Emerging Adult Perspectives on Marijuana Usage and Social Isolation During COVID-19

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences
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Abstract

Individuals struggling with emotional distress are twice as likely to use marijuana routinely. Young adults, ages 18 to 24, continue to be at increased risk for accidents, injuries, and poor cognitive functioning when using cannabis regularly, compared to those 24 and older. In addition, studies have shown that increased social isolation further increases the risk of marijuana use in young adults. Previous literature also demonstrated that marijuana is currently being used as a method of treatment for emotional distress. Much of the research conducted to date has focused on the collection of checklist data that has looked at the presence of positive and negative symptoms. As such, understanding regarding patient perception of this form of treatment is limited. This study had two primary goals: (1) to explore how individuals make sense of their marijuana use while being socially isolated due to the COVID-19 pandemic; and (2) to determine how their experiences with marijuana might shape their beliefs regarding marijuana use? This qualitative study was supported using a social constructivist paradigm. Narrative inquiry was utilized to deepen understanding of the unique perceptions surrounding marijuana use in emerging adults. Recruitment was purposeful to achieve an accurate representation of this population. Three overarching themes emerged based on participants’ experiences with emotional distress and marijuana use during a pandemic, which led to overall beliefs about marijuana use. This research will enable greater understanding towards how participants individual experiences shape their beliefs regarding marijuana use.
Lay Abstract

Young adults between the ages of 18-24 are at higher risk than all other ages groups for negative consequences if they use marijuana routinely. Studies have also shown that social isolation due to the COVID-19 pandemic further increases the risk of negative outcomes for this group. However, there is little in the literature that speaks to individual perception of marijuana use during the increased social isolation that many are experiencing in response to COVID-19.

This project will seek to (1) to explore how individuals make sense of their marijuana use while being socially isolated due to COVID-19; and (2) to understand how study participants’ experiences with marijuana have shaped their beliefs regarding marijuana use?
Acknowledgement

I would like to express thanks to my Primary Supervisor Professor Marnie Wedlake for continuous guidance and support throughout my graduate studies. Your dedication, immense knowledge, and patience has been inspiring and has shaped me into a better student, researcher, and overall member in society. You have helped me in writing this thesis and I am forever grateful. I would not have been able to complete this thesis without you.

In addition, I would like to thank my Co-Supervisor Professor Andrew Johnson for your assistance throughout the entire process. I have seen the massive amount of effort you provide your graduate students, and it is incredible. You have shown me as a new graduate student, that higher education is a journey and an amazing test of resilience. I cannot thank you enough for supporting me in this thesis.

Lastly, I would like to extend a thank you to my father (Derek Wong), my mother (Ann-Marie Wong), my sister (Lauren Wong), my aunt (Judy Lim), and my cousins (Mark and Mitchell Lim). It truly takes the support of the entire family to send a graduate student to university. Without my family’s endless support there is absolutely no chance I would have been able to accomplish this degree. Thank you for the love and guidance throughout my education.
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<tbody>
<tr>
<td>ADHD</td>
<td>Attention Deficient Hyperactivity Disorder</td>
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<td>AGCO</td>
<td>Alcohol Gaming Commission of Ontario</td>
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<td>AI</td>
<td>Artificial Intelligence</td>
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<td>APA</td>
<td>American Psychological Association</td>
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<td>CAMH</td>
<td>The Centre for Addiction and Mental Health</td>
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<tr>
<td>CBD</td>
<td>Cannabinoid</td>
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<tr>
<td>CCSA</td>
<td>Canadian Centre on Substance Abuse</td>
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<td>CCSUA</td>
<td>Canadian Centre on Substance Use and Addiction</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CM</td>
<td>Case Manager</td>
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<td>CMHA</td>
<td>Canadian Mental Health Association</td>
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<tr>
<td>COVID-19</td>
<td>Coronavirus Disease (2019-nCoV)</td>
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<tr>
<td>DSM-5</td>
<td>Diagnostic and Statistical Manual of Mental Disorders Fifth Edition</td>
</tr>
<tr>
<td>EI</td>
<td>Employment Insurance</td>
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<tr>
<td>GAF</td>
<td>Global Assessment Functioning Scale</td>
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<tr>
<td>HCP</td>
<td>Health Care Professional</td>
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<td>MMSE</td>
<td>Mini Mental Status Exam</td>
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<td>NA</td>
<td>Narcotics Anonymous</td>
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<td>NIDA</td>
<td>National Institute on Drug Abuse</td>
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<td>NIH</td>
<td>National Institutes of Health</td>
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<tr>
<td>NMREB</td>
<td>Non-Medical Research Ethics Board</td>
</tr>
<tr>
<td>PTSD</td>
<td>Post-Traumatic Stress Disorder</td>
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<tr>
<td>SAMHSA</td>
<td>Substance Abuse and Mental Health Services Administration</td>
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<td>REB</td>
<td>Research Ethics Board</td>
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<tr>
<td>RN</td>
<td>Registered Nurse</td>
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<tr>
<td>THC</td>
<td>Tetrahydrocannabinol</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Chapter 1

1.1 Background

Cannabis (commonly referred to as marijuana within both the community and within the literature) is a cannabinoid drug which originates from a cannabis sativa plant (Alcohol & Drug Foundation, 2021). According to a recent Canadian statistic, 24% of marijuana users are between the ages of 15 and 24 (Government of Canada, 2019). Elsewhere in the literature, it has been suggested that marijuana users under the age of 25 were using frequently (Chadwick, Miller & Hurd, 2013; Fischer et al., 2017). This representation is a potentially serious public health risk, as individuals under the age of 25 who use marijuana place themselves at serious risk for harm in relation to brain development, which may lead to lifelong side effects such as attention issues, memory impairment, and learning deficits (Chadwick, Miller & Hurd, 2013; Fischer et al., 2017). In addition to these possible long-term effects, marijuana use has many negative short-term side effects for users under the age of 25 such as motor and cognitive impairments (Porath-Waller, Notarandrea & Vaccarino, 2015).

In addition to the short and long-term side effects of using this drug, research has indicated that there is an existing relationship between marijuana use and users’ emotional state (Asher & Gask, 2010). Asher and Gask (2010) noted that young adults who smoke marijuana are at risk for experiencing mild, moderate, or severe emotional distress. According to Pearson et al. (2013), young adults between the ages of 15 and 24 are more likely to experience emotional distress or substance use disorders than other age groups. This finding is problematic as drug use in general is much more common among individuals experiencing emotional distress than those who are not (Asher & Gask, 2010; Degenhardt & Hall, 2001). Thus, there are significant health hazards to young adults’ emotional wellbeing associated with using marijuana (Thornton et al.,...
Despite the recent legalization of marijuana, many individuals continue to view marijuana negatively (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). It is clear that many individuals who smoke marijuana do not share this perception.

Despite the significant variability in attitudes towards marijuana use, there is a decided lack of qualitative research on user attitudes towards marijuana, and consequently there is little narrative information concerning the perception of marijuana use among individuals who are experiencing emotional distress. This is an unfortunate gap in the literature, and suggests that the health care system may not be consulting all necessary stakeholders. Without input from the individuals closest to the issue, we run the risk of excluding evidence in the continuous improvement and development process – and these individual attitudinal differences are important in directing evidence-based care and practice. This lack of input has the potential to perpetuate ineffective health care service delivery and problematic use of health care service options. Participants with emotional distress and a history of trauma are widely acknowledged to be a vulnerable group, and it is particularly important to attend to their viewpoints within the literature, as this attention has the potential to positively impact client outcomes when in contact with health services. This input is even more important in our current context, when the mental health of individuals is further compromised by isolation and social restrictions, as has been the case over the last many months, during the COVID-19 pandemic.

To reduce the spread of COVID-19, governments mandated rules and regulations such as self-isolation, regular handwashing, physical distancing, wearing a mask and avoiding close contact (World Health Organization [WHO], 2020). As a result of pandemic-inspired public health policies and practices, social isolation has become a serious concern (Fiorillo & Gorwood, 2020). Social isolation is referred to the ‘distancing of an individual psychologically, physically,
or from their needed relationships with other individuals’ (Biordi & Nicholson, 2013). Individuals can experience social isolation as feelings of loneliness, which can evoke maladaptive behaviours and increase addictive behaviours (Marsden et al., 2020, p. 1990). Social isolation has negatively impacted the emotional stability of numerous individuals during this pandemic and will continue if government-mandated social restrictions (i.e., lockdown) return (Panchal et al., 2020). According to Panchal and colleagues (2020), individuals who had recognized trauma and substance use concerns before the pandemic are at an increased risk for poorer mental health during periods of time in which there are social restrictions. Panchal et al. (2020) further noted that the COVID-19 pandemic may exacerbate symptoms for those with mild, moderate, or severe emotional distress.

Due to the regulations that have been in place during the COVID-19 pandemic, young individuals with mental health concerns have been at heightened risk for adverse health outcomes such as increased substance use or abuse, maladaptive behaviours, and emotional distress (Hosseinbor et al., 2014; Panchal et al., 2020). During this period of uncertainty that has resulted from the COVID-19 pandemic, studying the health attitudes of young adults is more important than ever, as the risks are higher, and the potential for individual health behaviours to impact on health and safety is significantly greater (Hosseinbor et al., 2014; Panchal et al., 2020). As aforementioned, this lack of attention to individual viewpoints is a significant gap in the existing literature. In addition, studying marijuana use from the participants’ point of view will have the effect of making any research products more directly relevant and applicable.
1.2 Research Questions

The purpose of this study was to: (1) explore how individuals made sense of their marijuana use while being socially isolated due to the COVID-19 pandemic; and (2) determine how their experiences with marijuana have shaped their beliefs regarding marijuana use.

Chapter 2: Literature Review

2.1 Trauma Informed Model

Health care within Canada is viewed primarily through a biomedical lens, which focuses on disease and process. A biomedical lens exclusively uses biomedical science based evidence to approach problems of health with a strong emphasis on medication (Bistoen, 2016). Accordingly, views on (and definitions of) mental distress continue to be heavily influenced by medicine as well (Bistoen, 2016). A biomedical approach has been very effective when the health condition is deeply understood for example at a cellular level. However, in mental health, the research has not isolated the direct cause of the health condition; in other words, the research has not determined if mental illness is related to cellular composition. Consequently health care approaches mental health through a biomedical lens when there is no evidence supporting positive outcomes.

There is, however, increasing interest in a trauma-informed perspective. Trauma can be a direct result of abuse, loss, disaster, war, or other emotionally trying experiences (SAMHSA, 2014). When an individual experiences a devastating incident, psychological functioning can be greatly impacted (Bistoen, 2016). Ponnamperuma and Nicolson (2018) conducted a study which assessed the relationship of trauma and daily stressors to the mental health of adolescents. The researchers found that individuals who were exposed to trauma, typically had significant concerns with their mental health, in addition to increased daily stressors.
A trauma-informed approach seeks to understand how traumatic experiences have shaped the lives of individuals (Butler, Critelli & Rinfrette, 2011), and takes into account the fact that any service provided can be re-traumatizing and overwhelming in the context of an individual's history (Muskett, 2014; SAMHSA, 2020). Muskett (2014) noted three critical principles to trauma-informed care: (1) the individual must feel connected, valued, informed, and hopeful of recovery; (2) health care providers must be aware of childhood trauma as well as adult psychopathology; and (3) staff must be open-minded, and willing to promote autonomy and empowerment.

Often, health care professionals take into consideration an individual’s mental decompensation, their substance use, and their use of health services. However, HCPs have failed to acknowledge the impact of traumatic experiences on health symptoms and conditions (Butler, Critelli & Rinfrette, 2011). Research has found that although traumatic experiences can play a significant role in mental health and on the incidence of substance abuse, trauma history is rarely assessed (Butler, Critelli & Rinfrette, 2011). There has been evidence to suggest that traumatic stress in early life can change the brain’s development process, leading to nervous, hormonal, and immunological system alterations (Bellis, 2015). Researchers often interpret mental illness in the current health care system as being due to chemical changes, neural abnormalities in the brain, or genetically linked (Johnson & Colman, 2017; State & Geschwind, 2014). This biomedical approach is, however, reductionist, and fails to fully identify important individual determinants of health.

A trauma-informed approach is much more appropriate when attempting to understand the interplay of determinants in relation to health. A trauma-informed approach also involves considering holistic and contextual factors (Muskett, 2014). The term ‘holistic’ in this context
has been defined as care which encompasses broader determinants of health (Kotwani, Patwardhan, Patel, Williams & Modi, 2021). Therefore, a trauma-informed approach is more comprehensive in its identification of individual health factors, as it considers each client’s situation to be unique, requiring a specifically tailored treatment plan. Determining what happened to the client is essential and integral when understanding why a client is presenting in a particular manner (Sweeney et al., 2018). A trauma-informed approach will allow the health care team to better understand clients and will ideally facilitate positive changes in their lives (Bracken et al., 2012).

The importance of a trauma-informed perspective in evaluating marijuana usage was illustrated by Bellis and colleagues (2015), who found that 64.5% of individuals who had reported four or more adverse childhood experiences had used marijuana in their lives. They further noted that this finding indicated that the odds of using marijuana are 11 times higher among individuals who were exposed to four or more adverse childhood experiences, than among individuals not exposed to any adverse childhood experiences (Bellis et al., 2015).

In sum, a trauma-informed approach is an important lens through which to view data in any research project that is focusing on the relationship between substance use and mental health. The literature has not, however, shifted entirely away from the biomedical perspective. Accordingly, it is important to consider the full range of research published on this topic (i.e., the researcher will not exclude papers from this review that do not adopt a trauma-informed perspective).

2.2 Use of Marijuana by Young People

According to Statistics Canada (2019), approximately five million people reported using marijuana in 2019. In addition, 27 percent of marijuana users who actively used the substance in
the last three months were between 15 and 24 years of age (Statistics Canada, 2019). The number of young adults consuming marijuana is problematic, but equally concerning are the implications and harms these individuals may face in the future due to the age at which they began experimenting with and actively using marijuana. According to a study carried out by Anthony and Wagner (2002), those who were 18 years of age were at peak risk for drug initiation. Once marijuana use had been initiated, young people were at risk for increased adverse outcomes such as poor emotional regulation (Abdel-Salem, 2019), educational underachievement, and cannabis dependence (Hall, 2016). After the age of 25, it was uncommon for a non-marijuana user to start using the drug (Anthony & Helzer 1995; Anthony & Wagner, 2002).

Heavy marijuana use in adolescents and young people can alter emotional behaviour and lead to an increased likelihood of using more harmful and addictive substances in the future (Abdel-Salem, 2019; Fergusson et al., 2002; Hall, 2016). Individuals who used marijuana routinely were more likely to use cocaine and heroin (Hall, 2016), which has led researchers to consider marijuana to be a ‘gateway drug.’ These behavioural and emotional changes may have a neurological basis (Abdel-Salem, 2019), in that young adults were developing neurological substrates and connections that may directly impact on their ability to regulate emotions (Canadian Centre on Substance Abuse [CCSA], 2021).

Young adults who were consistent users of marijuana were commonly found to experience academic underachievement. This underachievement may have been related to motivational issues that were exacerbated by the drug (Hall, 2016), or it may have been a reflection of associations that were found between early marijuana use and cognitive deficits such as poor attention span (Lisdahl & Price, 2012), poor memory (Tait et al., 2011), and slower processing speed (Lisdahl & Price, 2012). Thus, marijuana could impact education, future
opportunities, and career achievements if used at a young age (National Institute on Drug Abuse [NIDA], 2020).

In addition to educational underachievement, heavy usage of any substance carries with it the risk of developing a dependency, wherein an individual experiences feelings of withdrawal when the substance is not consumed (NIDA, 2020). Although the risk of marijuana dependence (approximately 1 in 10; Hall, 2016) was less than the risk of alcohol dependence (approximately 1 in 6; Anthony et al., 1994) it was still a significant risk among young people. Although the severity and duration of symptoms vary from one user to another, marijuana withdrawal typically presents as irritability, nervousness, decreased appetite, weight loss, restlessness, sleep difficulties and strange dreams (Ramesh et al., 2011). Those who have experienced cannabis dependence also experienced cognitive, mood, and motivational impairments, contributing to a poor quality of life (Hall, 2016). Interestingly, Budney et al. (2008) compare the withdrawal experience with marijuana as being very similar to the withdrawal of tobacco.

Marijuana usage at a young age can be particularly dangerous in the development of emotional distress (Arsenault et al., 2002; Hall, Degenhardt, & Teeson, 2004), presumably because of the neurological development that is occurring at this time. This risk (and the effects of this risk) should not be considered to be transient, as there are long-lasting neurological and psychological impacts associated with this mental illness.

2.3 The Relationship Between DSM-5 Diagnoses and Marijuana Usage

Although there are legitimate criticisms for the use of discrete classifications of emotional distress, as has been done within the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), these classifications may inform our understanding of the relationship between marijuana usage and emotional distress. For example, marijuana use is much more
common among individuals with mental disorders such as anxiety, bipolar, depressive, post-traumatic stress, and psychotic disorders (Gabrys, 2020; Thornton et al., 2013). The next section includes an exploration of some of the adverse outcomes associated with marijuana use, as they may be described using DSM-5 classifications.

### 2.3.1 Bipolar Disorder

The DSM-5 currently recognizes three categories of bipolar: bipolar I, bipolar II, and lastly cyclothymic disorder, all of which refer to individuals who experience fluctuations in mood, energy, and ability to function (Severus & Bauer, 2013). There has been minimal research that has studied the potential effects marijuana may have on individuals presenting with bipolar disorder traits. Rossum and colleagues (2009) conducted an observational study on 3,459 individuals with bipolar characteristics over the course of a year to determine if there were adverse effects associated with the use of marijuana among individuals receiving clinical and social treatment for symptoms of bipolar. They determined that individuals using marijuana demonstrated increased severity of illness, mania, treatment compliance issues, and psychosis.

Kvitland and colleagues (2016) suggested that marijuana use was prevalent in those with bipolar disorder I. Participants in this study were followed throughout their course of treatment and participated in a comprehensive evaluation at the end of the study. Results indicated that the use of marijuana delayed the identification of bipolar disorder I. Kvitland et al. (2016) also noted that there was a longer period of time between the first manic episode and the time of treatment among individuals who use marijuana. Further, the length of the untreated time period was positively correlated with the risk for later marijuana use.

Strakowski et al. (2007) also conducted a study to explore the relationship between bipolar disorder and marijuana use, following 144 participants who had minimal treatment prior
to the study, over a period of five years. Results suggested that marijuana negatively impacted recovery for individuals diagnosed with bipolar disorder, insofar as participants who smoked marijuana spent more time in affective episodes and required more hospitalization time for symptoms related to mental illness (Strakowski et al., 2007). Affective episodes in this study referred to ‘rapid cycling’ which is a term used to explain the frequent movement between mood episodes. Carvalho et al. (2014) defined rapid cycling as the presence of four mood episodes in a twelve-month span.

El-Mallakh and Brown (2007) evaluated clients diagnosed with bipolar disorder who used marijuana over the course of two years and concluded that marijuana usage increased the number of hypomanic days experienced, and decreased the number of depressed days. The latter is a particularly interesting finding, as it suggests that the impact of marijuana may not be entirely negative among individuals with bipolar disorder.

2.3.2 Schizophrenia

The DSM-5 requires two or more of the following symptoms to be present for a diagnosis of schizophrenia: delusions, hallucinations, disorganized speech, disorganized or catatonic behaviour and negative symptoms. Negative symptoms can be understood as representing a loss in function, such as anhedonia (Mitra et al., 2016). Another characteristic is individuals display incongruencies between their affect and mood. For example, his characteristic is observable when an individual is voicing low mood but displaying a euphoric affect. Schizophrenia is known to affect approximately 1% of the population and impacts both men and woman equally. Like many other mental health conditions, the onset of schizophrenia typically occurs between the ages of 15 and 35 equally (Castle & Buckley, 2015).
There are a number of strong connections between schizophrenia and marijuana usage within the published literature. Although it is difficult to make causal inferences from correlational research, one of the stronger connections that has been presented relates to the idea that marijuana use directly results in the development of schizophrenia. Andreasson and colleagues (1987) discovered a threefold increase in risk for the development of psychosis among those who reported using marijuana more than 50 times by the age of 18, and suggested that marijuana usage may be a causal factor for schizophrenia. Van Os and colleagues (2002) found that the risk of psychosis increased in individuals who had a history of marijuana use. It is worth noting that in the 15 years between Andreasson et al. (1987) and Van Os et al. (2002) we are seeing the same impact of marijuana use on psychosis which points to the need to consider to the biomedical approach. Over the course of several longitudinal studies, in five different countries, Degenhardt and Hall (2006) concluded that marijuana use increased the risk of developing schizophrenia symptoms (specifically psychosis). Konefal and colleagues (2019) identified marijuana as a dangerous substance, and suggested that it may increase one’s risk of developing schizophrenia (2019).

Khelifa et al. (2012) identified significant cognitive dysfunction to be associated with the use of marijuana by individuals with schizophrenia. In this study, researchers evaluated differences between two groups of individuals with schizophrenia: one with a history of marijuana abuse, and the other with no history of marijuana abuse. Individuals with a history of marijuana abuse performed significantly worse on cognitive functioning exams such as the Mini Mental State Examination (MMSE), and Global Assessment Functioning scale (GAF). In addition, individuals with a history of marijuana abuse also demonstrated an increased prevalence of mental and behavioural disorders.
Other research has found that rates of relapse in relation to mental distress (Carey, Carey & Meisler, 1991), medication non-compliance (Thorton et al., 2012) and rates of hospitalization (Thorton et al., 2012) tend to increase significantly with marijuana usage among individuals with schizophrenia.

### 2.3.3 Post-Traumatic Stress Disorder (PTSD)

Post-traumatic stress disorder (PTSD) arises after being exposed to a traumatic event, encounter, activity, or occurrence, which prevents individuals from functioning at their optimal level and impacts on ability to cope (Stanley, Pitchford & Davies, 2012). Individuals will not be impacted by or respond identically to trauma as responses to trauma are subjective in nature. Treatments used for PTSD include psychotherapy and medication (Stanley, Pitchford & Davies, 2012). PTSD can interfere with overall functioning to the point where some individuals may not be able to function optimally, and it can adversely impact their ability to cope with traumatic events (Stanley, Pitchford & Davies, 2012).

Roitman and colleagues (2014) investigated Israeli adults who used THC to treat their PTSD. They found that individuals self-reported fewer nightmares, and statistically significant improvements in quality of sleep. More than 80% of the participants were, however, also using benzodiazepines, which makes it difficult to determine whether the outcomes were due to the THC, benzodiazepines, or a combination of THC and benzodiazepines.

More recently, Metrik and colleagues (2020) conducted an observational study of 361 survivors of the 9/11 terrorist attack with PTSD who used marijuana. In contrast with the findings of Roitman and colleagues (2014), Metrik et al. (2020) found that individuals who used marijuana more frequently tended to experience more severe PTSD intrusion symptoms.
Intrusion symptoms are defined as a cluster of symptoms that include flashbacks, nightmares, and memories (Bryant et al., 2017).

2.3.4 Anxiety

Anxiety disorders can include phobias, panic disorder, agoraphobia, social anxiety disorder, and generalized anxiety disorder (GAD) (Katzman et al., 2014). Both pharmacological (Andrews, 2016) and nonpharmacological treatment for anxiety exists, with nonpharmacological interventions including psychoeducation, cognitive restructuring, and situational exposure (Taylor, 2019).

In addition to pharmacological and non-pharmacological treatment, some individuals report that marijuana usage can also relieve symptoms of anxiety (Sexton et al., 2016; Walsh et al., 2013). In line with Sexton et al. (2016) and Walsh et al. (2013), Turna and colleagues (2019) investigated 888 participants who were using cannabis products (combinations of CBD and THC) as a remedy for anxiolytic effects. In this study, 46% of participants reported that they had discontinued psychiatric medication prescribed to them by a physician and replaced this form of treatment with a cannabis product. Turna et al. (2019) also found that symptoms of anxiety were noticeably more severe in those who consumed greater amounts of cannabis products per day.

Although Turna et al. (2019) found that cannabis products did not improve anxiety, many participants continued to report a positive reduction in anxious symptoms when using.

Bahorik and colleagues (2018) studied 307 psychiatry outpatients to determine if marijuana use would influence their symptoms of depression and anxiety. Suicidal ideation and depressive symptoms were significantly higher among those who used marijuana than among those who did not, and in general marijuana users experienced poorer mental health outcomes.
2.4 COVID-19

Coronavirus (COVID-19) is a potentially fatal illness that typically presents with respiratory symptoms such as a cough, difficulty breathing, pneumonia, and a fever (Government of Canada, 2021; WHO, 2021; Brussow & Timmis, 2021), although a substantial number of individuals have been found to be asymptotically positive for the disease (Government of Canada, 2021). The COVID-19 virus spreads via both droplets and aerosols generated through coughing, sneezing, talking and other respiratory-intensive activities (Government of Canada, 2020).

To decrease the spread of COVID-19, the federal government set regulations to be followed by the public (Government of Canada, 2020). Individuals were required to self-isolate while awaiting results, when they have active symptoms, when they have been in contact with a probable or confirmed case of COVID-19, or when they have travelled outside of Canada within the last 14 days (Government of Canada, 2020). In addition to following the self isolation rules, keeping a physical distance of at least two metres between people was shown to be an effective way to decrease COVID-19 cases (Government of Canada, 2020). The government described physical distancing as avoiding crowds, avoiding non-essential gatherings, avoiding standard greetings (e.g., hugs or hand-shakes), limiting contact with high-risk individuals such as the elderly, and maintaining a distance of two meters wherever possible (Government of Canada, 2020).

2.4.1 Social Isolation

Maintaining physical distancing, avoiding non-essential human contact, and the resulting changes in daily routines have led to social isolation for many individuals (Larsen & Lubkin, 2013). Social isolation is understood to be the distancing of an individual, physically, or
psychologically, voluntarily or involuntarily, from a network or relationship (Larsen & Lubkin, 2013). Individuals who experience social isolation may also feel lonely, but social isolation and loneliness are distinct constructs. Loneliness is a subjective experience that can occur in different contexts, such as when individuals perceive themselves to be socially isolated from contacts (Larsen & Lubkin, 2013). In contrast, social isolation refers to the objective deprivation of social interactions (Bennet, 1980). COVID-19 pandemic restrictions have illustrated the importance of this distinction: quarantine creates an objective deprivation of social interaction, but the extent to which this will create feelings of loneliness is highly individual and context-bound.

Collie (2020) determined that many individuals are experiencing feelings of loneliness during the COVID-19 pandemic. In addition to loneliness, individuals may also experience anxiety, depression, and increased stress, which can make it difficult to manage and overcome loneliness (Collie, 2020; Hosseinbor et al., 2014). Loneliness can be very destructive, particularly as it relates to increased frequency of high-risk behaviours such as drug use (Hosseinbor et al., 2014; Page & Cole 1991).

Interestingly, there has been minimal research conducted that identifies changes in marijuana usage during a period of social isolation, such as the COVID-19 pandemic. A study published by Graupensperger et al. (2021) investigated the changes in young adults’ alcohol and marijuana use, within a survey-based longitudinal study. Graupensperger et al. (2021) concluded that young adults’ alcohol use increased during periods of social isolation, but that there was no identified change in marijuana usage. Participants did, however, perceive heavier marijuana usage in their peers during the COVID-19 pandemic.

Knell et al. (2020) conducted a study which assessed changes in health behaviours during the COVID-19 pandemic. This study included 1,809 participants who were recruited through
convenience sampling. Each participant completed a 15-minute self-reported questionnaire twice during the pandemic. Results suggested that there was no self-reported change in marijuana use behaviours during COVID-19. The negative health behaviours that did change were determined by the participants to be the result of having spare time but Knell et al. (2020) also equivocated around the idea of this being partially due to loneliness.

The benefit of studying participant perspectives is that they offer the researcher the opportunity to investigate crucial details through in-depth examination of individual context. When researchers fail to listen or include the voices of those most intimately involved or impacted, they can make assumptions which may taint their conclusions.

2.4.2 Emotional Distress and COVID-19

Feelings of loneliness, sadness, and stress during a pandemic are worrisome on their own, but they are of even greater concern when they are present in individuals with pre-existing emotional distress, as individuals with pre-existing distress may be more vulnerable during this pandemic (Marsden et al., 2020). Individuals with pre-existing distress will likely face exacerbated symptoms due to the COVID-19 pandemic (Chatterjee, Barikar & Mukherjee, 2020), and may rely on supports and programs that are now reduced or not offered due to the COVID-19 pandemic (Marsden et al., 2020; Usher, Bhullar & Jacks on, 2020). Throughout the pandemic, mental health support services have been reduced or discontinued as a result of funding reallocation and COVID-19 policies. Fiorillo and Gorwood (2020) predicted reductions in appropriate and necessary supports/services as a result of COVID-19. Individuals who are living with significant emotional distress are vulnerable to increased substance use if their psychosocial concerns are not met.
2.5 Health Risks of Marijuana Use and COVID-19

Studies should be conducted on marijuana use during the COVID-19 pandemic, as marijuana poses a significant health risk to users (Canadian Centre on Substance Use and Addiction [CCSUA], 2020). Marijuana use exposes individuals to several chemicals, which can lead to severe respiratory and cardiovascular diseases (Pope et al., 2009). Thus, the prolonged use of marijuana places users at greater risk since some research shows that pre-existing respiratory and cardiovascular conditions place individuals at increased risk for contracting the COVID-19 virus (Government of Canada, 2020).

In addition, marijuana smoking can compromise the human immune system, which protects individuals against viruses and infections (Shay et al., 2003). THC can inhibit immune cells within the lungs, further exacerbating smoking as a risky behaviour during the COVID-19 pandemic (Shay et al., 2003). When the immune system is not functioning at its optimal state, the individual may have reduced defenses against COVID-19 (Shay et al., 2003). Accordingly, individuals who smoke marijuana should attempt to limit or reduce their use of this drug during a pandemic to improve their lung health.

By addressing this thesis topic using a trauma-informed approach, I had an opportunity to understand marijuana use holistically, which led to a more comprehensive understanding. As part of this holistic process, it is important to avoid placing psychiatric labels on those individuals with emotional distress as this provides very little benefit (Purkey, Patel & Phillips, 2018). There is more value to understanding how trauma has affected the individual and led to their current presentation (Purkey, Patel & Phillips, 2018). Younger adults currently experiencing trauma and who smoke marijuana regularly could be exposing themselves to poor health outcomes. Individuals who face poor health outcomes could be at even greater risk during the coronavirus
The COVID-19 pandemic has led many individuals to experience feelings of social isolation, which could be detrimental for those who live with pre-existing emotional distress and/or instability. Through studying the perspective of individuals experiencing heightened health risks during the COVID-19 pandemic, I had an opportunity to dispel potentially harmful assumptions regarding marijuana use and emotional distress and replace these assumptions with evidence-based knowledge.

Chapter 3: Methodology

3.1 Paradigm

This research study was informed by a social constructivist paradigm. A paradigm can be understood as the worldview of the researcher. My ontological perspectives suggest that reality will vary amongst individuals and is influenced by social surroundings (Braun & Clarke, 2006; Crotty, 1998). Everyone has their own reality, which is equally as important and significant as another’s reality (Braun & Clarke, 2006; Crotty, 1998). The meaning of reality is constructed through interactions which are later interpreted and analyzed by myself (Braun & Clarke, 2006; Crotty, 1998). The experiences and thoughts of another individual’s reality can be accessed by using interviews and building a strong rapport with the participants (Riessman, 2008).

3.2 Epistemology

This section will briefly discuss how I understand knowledge. The epistemological beliefs of a constructivist researcher are rooted in the idea that knowledge is subjective (Guba & Lincoln, 1994). Knowledge is obtained by spending sufficient periods of time in the research field, attempting to gain a deeper understanding (Riessman, 2008). Only through interaction and dialogue can I understand another’s definition of reality (Ponterotto, 2005).
3.3 Methodological Underpinning

This study was conducted using narrative inquiry as it could be used effectively as a means of deepening my understanding of the unique perspectives, in this case, subjective perceptions surrounding the effects of marijuana use in young adults experiencing emotional distress during social isolation. Narrative inquiry is a way for researchers to appreciate the participants perceptions through the use of storytelling. In this study, participant experiences and thoughts were accessed using interviews. By approaching this study using narrative inquiry, as the researcher, I was able to investigate more complex issues which may not have been possible had I used a methodology that was less human-centered (Mertova & Webster, 2019). The use of narrative inquiry also allowed for individual assessment while taking context into consideration (Ponterotto, 2005).

Context is important to consider as individual assessment when it comes to understanding reality. In this study, each participant had their own experiences and perceived thoughts regarding marijuana, but these experiences were directly influenced by social context (Marshall & Barthel-Bouchier, 1994). Crotty (1998) mentioned that these experiences are situated within a larger context and are influenced by other factors in society such as the COVID-19 pandemic. These factors helped shape participant experiences and should not be separated from the narrative in which I obtained them, especially when discussing trauma, as these events are life altering (Clandinin, Cave & Berendonk, 2017).

3.4 Reflexivity

In addition to collecting data about the subjective nature of experience, narrative inquiry also makes space for the influence of various contextual factors and my interpretation of reality. To this end, narrative inquiry is a methodology that relies on the co-construction of
understanding (Ponterotto, 2005). This ability means that my thoughts and understandings are joined with participant input to develop the narrative (Ponterotto, 2005). As described by Smythe and Murray (2000), narrative inquiry is an interpretive enterprise and researchers form meaning to make data. Although this methodology means that the data cannot be wrong per se, rigorous use of a reflexive journal, used to document assumptions made throughout the data analysis process, will allow the reader to better understand where I am situated and ideally, lead to a better understanding of the subjective nature of trauma. Because I rely participants’ own interpretation of trauma, it is important to reflect on my preconceived ideas or assumptions, as these have the potential to impact the results.

In the following paragraphs, I will outline my personal subjectivities that have informed this study.

I have been a Registered Nurse (RN) in Ontario, Canada for approximately four years. I have worked in several departments with a specific focus in mental health. I currently work as a Registered Case Manager (CM) for individuals who have experienced a catastrophic motor vehicle accident, as well as a Nursing Manager for home and community care. Prior to these positions, I was working in Forensic Mental Health, as well as the Acquired Brain Injury/Spinal Cord Injury Rehabilitation Program for London/Middlesex Community.

I was interested in pursuing this thesis topic because I felt there was a significant lack of psychiatric participant voices being heard in regard to marijuana use within research. I consider this underrepresentation of young adults experiencing emotional distress to be an issue because I have seen health promotion programs related to marijuana usage developed by those who have not worked with this vulnerable population. The development of these programs has not typically
been grounded in input from young adults with emotional distress, which calls into question the validity of the knowledge being disseminated.

To live with integrity, I feel obligated to advocate for vulnerable individuals (including individuals with emotional distress), both as a Health Care Professional (HCP) and as a researcher. The lack of participant representation creates a fundamental conflict within the data collection that I must carry out within this study. I recognize that I cannot interact with research participants as a nurse, but rather I must assume a constructivist researcher position in my interactions with research participants. To differentiate the two roles, I will primarily use the tool of reflexive journaling to examine and document my perspectives while interviewing participants and interpreting interview data. Further, I will be working outside the forensic population in which I, at the time of the interviews, was currently spending most of my professional time. As a researcher, it can be challenging to enable a supportive environment when individual participants who live with the impact of trauma are living in circumstances that are unsupportive and/or undermine emotional wellbeing.

In addition, the institutions in which I have practiced as a registered nurse take a very biomedical approach. Despite these professional interactions, I will strive to maintain the trauma-informed approach that I consider to be best suited to the elucidation of relationships between my constructs of interest. Unfortunately, most forensic and mental health treatment facilities across Ontario have a rather difficult time adopting a trauma-informed model, which raises ethical dilemmas for me. In my professional opinion, there are many benefits to trauma-informed care for both clients and staff. Although I have, within this thesis, tried to distance myself from the biomedical approach in which I have been trained, I expect that there will be long-term
benefits to considering how a trauma-informed approach can be integrated into the biomedical perspective taken by my employers.

Prior to entering a clinical profession, I knew that marijuana use was prominent in Canada, particularly as legalization by the Parliament of Canada seemed likely. The Cannabis Act was passed on October 17, 2018, and this legislation promised to provide Canadians with a controlled framework regarding the production, sale, possession, and distribution of cannabis (Government of Canada, 2019). It was not until I began working full-time within a clinical environment that I was exposed to individuals who used marijuana daily. Many clients had developed a dependence on marijuana and were using it as often as possible. I was surprised to find that there was limited research on the association between emotional distress and marijuana usage in young adults.

During the COVID-19 pandemic, I have had a unique experience as a clinical professional. I have had an opportunity to observe how individuals with serious emotional distress cope with social isolation, and how this social isolation has impacted their substance use. I have seen the deterioration of mental health amongst patients for whom I am responsible, for many reasons including limited access to social support from family and friends, and a reduction of service availability (particularly as support groups have been cancelled in response to requirements for physical distancing). Additionally, individuals with justice involvement have had their court cases postponed/remanded due to COVID-19, resulting in prolonged stress and uncertainty. These changes in their social and clinical routines have, in my opinion, led to behavioural and psychological changes within these clients. At my workplace, I have witnessed individuals seeking illicit substances from unknown sources, regardless of the pandemic risks. These individuals are placing their lives at risk every day not knowing if someone with COVID-
19 was potentially handling their illicit substances. Furthermore, and as already mentioned, smoking marijuana may place a person at increased risk of contracting COVID-19 (CCSU, 2020; Government of Canada, 2020; Shay et al., 2003). I have witnessed devastating patient outbursts, with vicious attacks and arguments, occurring due to the changes the COVID-19 pandemic had on their networks, as well as on their marijuana use. I feel it is important to determine how these individuals perceive their substance use and the relationship they have with marijuana during a period of social isolation. This insight might give me the opportunity to better support and further my therapeutic relationship with these clients more holistically.

3.5 Study Design

3.5.1 Recruitment

All study procedures were approved by the Non-Medical Ethics Board (NMREB) before commencing (#115677; see Appendix A for the ethics certificate for this study). The primary investigator reached out to existing connections at a not-for-profit organization located in London, Ontario. This not-for-profit organization supports youth who are struggling with a variety of challenges and barriers to overall wellbeing, including poverty, homelessness, addictions and compromised mental health. This organization provides housing, essential resources, professional mental health supports, and employment and educational supports. This organization was selected as the community partner for this project as they indicated early on (i.e., in the initial planning stages of the study) their willingness to participate in research with the hope of generating knowledge. When the primary investigator reached out to speak with agency contacts about this study, they expressed interest and a desire to know more. At that time, the primary investigator scheduled a meeting for the research team and the agency contacts to discuss the study further. At the meeting, those in leadership within the organization agreed to
assist in the recruitment process and help share NMREB-approved study information (when available) with those who meet the criteria.

Purposeful sampling was used to recruit individuals for this study. Purposeful sampling is often used in qualitative studies to ensure the generation of rich data (Robinson, 2013). Robinson (2013) noted that this technique is a non-random method of sampling typically used to access the participants who meet specific criteria set out by the researcher. This criteria was shared with the not-for-profit organization’s direct service workers.

After ethics approved the recruitment methods (including all recruitment posters), I emailed this information to the agency contacts who had previously agreed to assist with the recruitment process. These individuals then presented this information to the appropriate candidates during their client visits. We felt that this strategy would be an effective way of maximizing variance within the sample, as our contacts within the not-for-profit organization had both a solid knowledge of the study goals, and a pre-existing relationship with the participants. This strategy also made the discussion of the sensitive subject matter in this study more comfortable for participants.

The agency contacts began introducing this study to clients who they felt were appropriate for consideration as potential study participants. The agency contacts typically see their clients weekly to assess their well-being and current needs. At these appointments, the contact staff persons presented the research information to the potential participants and followed up with them at subsequent visits. The rate at which the research was exposed to the participant allowed more time to read the research details in depth and carefully consider their decision to participate. This rate of exposure aligns with my trauma-informed approach as we are aware that this study could cause further distress for those who might choose to participate.
The agency contacts then contacted me through email to let me know when a potential participant was interested. I used email as the method of communication to decrease physical contact during the COVID-19 pandemic. At no point did I have access to the mailing list used by the not-for-profit organization, nor did I contact anyone who had not agreed to be contacted for study purposes.

Another advantage of partnering with this not-for-profit organization was their willingness to provide necessary technology such as a computer or phone for participants to use during the interview. When necessary, agency staff assisted participants with setting up an email address to communicate with the research team if they did not already have one. Agency contacts also volunteered to email myself or the primary investigator on behalf of potential participants to state their interest, if email was not preferred.

After receiving confirmation of participants’ interest, letters of information and consent were sent by email. Once I obtained the completed consent via email, the participant and I established a convenient time to meet using the videoconferencing platform Zoom. For the interviews, participants could either phone into the call or video chat; therefore, either a telephone or computer was sufficient. Participants had the option of attending from a location of their choice. There were some participants who chose to meet virtually from their home while others attended from the not-for-profit organization’s primary location, using an office space provided by the employees.

Prior to the interview date and time, I sent the participant specific details for the Zoom meeting, along with confirmation of the date and time that had been agreed upon. At the beginning of the interview for those who had the employee present in the room, I confirmed that
this was what they desired for confidentiality purposes. A few participants preferred to have an agency staff person present, while others preferred to be alone.

### 3.5.2 Data Collection

Narrative inquiry recognizes interviews as the primary data collection instrument (Smythe & Murray, 2000). Participants were able to choose their physical location for online discussions as all of the interviews were carried out over Zoom. The participants were thus able to create a more comfortable environment for discussing personal topics in depth. Each interview differed in length (participants were notified that the interview could range from 30 to 90 minutes), depending on the amount of time needed to obtain deep descriptive and rich narratives. This method is in keeping with recommendations for narrative interviews, which are often carried out over an extended period (Smythe & Murray, 2000). At the beginning of the interview, I read the letter of information that had previously been emailed to the participant. This exercise reminded the participant of the salient study details, and allowed the participant to ask any questions before starting the interview. Next, I asked general demographic questions developed by myself and the primary investigator to ensure that the potential participant met the inclusion and exclusion criteria for the study. The pre-determined discussion prompts used in this study were open-ended and intended to guide discussion throughout the interview. These discussion prompts were re-assessed as subsequent interviews took place, with minor modifications made as necessary. The purpose of the pre-determined prompts were used by the researcher as a starting point for discussion (Mertova & Webster, 2019). Participants were always free to direct the interview to a degree and were permitted to discuss the information they felt was important about this topic. The interview questions used in this study are included with this thesis as Appendix D. The prompts developed by the researchers were meant to elicit the discussion of events and
experiences which encouraged the participants to reflect and recount their stories (Mertova & Webster, 2019).

Interviews were audio-recorded throughout the study. Audio-recordings afforded me the opportunity to re-visit the narrative throughout the data analysis process when the participant was no longer accessible (Riessman, 2008). Audio recording also allowed me to review the tone, volume, rate, and rhythm of speech, providing rich information. I carried out initial transcription using NVIVO, an artificial intelligence tool. This artificial intelligence transcription transcribed a large portion of the audio accurately, but the accuracy of the transcriptions greatly depended on a participant’s ability to articulate well. In addition, NVIVO was unable to transcribe slang terminology or voice speaking. Accordingly, I still needed to review the transcripts in some detail, prior to carrying out the analyses.

3.5.3 Ethics

It is essential for researchers to avoid causing harm to participants and to make every attempt to foresee any issues that may arise (Smythe & Murray, 2000). Due to the open-ended structure of these interviews, it was difficult to determine what topics and discussions would occur. Therefore, it was my duty to mention the unpredictability of this study upfront (Smythe & Murray, 2000). Statements concerning the unpredictability of the research process were included within the letter of information (LOI), and the potential unpredictability was also verbally emphasized at the outset of the interview, while informed consent was being collected.

Narrative inquiry can also be intrusive, possessing the ability to cause emotional turmoil, increasing the risk of harming individuals (Smythe & Murray, 2000). I developed a pre-written script to ensure all participants were made aware of the potentially damaging effects of this research. In addition, an electronic information package regarding the nature of this study was
emailed and read to each participant. This information package is included with this thesis as Appendix C. The package mentioned the risks of participating in this study, such as emotional distress or exacerbation of a pre-existing psychological condition (Iltis et al., 2013). By providing electronic packages, participants were given concrete resources that they could consult for support, after I was no longer immediately available to them.

I explained to all participants at the outset that the co-constructive nature of this study meant that although the conclusions might not necessarily be what they expected, their contribution of voice and content was critical to the development of an understanding of their lived experiences in relation to the population of interest (Smythe & Murray, 2000). Through collaboration with the participant, we attempted to resolve ethical dilemmas as they arose.

3.5.4 Data Analysis

I carried out the initial analysis of the data, and the primary investigator (MW) reviewed these initial results. The use of two researchers offered two distinct perspectives on the data, which increased the study’s credibility (Tracy, 2010). I kept all files on an encrypted external hard drive (in a secure location) to ensure the safety and preservation of data. These files included the date and the time of collection. Data was also backed up to university servers.

NVIVO was initially used to organize transcripts and highlight significant categories within the data. Ultimately, I found NVIVO to be less useful than more traditional techniques of highlighting paper copies of transcripts, to identify concepts and categories. Codes within the data were identified by colour, and each interview transcript was coded independently before it was compared with other transcripts. I used this method to identify common categories and narrative plots, which led to the development of themes. These themes were organized chronologically to construct narratives. I then built these narratives from beginning to end in an
organized fashion, in an effort to determine the experiences that were associated with marijuana use (Riessman, 2008). Analysis was iterative, with the research team re-visiting the data on many occasions. By re-visiting the data in this way, I hoped to develop a strong personal understanding of the data, as well as participant context. Once I developed a unique understanding of the themes, the narrative construction based on marijuana use during pandemic-related social isolation began.

Chapter 4: Analysis

Transcripts were auto generated using NVIVO transcription, with the accuracy of the text confirmed by myself (AW). After the transcripts were verified, they were read numerous times over a three-week span. I consciously selected thematic analysis as the specific analytic method, as it would provide rich and detailed information on the research question: How do individuals make sense of their marijuana use while being socially isolated due to the COVID-19 pandemic and how do their experiences with marijuana shape their beliefs regarding marijuana use? Prior to beginning the analysis process, I consulted the literature to ensure that thematic analysis would be compatible with a constructivist paradigm, which researchers, Braun and Clarke (2006), agreed.

In the following section, I will provide an explanation of the data analysis process while highlighting the importance of using thematic analysis. Braun and Clarke (2006) expanded on the idea that thematic analysis is a practical approach to employ when examining the insights of many participants, as it facilitates the assessment of similarities and differences between the narratives. By following the thematic analytic process that Braun and Clarke (2006) articulated, I was able to unravel the reality and experiences of participants while also taking into account where they are located within society (Braun & Clarke, 2006). This process identifies, analyses,
clearly organizes, and describes important themes throughout participant interviews (Braun & Clarke, 2006).

There are several ways to apply thematic analysis, and due to the flexible nature of this method there is no single correct process (Braun & Clarke, 2006). I divided the analysis portion into four logical sections. Themes were selected based on the importance in relation to the research question as well as the researcher’s interest in the area (Braun & Clarke, 2006). It is important to note that I did not select themes based on prevalence throughout the participant interviews. In addition, themes within this paper are latent, meaning, the researcher explored the assumptions and conceptualizations of the data (Braun & Clarke, 2006).

The first section will discuss key terms I attempted to understand related to the COVID-19 pandemic, such as ‘restrictions,’ ‘socialization,’ ‘isolation,’ and ‘loneliness.’ The second section will explore critical factors which speak to the frequency of marijuana use. The third section will present participant choices that were identified, with regards to pre-conceptions and determinations that are made by marijuana users before smoking (including which strain to smoke, the timing of smoking, and the method of smoking). Finally, the last section will explain the interplay between themes.

There were several steps taken throughout the analysis process to derive the information listed below. I collected the data and edited the AI transcriptions from NVIVO. As a result of this process, I had substantial knowledge of the material prior to the analysis process. It was essential to listen to the audio recordings a number of times, to ensure accuracy. At this time, the participant names were replaced with pseudonyms. Once the transcripts were sanitized in this fashion, they were printed.
I started by writing initial notes on a paper copy of the transcripts. I also went through scripts numerous times, highlighting codes that were important to the thesis question and the core goals of the study. My notes and highlighted codes were then sorted into themes and sub-themes using a simple table with two columns. The first column held the name of the participant, and the second column presented supporting passages.

After the tables were created, I took this information and began to write ideas more formally while organizing supporting narrative passages. From the completion of this exercise, themes were clearly solidified. Themes were then compared amongst each other to avoid overlapping of content. From there, the analysis section of this paper was developed.

4.1 Introducing the Participants

Pseudonyms are used throughout the study to protect participant identity. Six participants in total were interviewed, and each provided unique narratives. The pseudonyms Bob, Sandra, Martin, Connor, James, and Chloe were used to identify the different participants. Below are very brief threads to explain the context of their individual stories.

Bob

Bob was a young, soft-spoken individual who was struggling with significant emotional distress from a very young age. Bob appeared to be in good humour when the interview happened and his affect seemed to further brighten and ranged appropriately. Bob stated that he typically enjoyed going to the skate park and spending time with his friends. Bob has been homeless on numerous occasions and has received significant support from various community agencies to shelter him. Bob was housed by the not-for-profit organization and was receiving assistance with accessing essential resources, such as access to adequate food and mental health support. As a result of his past and current trauma, Bob has been formally diagnosed with mental
illness according to his physician. Bob disclosed that he agreed with the diagnosis provided by
the health care professional, and he agreed with the treatment. During the interview, Bob
frequently displayed insight into his emotional distress. He has been using marijuana for a large
part of his life and has admitted to using it regularly. Bob told his stories willingly and appeared
to have had minimal hesitation or worry.

Sandra

Sandra began her interview with the camera feature of Zoom turned off. She then turned
the camera on about halfway through the interview, seemingly as she began to feel more
comfortable. Sandra recounted experiences from elementary school through to present day. She
noted that soon after completing high school, she relocated and moved to a different city where
she currently resides. Sandra was working at a part-time job that she enjoyed, but she wished she
could have worked more hours. Sandra presented as an outgoing young woman who had just
recently returned from vacation within Canada. She indicated that she spent her free time
socializing with friends. At the interview, Sandra appeared to be in a good mood, and her affect
seemed to be bright. She explained that she had been homeless throughout the pandemic and was
recently housed with non-profit community assistance, which provided her with a sense of relief.
The non-profit assistance program provided Sandra with a private room and all essential
resources. Although she expressed appreciation for the accommodation, Sandra noted that the
environment was not always good for her mental health during the pandemic. Sandra indicated
that she experienced emotional distress and believed that this was a common experience amongst
most individuals. Sandra explained that she began smoking marijuana in elementary school with
her friends, and that she has continued to smoke since that time.
**Martin**

Martin, an individual who is living independently in his own apartment, presented as a funny and energetic individual. He admitted to experiencing emotional distress during the pandemic, and also disclosed that he has been professionally diagnosed with a mental illness. He enjoyed playing video games, socializing with friends, and visiting with his family. Martin started using marijuana at the age of 11 but quit at the age of 13. Martin then mentioned that he started smoking marijuana again in the last year of elementary school, continuing throughout high school and to this day. He noted that he has tried to cut back but has been unsuccessful. Marijuana at the time of the interview held a high level of importance in Martin’s life.

**Connor**

Connor was a young male who attended his interview virtually through Zoom. Connor had just woken up and was dressed in pyjamas, lounging on his couch with tea in his hand. Connor appeared to be in a good mood, and his affect seemed to brighten throughout the interview. Connor demonstrated a good sense of humour by frequently telling jokes. Connor spends his time going on walks, enjoying nature, watching television, and socializing with friends. Connor was unemployed and did not wish to work as he was receiving employment insurance and did not want to lose this source of income. Connor had not completed his high school education and took full responsibility for this fact. He appeared to be content at the interview and took measures to prevent the COVID-19 pandemic from impacting his lifestyle.

**James**

James completed his interview using the telephone by dialing the Zoom number rather than selecting the video call. He mentioned that he did not have access to reliable internet; therefore, he had no choice but to call in using Zoom. James identified himself as a “tall hippy.”
He was new to the city and had a long history of homelessness. He categorized himself as being “different” from most individuals, but did not elaborate on this categorization. James indicated that he is very confident and comfortable with who he is as a person. He was struggling with emotional distress and stated he had been previously clinically diagnosed with several mental illnesses. James was pleasant throughout the interview and stated his mood was “good.” James briefly explained his history with marijuana use during the interview, noting that he began using cannabis in oil form, but over time transitioned to using the flower form he refers to as marijuana. James grew up in a very religious household where illicit substances were not acceptable, and he moved out of his family home before smoking. James noted that he began using cannabis around the time that he began attending college, and that he was using marijuana at the time of the interview.

Chloe

Chloe presented as a shy and quiet young woman, playing with her new puppy on the couch as her cat walked across the computer during our Zoom call. Initially, she was quite distracted, but as the interview progressed, she attended to the conversation more fully. Chloe’s interview occurred in her own downtown apartment, an environment that she sometimes finds distressing, as there are “crackheads” who intimidate her and frequently block the building entrance. During the interview, Chloe elaborated on many changes in her daily routine that have occurred as a result of the COVID-19 pandemic. Chloe disclosed that she has been experiencing emotional distress during the pandemic but did not mention any mental health formal diagnoses. Chloe’s interview provided me with valuable insight into an individual’s marijuana use while simultaneously experiencing emotional distress during the COVID-19 pandemic.
4.2 COVID-19 has led to the frequent use of the following key terms: ‘Restrictions,’ ‘Socialization,’ ‘Isolation’ and ‘Loneliness’

Since the initial identification of the coronavirus, news and social media sources have frequently discussed relevant guidelines, recommendations, and updates. The pandemic has altered many aspects of individuals’ lives, including the use of new terminology. The rapid adoption of these terms on a societal level has left individuals to define these terms independently, which is what participants displayed as they were already familiar with these terms prior to the interview. Given the severity of COVID-19 and the frequent changes in safety guidelines, it is crucial that this terminology is clearly defined as it prevents individuals from misunderstanding the disease and various protocols around it.

This section is divided into three parts. The first part will discuss the meaning of ‘restrictions’ imposed by the government during the pandemic. I accessed online government resources to establish an introductory understanding of the intended meaning of ‘restrictions.’ These resources were used to inform further exploration of ‘restrictions’ based on participant understanding. The second part will explore the concept of socialization. Discussions about socialization will examine changes in the nature, setting, and frequency of participants’ social routines. The last part will explore the utilization of the terms ‘social isolation’ and ‘loneliness’ during the pandemic. The participants’ opinions of social isolation and loneliness will then be analyzed.

4.2.1 Restrictions

In response to the rapidly increasing numbers of COVID-19 cases within the province of Ontario, the provincial Government of Ontario declared a state of emergency on two occasions: March 17, 2020, and April 8, 2021 (Government of Ontario, 2021; Nielsen, 2020). When the
government implemented the state of emergency, it led to profound alterations in how Ontarians conducted their daily lives (Ghebreyesus, 2020). During the last state of emergency, declared on April 8, 2021, the following changes were implemented: closure of non-essential retail stores; termination of social gatherings both indoors and outdoors; halting of religious ceremonies; banning of non-essential travel; closure of public schools (with learning facilitated through virtual instruction); closure of sport and recreation areas; and requiring individuals to work from home, except where infeasible (Government of Ontario, 2021). To ensure guidelines were adhered to, the Government of Ontario (2021) authorized sizeable fines for those found to be in violation of the new bylaws. Provincial offence officers were empowered to enforce the regulations (Government of Ontario, 2021). The Government of Ontario (2020) then continued to make numerous modifications to provincial guidelines and bylaws in response to case number fluctuations. Modifications to the bylaws consisted of new capacity limits for both indoor and outdoor events as well as the addition and removal of certain personal protective equipment (Government of Ontario, 2021).

Despite this implementation of restrictions, and the communication of these restrictions to the public through a variety of social and conventional media outlets, many Ontarians continued to contravene the bylaws (Miller, 2021). Two participants in this study indicated that the restrictions did not substantively impact their daily lives. Sandra noted that she “Wasn't really listening to the mandate and rules”, explaining that she continued to attend outings, parties, and travel within Canada (Montreal, Ottawa, and Toronto). She elaborated on her lack of willingness to follow the restrictions, with “Time is so limited. I don’t want to chance not being a friend and like making memories anymore.” Sandra was clearly focused on potentially losing opportunities to socialize and build relationships with her peers. Sandra was less concerned with the idea of
contracting COVID-19. She was, however, aware that peers could interpret this behaviour as “Irresponsible by going and doing what I am doing.”

Like Sandra, Connor indicated that he was not following restrictions that had been implemented by the provincial government during the COVID-19 pandemic. Connor, however, had a significantly different explanation for his behaviour. Connor believed that “COVID-19 is a conspiracy” and noted that he does not “Believe in any of this. The government is lying to us.”

As seen in the media, since COVID-19 was first recognized, there have been a number of individuals who believe in a variety of conspiracy theories to explain the pandemic restrictions. As a result of his beliefs, Connor did not follow any of the restrictions, and did not consider personal protective equipment to be necessary at this time. Sandra and Connor’s statements differed from the rest of the participants, as they did attempt to follow the government’s restrictions.

While conducting interviews and listening to the narratives, it was clear that Bob and Martin had found the rules impacted several aspects of their lives, including access to health care services. Some participants in this study elaborated on the changes within rehabilitation programs, counselling appointments, and homeless support shelters. Bob noted that face-to-face rehabilitation for substance use was more effective for him, and this treatment was no longer available owing to COVID-19 restrictions.

Bob: Right before COVID happens, I went to rehab and got my shit together, and I was going to a lot of NA meetings and stuff. And like a huge part of an NA meeting, for me at least, is actually going there and interacting with people who are like minded to you and they have the same problems and share similar
struggles and stuff. And that’s basically the medicine for me out of the meeting. And I can’t get that anymore.

This quote illustrates one way in which COVID-19 restrictions have interrupted rehabilitation. Bob had not had the opportunity to meet with peers who had been experiencing similar substance use challenges. Many individuals managed the negative emotions related to COVID-19 with substance use, and so a disruption of access to these supportive services may have created an additional barrier in individuals’ progress toward recovery, during a time of immense uncertainty (Ghebreyesus, 2020).

In addition to the health service changes related to substance use and rehabilitation programming, many other services were experiencing change. Martin explained that personal counselling appointments were markedly changed from how he experienced them before the COVID-19 pandemic saying “It will be virtual, but I’ve been impacted, I guess. I can’t go see my counsellor, but I still see my counsellor.” Thus, although Martin could see his counsellor, and attend appointments, he had to communicate with her in a markedly different way. According to Ghebreyesus (2020), mental health continues to be severely impacted and remains equally as important to the physical threat of COVID-19. When individuals in significant emotional distress cannot access their emotional supports, it may lead to dangerous outcomes as the continuity of care is disrupted.

According to agency contacts at the not-for-profit organization, all participants were living in locations where they could access basic needs resources such as nutritious meals, affordable housing, laundry, shower facilities, employment services, hygiene products and children’s supplies. Two participants briefly explained the significant changes in their typical use of community-based services throughout the interviews due to the COVID-19 pandemic. Connor
explained that he would use the community resources and “used to go there every day” before the pandemic. Government restrictions necessitated reducing the facility capacity, meaning that patrons had a finite amount of time allotted to them for visiting community support facilities. Connor noted that “they kick you out after 50 minutes, whereas before I could stay for a couple hours or something.” Chloe conveyed a very similar experience, stating “I don’t hang out there anymore because of the restrictions.” Prior to the COVID-19 pandemic, youth centres provided numerous valuable resources. If basic needs are left unmet for a significant period of time, it can result in death and disease, especially in vulnerable groups (WHO, 2008). Even when facilities remain open, restricted hours of operation continue to concern some individuals, deterring them from using the resource at all.

4.2.2 Socialization

The pandemic measures and advisories that the Government of Ontario has communicated have led to substantial changes in the ways in which humans can interact safely. The following restrictions were imposed by the government during the first lockdown on March 17, 2020: (1) citizens were to stay at home unless they required necessities; (2) gatherings with others who were not in your immediate household were banned; (3) individuals were to practice physical distancing of at least two meters; and (4) those who had travelled or been in contact with a potential or probable case of COVID-19 needed to quarantine for 14 days (Nielsen, 2020). As a result of these restrictions, citizens had to interact and socialize with each other quite differently from that which was the norm before the COVID-19 pandemic.

Many individuals replaced in-person socializing with technology-mediated socializing (Vargo, Zhu, Benwell & Yan, 2020). Technology was a frequently used means of communicating before the COVID-19 pandemic; however, after the government implemented
the mandate, technology use increased dramatically (Vargo et al., 2020). Several participants in this study explained how their use of technology changed during the pandemic. Sandra indicated that she used her cell phone and video chat to communicate with her peers and family. She noted that she relied heavily on technology during the COVID-19 pandemic to keep in touch, stating, “I’m always on my phone talking to my friends, video chatting them…” Martin had also been using the phone as a means of communication. Martin also explained that he used video games as a means of interacting with others stating, “I was like gaming to my friends… It was a social setting.” In a study conducted by Strauss (2020), it was found that video games had become an established method of communication for many, with many individuals using video games to maintain friendships during the pandemic. Video games can, therefore, be a fun and interactive form of media that can also assist in easing experiences of isolation during the pandemic (Marston, 2020).

As many individuals attempt to reorganize their methods of social interaction to accommodate for the pandemic restrictions, there continue to be many who experience adverse outcomes within their social lives. Bob had been unable to locate the peers he was communicating with in Narcotics Anonymus (NA) therapy, and therefore those connections have been lost entirely over the course of the pandemic. Bob explained that the peers he lost touch with were “sharing similar struggles” and noted that he perceived the lost social connections as distressing and not helpful to his recovery. James also experienced adverse outcomes concerning the changes in socialization after the implementation of government restrictions – adverse experiences that were exacerbated by the fact that he is new to the city and had minimal social connections before the pandemic began. James did not use social media.
James: I don’t use Facebook anymore. I removed Facebook because that’s like where a lot of the anxiety goes down it’s basically like there’s not a lot of positive stuff there. And then there’s nothing to do with the day. And that’s how people are interacting.

The above passage shows that James saw limited options for communication, stating “trying to meet new people and build some roots is a lot harder.” Without the support of social media, James found that establishing new relationships was quite difficult. The pandemic has had varying degrees of impact on individuals and their relationships, with many of these being due to the implementation of necessary but restrictive rules and regulations, which have come with a significant emotional cost for many, including some of the participants in this study.

4.2.3 Social Isolation and Loneliness

It is essential to define both ‘social isolation’ and ‘loneliness’. Despite the fact that some of the literature uses these terms interchangeably, they do not necessarily have the same meaning. Hwang and colleagues (2020) have defined loneliness as the subjective feeling of being alone. As mentioned in the literature review, social isolation refers to the distancing of an individual psychologically, physically, or from their needed relationships with other individuals (Biordi & Nicholson, 2013). Not surprisingly, the relationship between social distancing and social isolation may be a reciprocal one, with some research suggesting that social isolation changes the frequency and level at which one socially interacts (Hwang, Rabheru, Peisah, Reichman & Ikeda, 2020). Although social isolation and loneliness were experienced by some participants before the pandemic, these experiences have been exacerbated in a way that has the potential to harm the health of individuals (Hwang et al., 2020).
Prior studies have determined that individuals with pre-existing mental health concerns prior to the COVID-19 pandemic are at increased risk for further psychological harm such as feelings of anger and anxiety (Brooks, Webster, Smith, Woodland, Wessely, Greenberg & Rubin, 2020). Participants in the present study were recruited based on the presence of emotional distress. Many participants elaborated on the experience of social isolation due to the COVID-19 pandemic. For example, Bob, James, and Chloe noted that they experienced social isolation after the implementation of mandates. Bob discussed his inability to have friends at his house during the pandemic, stating “I love having people over to my house. I love having little parties and get-togethers and having drinks with friends, and I can’t do that right now, and that was a huge stress reliever to me.” This underscored the change in frequency of socialization as a result of pandemic restrictions. It was also important to note that Bob referred to gatherings with friends as a “stress relief” that was no longer available to him. James conveyed a similar experience of social isolation. He explained that his close friend is located in another city and could not visit due to the restrictions, stating “she used to come up once a month and she stopped because of the pandemic.” The problem was compounded by the fact that this friend has an immunocompromised family member, and has therefore strictly adhered to the mandate to protect the health and safety of their loved one. James indicated he accepted and understood the importance of adhering to COVID-19 policies stating “she has to be very, very careful”; however, he also expressed that this was one of the only people he saw as he “didn’t know a lot of people.” Chloe noted that her friends lived in a foster home facility with rules that are aligned with the government mandate. As a result, in-person socialization remained banned.
Chloe: Some people aren’t even allowed outside. So, I don’t even hang out with my friends anymore because a lot of my friends are in foster homes, and they aren’t allowed to go out.

Sandra elaborated on her experiences of social isolation at a homeless shelter during the pandemic. In response to the rules and precautions that the government implemented, the shelter facility was firmly adhering to these recommendations and guidelines. Sandra explained that the dining hall was re-designed to promote social distancing. The tables were separated, there were limits on seating, and staff had to ensure all facility users followed the rules. Sandra shared that staff reinforced policies by raising their voice and patrolling the dining hall, stating “they yell at you if you get too close to somebody.” Sandra’s typical response to these policies were further isolation, as she noted with “so then you’re sitting in your room, and then you’ve got to sit by yourself because you’re not allowed anybody in your room”, further underscoring the challenging nature of the situation by noting that she was “staring at the frickin wall.” Physical distancing, implemented to decrease the chances of COVID-19 transmission, has resulted in social isolation that has been quite damaging to Sandra’s emotional wellbeing.

Connor denied experiencing any social isolation, or changes in his social routine, as a result of the COVID-19 pandemic. Connor continued to see his friends, stating “I still get to see everybody.” He frequently mentioned throughout his interview that he did not follow the mandate, or the rules implemented by the government, which may be why he has not experienced feelings of social isolation. Connor did, however, suggest that last year, before the pandemic, his social behaviours were slightly different, but he felt that the change in frequency was not a result of the pandemic. He believed the differences in socialization were a personal choice that was unrelated to the pandemic, as he has been attempting to surround himself with
different peers than those with whom he has been socializing before the pandemic. This had probably resulted in changes to his socialization.

Loneliness is defined as the negative subjective feeling of being alone. Throughout the interviews, none of the participants attributed their experience of loneliness to be a direct result of the pandemic. Bob, Sandra, and James noted that they had pre-existing feelings of being alone, but they attributed this to their homelessness experiences rather than the pandemic. When someone is experiencing social isolation, it does not necessarily mean that they will experience loneliness. Thus, while social isolation has been reported as an outcome of COVID-19, this does not necessarily mean that loneliness is also a result of COVID-19. In addition, it may be that the assumption that feeling lonely is a negative experience is erroneous. James addressed this within his narrative when he stated “loneliness comes and goes, but I generally invite it.” James is explaining that feeling lonely is not necessarily a problematic emotion for him. It is evident, however, that loneliness and social isolation are two very different concepts and should be viewed as individual entities.

4.3 Influences on the frequency of marijuana use during COVID-19

The frequency of marijuana use typically varies from person to person, and there are many reasons why the rate of marijuana use during the COVID-19 pandemic may have been impacted. Throughout this study, participants were able to identify a few ideas regarding what may have been affecting the frequency with which they use marijuana. Some participants indicated that the supply of marijuana can determine how often they will smoke. The frequency of marijuana use for some individuals may also be associated with their emotional state. If an individual’s emotional state is fluctuating and they are experiencing any amount of emotional distress, this may play a role in how often marijuana is being used. In addition, some participants
may be using marijuana as a coping strategy to combat feelings of trauma or distress, which may also lead to variations in frequency. Context may also lead to changes in the frequency of marijuana use for some participants. Many conditions have changed during the pandemic, some of which have produced profound changes in the daily routines of individuals interviewed for this study. These changes to routine are a direct result of the government’s efforts to decrease coronavirus spread. Prior to the pandemic, some of the participants in the present study spent their free time gathering with friends and/or family, shopping at the mall, or attending the gym. However, due to limitations from government imposed restrictions, “life as we knew it” became quite different. Conditions that impact day-to-day functioning have been challenging and unpredictable and these changes may alter the frequency of marijuana use for some.

4.3 Supply

The frequency of marijuana use appears to be directly impacted by the availability of marijuana, the affordability of marijuana, and dispensary regulations. These three components, all related to the supply of marijuana, had varying impacts on the frequency of use for some of the participants in this study.

4.3.1.1 Availability

Participants mentioned that the amount of marijuana one has available at any given time could be an essential factor in the user’s frequency of marijuana smoking. Both Martin and Connor expressed similar experiences with regards to the impact of availability on marijuana use. Martin explained the impact availability had on his substance use in the depiction below.

**Researcher:** You said you weren’t really smoking right now. Why is that?

**Martin:** Because I don't have much weed left. Like this amount of weed, I have, like, what is that? You can’t even see anything.
Martin held up a small amount of marijuana to the video camera for me to view and laughed at the tiny amount of marijuana remaining in the grinder

Later in the conversation, Martin elaborated on this concept, stating, “I use it daily. I don’t know how many times a day I use it. Maybe if I can, I probably use it. Well, if I have the weed but… I will probably use a lot.” Martin attempted to explain that the available amount of marijuana he had on his person would likely determine the frequency with which he would use it. Martin indicated that when marijuana is more accessible, he tended to smoke more, whereas if he had a limited supply, he would smoke less or sometimes, not at all. Like Martin’s experience, Connor had been voicing, “I just smoked whenever I could get it.” Connor’s quote indicated that when marijuana is readily available, he was likely to smoke. It appeared that there can be a desire or urge to use when it is more convenient or readily available.

4.3.1.2 Affordability

Marijuana can be expensive, depending on how the individual is obtaining their marijuana. The article “Affordable legal cannabis should be a priority as illegal pot prices drop, experts say” published by CBC News (2020) discusses Canada’s significant variations in marijuana market prices according to Statistics Canada (2019). This article indicated that the price differences between illegal and legal marijuana continue to widen, with legal cannabis being priced much higher than illegal. In addition, the article notes that Ontario has the highest price for legal cannabis in Canada. The significant price variation makes it more likely that financially constricted marijuana users may turn to illegal drug trade rather than government-approved suppliers.
4.3.1.3 Illegal Purchase

Throughout this study, Connor, James, and Sandra continued to purchase their marijuana from peers who were not affiliated with government-approved marijuana retail. James explained how exactly he obtained illegal marijuana in the passage below:

Researcher: Do you mind walking me through the process of you using?

James: Yeah, umm. I texted my dealer Stacey, she dropped off a bowl or a gram and I e-transferred.

James did not elaborate on the nature of the relationship between himself and Stacey. Later, James did refer to Stacey as his “dealer” rather than someone he had a pre-existing relationship with beyond the sale of marijuana. Like James, Connor secured his supply of marijuana from a friend and he stated, “my friend used to make it”. Although Connor used past tense in this quote, he did not refer to a government-approved supplier during the remainder of the interview.

Sandra made an important observation when the sale of illegal marijuana was discussed. Sandra told me that her income during the pandemic played a role in whether or not she purchased marijuana and where she purchased from.

Sandra: The only things I’d say like, not so much how I can get it, but like affording it because like work has impacted my source of income to get marijuana is.

This quotation from Sandra indicated that because her income had decreased due to changes in her scheduled shifts as a result of the pandemic, she was very mindful of marijuana pricing. Throughout the pandemic, Sandra had been struggling to understand the significant cost
increase of illegal marijuana. Sandra pondered a potential reason for the rise in the price of illegal marijuana below:

Sandra: And prices have gone up.
Researcher: Okay. I did not know that.
Sandra: Yeah, because I’ve been at, well, I don’t know. Maybe it’s just because I’m new to the city. This city’s prices are different from [names previous city where she lived]. But I could it get off a close buddy of mine; I could get like an ounce for $80.00-$100.00, maybe $100.00 and $120.00 at the cheapest. Everybody out here is telling me $150.00 flat.
Researcher: Okay. So, could that be because of COVID-19?
Sandra: Yeah, that’s what I am thinking. That’s what one of my friends said the other day too, and I’m like really, and they’re “like man COVID prices.”

The above conversation with Sandra suggested that although participants were utilizing illegal purchase methods, there may have been a price increase on illicit marijuana, due to the COVID-19 pandemic. Sandra’s above passage highlighted her concern over affordability. Connor, James, and Sandra mentioned that they are financially restricted, which could also played a role in the frequency of their marijuana use. All three participants were receiving community housing support from a non-profit organization. In addition, Connor continued to receive employment insurance (EI).

James did mention that a decrease in finances resulted in reduced consumption of marijuana. James expressed his financial concerns and stated, “It depends on the time of month too, and money and all of that, but usually, I smoke a bowl every day.” James’s narrative reflected that he typically used daily; however, if he could not afford the marijuana, the
frequency would vary. Sandra also explained that affordability could impact her frequency of use similarly to James, noting “I’m broke, and I know I need to smoke.” Sandra recognized that she could not smoke as often as she would like, due to finances, and this might have been one of the reasons why some individuals may chose to obtain marijuana illegally. In sum, after analyzing interviews with James, Connor and Sandra, it appeared that some individuals continued to purchase illegal marijuana, particularly when their financial state was compromised. Without access to illegal sources, their frequency of marijuana use would likely change. Thus, the nature of illegal purchasing has a direct impact on the frequency of use.

4.3.1.4 Legal Purchase

In contrast to Connor, James, and Sandra’s purchasing behaviours, Bob, Martin, and Chloe noted during their interview that they were purchasing from government-approved suppliers. Bob and Martin used local dispensaries while Chloe was purchasing online. Martin and Chloe never mentioned deviating from a legal to illegal means of purchasing during the pandemic. When I asked Bob if he was buying from other sources aside from the dispensaries, he replied, “no, I don’t really know anyone anymore.” Bob, Martin and Chloe never mentioned why they continued to purchase marijuana from approved government suppliers. It is, however, essential to recognize that similar to an illegal purchase, legal dispensary purchases have also been seriously impacting the frequency of marijuana use. Recreational marijuana retail laws exist within the province of Ontario (Government of Ontario, 2021). The individual must be 19 years of age or older to be eligible to purchase marijuana legally, whether it be online or at an Ontario cannabis authorized store (Alcohol and Gaming Commission of Ontario [ACGO], 2021). Anyone under the age of 25 years must show photo identification at the point of sale (ACGO, 2020). In addition, an individual is allowed to purchase up to 30mg of dried recreational
cannabis at one time (Government of Ontario, 2021). Martin had been using the Ontario cannabis authorized retail stores, however, he voiced frustrations around the quantity of marijuana one can purchase. Martin stated, “But the only thing I don’t like is when I go to the dispensary, and they limit, they limit me to an ounce. I don’t like that. I would rather buy more, but it’s okay.” Martin disagreed with the limit per purchase and further stated:

Martin: that’s the law… they’ll just pull the law card on me, and every time I’m going to distract you. I’ve done it twice and was like, oh, could I get this ounce, and can I get more? And they are like, “No, that’s your limit,” and it’s like, “oh, yeah, I forgot.”

Martin continued to use the dispensary despite his frustration with purchase limits. Legalization of marijuana in Ontario has resulted in a growth in retail and online locations where users can purchase marijuana. However, the example above indicates that before COVID-19, there were already challenges for marijuana shoppers, such as limits on the amount that could be purchased at one time. Challenges related to legal purchases continue to impact the supply of marijuana. The impact of this on frequency of use, especially among vulnerable populations, is worthy of further investigation.

4.3.1.5 Legal purchases during COVID-19

Government rules and regulations during the COVID-19 pandemic are yet another critical factor to consider when exploring how the supply of marijuana might directly impacts the frequency of consumption. According to the participants interviewed for this study, continuous modifications to store policies throughout the pandemic have resulted in behavioural changes such as the frequency of substance use. It also seems that as a result of fluctuations in
coronavirus cases, the distribution of marijuana sales has been inconsistent. Government created bylaws and restrictions have changed numerous times since the beginning of the pandemic. When the first pandemic lockdown occurred in March 24, 2020, the Government of Ontario deemed non-medical cannabis to be an essential service, meaning that cannabis retailers were permitted to remain open, as long as in-store capacity limits and physical distancing measures were in place (Government of Ontario, 2021). The regulatory practices in place for cannabis retailers had a significant impact on cannabis sales for a number of reasons. The first reason was that physical distancing of at least two meters was mandatory (Government of Canada, 2021). This led to a significantly reduced capacity within each facility (Government of Canada, 2021). Secondly, there were significantly reduced hours of operations due to the extensive disinfecting and sanitizing procedures that were required between customers. Lastly, specific payment methods were restricted in effort to minimize physical contact (Government of Canada, 2021).

Throughout Bob’s interview, he briefly talked about his experience while at a local dispensary, during a time in which the government implemented lockdown rules:

Bob: Since the grey zone has happened, I can’t even use cash at the dispensary. I have to use my debit card, and my credit card and cash is huge for me. I only use cash. It’s been super hard for me to get marijuana recently.

Bob felt the limited payment options being accepted during the pandemic created a barrier to purchasing marijuana, and appeared to have been quite bothersome for him. Bob mentioned, however, that if the dispensary would not allow cash payments, he would visit another dispensary rather than finding other means. He stated, “There’s two dispensaries
downtown like in this alleyway, and I live right behind it.” Bob seemed to accept the dispensaries’ rules, and continued to get his marijuana from the government-approved suppliers.

On April 4, 2021, the government revised their position on access to cannabis retailers, determining that non-medical cannabis was non-essential. Cannabis retail stores closed immediately (Government of Ontario, 2021). Not long afterwards, the municipal government allowed cannabis retail stores to conduct curbside pick-up or home delivery (Government of Ontario, 2021). The government has implemented firm guidelines for the process of curbside pick-up. Pick-ups had to be by appointment only, and there could be a maximum of a single designated location outside if the retailer happened to be located within a shopping mall (Government of Ontario, 2021). These measures further complicated the accessibility of legal marijuana, and has impacted consumer use of government-approved retail stores.

4.3.1.6 Conclusions

In conclusion, the supply of marijuana appeared related to the frequency in which the participants use marijuana. The availability, affordability and strict rules reinforced by the government during and before the COVID-19 pandemic have impacted supply. Participants indicated that when the availability of marijuana is inconsistent, their use may vary to accommodate for these inconsistencies. Participants also touched on changes in marijuana prices and how these changes impact their marijuana use. Lastly the additional rules during the COVID-19 pandemic regarding purchasing and access of marijuana on top of the already existing rules impacted the participants frequency of use.

4.3.2 Emotional Distress

According to the WHO, it is crucial to consider physical, mental, and social wellbeing when assessing an individual’s health (1947). Emotional wellness refers to an individual’s ability
to successfully manage stressors in life, and to adapt to necessary changes in life. An individual who is emotionally unwell could be experiencing emotional distress. Emotional distress occurs when an individual is unable to cope or adapt to stressors in life (National Institutes of Health [NIH], 2021). The pandemic has had widespread impact on the emotional wellbeing of many. Understanding this from a population health perspective is essential to health promotion campaigns aimed at improving overall wellbeing. There has been a significant focus on the physical conditions (Fiorillo & Gorwood, 2020) and emotional health variables (Stewart-Brown, 1998) that place a client at risk for significant health decline during the COVID-19 pandemic, recognizing that physical and emotional health are not separate entities but rather they work in concert to facilitate a state of wellness.

Exploring the relationship between emotional distress and marijuana use is critically important, particularly during the COVID-19 pandemic. The United States Department of Health and Human Services (2021) indicated that many individuals were expressing increased feelings of being overwhelmed or stressed during the COVID-19 pandemic. Among individuals experiencing stress and feelings of being overwhelmed, many indicated that they were having difficulty managing emotions and coping throughout the pandemic (American Psychological Association [APA], 2021). Chatterjee et al. (2020) discussed the impact of the COVID-19 pandemic on individuals’ emotional wellbeing, noting that COVID-19 resulted in significant restrictions that altered daily routines, had a significantly negative impact on mental wellbeing as a result, and frequently led to emotional distress.

During their interviews, Bob, James, and Chloe discussed the relationship between their emotional wellbeing and their frequency of marijuana use. Bob, James, and Chloe had all mentioned that their frequency of marijuana use was not always consistent from one day to the
next but rather was dependant on their emotional state at the time. Bob, James, and Chloe indicated that they significantly increased their marijuana use during periods in which they were experiencing emotional distress.

When interviewing Bob, he mentioned that the frequency of his marijuana use typically “depends on the mindset.” At no time during the interview did Bob elaborate on the term ‘mindset’; however, this term is generally used to describe the attitudes and/or opinions one possesses (Cambridge Dictionary, 2021). Shortly after this discussion, Bob began reflecting on his ‘mindset’ the last time he used marijuana and stated, “I just went through court yesterday, and I have to call duty counsel and my lawyer and stuff and it’s stressful because I didn’t do anything” followed with “I had a stressful phone call. I just hung up the phone, and I was waiting until I was done on the phone with duty counsel to have the morning toke.”

Otocki and Turner (2020) recently studied the impact of managers’ mindsets on the ability to achieve organizational goals, noting that mindset was directly linked to a managers’ behaviour, and was a foundational component to success (Otocki & Turner, 2020). In the present study, Bob’s mindset played a significant role in his actions related to smoking or not smoking marijuana. At the time of his interview, Bob was coping with a very stressful situation that increased his emotional distress to a degree that likely led to a poor ‘mindset’ that ultimately increased his marijuana usage frequency. As support for this conclusion, Bob told me that it is common for him to use marijuana during periods that are “stressful”, noting that “marijuana helps me just not be as mentally stressed.” In this way, he described marijuana smoking as a coping strategy.

Like Bob, Martin stated that the frequency with which he used marijuana varied substantively. Martin noted that he chose to use marijuana based on subjective feelings and
stated that it “depends on how my day is going.” Martin later mentioned that he used marijuana whenever he was “feeling more stressed.” Martin was quite familiar and in tune with his behaviours in relation to smoking and confidently voiced that “for sure” he was more likely to use in high stress situations.

Similar to Bob and Martin, James explained that his frequency of marijuana use also increased, during periods of emotional distress. Unlike Bob and Martin, however, James was able to quantify the variation in his consumption of marijuana:

James: Yeah. If I’m more stressed, I generally smoke more. If it is a bad day, it is going to be 9:00 am. When I am more stressed or like in a moment of anxiety, I may sit down and have three bowls instead of just sitting down and having one.

James briefly noted that feelings of stress and anxiousness led to increased marijuana use. For James, facing emotional distress resulted in high marijuana use – that could even triple under certain circumstances. Although both Bob, Martin, and James all noted that emotional distress caused a surge in their consumption, James was the only participant to quantify the extent to which his consumption increased.

I also asked Connor how emotional distress impacted his marijuana use. Connor’s response was subtly different from Bob, Martin, and James’ responses, as he initially equivocated on the extent to which these variables are related:

Researcher: When you are stressed, does this impact your marijuana use?
Connor: Maybe it would have, I don’t know.
Researcher: Do you use marijuana when you are not stressed?
Connor: Yeah. I still do.
This suggests that the experience of emotional distress is not likely to be the sole cause of frequency variations in Connor’s marijuana consumption, and indicates that other emotional states play a role in how often Connor chooses to use marijuana.

Connor’s comments raise the question, “what does marijuana frequency look like when individuals are not experiencing emotional distress?” Connor mentioned that he used marijuana when he was not in emotional distress but seemed to find it difficult to articulate the nature of the feelings and other motivations that promoted marijuana consumption. Osborne and Fogel (2009) sought to better understand the motivations for recreational marijuana use among Canadian adults. They found that some individuals use marijuana when they are relaxing, winding down, or to achieve euphoria, suggesting that there are other emotional states, beyond emotional distress, in which individuals will choose to use marijuana more frequently.

Finally, I asked Chloe to reflect on the extent to which she used marijuana when she was happy, to which she responded, “I don’t really smoke when I am happy because there is no reason to.” Considered in the context of the other participants in this study, it appeared that there might not necessarily be a singular emotion that leads to increased marijuana use – there appeared to be substantive individual differences in this regard.

4.3.3 Coping Response

Although coping is a term that is used quite commonly, Keil (2004) suggests that it lacks a clear definition. Keil (2004) compared and analyzed the term ‘coping’ to identify the most common meanings within its use by nursing professionals. The results of this review determined that the term ‘coping’ varies within the literature to such a degree that there does not appear to be a consensus as to its meaning. For the purposes of this paper, coping will be defined as ‘an individual’s thoughts and behaviours when managing and confronting situations’ (Folkman &
Moskowitz, 2004; Keil 2004). This definition of coping not only includes behaviours but also recognizes that the thoughts individual’s experiences will also play a significant role in their ability to cope.

Coping strategies can be negative or positive when managing emotional distress. Algorani and Gupta (2020) discussed the importance of being aware when an individual is displaying maladaptive coping behaviours, as this can be related to experiences of emotional distress. The way in which individuals cope with emotional distress is highly individual. According to Benschop et al. (2020), one strategy used by many individuals when attempting to cope with stress is the utilization of marijuana.

Benschop et al. (2020) conducted a study in six European countries to investigate motivations associated with the use of marijuana and other psychoactive substances, and found that individuals who were considered to be marginalized displayed greater use of marijuana and other psychoactive substances within their methods of coping. Benschop et al. (2020) identified marginalized individuals as those whom are homeless, injecting drugs, men who are having sex with men, or who have been in contact with mental health services.

Baah et al. (2019) present a more general definition of marginalized status: “Individuals who differ from the majority of the population, in terms of mainstream social, economic, educational, and cultural factors.” Although there are many ways to conceptualize vulnerability, the definition presented by Baah et al. (2019) aligns best with my interpretation of our inclusion criteria. Many participants in the present study indicated that they have experienced vulnerability in the form of homelessness within the recent past, and had little access to health-promoting resources prior to being offered support from the organization they are currently connected with. The prevalence of participants indicating that they experience an increased usage of marijuana
during times of emotional distress lends support to the idea that marijuana use is a common coping method among marginalized individuals.

James and Bob both directly commented on their use of marijuana as a means of coping in their lives when faced with emotional distress. During the interview with Bob, he provided extensive detail on the benefits of using marijuana to cope with feelings of stress and agitation:

Bob: And so, I called my duty counsel. I had a stressful phone call. I just hung up the phone, and I was waiting until I was done on the phone with duty counsel to have the morning toke. And it just took the stress away. It calms me down and just lets me focus on Netflix, which is kind of nice.

Researcher: So, it helps you focus?

Bob: It does on the right things. It helps me calm down. It helps me let certain things roll off my shoulders and helps me just not be as mentally stressed.

In this quote, Bob indicated that when he could smoke marijuana during or after a stressful event, it would ease the pressure of the situation. This passage also suggests that this coping strategy may be positive, as marijuana usage allowed him to redirect his attention away from ruminating on stressful events and situations, to something more positive. He further noted:

Bob: Okay, well, when I’m not using, I have way less patience with people. I just kind of, I just kind of like, well I don’t snap, but it is very easy for me to be like, fuck off type of stuff. I’m just like, but I’m never like that when I’m high. I'm always very more patient and more understanding. I’m a lot more forgiveful, probably.
Bob mentioned that he is better able to calm himself and approach certain situations with more patience when smoking marijuana, whereas this is rarely possible when he does not smoke. Marijuana allowed Bob to restructure his approach to distress, which is why he typically used. Like Bob, James spoke about the emotional distress he was experiencing and the impact marijuana smoking had on him:

James: When I’m using marijuana, it is less of an emotional rollercoaster. Whereas, when I’m not using marijuana, the emotions change and can spike and peak whenever. It makes me really on edge a lot of the time…I’m generally able to come at things with a little bit of like a more logical mind, sometimes in less of like I want to fight you…

When James used marijuana, he noted that his emotions would fluctuate less frequently, and as a result he was more emotionally stable. James continued to express that when he consumed marijuana, he was more in control of his response to negative emotions and was then able to approach others more appropriately than would have been possible without marijuana use. James also mentioned that when he smoked marijuana, feelings of anger would dissipate over time.

Similar to James, Connor mentioned that after he had consumed marijuana, he was more in control of his response to negative emotions and stated “[He] doesn’t get super agitated about stupid things anymore.” When Connor was not using marijuana, he felt less in control of negative emotions such as agitation. Whether it be feelings of stress, agitation, or anger, Bob, Connor, and James all perceived that their ability to prevent inappropriate responses to certain emotional experiences increased as a result of using marijuana. Therefore, marijuana use was
likely to increase for those that perceived this behaviour as a coping strategy for emotional distress.

The frequency of marijuana smoking has also varied when participants were exposed to, or are enduring, severe trauma. This may increase the vulnerability of these individuals, as being exposed to severe trauma can result in lifelong adverse mental health outcomes such as emotional distress (Muskett, 2013). Garland et al. (2013) conducted a study seeking to better understand the relationship existing amongst youth who had endured severe trauma and were using substances. They conducted interviews with 723 youth, and found significant associations between exposure to extensive traumatic experiences, and both the frequency and misuse of substances.

James told me that he had experiences in relation to “trauma” and “PTSD.” Bob and James both discussed the positive impact marijuana smoking has had when managing trauma. Bob voiced that the distress he continued to experience as a result of historical trauma has led to a significant increase in his marijuana consumption. Bob was not concerned about his consumption and stated, “it helps me drop my trauma. Like it doesn't help me drop it completely, but it lets me forget about it in the moment…” In this, Bob illustrated that he was aware that the use of marijuana would not eliminate trauma but would rather provide a brief respite from symptoms. Bob later commented that although he continued to feel the weight of his trauma experiences, marijuana allowed him to feel “mentally free kind of.”

James also viewed marijuana use as a coping strategy when managing trauma. When the participant and I began conversing about the traumatic situations endured, James said that he continued to struggle and experience frequent distress, and that he had incorporated marijuana
usage within these periods of distress. James elaborated on trauma during this segment of his interview:

James: Today is actually the anniversary of my boyfriend’s death. He passed away four years ago in my arms at 2:03 this morning that just passed.

Researcher: I am sorry for your loss. That must have been extremely painful.

James: It is. So, that is why I picked up my bong last night. That would have been why I packed a bowl last night and bought a gram last night.

Researcher: Okay, so feelings of sadness?

James: Trauma and PTSD. Lots of PTSD

The loss of his boyfriend continued to cause significant emotional distress four years after the initial event, with James referring to this experience as “trauma” and “PTSD.” This passage illustrated James’ use of marijuana as a method of managing intense emotions, but does not provide an explicit valuation by James as to the effectiveness of this coping method.

Bob and James had the opportunity to reflect on the coping strategies that they had implemented in their management of traumatic experiences. For Bob and James, marijuana was frequently used when facing distress and/or living with trauma. Neither participant indicated how long marijuana had been used as a coping strategy when dealing with trauma, but this would be an important avenue for future research as prolonged marijuana use as a coping mechanism may lead to substance abuse problems, particularly among young people (Garland, Davis & Howard, 2013).

4.4 Role of Social and Environmental Context on Marijuana Consumption

Much has been written over the past few years, concerning the environmental factors which can impact individuals’ use of substances (Mennis, Stahler & Mason, 2016). In this
section, I will discuss four elements uniquely related to elements of context that impact substance use. The first section will discuss how marijuana use was impacted by an individual’s social context. The second section will discuss how the physical environment may have altered marijuana consumption. Third, I will discuss how pre-established priorities or commitments impact on the consumption of marijuana. Lastly, I will explore the ways in which the COVID-19 pandemic has dramatically altered social and environmental contexts for many individuals, with regards to marijuana use.

4.4.1 Social Context

The peers with whom an individual chooses to socialize may have a significant influence on marijuana use (Morgan & Grube, 1991). Tyler et al. (2005) investigated the potential impact that social contexts may have had on substance use behaviours, and found that socialization with close friends had a direct influence on individuals’ involvement with risky behaviours such as substance use. Much like the present study, Tyler et al. (2005) carried out a series of interviews, and found that participants considered their marijuana use to be dependent upon who they were socializing with during that time (Tyler et al., 2005). Similarly, Wenzel and Zhou (2010) conducted a study which explored the impact particular social circles had on individuals’ substance use, and found that young adults whose social circles consisted of substance users report increased marijuana consumption.

A number of key points emerged in the present study, when exploring the influence of social context over marijuana use. Firstly, Bob, Sandra, Martin, Connor, James, and Chloe all indicated that smoking marijuana typically occurred while they were with friends. Interestingly, all participants in this study had reported using marijuana in a social setting. At the beginning of Sandra’s narrative, she mentioned that her first experiences using marijuana took place in a
school setting alongside her friends, meaning that her first exposure to marijuana smoking was in a social environment. Sandra also shared that those experiences with marijuana typically occurred during “lunch breaks” as well as in “between classes.” During the interview, Sandra mentioned that she continued to use in social settings, and stated “my whole friend group is basically based off of smokers.” Sandra did not specify whether these were the same friends she had described from her high school memories or a different group of peers. Sandra also noted that when she got together with her friends, her frequency of smoking increased significantly.

Sandra: … I do daily phone calls with my girls, and we like to do bong tokes together. We will sit there for like maybe half an hour, and within half an hour like I said, I usually take a bong toke every half hour, one every half hour, and when I am on video chat with my girls, we’ll take like three within like a half hour if we are on video chat. And then I’m like done for the night. I’m like, okay, I got to go take a nap, see you later. But like, that's what we do though. Like if we were to hang out in person, that's how we spoke to. But like smoking like that, when I’m actually with my friends, that gets me like too high. That’s why I barely like smoking with people. I like to kind of sit on my own and smoke. But I’ll sit here on video chat every now and then.

Interestingly, Sandra indicated that although she does smoke with her friends occasionally and her frequency does tend to increase when she is with friends, she does not necessarily like the feeling as it typically makes her feel “too high.” She noted that she would rather smoke at her own pace – independently and more slowly. Sandra did, however, continue to smoke with her friends, despite being aware of the impact it may have on her marijuana use.
and the personal side effects she experiences as a result. In sum, Sandra appeared to have less control over consumption when she was in a social context versus when she was isolated from peers and smoking alone.

Like Sandra, James indicated that if he was smoking marijuana with his friends, he was likely going to use more and stated, “if I’m using with others, I’m definitely using more. I’ve always found that like my social use always goes up just because there is a little bit more anxiety with the social atmosphere for me.” Unlike Sandra, James attributed the increase in marijuana consumption to the uneasiness he experienced in social settings. James interpreted social settings as distressing which led to changes in marijuana frequency. It was unclear from the interview as to whether his changes in usage were an overt (i.e., purposeful or conscious) method of controlling his discomfort, or whether this change was subconscious.

For some participants, smoking independently was more common than using marijuana within a social context. Connor indicated that lately he had been independently using marijuana more frequently than using with peers – a change that he attributed to changes in his friend group:

Researcher: … do you smoke more with others or independently? Overall?
Connor: like nowadays, if I smoke, it’s probably by myself. I don’t have many friends in this city anymore.

Connor’s minimal social connections have driven him to use marijuana independently, and he also noted that these limited social relationships have the ability to have a direct impact on how often he has used marijuana. Connor was not specific when explaining the exact frequency of fluctuations; but during his interview, he reflected on many occasions during which he has smoked alone. Connor stated that he enjoyed using marijuana when he was “sitting in
front of the TV – gaming and watching TV.” Connor also disclosed that one of his favourite pastimes involving marijuana use was going “out in nature, go out for a walk and smoke a joint. It’s probably my favourite thing to do.” Although some enjoy smoking in a social setting, Connor clearly undersored that he enjoyed using marijuana independently.

Unlike those who use depending on the social context, some of the participants in this study noted that the presence of other individuals makes no difference in how frequently they might consume marijuana. When Bob was asked about the impact social settings have had on his marijuana use he stated, “it doesn’t really make a difference.” Throughout his interview, Bob mentioned that he used both with his “buddies” as well as independently. Bob denied any changes in the frequency of marijuana use from a context with peers to a context without peers.

4.4.2 Physical Environment

The physical context in which an individual is located can impact marijuana use behaviours. Many participants brought up the impact homelessness has had on their substance use behaviours. It is important to note that all participants at the time of the interview were receiving supportive housing assistance from the organization they are currently connected with. As mentioned previously, individuals who are experiencing homelessness are often seen as marginalized and vulnerable. Rice et al. (2005) conducted a study investigating drug use among homeless youth that depicted how the experience of homelessness places individuals in a more vulnerable position in relation to substance use. Researchers found that young adults experiencing homelessness were at greater risk of using substances, including marijuana, in comparison to those who were not experiencing homelessness (Rice et al., 2005). Rice et al. (2005) also determined that individuals who were experiencing homelessness were exposed to more substance use and risky behaviours within their peer group. Homelessness may therefore
put individuals in a more vulnerable situation for use (and abuse) of addictive substances, because when a substance is readily available and accessible (e.g., from a peer within the shelter, or from a cannabis store), it removes barriers associated with acquiring, using, and abusing the substance (Mennis, Stahler & Mason, 2016).

During their interviews, Bob and Sandra proposed similar views on the impact homelessness had on their frequency of marijuana use. Bob noted “I smoked a lot of marijuana, I drank a lot. But I was living homeless…” Bob linked the concept of excessive smoking and being homeless as interrelated concepts and provided homelessness as at least a partial justification for his increased substance use. Sandra recounted a similar experience from a time when she was homeless:

Sandra: … like being homeless and all that, like I was barely smoking before I became homeless. I was drinking a lot, and then I became homeless. I bought a bong so that I could bring it into a homeless shelter…

This purchase of a new instrument for smoking marijuana while staying at the shelter may remove a barrier for Sandra’s consumption of marijuana. Further, she noted that she was smoking very little marijuana before becoming homeless. Taken together, the smoking of marijuana appeared to be (at least in part) a result of not having shelter, and the physical experience of being homeless directly impacted the frequency of her marijuana use.

Unlike Bob and Sandra’s experience, James stated that his frequency of marijuana smoking decreased during his experience of homelessness: “It’s kind of hard to smoke weed every day when you don't have a home, etc. That and like just like comfortness now. I’m in a more comfortable place…” From James’ point of view, it appeared that he must feel comfortable
in his physical environment before using and consuming marijuana, as the act of smoking marijuana was difficult for him when his home location (and comfort level) was inconsistent or unknown. James’s perspective provided additional context for the ways in which changes in shelter could impact marijuana usage.

Aside from being homeless, individuals in this study noted other environments that impacted marijuana consumption. Two participants discussed the work site and how it impacted their marijuana consumption. Sandra had been working throughout the pandemic and mentioned that when she was physically at the worksite, she did not use marijuana. Sandra stated “I don’t smoke while I’m at work, but I smoke before I go to work and as soon as I get home.” Sandra accommodated for the lack of ability to smoke at work and mentioned that she will smoke before departing for her shift as she could not smoke at work. It was not clear if this was an employer policy or work expectation, or if this was a personal choice.

Like Sandra, Martin did not smoke at the workplace, but does smoke before arriving, said “I’m going to go to work fried still either way. Well, not fried but high, you know, but like I will smoke before I go to work.” Like Sandra, it remained unclear if this was an expectation or a choice Martin was making. Martin was clear that he would smoke before the start of every work day – almost as if it was a ritualistic behaviour. Martin smoked a sufficient amount of marijuana to feel the effects, using the term “fried” to communicate being very high and then clarified that he was not necessarily “fried” but rather just simply “high.” Therefore, it was clear the work site for both Sandra and Martin was a physical environment where they did not use marijuana. Sandra and Martin’s experience also suggests that the frequency of marijuana usage for some individuals might increase just before a shift and off-site.
4.4.3 Priorities and Pre-Determined Commitments

The frequency with which the participants used marijuana throughout their day or week would shift and vary. Throughout the interviews, there was a common thread discussing changes in frequency depending on obligations or commitments. Participants reported reducing their consumption of marijuana when accommodating other priorities or responsibilities that they had. Chloe noted that “smoke in the morning because that’s usually when I’ll [she] try to get things done.” This passage suggests that Chloe felt that she needed to reduce her marijuana consumption when completing complex tasks, as this would facilitate her success on those tasks. Therefore, it seemed that Chloe may have found that the increased use of marijuana could significantly impact her ability to complete tasks. She seemed to be actively planning her frequency of marijuana use based on the commitments, obligations, and priorities present as she does not want these to be interrupted.

For James, marijuana use had to be present if he wanted to complete any activities of daily living. During his interview, he talked about his perception of productivity and smoking marijuana. James felt that he was very productive when he is using marijuana and stated, “actually, I can’t do my dishes unless I smoke a bowl or two.” Unlike Chloe, James ensured he had increased his consumption of marijuana before attending to obligations and commitments. James quantified the increase in frequency as “one or two bowls” before obligations and commitments are fulfilled. When there were no priorities or commitments present, Bob and Chloe mentioned that it can lead to a change in the frequency of marijuana use. Bob and Chloe communicated on several different occasions that feeling “boredom” has led to frequent marijuana use as there was no specific task requiring their attention.
Alternative activities were a large part of many participants’ routines before the COVID-19 pandemic. Participants mentioned that there were many benefits to participating in alternative activities that did not prioritize marijuana (Wenzel et al., 2010). These alternative activities could provide the participants with a sense of pleasure which encouraged them to participate more often (Wenzel et al., 2010). Examples of what alternative activities are referring to include work, volunteering, or attending school and recreation centres.

The first alternate activity this section will discuss is work. The COVID-19 pandemic has led to job loss as well as emergency leaves for many citizens across Ontario (Government of Ontario, 2021). Employment was one of the alternative activities in which many considered to be a priority. However, job loss during the pandemic has led to an elimination of this alternative activity for many individuals, leaving more time during which individuals can engage in substance use. According to Mennis and colleagues (2016) having a meaningful job in place has already been identified as protective factor when it comes to substance use behaviours. Mennis and colleagues (2016), conducted a study that investigated risky substance use environments, concluding that substance use was more likely to occur among those experiencing unemployment, suggesting that unemployment is an environmental risk factor for substance use (Mennis, Stahler & Mason, 2016).

Similarly, some individuals have been enrolled in education as an alternative activity that provided them with some degree of pleasure. Some published findings have suggested that individuals who have attained a higher level of education were less likely to use marijuana (SAMHSA, 2014), which suggests that educational activities may represent a protective factor for controlling substance use behaviours. Further, some educational facilities (e.g., libraries and school programs which discourage substance use for youth and young adults in particular) may
also serve to reduce marijuana use behaviours (Mennis, Stahler & Mason, 2016). The COVID-19 pandemic has, however, greatly impacted the delivery of education, leading it to be both intermittent and inconsistent – and leading many facilities to be closed (or less accessible). This has led some students to experience difficulties in achieving their educational goals and milestones. In line with the literature, Chloe noted that if she were attending post-secondary education, she would have decreased the frequency of her marijuana consumption, as she would have like to make school a priority.

Due to the COVID-19 lockdown restrictions, the possibility of participating in alternative activities was minimal for Sandra as well. The COVID-19 pandemic changed her daily activities: she was “bored” and “sitting at [her] house…24/7.” Sandra believed that the restrictions on activities has led to an increase in her frequency of marijuana use. When asked how she thought the loosening of restrictions would impact her, she responded “I can go out, and I won’t be smoking as much like that because like, I can go out and do activities.” In this way, Sandra noted that the COVID-19 restrictions have led to an increase in frequency of marijuana consumption as a result of her change in routine.

When education, employment, and other healthy alternatives are compromised (as during a “lockdown”), individuals often turned to unhealthy behaviours to replace this now available time. This suggests that young adults must continue to find meaningful activities in which to participate throughout the pandemic, as a healthy way of living day to day. Increases in meaningful activities can improve coping strategies and alter the frequency with which marijuana is being used (Moos, 2007).
4.5 Considerations Prior to Smoking Marijuana

There are specific considerations individuals take into account prior to smoking marijuana, and which vary depending on the individual, as well as their previous experience with marijuana. The Government of Canada (2021) published guidelines that are important for all consumers of marijuana to review (regardless of their previous experience with marijuana), such as side effects, dosage, and safety measures. It is possible, however, that the pre-use deliberations carried out by experienced and inexperienced users will differ.

In the present research, participants described the factors that they took into account prior to smoking marijuana. All of the participants in this study have used marijuana many times throughout their lives as well as during the COVID-19 pandemic, and so they should be considered experienced marijuana users. The first consideration that participants discussed was the method they planned to use when smoking marijuana – most notably, the device that they will use to smoke the marijuana product. According to the literature, typical devices used to smoke marijuana are bongs, joints, blunts, vaporizers, and pipes (Centers for Disease Control and Prevention [CDC], 2018; Iverson, 2001). Secondly, the strain of marijuana is another consideration participants discuss throughout their narratives. Lastly, participants reflect on past experiences when using marijuana before using it again. These considerations will be explored within this section.

4.5.1 Method of Consumption

Marijuana can be smoked using several instruments such as bongs, joints, blunts, vaporizers and pipes (CDC, 2018; Government of Canada, 2021; Iverson, 2001). In addition, some individuals choose to smoke concentrates or extracts of the marijuana plant, which has also been referred to as ‘dabbing’ by many users (CDC, 2018). ‘Dabbing’ is potentially dangerous, as
it increases the risk of overdose, however, to the higher potency of the concentrates (CDC, 2018). Smoking marijuana in plant form allowed individuals to have more control over the amount in which they consume, making this a safer method of consumption (as compared to the ingestion of edible marijuana foods or beverages; Schauer et al., 2020). Ingestion of marijuana also typically has a delayed onset of effects, which may cause individuals to overconsume (Schauer et al., 2020). In contrast, the effects of marijuana typically manifest within seconds of inhaling the substance (Mohawk College, 2021).

The method of consumption was brought up in many participant interviews. The participants indicated that they smoke marijuana according to their preferences. Many discussed the use of a bong as their instrument of choice. A ‘bong’ is a term used to describe a water pipe that is used to inhale marijuana (NIDA, 2019). During Sandra’s interview, she explained how she used a bong to consume marijuana more specifically in the form of a ‘popper’.

   Researcher: So, what is a popper?
   Sandra: It’s when you put tobacco first in the bowl and then weed on top. It’s just like, the way it pops through. It’s like an acrylic bong specifically, the way it pops.

Sandra brought up an interesting concept in relation to combining tobacco with marijuana. Sandra explained that the two substances are combined in the same bowl and smoked together simultaneously. Sandra mentioned during her interview that she feels poppers are “disgusting” and states, “I wish I never started smoking poppers because they are gross.” Later in the conversation, Sandra mentioned that poppers no longer get her “high” in comparison to using marijuana in isolation.
Sandra also touched on the material of the bong itself when explaining how she consumed marijuana. A bong can be constructed of glass, plastic, ceramic, bamboo, or metal (Franciosi, 2017). As Sandra indicated, plastic is a commonly used material for a ‘bong’ or ‘water pipe’, because it is thought to be more durable than other options available on the market – and it is also significantly cheaper than these other options. It is considered by some to be suboptimal, however, as there are some complaints that plastic bongs can impact the taste when smoking marijuana (Franciosi, 2017). Sandra was the only participant to discuss the material of the products, but there were signs that other participants may have implicitly considered material in selecting their delivery method.

Bob most likely prioritized the durability of his device, as he stated “I’d always have a bong at the side of the skatepark.” Thus, although he did not mention device material explicitly, he noted that he enjoys travelling with the bong, meaning the durability (and hence the material) would likely matter.

Martin has experience using various instruments such as pipes, bongs, and joints to smoke marijuana; however, he went into greater depth when discussing the use of his bong. Martin stated,

Martin: I also smoke out of a bong. So, if I smoke out of a bong, it is going to be more. It is going to be more weed, so I might smoke a gram if I smoke out of a bong.

Martin mentioned that he consumed a larger quantity of marijuana when using a bong as compared to a pipe. This has also been discussed within the literature. Soller and Lee (2010) investigated the use of marijuana in the form of blunts among southeast Asian adolescents and emerging adults, and determined that a smaller amount of marijuana was consumed in blunts as compared to bongs, as a bong “takes the weed faster.” Martin noticed that certain instruments
were consuming marijuana faster than others, and took this into consideration when determining which instrument he wished to use.

Unlike Sandra and Martin, Connor mentioned that he has experience using many combustible instruments but has recently been using a vape pen (non-combustible device). During his interview, he described the mechanics of a vape pen and how it is used in the consumption of marijuana:

Connor:  It heats up directly to the crucible like, there’s no indirect heat or like false reading on the temperature. It’s telling you the temperature of the thing that heats it up and not the thing itself. It’s just better for like low temperature, cold start dabbing. You waste less, and the flavour is better.

Vape devices are electronic instruments that individuals use to consume marijuana (Frohe, Leeman, Patock-Peckham, Ecker, Kraus & Dawn, 2017). Cannabis concentrates such as hashish oil and other extracts are heated up; as mentioned above, this process is commonly referred to as ‘dabbing’ (Varlet et al., 2016). Cannabis derivatives such as hashish oil, resin and wax tend to contain a higher potency of THC (Pierre, 2017; Meier, 2017). It is critical to be aware of THC level when assessing the dosage that you will be consuming, but Connor did not elaborate on this when explaining his use of the pen (Pierre, 2017). The cannabis derivative is heated at a moderate temperature, leading to fewer harmful components being released into the aerosol (Varlet et al., 2016). Unlike blunts, joints, or bongs, this process leads to vapour production, which is inhaled using a vaporizer (Varlet et al., 2016). In some of the current literature, combustible smoking administration has been said to release more carbon monoxide and tar, in addition to many other toxins related to the burning of marijuana (Abrams et al., 2007; Lanz et al., 2016; Pizzorno, 2016). Connor displayed a wealth of accurate knowledge on the vape
device and was able to articulate some of the benefits from his point of view. He was also able to explain the mechanics of the device itself and how the cannabis converts into a vapour form. In the present study, Connor was the only participant with detailed technical knowledge of his device; the other participants discussed their method of marijuana consumption, but did not provide detailed information about the mechanics of the process. It was evident the method of administration mattered to Connor, and he ensured that he was well informed prior to engaging in the use of a new device, such as a vape.

James and Martin mentioned throughout their interviews that they enjoyed smoking joints. Joints are defined as cannabis plant products rolled in cigarette paper, which are then smoked (Government of Canada, 2018). James and Martin indicated that they began their journey of smoking marijuana using joints, and only later transitioned into other instruments. When discussing the method of smoking marijuana with James, he states, “I started smoking out of like pipes and joints first, and then I slowly bought a bong eventually, and I smoked it.” Like James, Martin also began with smoking either a joint, pipe or bong. Martin’s transition through different instruments was depicted in the narrative below.

Martin: …Okay, so I started early at like grade seven and I quit and then like grade eight, summer then, I was back on.

Researcher: Okay, and can you tell me what you were doing?

Martin: Like weed. I was just smoking weed, you know, like pipes and pipes or like joints and bongs.

Martin explained that when he began smoking marijuana during elementary school, he was using pipes, joints, and bongs. All three of these devices function by burning the marijuana plant (Lankenau, Fedorova, Reed, Schrager, Iverson & Wong, 2016). Martin and James both
indicated that smoking was their preferred choice and continues to be a part of their habitual marijuana use. Schauer et al. (2016) mention in their research that pipes, joints, blunts, and bongs are the most common methods of administration when using marijuana and note that vaporizing is less common (Schauer, King, Bunnell, Promoff & McAfee, 2016). According to Schauer et al. (2016) most individuals typically began with smoking marijuana products; however, the reasons why combustion methods are favoured despite health implications should be explored in future research.

4.5.2 Type

Marijuana comes from cannabis Sativa plants, initially found in Asia. The cannabis Sativa plants are now grown globally, including here in Canada, and the chemical substances in cannabis can be referred to as cannabinoids (Government of Canada, 2018). The two most researched cannabinoids are Tetrahydrocannabinol [THC] and cannabidiol [CBD] (Government of Canada, 2018). THC is a chemical known for its psychoactive and mind-altering effects (Pizzorno, 2016). Typically, the dried marijuana plant can range from 3% - 30% THC – and as the percentage of THC increases, the effects become more pronounced (Government of Canada, 2018). In comparison, CBD is known for its therapeutic purposes concerning pain, epilepsy, movement disorders and much more (Government of Canada, 2018). The cannabinoids are activated when placed under heat, also known as decarboxylation (Ontario Cannabis Store, 2021).

Before smoking marijuana, many of the participants discussed factors that they considered before each use. The strain, or type of marijuana, was considered by many participants to be a key consideration, given that each strain is associated with different psychoactive effects, and different possible side effects. Despite the importance of this factor to
participants, however, there continue to be many conflicting interpretations, theories, and ideas among the participants. Sandra attempted to explain her beliefs on the different strains of cannabis available, as follows:

Researcher: So, most of the time, when you are using marijuana, how would you describe yourself?

Sandra: I’m lazy. I lay in bed, chilling out, scrolling on my phone for hours. I’m just so lazy, POS, I watch Netflix on repeat. Sometimes, it gives me like a burst of energy and like, and I think that’s when I'm like smoking Sativa when I know I want to be productive. But most of the time, my go-to is indica, and indica refers to ‘in the bed’ like you’re lazy, like it makes you lazy. I like indica I like doing nothing.

Researcher: Okay, so you like the indica?

Sandra: Indica, yeah.

In this narrative, Sandra brought up a couple of essential points, the first being the two types of cannabis she uses, Indica and Sativa. At least two internet resources confirm Sandra’s anecdotal reports on the differing effects of these different strains (i.e., that sativa and indica have opposite psychoactive effects; “Indica vs. Sativa: What’s the difference,” 2021; “Sativa vs. Indica,” 2020).

Similar to Sandra, James discussed the same two strains and the side effects he experienced. James stated,
James: There’s Indica and Sativa. So Indica is like the calmer of the two. There’s a lot of misconceptions on weed being a downer when it’s more or less an hallucinogen, like an low dose. It doesn’t actually like, it’s not a downer in the way alcohol is.

James indicated that there two strains associated with specific side effects; however, he did not mention the different experiences he has had when using both. James reflected on his past experiences overall and referred to marijuana as a “hallucinogen” based on the effects he experiences. A ‘hallucinogen’ can typically lead to an individual experiencing emotional swings, seeing images, hearing sounds, and feeling sensations that are not present but “feel real” to the user (NIDA, 2015).

Despite many participants defining marijuana as two distinct strains, Indica and Sativa, this is disputed within the literature. Piomelli and Russo (2016) note:

*There are biochemically distinct strains of Cannabis, but the sativa/indica distinction as commonly applied in the lay literature is total nonsense and an exercise in futility. One cannot in any way currently guess the biochemical content of a given Cannabis plant based on its height, branching, or leaf morphology. The degree of interbreeding/hybridization is such that only a biochemical assay tells a potential consumer or scientist what is really in the plant. It is essential that future commerce allows complete and accurate cannabinoid and terpenoid profiles to be available.*

Dr. Russo, a board-certified neurologist and pharmacology researcher, recommends considering the biochemical components of the strain and then assessing the individual consuming the cannabis as there is a large degree of variability in the plants themselves which cannot be simply reduced to two strains (Piomelli & Russo, 2016).
Only one participant, Connor, spoke to ‘terpenes’ when discussing marijuana use. Connor defined terpenes as the components which “make you high, and all the strains have slightly different terpenes. So, like every strain, it’s going to be completely different.” The terms ‘terpenes’ and ‘terpenoids’ are used interchangeably in the academic literature and refer to compounds within the cannabis plant in addition to cannabinoids (Bottger, Vothknecht, Bolle & Wolf, 2018). Terpenes are responsible for the aroma of cannabis and can influence an individual’s preference (Booth & Bohlmann, 2019). These compounds work together with cannabinoids to produce the psychological effects (Hanus & Hod, 2020).

Booth and Bohlmann (2019) further noted that there continues to be a lack of research on the impact of terpene levels in marijuana, and that this has created many inconsistencies within the literature when defining strains. These inconsistencies are exemplified within our present data in the relationships between strains and terpenes that are described by participants. Participants within this study have (and express) implicit beliefs concerning different strains of marijuana, and the potential physiological effects associated with these genotypes. Further research must be done in genotyping marijuana to ensure users are fully informed and aware of the risks associated with various genetic profiles.

4.5.3 Past Experiences

One of the inclusion criteria in this study required that potential participants must have used marijuana recreationally during the COVID-19 pandemic. Review of the information presented by the participants in this study suggested that each participant has had their own unique experiences with marijuana – and these experiences were reported to be both positive and negative. These experiences may determine how subsequent marijuana encounters will be
perceived by the participants, and are likely to contribute to the decision-making that individuals will work through in determining when and whether to smoke again in the future.

Some of the participants were able to recount positive experiences they had while using marijuana. When interviewing Bob, he explained that his marijuana smoking has led to deep exploration and discovery in his religious beliefs. Bob stated,

Bob: … it helps me, helps me be vulnerable when I am not vulnerable because being vulnerable is in a huge way of growth, spiritual growth. I didn't realize until I started smoking again and I realized how open it made me.

Bob did not disclose the religious beliefs to which he is alluding; however, he appeared to derive a great sense of comfort in knowing that smoking marijuana allowed him to connect with his own spirituality. Bob also mentioned he can display specific characteristics while under the influence of marijuana, such as vulnerability and acceptance, which likely would not be present to the same extent without smoking.

Many participants mentioned that marijuana has been a protective factor in their lives and has kept them from using other substances. Throughout Sandra’s interview, she said very briefly that she had been exposed to other substances being used by those staying at the same housing shelter as she had been. In the passage below, Sandra began discussing her marijuana use at the shelter and points out that marijuana is a better choice than the other substances. Sandra stated,

Sandra: I bought a bong so I could bring it into the homeless shelter. I don’t really care about smoking. I’m like, it’s better than doing any of these other drugs other kids are doing so, like, well. I might as well sit with the frickin' stoners.

Sandra expressed that marijuana can positively benefit her choices when it comes to engaging in certain behaviours. Sandra appeared to accept the stigmatizing comments others
made at the shelter, such as “stoner”, and is not ashamed of choosing marijuana. Like Sandra, James viewed marijuana smoking as a strong protective factor with regards to his past methamphetamine use. James told me, “… It definitely helps with staying off the methamphetamines.” James was using marijuana in the place of methamphetamines as he was perceiving marijuana to be the better (i.e., healthier) choice. Shortly after this passage, James mentioned again, “in relation to the pandemic, I think that it is better than other options. Like when the first lockdown hit, I had a slip up for like three months on methamphetamines.” It would appear James would rather replace one addiction (methamphetamines) with another (marijuana), rather than rely on his ability to completely eliminate the methamphetamine addiction. James appeared to believe that this replacement was better for him; however, he did not elaborate further on this idea.

Some participants have negative perceptions of marijuana that were also considered before smoking marijuana in the future. Bob and Martin both mentioned that they had been experiencing dependence when using marijuana. Bob recalled his use of marijuana historically and stated, “…I started using it, and I became dependent on it really quick…” It appeared that Bob has insight into his behaviours; however, he did not voice if he had any motivation to make behavioural modifications. When interviewing Martin, he explained that he used marijuana because he’s “addicted.” It appeared that in both Bob and Martin’s narrative, marijuana is being relied upon and very much needed in their day-to-day lives. During the interview, Martin said that he was “not proud of [his marijuana consumption]”; however, he continued to smoke marijuana. By contrast, Bob did not voice any feelings of shame or regret throughout the interview. However, both participants did reflect on their unique experiences, and both continued to express a lack of perceived control other their marijuana use.
4.6 Interplay Between Themes

The three themes discussed above illustrate that marijuana smoking is a very complex behaviour that should be examined from the participants’ perspective to gain an accurate understanding. The following themes emerged based on participants’ experiences with emotional distress and marijuana use during a pandemic, which led to overall beliefs about marijuana use.

Each participant could communicate their narrative in the way they interpret and make sense of their marijuana use during the COVID-19 pandemic. Firstly, during the COVID-19 pandemic, standard terms and topics were discussed amongst individuals, such as ‘restrictions,’ ‘socialization,’ ‘isolation,’ and ‘loneliness.’ The participants provided insightful opinions, experiences, and understandings of these COVID-19 related topics. Secondly, the COVID-19 pandemic has resulted in uncertainty and change within numerous people’s lives, including the participants. As a result of COVID-19 and the nature of this virus, the change in frequency of marijuana use was discussed. At the time of the interviews, participants indicated that the supply, level of emotional distress, and the alterations in context are typically viewed as having had an impact on the frequency of marijuana use during the pandemic. Lastly, it was clear that previous experiences with marijuana in general (and with specific types or strains of marijuana in particular) impacted on participants’ marijuana consumption. Sandra believed many individuals perceive marijuana in a negative light; however, this is not the reality she has experienced overall:

Sandra: Personally, I don’t know. Marijuana’s not as bad as everybody always perceives it to be. It’s just like yes, it is unhealthy, it is still a coping mechanism to deal with the shit we’re dealing with… alright, it’s not the best it is still one for us. So. Let us have it.
According to some, Sandra believed that although this may be unhealthy, she felt it was an appropriate and justifiable substance to be used during a pandemic and when faced with complex challenges. Sandra also believed that marijuana should be accessible and understood as a necessity during the COVID-19 pandemic as a means of coping. Sandra’s experiences with marijuana have led her to believe that marijuana may be a tool to add to one’s toolbox when attempting to manage stressors during the pandemic. Sandra encouraged individuals with negative perceptions of marijuana to reconsider their beliefs and opinions.

Like Sandra, after reflecting on personal experiences, James elaborated on his beliefs pertaining to marijuana. Depicted below, Martin sheds light on his positive outlook regarding marijuana:

Martin: Weed is not harmful unless you make it harmful. So again, it’s helpful, I feel like it’s helpful in certain situations because I have seen you know, I’ve seen something on TV, sometimes kids will have a seizure, and they take a THC pill, and I’ve seen documents on this, and they and they’re okay. When they take that weed. And all the way in America, taking some THC pill and it makes someone better. And I feel like it’s medication, you know? I feel like I am not using weed to be cool. Not for no studies. I’ve been on the weed status. I mean, it is legit.

Researcher: Yeah. So, you find it overall helpful? Is that what I am hearing?

Martin: Correct. Correct. Because it’s a plant, you know?

Throughout the interview with Martin, it was evident that he was making sense of his marijuana use while answering the semi-structured interview questions – in other words, it was clear that he had not put a lot of thought into many of these topics prior to the interview.
interview seemed to allow him the space he needed in order to ponder his relationship and experiences with marijuana. Martin talked about a video clip he came across while watching TV. Martin had told me that in this clip an individual with a seizure disorder was using THC in a pill form to treat this condition. Martin felt that this was true and termed marijuana as a “medication.” Although this study only discussed the smoking of marijuana, there is a THC component in both the pill and the plant form. It was rather interesting to hear that a media clip could potentially reinforce Martin’s overall positive perception of marijuana. It is crucial that the material presented in the media, such as TV, internet, newspaper, and other platforms, can be backed up by current academic literature, as some individuals may develop fixed opinions and beliefs from this content. In addition, this experience sheds light on the dangers which may transpire if the information disseminated is inaccurate. Martin also mentioned that because marijuana is “a plant” it is seen as less harmful and more helpful. This statement by Martin again stressed the importance that accurate and current literature is being published and is accessible for those who are planning to/ currently using marijuana.

Lastly, Connor was able to communicate how he perceived marijuana use based on his past experiences. Connor explains below that there is a significant lack of education around marijuana amongst those in the community. Connor stated,

Connor: People won’t judge you as much for using it because it is like everywhere, but I think there’s a lot of education that needs to be done still, like alcohol and stuff. I don’t understand how people think that a plant that grows are not better than drugs that big pharma is pumping out. I think people are realizing and are starting to realize it for what it is.
There is nothing else like it. It is a really beautiful plant, and I think a lot of people still hate it.

Many participants continued to believe that there are benefits associated with marijuana smoking despite hearing from others who feel differently. Connor brought up an interesting point: he commonly saw individuals accepting pharmaceutical medications and placing trust in this industry, as the assumption is that pharmaceuticals are regulated and therefore, safe. Both Martin and Connor raised a valid point concerning the lack of accurate information communicated to the users, and as a result, individuals continue to put trust in medication treatments instead. Like Martin, Connor also mentioned that this is a natural resource being grown, unlike the artificial treatments distributed by large pharmaceutical companies he terms “big pharma.” Based on Connor’s personal beliefs and past experiences with marijuana smoking, he said that there are benefits if users are provided with the appropriate education and are adequately informed before engaging in this behaviour. Connor clarified that if an individual cannot make an informed decision, this typically leads to harm. As evidence by the discussions above, the perceptions of marijuana use during the pandemic in relation to mental health range from the substance is unhealthy but necessary to the substance results in positive health outcomes and is an ideal alternative to pharmaceuticals.

**Chapter 5: Discussion**

This research has provided an opportunity for young adults who are experiencing emotional distress and using marijuana to reflect on their substance use and the impact the pandemic may have had on their behaviour. Although marijuana use and the role emotional distress play in substance use behaviours continues to be extensively researched, the individuals interviewed for this study consider the academic literature to be limited. This thesis explored the
unique narratives provided by young adults experiencing emotional distress while simultaneously using marijuana during a period of social isolation (i.e., the COVID-19 pandemic) using rigorous thematic analysis. The hope is that this knowledge will result in positive improvements for both the user and the community, with regards to informing and improving education within this field of research.

By approaching this study using a critical narrative methodology, I fully appreciate the unique and personal nature of participant stories. I collected verbal narratives that were very insightful and led some participants to reflect on their marijuana use behaviours in a way that was not previously considered. This methodology allowed me to discover a deeper understanding of the marijuana smoking behaviour, emotional distress, and the impact of COVID-19 beyond the typical checklist of positive or negative symptoms as previous literature has employed.

This research study is unique to this specific period in time. During this period, participants were enduring significant changes within their lives as Canada was in lockdown with the hopes of minimizing the spread of COVID-19. The COVID-19 pandemic has been a new experience unlike any other for many individuals. The uncertainty of this unique experience justifies why it has been and continues to be increasingly more critical for the personal accounts of participants to be further investigated to learn new knowledge and develop understanding.

Initially, I was surprised when some of the information from the participants did not conform with how the literature and most current media had portrayed the impact of the COVID-19 pandemic on individuals’ feelings of isolation and loneliness. Literature had indicated that COVID-19 had, for the most part, led to feelings of loneliness and isolation – feelings that most individuals would perceive to be negative experiences. Researchers should investigate the
concepts of isolation and loneliness independently, and should evaluate each based on the context in which they occur. Although participants experienced both isolation and loneliness, this was not necessarily negatively interpreted by the participant. Based on unique COVID-19 experiences, some participants saw little change in loneliness and isolation; these feelings were not seen as any different from their norms. Also, some participants prefer to experience isolation and loneliness as these are familiar and known experiences. Again, it is possible that this insight may have been enabled through the methodology chosen for this research – it is likely that subtle nuances that are visible within qualitative research are obscured by the aggregation that is required within quantitative research. This underscores the importance of considering context and personal narratives within this topic, as the present research provides information on an alternative perspective that is rarely shared.

Another topic of discussion that I found surprising, was the frequency of marijuana usage during COVID-19. At the time when I was carrying out the interviews, minimal academic research was available on the prevalence of marijuana use during the coronavirus pandemic. Many scientists who studied substance use in the past published articles explaining that historically, feelings of uncertainty have led to increased substance use, and that it is reasonable to expect marijuana use to increase. When the restrictions were put in place by the Government of Ontario, this led to many citizens voicing experiences such as increased stress, frequent change, and severe uncertainty; therefore, it was not necessarily wrong to hypothesize that substance use would likely increase. Throughout the data analysis process for the present study, however, it became evident that we would almost certainly have missed important information without direct inclusion of (and attention to) participant voices. Without these voices, results may be inaccurate or incomplete. Every participant in the present study experienced changes in
their marijuana smoking to a degree, leading me to conclude that these behaviours should not be compared. At times marijuana use increased, decreased, or remained the same depending on situations that could not be quantified over the span of the pandemic. Therefore, it is not accurate to make blanket statements indicating the change in marijuana consumption, as it depends on many variables present in individuals’ unique situations during the coronavirus pandemic. The critical narrative methodology remains responsible for the development of valuable knowledge, which other approaches may not necessarily offer.

After I completed the interviews and conversations with the participants, I reflected and dwelled within the data. I chose the three overarching themes based on the common topics brought forward and discussed by participants throughout this thesis, and decided the three selected themes were important based on the information participants chose to share in detail. Ultimately, this thesis is intended to present a space for the unique perceptions provided by the participants, and it is not intended to be foundational for establishing or proving a theory. I believe that it has the potential to convey valuable insights to the literature, that may be used to positively influence mental health, substance use, and pandemic research. I believe the data in this study to be true at the time of the interview – that is to say that these themes emerged from participant input, and are their truths.

It is worthwhile to revisit the purpose of this study and the three overarching themes highlighted throughout the study. The purpose of this study was (1) to explore how individuals make sense of their marijuana use while being socially isolated due to COVID-19 pandemic; and (2) to determine how their experiences with marijuana might shape their beliefs regarding marijuana use.
I explored how the individuals made sense of their marijuana use during the COVID-19 pandemic and how previous experiences shaped their beliefs concerning marijuana using three themes.

The first theme is the perception of COVID-19 related terms. During the study, I discussed the terms ‘restrictions,’ ‘socialization,’ ‘isolation,’ and ‘loneliness’ with participants, each of whom had a different perception of these terms and how they apply to everyday life. Although restrictions were mandatory and enforced, not every individual chose to comply, based on personal values and beliefs. The pandemic impacted socialization for participants; however, it did vary in the extent and nature of the social gathering from one individual to another. The media had heavily focused on isolation and loneliness during the pandemic. After conducting this study, not every participant agreed that isolation and loneliness were everyday experiences related to COVID-19, nor were they harmful to those who endured these experiences.

When attempting to understand how individuals made sense of their marijuana smoking during the COVID-19 pandemic, the second theme began to emerge. Consequently I highlighted factors taken into consideration before engaging in smoking marijuana. The method of consumption, the type of marijuana, and the associations from previous experiences when smoking were all factors considered before using marijuana in the future. Lastly, how often individuals smoke marijuana was a common topic of discussion. The frequency may depend on the availability of supply, individuals’ current emotional state, as well as the current context which could have all been impacted by COVID-19.

Although there are studies published with similar concepts and ideas, this study remains unique within the literature. Graupensperger and colleagues (2021), which investigated the changes in marijuana use among young adults during isolation, shares some ideas with the
present research but reported markedly different outcomes. As previously mentioned,
Graupensperger et al. (2021) concluded that there were no changes in marijuana use despite
many perceiving that their peers had been engaging in heavier marijuana use. Although their
findings provide interesting information that may be used to contextualize the results of this
study, they cannot account for unique participant experiences with marijuana use during the
pandemic, nor did they investigate behaviour from a user’s point of view. The results were also
very different as some participants in the present study experienced changes in their marijuana
usage, whereas Graupensperger and colleagues (2021) conclude that there is no meaningful
difference. Although it is likely that this is due (at least in part) to their use of the null hypothesis
significance testing paradigm (i.e., where non-significant results are often considered to be ‘nil
results’), it should be noted that their results also failed to assess emotional distress in
participants. Adding this control to their research may have facilitated subgroup analyses which
might have improved their ability to better generalize to the general population.

This study provides an accurate depiction of marijuana consumption during the pandemic
by including participant voices. This study contrasts both previous literature and media reports.
The former states there are no changes in marijuana consumption while the latter indicates there
are changes in marijuana consumption. However, neither the former nor the latter feature
participant voices. Unlike the above sources this study finds that there are changes; however,
these changes vary depending on the situations that have been discussed previously.

5.1 Limitations

This study only represents a small number of people who, at the time, fit the inclusion
criteria. The small number of participants can reduce the applicability of this study if being used
to support decisions for a much larger population. Within one Southwestern Ontario city, there
were participants who were willing to provide individual narratives. This study, therefore, cannot represent the entire population of young adults in other geographical locations. This study, as mentioned above, only represents young adults, specifically individuals between the ages of 18-25 years old – and the applicability of these findings may be limited to Southwestern Ontario. Individuals using this research to provide information concerning youth outside this age range (or geographical region) should exercise caution.

This study was also constrained by time (i.e., the reasonable expectations of project scope within a masters-level thesis). Although the trustworthiness of the data would have been enhanced with the addition of a second interview with each participant after modifications in restrictions this was not feasible within my timeline. The pandemic impacted life as participants knew it, and multiple interviews could have led me to discover unique perceptions on the impact of situational change during COVID-19. It was also unclear, at the time of interviewing, as to when the government would begin to modify restrictions as new strains of the COVID-19 virus emerged. Although this is a limitation in the way that the results can be applied, it also presents an opportunity in the form of uniquely rich data that may provide future clinicians and policy-makers with additional context for policy shifts during future pandemics. Although this may be construed to be a limitation, it can be an opportunity to explore this topic in greater depth in another study.

Another limitation of this study is that there is no way to replicate the results presented herein, owing to the unique backdrop against which the present study was projected. In other words, although the data collection process structure is presented in a transparent fashion, it is likely that future interview data would be substantively different from the data collected in this study. This is not, of course, a “deal-breaker” for qualitative researchers, as much of the value in
Qualitative research is derived from the co-creation (by experimenter and participant) of narratives *in that moment*. If anything, this is a clear example of the power of considering the numerous factors operating on study participants to be context, rather than bias. This careful consideration of context is a key value proposition for this research – it is what makes this study unique.

5.2 **Interpreter Reflexivity Post-Study**

Engaging in the practice of reflexivity allows a researcher to acknowledge their social position, personal experiences, and professional beliefs (Berger, 2013). By accepting the role, a researcher plays in the knowledge generation process, it may be easier to monitor the impact of their biases, beliefs, and experiences (Berger, 2013). This practice is crucial as it is a method to ensure quality and accuracy within the research study (Berger, 2013; Ahmed Dunya et al., 2010). Some literature highlights the importance of participating in reflexivity throughout every phase of the research study to stay in tune with the self and continue to ensure high-quality research (Bradbury-Jones, 2007).

Critical narrative methodology shares the unique stories of the participants, although the content of this paper is co-created by the participants and I. Throughout the analysis section, the reader will find my understanding and perception of the information discussed at interviews. It was imperative to shed light on the accounts participants were able to provide while at the same time revealing unrecognized meaning that I felt was valuable and would likely be significant knowledge concerning this topic.

Throughout the interviews conducted with these participants, I started by acknowledging that the participants were not accustomed to discussing this topic with strangers such as myself. Each participant could either participate in the interview virtually with both video and audio or
simply just audio. There was one participant who had the video turned off at the time of the discussion. Near the end of the interview, the participant established feelings of comfort and then turned the camera on. At the time of data collection, I recognized that although marijuana is now legal, it remains a habit that they do not wish to display. This study was voluntary with a small compensation for their massive contribution to knowledge development. Despite having very little time to develop a trusting relationship, these participants continued to share their stories. This experience has allowed me to gain a much deeper appreciation for the courage participants displayed in coming forward with their narratives to make a change within health research.

5.3 Suggestions for Future Research

This research study only conducted interviews with individuals who self-identified as marijuana users experiencing emotional distress during the COVID-19 pandemic. A suggestion for future research would be to interview individuals who are closely tied socially with the marijuana user, such as family members or friends. It might be interesting to know how those close to the marijuana user perceive the participant compared to how they view themselves. In addition, it would be interesting to see how witnessing their close peer’s experiences with marijuana may influence how they shape their unique opinions and beliefs.

Secondly, I suggest conducting this study in those 18-25 years old within another geographic region to determine the influence that one’s environment (both physical and social) has on the interplay between mental health and marijuana use. In comparison to some other countries, Canada has dealt with reducing the spread of COVID-19 differently. As a result, the lockdown and government-imposed restrictions in other countries are not identical to Canada. Given the unique nature of marijuana usage in those experiencing emotional distress during a pandemic, the environment can play a huge role. Thus, investigating countries with minor
restrictions imposed, and minimal environmental alterations enacted may reveal unique narratives as compared to those presented in this document.
References


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Appendix A: Ethics Approval

Date: 13 December 2020
To: Dr Marnie Weiklake
Project ID: 115677

Study Title: Emerging adult perspectives on marijuana usage during a period of social isolation
Short Title: Emerging adult perspectives on marijuana usage during a period of social isolation
Application Type: NMREB Initial Application

Review Type: Delegated
Full Board Reporting Date: January 15 2020
Date Approval Issued: 13/Dec/2020
REB Approval Expiry Date: 13/Dec/2021

Dear Dr Marnie Weiklake:

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

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<th>Document Name</th>
<th>Document Type</th>
<th>Document Date</th>
<th>Document Version</th>
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<tr>
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<td>Interview Guide</td>
<td>28/Aug/2020</td>
<td>1</td>
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<tr>
<td>Debriefing Document (20200828)</td>
<td>Debriefing document</td>
<td>28/Aug/2020</td>
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<tr>
<td>LOI (2020 11 30) CLEAN</td>
<td>Verbal Consent/Assent</td>
<td>30/Nov/2020</td>
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<td>Recruitment Materials</td>
<td>30/Nov/2020</td>
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Documents Acknowledged:

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<td>Screening Form Questionnaire</td>
<td>28/Aug/2020</td>
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<td>Post Interview Resources (20200828)</td>
<td>Other Materials</td>
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No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Kelly Patterson, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair
PARTICIPANTS NEEDED FOR RESEARCH ON MARIJUANA USE

We are looking for individuals between the ages of 18 and 25 who have experienced mild to severe emotional distress over the past year, and who have been using marijuana recreationally during the COVID-19 pandemic. The purpose of this study is to explore marijuana use from the user point of view, during a period of social isolation.

If you are interested, and you agree to participate, you will be asked to take part in a one-to-one online interview that will be audio recorded. During that interview you will be asked questions about your thoughts and feelings regarding your own marijuana use in times of increased social isolation during COVID-19.

Participation in this study will take approximately 30-90 minutes in length. Individuals selected for an interview will receive a $20.00 gift card for Tim Hortons.

For more information about this study, or to volunteer for this study, please contact:
Avery Wong, Graduate Research Assistant

(Principal Investigator: Marnie Wedlake PhD, RP)
Appendix C: Letter of Information

Emerging adult perspectives on marijuana usage during a period of social isolation

Principal Investigator:
Dr. Marnie Wedlake, PhD, RP
Assistant Professor
School of Health Studies
The University of Western Ontario

Co-investigator:
Dr. Andrew Johnson, PhD
Associate Professor
School of Health Studies
The University of Western Ontario

Co-investigator:
Avery Wong
Master of Health and Rehabilitation Sciences Candidate
School of Health Studies
The University of Western Ontario

LETTER OF INFORMATION

Introduction
You are invited to participate in a research study seeking to explore marijuana use in emerging adults facing various degrees of emotional distress during COVID-19. This letter contains information to assist in your decision as to whether or not you wish to participate in the study. Some of the information presented here includes why the study is being conducted and what it entails. Please take time to carefully consider all the information provided in this letter. It is important that you fully understand what this study is about before you begin. Your participation is not mandatory and you may withdraw your participation at any point during the study.

What is this study about, and why is it being done?
Individuals who live with mild to severe emotional distress are twice as likely to use marijuana routinely. More generally, young adults, ages 15 to 25, continue to be at increased risk for accidents, injuries, and poor cognitive functioning when using marijuana in comparison to those 25 years and older.

Cannabis is currently being trialed as a treatment method for individuals experiencing emotional distress (Steenkamp et al, 2017). Although clinical trials are implementing outcome measures that speak directly to clinical symptoms (e.g., checklists), there is a general lack of attention to individual perspectives on the use of marijuana within treatment methods.

In addition, it is unclear how a period of social isolation as a result of COVID-19 may impact the marijuana use of young adults who are simultaneously experiencing emotional distress. It is important to identify the extent to which marijuana is being used, and being used safely, during periods of extreme isolation.

The purpose of this study is to gain insight as to how emerging adults who live with mild, moderate, or severe emotional distress 1) make sense of their marijuana use during a time of social isolation as a result of COVID-19 2) examine how these individual experiences with marijuana shape their beliefs regarding marijuana use.
Eligibility
In order to be eligible for this study, you must be between the ages of 18 and 25 years. In addition, you must be living with mild, moderate or severe emotional distress, and have used marijuana recreationally during COVID-19 pandemic.

What happens to you if you agree to be in this study?
If you agree to participate in this study, you will be asked to take part in a one-to-one interview with a member of the research team. The interview will take 30 to 90 minutes to complete, and will involve discussing your thoughts and feelings, and experiences regarding marijuana use during a period of social isolation. The interview will be audio recorded over Zoom. If you do not consent to having your interview audio recorded, you may not participate in this study. Interview recordings will be transcribed using artificial intelligence.

What are the possible risks?
It is conceivable that you may experience emotional distress while discussing the topic of social isolation and marijuana usage. Due to the open-ended nature of the interview, it is also possible that topics will emerge that you were not prepared to discuss. This may cause the you to experience some emotional distress.

A final risk associated with this study is the chance of possibly being identified as a participant. Although the researchers will take extensive precautions to protect the confidentiality of the data, there is the risk of a security breach.

How will confidentiality be maintained within this study?
Data collected during these interviews will be used for research purposes with the objective of making a contribution to knowledge used by healthcare workers, policy makers, and the general public. Data collected in this study may be used for secondary data analysis. Results of this study may be published in an academic journal, and as a conference paper, and may include quotations from the interview in which you have participated. All personal and identifying information will removed. A master list will be kept that links this pseudonym with your actual name, and this will be used solely for the purpose of matching consent documentation to research participation. This master list will be kept in a secure location at the University of Western Ontario, separate from the research data.

Representatives of the University of Western Ontario Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. All written data (including this signed consent form) will be locked at a secure location at the University of Western Ontario for a minimum of 7 years. Electronic data will be held on encrypted devices, securely located at the University of Western Ontario, for a minimum of 7 years.

What are the benefits associated with participating in this study?
Several benefits to society are possible with the present study. This research will provide researchers, policy makers, and healthcare providers an opportunity to better understand the perspectives of emerging adults regarding marijuana use.

In addition, this study will answer questions regarding marijuana use during a period of social isolation, in particular COVID-19. The COVID-19 pandemic has raised numerous concerns related to social isolation and how this could impact mental health. This study will provide the public with insight on marijuana use.
use during a period of isolation from the users’ point of view. Developing this knowledge may assist the community in better supporting these individuals in times of immense stress and uncertainty.

**What are the costs and compensations associated with participation?**
All interviews will be conducted via distance using Zoom. As such, we do not anticipate there will be any additional costs to participants.

If you participate in the 30-90-minute interview, a $20.00 gift card to Tim Hortons will be given in thanks for your commitment and time.

**Do you have to be in the study?**
You do not waive any legal rights by participating in this study. Your participation in this research study is voluntary. You may refuse to participate, refuse to answer any questions, and you may withdraw from the study at any time.

**Contact Information**

Dr. Marnie Wedlake (Principal Investigator)
School of Health Studies, Western University

If you have any questions about your rights as a research participant, or the conduct of this study, you may contact:

The Office of Human Research Ethics

This letter is yours to keep.
Appendix D: Consent Form

Emerging adult perspectives on marijuana usage during a period of social isolation

Principal Investigator: Dr. Marnie Wedlake, PhD, RP
Assistant Professor
School of Health Studies
The University of Western Ontario

Co-investigator: Dr. Andrew Johnson, PhD
Associate Professor
School of Health Studies
The University of Western Ontario

Co-investigator:
Avery Wong
Master of Health and Rehabilitation Sciences Candidate
School of Health Studies
The University of Western Ontario

CONSENT FORM

Please sign this form to indicate that you agree with the following statements:

I have read the Letter of Information, have had the nature of the study explained to me, and I agree to participate. All questions have been answered to my satisfaction.

I understand that to participate in this study, I must agree to allow direct quotes from my interactions within this interview to be used in publications or presentations made by the study investigators. I also understand that all identifying information will be removed from, or anonymized, in all publications and presentations.

Participant (Printed Name): __________________________

Participant (Signature): __________________________

My signature means that I have explained the study to the participant named above. I have answered all questions.

Person Obtaining Informed Consent (Printed Name): __________________________

Person Obtaining Informed Consent (Signature): __________________________

Date: __________________________
Appendix E: Interview Guide

1. Tell me how COVID-19 has affected your ability I interact with others.
   PROMPTS:
   - *How has it changed the ways in which you connect with others?*
   - *Have you experienced feelings of social isolation?*

2. Tell me about your history with marijuana?
   PROMPTS:
   - *When did you start using marijuana?*
   - *How have you experienced marijuana when you’ve used it in the past? What was it like for you?*

3. Tell me about the last time you used marijuana?
   PROMPTS:
   - *When was it?*
   - *Tell me what was happening in your life at that time?*
   - *Were you alone? With others?*

4. How would you describe yourself when using marijuana?
   PROMPTS:
   - *How are you affected physically when you use marijuana?*
   - *How are you affected mentally / emotionally / cognitively when you use marijuana?*

5. Tell me about your marijuana use in a typical week (i.e., in terms of frequency)?

6. How has the social isolation brought on by COVID-19 impacted the frequency with which you use marijuana?
   PROMPTS:
   - *Why do you think your usage has changed (if appropriate)?*
   - *How do you think your current usage will change as social isolation guidelines ease?*

7. How do you feel marijuana use is perceived by others?
Appendix F: Curriculum Vitae

Avery Kiana Wong

EDUCATION

UNIVERSITY OF WESTERN, London ON
September 2019 – Expected Graduation January 2022
• Master of Health Sciences, Subfield Health Promotion
• Successfully completed the following graduate courses: Integrated Knowledge Translation (IKT), Topics in Health Promotion, as well as Qualitative Research Methods
• Attended and successfully completed all mandatory health science seminars

UNIVERSITY OF OTTAWA, Ottawa ON
September 2014 – May 2018
• Graduate of the Bachelor of Science in Nursing program (BScN)
• University of Ottawa Orientation Leader in 2017

RESEARCH EXPERIENCE

Graduate Student, Master’s Thesis
University of Western Ontario –London, ON
September 2019 –January 2022
- Studied “Emerging adult perspectives on marijuana usage and social isolation during COVID-19”
  Primary Thesis Supervisor: Professor M. Wedlake, Assistant Professor for the School of Health Studies
  Thesis Co-supervisor: Professor Andrew M. Johnson, Director for the School of Health Studies

Health and Rehabilitation Sciences Annual Conference Participant
University of Western Ontario –London, ON
March 2021
- Actively participated in research discussions with other peers in academia
- Developed a unique and engaging academic learning material enhance attendee’s knowledge on marijuana use
- Disseminated knowledge effectively using a PowerPoint technology
- Demonstrated the ability to follow presentation guidelines and expectations
- Completed professional constructive evaluations to further assist peers in academic success

Graduate Research Assistant (GRA)
April 2020

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University of Western Ontario –London, ON
- Involved in ongoing research projects within the facility
- Demonstrated the ability to pay close attention to detail
- Effectively communicated when in collaboration with research assistants, supervisors, and other academic professionals
- Prepared reports and assignments in a timely manner

ACADEMIC VOLUNTEER EXPERIENCE

Schulich Medicine & Dentistry Admission – Interviewer/ File Reviewer 2019- Present
University of Western Ontario –London, ON
- Participated in a “Break Down Bias” training program
- Assisted in selecting future physicians
- Learned and applied the interview format and procedures
- Able to assist the facility by being available for multiple interview dates if necessary

Health Care Challenge Judge 2019
University of Western Ontario –London, ON
- Contributed to undergraduate students’ academic experience
- Provided academic support and assistance to the attendees while preparing the attendees for the challenge
- Delivered constructive feedback to students regarding their academic presentations

INITIATIVE SKILLS

Manager –Home and Community Care August 2021 –Present
Victorian Order of Nurses, London, ON
- Carrying out action plans set out by the organization
- Provide employees with support, guidance, and feedback in relation to their daily work
- Build and foster trusting relationships with both the employees and clients
- Living out the organizational values and leading my example

Case Manager –Catastrophic Injuries July 2021- Present
Novus Rehabilitation, St. Thomas, ON
- Communicates frequently with the client and family to determine priorities, challenges, and expected outcomes
- Facilitates discussions with the client’s lawyer and other allied health members in relation to progress and future goals
- Provides comprehensive client assessments and utilizing the data to develop unique interventions
- Evaluating the client’s care plan and making modifications to promote improved health and wellbeing

Nursing Council September 2020 –Present
St. Joseph’s Health Care, London, ON
- Able to identify and address conflicts within the nursing profession
- Maintains and develops strong knowledge of Nursing best practice guidelines and corporate policies
- Contributes constructively and respectfully to council discussions, leading to improvement within the nursing profession

Graduate Student Assistant (GSA) April 2020
University of Western Ontario
- Assist faculty in developing effective and engaging teaching materials
- Prepare fair examinations for students in accordance with deadlines
- Schedule regular meetings with faculty to discuss students’ needs and ways to enhance progression

Interprofessional Workshop —Poverty: Healthcare Access to Families December 2019
University of Western Ontario
- Participated in simulations regarding barriers to accessing healthcare resources
- Learned about unique social and economic challenges encountered by individuals, children, and families in poverty
- Developed skills and resources to aid those experiencing financial difficulties

COMMUNICATION SKILLS

Forensic Registered Nurse February 2019- November 2021
A2 Southwest Centre for Forensic Mental Health, London, ON
- Develops trust and a therapeutic rapport with patients experiencing severe and persistent mental illness
- Shares and presents clinical research and experiences with colleagues leading to the generation of knowledge
- Approaches each patient with empathy and understanding
- Remains open to feedback and accepts constructive criticism from co-workers and management

Unit Leader –Registered Nurse May 2021 – July 2021
A2 Southwest Centre for Forensic Mental Health, London, ON
- Display the organizations values and ensuring that the mission continue to be fulfilled
- Takes responsibility and accountability to ensure patients receive the best quality of care
- Coordinate the team members and delegate duties
- Offer myself as a source of information and provide appropriate guidance and feedback

Leukemia and Bone Marrow Transplant–Consolidation December 2017 –April 2018
Ottawa General Hospital, Ottawa, ON
- Advocated for patients preparing for bone marrow transplants resulting in the best possible care
- Educated patients on the importance of avoiding harsh micro-organisms post-transplant to ensure organ success
- Explained high alert medication precisely and clearly to avoid complications

LEADERSHIP EXPERIENCE

Spinal Cord – Registered Nurse
Parkwood Hospital Main, London, ON
April 2018 – January 2020
- Delegates tasks equally amongst Personal Care Workers, Registered Nurses, and Practical Nurses contributing to improved staff morale
- Supervises care for all patients on the unit to ensure that safety was a priority
- Enforces best practice guidelines by making policies and procedures available on the unit leading to higher quality care
- Trains and prepares new registered nurses ensuring safe care according to hospital policies and CNO guidelines

Graduate Teaching Assistant (GTA)
University of Western Ontario
September 2019 – December 2019
- Schedules weekly office hours to develop plan academic success plans for students in relation to their strengths and weaknesses
- Prepares and proctors undergraduate examinations
- Creates teaching material alongside senior faculty members

Personal Care Assistant (PCA)
Mount Hope - St. Joseph’s Health Care, London, ON
Summer 2016 & 2017
- Attended to patients’ comprehensive care needs, maximizing their quality of life
- Increasing patient happiness, comfort, and enjoyment by accommodating specific personal care preferences
- Managed all personal care concerns throughout the shift to improve results on satisfaction surveys and accreditation scores

CERTIFICATES/ MEMBERSHIPS
- Palliative Fundamentals Certification October 2021
- LEAP Certification –Pallium Canada October 2021
- RNAO membership October 2021
- CPR and AED July 2021
- RNAO Best Practice Champion Certificate June 2021
- Engaging clients who use substances – RNAO E-course May 2021
- N95 Mask Fit March 2021
- Prevention & intervention in Crisis Situations Certification (PICS) March 2021
- Tri-Council’s Policy TCPS2 Course on Research Ethics March 2020
- Safe Talk –Suicide Prevention Certification September 2019
- Occupational Health and Safety Leader March 2019
- Ontario Nursing Association membership January 2019
- Canadian Nursing Association Certificate December 2018
COMMUNITY VOLUNTEER EXPERIENCE

Minister of Hospitality  
*St. George Parish, London ON*  
- Greeter for those who enter the worship space  
- Usher for those attending Sunday Mass

Civitan Club of London  
- Help those with differing intellectual and physical abilities  
- Assist in collecting donations for the Salvation Army  
- Develop plans and ideas to improve the community needs  
- Take part in fundraisers and charitable events  
- Supervise and organize events for Community Living