on, and the participants had the option to leave their video on or off. Participants received a ten dollar e-coffee card.

Data Collection

Study data was collected through in-depth, semi-structured interviews (Palamar et al., 2018; Parent et al., 2020). Interviews were recorded using the program's built-in function and phone interviews were recorded with Amalto Call Recorder (approved by the research ethics board). This format allowed participants to respond to the open-ended questions while allowing the interviewer to inquire into further into responses (Palamar et al., 2018). Participants demographic questions included: gender, age, symptoms experienced, cannabis history (years used, quantity consumed per month, monthly cost), and if they had ever tried to cease cannabis use. In-depth questions were then asked, exploring topics such as: perceived usefulness of

cannabis to manage their symptoms, perceived health risks associated with cannabis, risk of cannabis compared to tobacco, if cannabis use was ever discussed with their physician, why cannabis is used therapeutically rather than seeking medical attention or prescription medication, and potential impact on relationships, occupation, and academic studies.

In accordance with COVID-19 regulations and to minimize exposure risk for the researchers and participants, interviews were performed using an e-platform. Virtual interviews had advantages, including participant convenience, comfort, sense of control, and anonymity (Braun & Clarke, 2013). Interviews were transcribed verbatim and checked for accuracy by the researchers (Palamar et al., 2018; Parent et al., 2020). Transcripts were able to be member checked by participant request. All recordings were deleted in 14 days of recording.

Data Analysis

A thematic analysis approach was used to code data and compare themes across interviews (Braun & Clarke, 2006; Braun & Clarke, 2013). Thematic analysis allowed the researchers to identify, analyze, and report patterns from the dataset (Braun & Clarke, 2013). Data was read and re-read, coded independently, and reviewed by two researchers to improve reliability (Palamar et al., 2018). This process involved individual coding of each line of raw data (transcripts), identification and sorting of data into themes, and identification of potential over-arching themes across the dataset. Participants were continuously recruited until analysis of transcripts failed to result in development of significant and novel insights, experiences, or ideas, indicating data saturation (Parent et al., 2020). A short communication of the results was provided to participants upon conclusion of the study.

The thematic analysis resulted in the emergence of the following themes:

1) perceived benefits of cannabis on ones' symptoms;

2) perceived risks of cannabis use; and

3) reasons for use instead of medically prescribed medications.

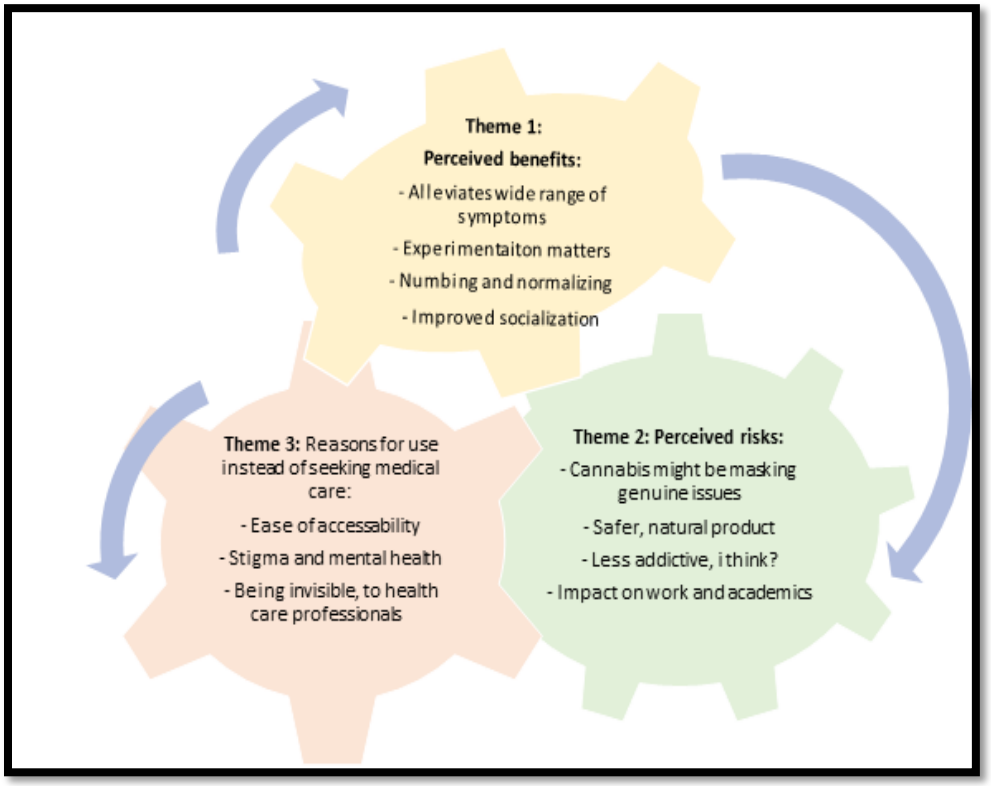
Results

In this study, six participants, four females and two males engaged in the interviews, aged 21-26 (mean 24). Five of the six participants were actively enrolled in undergraduate programs, the sixth participant was a recent graduate. For the participant group the following demographic data and themes emerged. Participants described the onset of anxiety and depression symptoms to range from three to 16 years, with the average onset of symptoms being 10.67 years. Three participants reported being medically diagnosed with depression and or anxiety (average 2 years ago). In this study, all participants reported smoking cannabis, two utilized a vaporiser, and two reported consuming cannabis in edible forms. Most cannabis was obtained from a legal vendor or the black market (street).

Of interest were the description of monthly cannabis costs of $50 to $150 monthly (Canadian funds). Participants described monthly consumption ranging from 3.5 to 20 grams. Participants reported usage: daily, every second day, twice daily, and up to 60 times a month. No participant described the costs as prohibitive.

Participants described reasons for cannabis use and its effect on symptoms. They described perceived risks and benefits of cannabis and compared it to the risks of using alcohol and tobacco. As well, they knew they were using cannabis without medical advice as some were fearful to discuss use with a physician. Several were concerned about the impact of use on social and professional relationships, consumption in the workplace, and on academic and occupational performance. Theme summaries and example quotes, which were edited for clarity and anonymized through the use of pseudonyms, are presented (see Image 1).

Image 1: University Students' Experiences with Cannabis Use



Theme 1: Perceived Benefits of Cannabis Use

Participants in this study, described benefits and risks to cannabis use including self-treating symptoms related to anxiety, depression, and stressors in work, family, and academics. They believed cannabis was effective in treating their symptoms, yet they also described risks associated with cannabis use. The following theme outlines benefits identified.

Wide range of symptom management is possible

Participants reported consuming cannabis to self-treat symptoms related to anxiety, depression, and stress. They also described a wide range of symptoms they believed cannabis could treat including insomnia, anorexia, nausea, vomiting, and improving their ability to cope.

Other reasons for use included: wanting to be relaxed, relief of boredom, to improve social interactions, and habitually, as part of a routine. Leslie stated ". . . I find it helps a lot more with anxiety than it does depression". In contrast, Ron stated ". . . it definitely helps with the sad moods . . . but depending on what kind of anxiety I'm having, like, it could help, or it could make me just kind of you know make things worse, like exacerbate my symptoms".

Experimentation

Participants described cannabis experimentation when attempting to manage symptoms. For example, they tried various cannabis strains (i.e., *Cannabis indica*, *Cannabis sativa*, and hybrid species) as each contained different levels of tetrahydrocannabinol (THC), the psychoactive and most prevalent compound, and cannabidiol (CBD), the second-most prevalent compound, and therefore produce different results and effects on an individual and their symptoms. Participants described this trial-and-error process as necessary to help manage the varying severity of symptoms. Two participants shared the following:

> I tried sativa, it actually gives you energy and sometimes if . . . I have anxiety, the sativa will actually make me feel more anxious. So if I'm experiencing depression normally, I would be okay with sativa, but if I smoke indica when I have anxiety it helps. I really think weed makes me more anxious, especially if it's sativa. Whereas, if I smoke indica, I don't care about anything.

They each discussed how they consumed recreational cannabis prior to commencing use for symptom management. Several described how some strains of cannabis without THC, and only containing CBD, had a positive impact without experiencing the psychoactive effect. Some identified this approach as a better option to manage symptoms. Included in their learning journey was a coming to understand the different cannabis components (strains, strengths, and concentrations). Participants gained knowledge from personal use and trial-and-error efforts as to which product they benefited. For example, Ron shared the following:

> Starting out using it, I was kind of, you know, 14% THC, well what the heck does that mean? It's just a number, right? So, when you are kind of experimenting with it, it's hard to gauge how much you should smoke when you're trying to feel good versus, you're going to end up giving yourself a panic attack, that kind of thing.

Ann stated further: "at the beginning it's a little bit overwhelming because you don't know what to expect . . . I think that being knowledgeable about the type of cannabis you're using and how much . . . is really important".

Numbing and normalizing

Participants also described a benefit of cannabis to include a "slowing down" of their mind and their perceptions of the world. They reiterated that this slowing permitted them time to think and process information at a normal rate. April stated she consumed cannabis to fit into society as she thought herself different. She shared the following regarding her cannabis use:

> It slows everything down . . . I'm so anxious, everything's going a mile a minute and I have a hard time... like thinking straight. I am such a hyper person that my whole life like

> I was convinced I'm manic or I'm crazy and I needed weed to tone me down so I could fit into society.

Relief from stressful situations was also consistently reported as a reason for cannabis consumption. Stressors included managing a job and academics, and relationships with friends and family. Ann stated, "I would feel so stressed, or I would have anxiety over my stress, or even feeling depressed - because of my stress. Stress for me are the big triggers". Cannabis consumption was also discussed as method to prevent family arguments. Cannabis was identified as a relaxer after negative family interactions. Pam shared the following:

> My mom comes, and she tries to reorganize my whole house. In order for me to not get after her, start nit-picking, and making small comments, I think, well I will just have some cannabis, then we won't butt heads... [as well], If I smoke a bit, it will completely relax me. It kind of makes me be like, oh I was stupid for thinking that or I was stupid for picking a fight or why was I so worked up about that?

Participants shared that as persons in their social circles consumed cannabis, it normalized its usage. Participants discussed that smoking cannabis also improved social interactions. Leslie said, "I think it makes me more sociable . . . I get talkative, quite talkative". In contrast April shared the following, "I think it just knocks you out, makes you right drowsy and makes me very socially withdrawn".

Alcohol consumption was reported to be low by all participants. However, participants shared that when they did consume alcohol, they would consume it concurrently with cannabis. The combined effects of these substances varied by participant. Some shared that it enhanced the effects of alcohol, while others stated its relaxing, sedative, and antisocial effects were needed to cope.

Theme 2: Perceived Risks of Using Cannabis

Band-aiding and masking genuine issues

Participants were knowledgeable of risks associated with cannabis use. Most were satisfied with their ability to manage symptoms, yet they believed this was a short-term solution. They described cannabis use as masking or having a band-aid effect on symptoms. As well, they understood cannabis use could worsen or exacerbate their symptoms. Tom stated: "I'm a firm believer that I'm just masking the problem instead of dealing with the problem . . . I think it's just a way to suppress the issues". Ann agreed with the sentiment saying, "all of the stressors were just really too much for cannabis to put a band-aid onto them, I needed something more other than cannabis to help me".

Participants also reported experiences of symptom exacerbation and of new side-effects from cannabis use. They described feeling a sense of increased anxiety and feeling paranoid; this depended on the strength and concentration of the substance used. Ron described the search for balance in the amount of cannabis consumed. He stated:

> Sometimes I might smoke too much and then I'm having like a little bit of extra anxiety rather than relief from my symptoms. I think I may have overmedicated myself . . . I just smoked too much and it kind of had the opposite effect of what I was hoping.

Additional risks included reports of loss of short-term memory and reduced attention span. Regarding memory impairment, Pam stated:

> Honestly, the one thing that I did notice is a little bit of memory loss while I was studying. I actually reduced my cannabis intake a lot because I would like, be talking, and mid-sentence then forget what I was going to say.

Participants rated their experiences with side-effects of cannabis use as mild to severe. Some described more serious and severe negative effects of cannabis including onset of psychosis and increased severity of the symptom they were trying to self-treat. Two participants shared they had been hospitalized related to their mental health symptoms and to cannabis use. Tom stated:

> I actually experienced a psychosis event because of cannabis . . . I was hospitalized for, oh goodness, like for three or four days maybe. It was a psychosis. I tried to take my own life and . . . I had no control.

Although these negative experiences occurred, participants did not describe reducing or cessing cannabis use. Tom stated, "as soon as I would use, I would get paranoid, like it's instant . . . and it was almost like the paranoia was not enough to deter me away from it because it was also good to have feelings numbed". The goal of numbing emotional symptoms was echoed by others. Several participants stated cannabis numbed their emotional pains and masked an inability to cope with negative events, family issues or social situations. April elaborated: "weed doesn't make my life better, but it makes the awful things in alright. I felt like it just dulled everything".

What's the risk, cannabis is better than alcohol and cigarettes?

This theme is situated in risk, though it could be understood as a benefit. Participants described a consistent belief that cannabis use was less risky than alcohol or cigarettes. Participants weighed the benefits and risks of use and perceived cannabis as less risky to their health. They believed cannabis was a natural product, and that it could be beneficial to their health. They also elaborated their beliefs that cannabis could be addictive and thereby worsen their overall health.

In relation to cigarette use, all shared they did not consume cigarettes at the time of the interview, and those that previously smoked cigarettes had quit. When discussing the risk of cannabis compared to cigarettes, Tom said, "I think in a way cannabis might be a little bit more of a naturally based product where [tobacco] you're getting a lot of those artificial . . . negative compounds". While Ann described risk as, "I feel cigarettes are a huge risk they have carcinogens in them, and I don't believe that [cannabis does] where uhm cigarettes are full of carcinogens which can cause cancer". Participants perceived cannabis as a more natural product. They largely attributed this belief to the numerous graphic warnings visible on cigarette packaging; these warnings are not present on cannabis packaging to date.

Some participants expressed the opinion that the research is missing to fully understand the health risks associated with cannabis. When discussing cigarette carcinogens and cannabis, Tom reflected, "I'm sure that there's some of those same bad elements in cannabis too; I think people don't know to the true extent what they're actually consuming". Finally, Pam stated, "I

thought about the whole lung thing . . . when you look into a bong and see the black tar, I think that is like the residue it leaves or is leaving in my lungs". Uncertainty and a lack of knowledge regarding cannabis risk was attributed to the majority of information available being related to cigarette use.

Cannabis is not as addictive, I think.

In relation to risk, participants described their cannabis use as non-addictive. They also believed they could quit whenever they wanted. A participant described the risk of cannabis addiction as like a food addiction, not too serious. However, others were more worried and acknowledged cannabis was addictive and it could be serious. As well, they believed the public did not fully understand cannabis use could be addictive. Tom stated, "I remember a friend I told, like, 'yeah I was going through addiction help with cannabis, and they looked at me like I had 35 heads like what do you what are you talking about". April agreed with this sentiment, stating, "addiction was a huge issue in both my families, so I think my self-medicating led to addiction". One participant shared an experience when withdrawing from cannabis. In response to their serious side-effects, they sought medical attention. They felt very ill when withdrawing from cannabis and experienced serious flu-like symptoms including night sweats, nausea and vomiting, and light headedness.

Workplace issues and cannabis

Participants worried that cannabis would affect their occupational and educational performance. Some restricted cannabis use to evenings, and one consumed during the day as they would not be able to effectively complete daily tasks. Participants restricted daytime usage due to academic or occupational responsibilities, or felt it was an activity or habit specifically engaged in during the evening. As well, they related they would not consume cannabis if there was a potential requirement to complete a task that required detailed attention, operation of a motor vehicle, or was valued or of importance to the participant.

Some participants perceived cannabis as improving their ability to study, while others felt it improved creative and writing abilities. Few participants shared that they consumed cannabis while working. Other participants stated that they did not do so due to professional and occupational responsibilities and out of respect. One participant shared that they would only do so when engaging in mundane tasks, and it would not affect occupational performance or relationships. This sentiment was not shared by April, who stated:

> When I was in high school, I would smoke weed and then go to work . . . I felt like I was [doing a good job] but I was not. Like, then I got hauled into the office for like stupid mistakes with the money till.

Theme 3: Cannabis use instead of medically prescribed medications and stigma

In this final theme, participants described their process when choosing to self-medicate symptoms versus, seeking medical care and medications. Participants described reasons including easier access to cannabis compared to prescribed medications, continued stigma when trying to discuss mental health issues and cannabis use.

Accessibility and predictability of cannabis

Participants described the predictability and ease of access to cannabis as the primary reason they self-medicated. They described this access as giving them a sense of control in their life, and thereby they were less dependent on the health care professionals. There was a strong sentiment of defaulting and relying on cannabis especially if it was recommended by a friend or family member that had experienced a therapeutic effect. Participants also reiterated that as most were already using recreationally, it was an easy transition to try to manage their medical symptoms with the substance.

They readily stated, that as no prescription is necessary, they did not have make medical appointments or wait to see a physician. They also did not want to go through the process of trying several medications for anxiety or depression that would require them to keep track of medications, usage, and refills. When asked why they used cannabis compared to prescribed medications, they responded:

> Honestly, I use because it's easy, I don't have to go to the doctor for it. You do not need a special consult for it. You do not need a doctor; you just go and get it. It is just that easy and accessible now. I think youth today are just defaulting to it to manage symptoms.

Of concern was how participants began to minimize their symptoms when self-treating symptoms and when not seeking medical symptoms; in time they thought their symptoms did not warrant medical attention. In addition, some who consumed prescribed medications were not adherent to medication schedules. Some preferred to use prescribed medications and cannabis simultaneously. April shared the following:

> I feel like I am in more control with cannabis. I don't have to worry if the doctor is actually listening. I felt I was in control of my own mind where typically whenever I'm anxious and sober I am a freaking train wreck. With medications, I felt there was no trial they would just be like here take this medication without listening to anything you're saying or questionnaire and then just pop me on a SSRI. I would go back like 'hey I'm freaking out' and they'd be like 'give it more time'; it wasn't a proper trial and I never had follow-up. Besides cannabis doesn't have all these side effects, you don't have to worry about being manic every time the doctor's given me medication I've gone off the deep end.

Tom described his experience:

> It is just predictable, you know what you are going to get from the cannabis, whereas with these medications it is just a guessing game. You do not know which one is going to work for who.

Stigma surrounding mental health

Participants shared the belief that although awareness regarding mental health has improved it is still heavily stigmatized. Participants felt if they described their mental health concerns to a health care provider, they would be waved off or they would receive a prescribed medication with no monitoring or follow-up. When attempting to voice mental health concerns with their physician, Ron shared the following:

> I come up against stigma. It is kind of hard to approach that aspect of anxiety and d depression; it does feel at times like it's something that's kind of waved off knowing how stigmatized mental health is, it was not something I felt comfortable disclosing.

The idea of not being comfortable disclosing mental health concerns to a physician was a common message. Participants felt particularly uncomfortable if they had been a patient of the same physician since adolescence and when using cannabis. Others felt not listened to when discussing mental health concerns, and that the issue would not be acknowledged. As well, they feared being told they did not have a problem.

An additional element of this theme was participants' belief that they did not want to be prescribed a medication for mental health issues. Leslie descried the following: "I don't like the idea of being on an antidepressant pill, so I just use the cannabis instead". Several participants agreed with this view and reiterated that they did not like the idea of being on a medication or pill, or to be dependent on a medication for mental health. While discussing this sentiment, one participant admitted that although they did not want to be dependent on medication, they were dependent on cannabis; however, they felt that this was different than being dependent on prescription medication to manage symptoms.

Being invisible, stigma and health care professionals

Participants regularly discussed their deep sense of feeling invisible to health care providers if they were needing to discuss their mental health issues and actively using cannabis. They felt this related to the deep stigma associated with cannabis use. April expressed her understanding: "everyone judges weed and thinks it's bad for you until proven otherwise . . . there's so much stigma around it". Participants felt they would be denied mental health services, their concerns would be disregarded due to their cannabis use, or the individual would not be taken seriously by the physician. Ann shared, "being a single mother I really worry about you know the physicians' perceptions of me; if I come in with a real problem maybe they won't take it seriously because I'm a cannabis user". In addition, several described fear of being reprimanded or looked down upon due to their cannabis use. Tom stated:

> I think the stigma is actually just an added factor encouraging people to self-medicate. Why would I go get help if I'm going to tell them I'm using marijuana and like that's a bad thing so you're going to build up that wall before you go get help.

Additionally, some shared that they did disclose usage to their physician, but not in relation to mental health symptoms. This was attributed to the stigma surrounding cannabis and the belief that doctors would not recommend its use. Or, if they have had the same family physician since childhood. Ann shared her challenges with vocalizing issues:

> I've discussed that I use it, but I've never actually discussed with her that how it helped me now that it's legal it's a little bit different but there are a lot of doctors who still believe that you shouldn't be using it at all and there's many doctors who don't believe that it is therapeutic.

Finally, they described they feared the physician would alter their cannabis and medication regime, attempt to refer them to therapy of which they would not participate.

Discussion

This small study was conducted in an Atlantic Canada university. The coronavirus pandemic may have a bearing on the findings, considering the additional stressors students were experiencing. Nonetheless, the qualitative interview data collected using an e-platform is rich in detail. Findings from the six interviews showed the complexity surrounding the individual's decisions to self-treat symptoms such as anxiety, depression, and stressors; a story shared by all participants. Participants identified benefits to using cannabis, risks associated with its use, and reasons deeply related to stigma as to why they would not discuss mental health issues with their physician.

University students' views of cannabis were based on their knowledge of using the substance recreationally, and then when beginning to use it to treat symptoms they were experiencing. In this study, participants obtained cannabis from approved outlets and from the street. Participants did not discuss the risk of obtaining cannabis from unreliable or illegal sources can be risky as it may be laced with fentanyl or other addictive substances (Fisher et al., 2017; Hurd, 2021).

Recreation to Self-Treatment

Participants clearly described the transition from recreation to self-treatment of mental health and social issues. With this progression of use, phases of experimentation with different cannabis strains and concentrations occurred. Participants engaged in this trial-and-error phase to learn how much cannabis was needed to effectively manage symptoms of nausea, vomiting, pain, and appetite stimulation (Kalant & Porath-Waller, 2016). Participants also used cannabis for management of anxiety, depression, stress, coping, and relaxation (Kilwein et al., 2020; Sexton et al., 2016). Of interest was their growing knowledge of how to manage symptoms and to understand when they had consumed too much cannabis when experiencing negative side-effects (Wallis et al., 2019).

The decision to self-treat symptoms was informed by stories told friends and peers who also used cannabis. A benefit was not having to plan an appointment or tell a health care professional their mental health story. This is likely facilitated by the previously mentioned popular belief that cannabis is effective in treating anxiety and depression symptoms (Buckner et al., 2007) and that cannabis is often seen as a natural alternative to prescription medications (Kilwein et al., 2020).

Numbing and Normalizing Results

Participants in this study identified feeling numbed or feeling more normal as a benefit of using cannabis. When using, participants detailed descriptions of masking the social or health issues they thought needed genuine attention. The risk of being or feeling numbed is of concern as this could be considered a risk (Fisher et al., 2017). As well, Stuyt (2018) cautions this numbing sensation may be related to overdose or the addictive properties of cannabis in youth and young adults. More research is needed to fully understand this state and its risks and benefits.

Participants also consistently stated cannabis use gave them the sense or feeling that cannabis use normalized one's life and reduced stress in relations with and alongside family dynamics. Feeling normal and increasing one's ability to be social or socialize was identified as a benefit; in contrast, participants described that in reality they were masking the genuine issues of which they needed to attend. Similar to Kilwein et al (2020) participants found that cannabis facilitated social interaction allowing them to bond with others and improve social activities and interactions. One interesting finding not found in the literature is that the participants of the current study restricted their cannabis use to the evening or would refrain from consuming if there was potential for an activity or situation requiring attentiveness, increased demand on the individual, or sobriety. However, this is likely related to the personal and professional responsibilities of the individual than a reflection to their cannabis uses as many participants shared that consuming cannabis was part of their evening ritual or habit to prepare for sleep or relax.

When considering the effects of different strains, the differing concentrations of THC each strain contains is a factor. However, *C. indica* strains are believed to be rich in a specific terpene, myrcene, a compound known to cause relaxation and alleviate anxiety, whereas *C. sativa* strains tend to contain high concentrations of other terpenes, such as limonene, which have been linked to alertness and behavioural arousal (Ferber et al., 2020). Additionally, CBD has found to have therapeutic potential and is thought that CBD is responsible for therapeutic effects related to anxiety, depression, and bipolar disorder (Abrams, 2018; Blessing et al., 2015; Soares & Campos, 2017).

Trust-filled relationships and Stigma

Participants acknowledged that the cornerstone of good mental health was having a trust-filled relationship with a health care provider, to whom they could share their concerns about mental health issues. Yet, this was not the case as most participants had the same physician since adolescence and they did not feel the physician would understand why they were self-treating symptoms of anxiety, depression, and school, workplace, and academic stressors with cannabis. They wanted to tell the health care provider, and most were reticent or skirted around the issues. Leading researchers recommend users to disclose their use to all health care providers, as cannabis is a drug (Hurd, 2021).

Disclosing this was challenging for participants. They identified stigma as the primary reason for non-disclosure and therefore self-treatment. Participants shared that the negative reputation of cannabis influenced physicians' understanding of the benefits of cannabis, and instead focused on the negative and risks (Belle-Isle et al., 2014). The fear of being judged or not be taken seriously, as expressed by participants of this study, was also found to be a reason for continuing therapeutic cannabis use (Bottorf et al., 2013). This fear would inhibit individuals from accessing physician care or prescription medication out of fear of the consequences of cannabis use regarding its stigma. Additionally, the fact that cannabis is perceived as a natural product and alternative medicine is a factor in individuals choosing therapeutic cannabis over prescription medication.

Cannabis is natural

Overall, cannabis was viewed as safer, more natural, and less addictive, (Buckner et al., 2007; Kilwein et al., 2020; Volkow et al., 2014). Yet throughout the interview process participants questioned their beliefs and understandings. They described the cigarette companies as having stronger risk messaging on packaging than cannabis companies (Popova et al., 2017). In turn, they thought that more research was needed to explain risks (e.g., tar, chemicals in cannabis, lung tissue changes) to themselves and the public. The College of Family Physicians of Canada (2021) state similar concerns, that limited research had been completed before cannabis was legalized leaving physicians in a complicated situation. We surmise this contributed to lack of confidence asking patient about their cannabis use.

Legalization was identified as easing participants' access to the substance. Yet, the Canadian Centre on Substance Use and Addiction (2022) recently published educational material on how cannabis affects each person individually including addiction risks when related to product strength (THC), number of times and method used, risks of smoking cannabis, risks when younger persons begin to use, and underlying history of individual or family mental health issues. As well, Stuyt (2018) reports education on cannabis use must include statistics such as: "9% of those who experiment with marijuana will become addicted; 17% of those who start using marijuana as teenagers will become addicted; and 25–50% of those who use daily will become addicted" (p. 483).

Masking the Genuine Issues

Participants were knowledgeable about negative side effects and risk of using cannabis. They experienced and knew cannabis could lead to acute anxiety and psychotic episodes, with some episodes being so severe that individuals may consider them panic attacks and some were hospitalized (Crippa et al., 2009). Several stated using cannabis was like a band-aid, masking the genuine mental health issues (Mammen et al., 2018). Participants described this masking effect as a temporary solution, suppressing or coping with symptoms in the short-term but gradually contributing to worsened chronic symptoms or an exacerbation of current symptoms (Buckner et al., 2012; Mammen et al., 2018). Buckner et al. (2014), described a similar phenomenon or pattern in that individuals with anxiety symptoms, particularly social anxiety) were more likely to engage in false safety behaviours that alleviate short-term anxiety but contribute to chronic exacerbation. ***Why is that?*** Buckner et al. (2012), previously reported that social anxiety in males was significantly and positively related to cannabis use disorders, suggesting males with social anxiety may use cannabis to alleviate negative affect and anxiety symptoms. While these findings were also observed in this study, this pattern was identified in females as well as men. The differences found between this study and Buckner et al. (2012), may warrant additional quantitative exploration to determine whether this pattern is observed in females as well.

Study Recommendations

1. Research focused on understanding the seeking of numbing and normalizing from cannabis.

2. Research focused on understanding the masking of genuine mental health and social issues.

Study Limitations

This small study is limited by the additional stressors' university students experienced while studying during the global pandemic. As well, a more diverse university group is needed to fully understand the issues including African Nova Scotians and Indigenous Peoples, and international students.

Conclusion

This study provides useful insight and improves the understanding of young adults and self-treatment using cannabis, specifically its perceived benefits and underlying reasons for its use. Specifically, it allows these individuals to better understand the experiences and opinions of these individuals to discuss mental health and cannabis use more effectively. Further research, involving larger participant numbers could focus on identifying ways to reduce stigma associated with cannabis use and mental health to encourage individuals to seek medical care for mental health symptoms, identify how and where individuals find information on the benefits and risks of cannabis use, and further investigate perceived risk of cannabis use and its natural and nonharmful perception. Further improving our understanding of how cannabis users perceive risks, how this risk is assessed, and the information available to the public regarding cannabis risk would assist public health education interventions and harm reduction strategies. It would give individuals a better understanding of the risks associated with cannabis use, would better inform their use, and improve their knowledge of the relationship between mental health, specifically anxiety and depression, and cannabis use.

Author's Note

We have no known conflict of interest to disclose. None of the material contained in this manuscript is the product of plagiarism nor has it been previously published.

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