

Undergraduate Research Experience Award Program Report

Youth living with anxiety: A study focussing on treatment options including medical cannabis

Submitted by: Lanette LeWarne

TRU Supervisors: Primary Dr. Nan Stevens, School of Education

Secondary Dr. Floriann Fehr, School of Nursing

October 30, 2019

## Table of Contents

Abstract.....	3
Introduction.....	4
Literature Review.....	4
Rationale for Study.....	6
Theoretical Framework for Study.....	7
Ethics.....	7
Method.....	7
Participants.....	7
Design and Procedure.....	8
Analysis.....	9
Results.....	10
Discussion.....	11
Limitations.....	12
Partnership.....	12
Funding.....	13
References.....	14
Tables.....	16
Appendices.....	25

### **Abstract**

Medical cannabis (MC) is gaining recognition as a treatment option in healthcare and yet, it still lags behind in the area of mental health. This inquiry examines the lived experience of people aged 18 to 25, living with anxiety, with an objective of examining their attitude towards MC as a treatment option for anxiety. The inquiry extends further to examine the participants understanding of MC and their concerns about accessing it is a treatment for anxiety. A link to an electronic survey consisting of 22 questions was posted on social media. The 135 responses received indicated that there is significant interest in MC as a treatment option for anxiety. The greatest barriers experienced by participants were side effect concerns that related more directly to recreational cannabis (RC) and stigma related more directly to RC. The results indicate that there is a lack of understanding and education regarding the differences between MC and RC. Based on the results of this survey, it is recommended that the general public, including healthcare professionals, need extensive education on the possible benefits and risks of MC and how they differ from RC.

*keywords:* medical cannabis, anxiety, treatment

## **Introduction**

Medical cannabis (MC) is relatively new in terms of being a viable treatment option in medical interventions and is slowly gaining recognition. However, while research into MC as a medical treatment option is increasing, research into MC as a treatment in mental health is still lagging behind other areas of healthcare. There are large gaps in the literature regarding the use of MC in mental health treatment in general, and for anxiety treatment in particular (Andersen, 2017). To better understand the significance of this disparity, and the need for a research inquiry, a short literature review is appropriate.

## **Literature Review**

In general, mental healthcare and treatment does not receive the priority that other areas of healthcare receive (Bailey & Smith, 2014). There is still stigma attached to mental health which affects individuals' treatment options and access to treatment (Anderson, 2017). While there are gaps in the literature for MC as a psychiatric treatment option, this situation is particularly critical in terms of anxiety treatment due to the sheer prevalence of anxiety disorders. Anxiety and anxiety related disorders are the most prevalent mental health issue in North America (Turna, Patterson, & Van Ameringen, 2017) with as many as one in four people being affected (Jurkus et al., 2016). 25% of those affected experience a severity of symptoms that greatly reduces their quality of life (Anderson, 2017). Elevated rates of unemployment, relationship breakdowns, diminished sense of well-being, and elevated suicide risk are all associated with anxiety and anxiety related disorders (Blessing, Steenkamp, Manzanares, & Marmar, 2015). Moreover, the age of onset is early even given the variance between different disorders. Age of onset can be as early as childhood and adolescence with the majority of

people experiencing anxiety onset before the age of 24 (Bandelow, Michaelis, & Wedekind, 2017). Anxiety treatment may be a lifelong concern for a significant number of people.

While there is clearly a need for anxiety treatments, the current and most commonly used medical treatments for anxiety symptoms are cause for more concern. Anti-depressants, including selective serotonin reuptake inhibitors (SSRI), serotonin and norepinephrine reuptake inhibitor (SNRI), and benzodiazepines are the most prescribed treatments for anxiety and all are associated with numerous side effects (Anderson, 2017, Bandelow et al., 2017, Turna et al., 2017). The treatment response rates associated with these treatment options are disappointing with 40-60% of patients continuing to experience impairing and residual symptoms (Turna et al., 2017). Individuals that experience low efficacy or significantly disabling side effects from these treatments are more likely to discontinue treatment or be labeled noncompliant (Turna et al., 2017).

Clearly, there is a significant need for more options for anxiety treatment and yet research into MC as treatment option for anxiety still lags behind research in other areas of healthcare. MC is a relatively new treatment option and a lack of education concerning the differences between MC and RC leads to stigma associated with RC, which was illegal until recently (Campbell, Phillips, & Manasco, 2017). Much of the historical research on cannabis focused on RC, it being an illicit drug whose use resulted in negative consequences (Walsh et al., 2017). Furthermore, this research generally associated cannabis with risks to mental health, including psychosis and exacerbating anxiety symptoms (Turna et al., 2017). Stigma and association of MC with RC's psychoactive effects is even more prevalent in pediatric populations (Campbell et al., 2017) and psychiatric populations (Anderson, 2017).

Understanding the differences between MC and RC is fundamental to understanding the potential for treatment. Tetrahydrocannabinol (THC) is the component of cannabis associated with psychoactive effects and RC (Blessing et al., 2015). It is also associated with the risks of psychosis and worsening of anxiety symptoms. Cannabidiol (CBD) is a phytocannabinoid constituent of cannabis and is not associated with psychoactive effects (Blessing et al., 2015, Calapai et al., 2019). CBD is the component of cannabis that is sought out for medical purposes and is associated with antipsychotic, antidepressant and anxiolytic effects (Bonaccorso, S., Ricciardi, A., Zangani, C., Chiappini, S., & Schifano, F., 2019, Crippa, Guimarães, Campos, & Zuardi, 2018 ). The anxiolytic effects may reduce anxiety symptoms and have been seen to be effective in both animal and human research (Lee, Bertoglio, Guimarães, & Stevenson, 2017). Research has indicated that increased levels of CBD in chronically consumed cannabis may be beneficial in preventing the undesirable effects of THC including the risk of psychosis (Blessing et al., 2015) and exacerbated anxiety (White, 2019). Available research strongly indicates that CBD may be beneficial in the treatment of anxiety but that there is a need for further research (Calapai et al., 2019, Crippa et al., 2018, Mandolini et al., 2018).

### **Rationale for Study**

. The intent of this study is to examine the lived experience of youth aged 18-25 that identify as living with anxiety in an effort to better understand their knowledge, experience and concerns about anxiety treatments including MC. This study considers the need for more comprehensive and informed treatment for anxiety and examines the multifaceted systemic factors that influence how individuals are educated about MC. Such an examination can begin identifying areas in which the healthcare system needs to better respond to treatment needs and

expand the discussion surrounding MC as a viable treatment option. This population was chosen because their age range is within the age of onset for most anxiety disorders.

### **Theoretical Framework for Study**

This study is a mixed method's inquiry in which the participants' lived experiences provide data that is both informative and instructive (Vagel, 2014, van Manen, 2016). Founded within a phenomenological approach, the tool or instrument to access the participant's data was Survey Monkey.

### **Ethics**

This study was conducted in accordance with ethical review by the Research Ethics Board at Thompson Rivers University.

### **Method**

This is a mixed methods study designed to address two research questions: Are youth using or interested in using CBD as a treatment option for anxiety" and "what are the barriers to youth accessing MC as an option?". The survey was distributed electronically through SurveyMonkey and the survey link was active from September 6 to 27, 2019.

### **Participant Recruitment**

1. A flyer with a link to the survey was distributed at the TRU Back to School BBQ from the TRU Wellness table (see appendix A).
2. The researcher attended social work and cooperative education classes to inform students of the survey and distribute flyers.

3. An eposter with a link to the survey was distributed on TRU Wellness's social media platforms: Facebook, Instagram and Twitter (see Appendix B).
4. The link was emailed by research supervisors and course instructors to list serve groups and databases within their networks.
5. A poster including the survey link was distributed on campus (see Appendix C)

Participants were able access the study electronically and participate in an environment of their choosing.

### **Design and Procedure**

The first page of the survey included an explanation of the study and contact information for the researcher and supervisors (see Appendix D). Also included at the beginning of the survey were definitions of CBD and anxiety, resources for anxiety support and consent (see Appendix E). The survey itself consisted of six demographic questions, thirteen questions answered using a Likert scale and three open ended, short answer questions. Respondents that declined to participate or answered "no" to being within the prescribed age range of 18-25 were exited from the survey and thanked for their time and interest.

Upon completing the survey, participants were again given resources for support with coping with anxiety and they were invited to enter to win a gift card by sending an email with the word "options" to [anxietytreatmentoptions@gmail.com](mailto:anxietytreatmentoptions@gmail.com) (see Appendix F). This email address was set up specifically for this study and was only accessible by the researcher. Sixty-two responses had been received when the survey closed. The emails were assigned numbers from 1 to 62 beginning with the first email received. Research Randomizer (Urbaniak & Plouse, 2013), a random sampling program, was used to select the twenty winners. The program was asked to



select one set of twenty random numbers, without repeats, from the set of sixty-two. The email addresses corresponding to these numbers were electronically sent a \$20.00 Starbucks gift card along with a note congratulating them on winning and thanking them for their participation.

### **Analysis**

Respondents that skipped question two, “My age range is between 18 -25”, were excluded from the final analysis to ensure that participants were within the prescribed population. This exclusion resulted in 135 participants.

Demographic questions two through six were forced answer questions and SurveyMonkey was used to analyse the data for the percentages of each response (see Tables 1 to 5). Demographic question seven was a short answer question regarding non-medical treatments. Each response was tagged and analysed for percentages using Survey Monkey (see Table 6).

Quantitative questions 8 to 13 and 15 to 21 employed a Likert scale for the answers which included Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. Excel was used to analyse the internal consistency of the quantitative survey questions. A sample of 20 responses to questions 8 to 13 and 15 to 21 was selected. The answers were translated to ordinal data starting with Strongly Agree being associated with 1 and finishing with Strongly Disagree being associated as 5. This data was then analysed for Cronbach’s Alpha. Cronbach’s  $\alpha = .4571$ . SurveyMonkey was used to analyse quantitative questions for percentages, median and mean (See Tables 7-12 and 14-20).

Qualitative questions 14, 21 and 22 required the participant to give a short answer to each question. These answers were first coded using the tagging function in Survey Monkey to label

codes. Each respondent's answers were coded, with some having more than one code. Secondly, codes were examined for recurring themes. Lastly, the percentage of respondents using particular codes was determined using SurveyMonkey (see Tables 13, 21 and 22).

## **Results**

The first notable result was that 77% of participants agreed or strongly agreed that they wanted more help with their anxiety indicating a desire for treatment and treatment options. 64% of participants agreed or strongly agreed that CBD may be used as medical. 19.70% of participants stated that they had no concerns about CBD as treatment for anxiety. These numbers indicate that a significant number of this sample are interested in CBD as treatment option for anxiety. However, only 3.03% of participants disclosed that they have used CBD. While there would seem to be interest in CBD as treatment option, the significant themes in the qualitative answers begin to illuminate the barriers to accessing it as a treatment option.

Side effects and stigma were the two most significant themes associated with the answers to question 23 "My concerns for using CBD as a treatment for anxiety include". While most often the response was simply side effect or stigma, many participants listed specific concerns in these areas. Side effects were the most prevalent concern. Some of the side effects listed included: triggering schizophrenia, lack of motivation and being high. What is most interesting about these results is that the specific side effects list strongly correlates with RC and THC and not MC and CBD. The second most prevalent concern was stigma. Specific stigma concerns listed included: family, the workplace as well CBD not being recognized as a legitimate treatment or that inquiring about CBD with a health professional would lead to being labeled as "drug seeking". 77% of participants stated that they were not receiving medical treatment for

anxiety. Lastly, participants that agreed or strongly agreed that they considered CBD as a viable treatment for anxiety were asked to identify where they had learned this information. 28.33% stated friends and 20% identified personal experience. Only 8.33% identified a healthcare professional as their source of information.

### **Discussion**

This study was a mixed methods survey, distributed electronically, examining whether youth between the ages of 18 to 25, who identify as living with anxiety are interested in anxiety treatment options, including MC. It also examined, from the participants' lived experience, what may be preventing them from considering or accessing MC as a treatment option. The youth in this sample were interested in treatment options and a significant number of them considered MC a viable treatment option. However, lack of education between the difference between MC and RC, and the stigma attached RC are making this treatment option inaccessible.

The most notable themes participants disclosed in terms of their concerns about CBD as an anxiety treatment option were side effects and stigma. These themes illuminated a lack of understanding between side effects attributable to RC and not to CBD and indicate that there is a large gap in the public's education about the difference between MC and RC. The concerns over stigma, indicate a lack of knowledge about MC amongst not only the public but amongst healthcare professionals as well. The low percentage of participants receiving any medical treatment for their anxiety may be indicative of stigma associated with seeking mental health treatment. It's likely that the stigma attached to mental health issues and treatment intersects with the stigma associated with RC and creates a larger barrier to accessing MC as a treatment for anxiety. From a practical standpoint, the lack of education and misinformation regarding MC is preventing individuals from accessing a treatment option that may be more beneficial to them

than the most common options. These results support the need for more extensive education about MC within the general public, including healthcare professionals and agencies supporting individuals with mental health issues. Such a step would support individuals to be able to make informed treatment decisions. Future research would benefit from longer, in person interviews or focus groups that would enable more discussion regarding participants experiences accessing healthcare and treatment options for anxiety and allow for a deeper examination which would better inform methods for education and eradicating barriers.

### **Limitations**

The internal consistency of the quantitative questions on the survey was low with Cronbach's  $\alpha = .4571$ . Another limitation to this study is that it is not possible to identify geographic locations of the participants and it is not able to identify if participant's in different regions had different experiences. This study was primarily advertised on a university campus and the survey link was shared using the university's social media platforms. It is possible many of the participants were university students which is not necessarily representative of a larger, general population. Lastly, a larger sample may have resulted in more accurate means and helped identify any outliers within the raw data.

### **Partnerships**

The TRU Wellness Centre agreed to be a research partner in this study. It is in their best interest to learn more about the prevalence of youth living with anxiety on campus so that they are better able to respond with options for education, support and possible referrals. Dr. Cindy James, Senior Assessment Centre Coordinator Chair, Counselling, Academic Support & Assessment, provided a letter support which was submitted to the TRU Research Ethics Board. TRU Wellness assisted with distribution and advertising of the study.

**Funding**

Funding for this study was provided by the Thompson Rivers University Undergraduate Research Experience Program 2019.

## References

- Anderson, S. E. (2017). Using Marijuana as My Antidepressant and Now I Feel Better: A Call for More Research into the Viability of Marijuana as Treatment for Depression, Anxiety, and Bipolar Disorder. *Oklahoma City University Law Review*, (3), 335. Retrieved from <https://search-ebscohost-com.ezproxy.tru.ca/login.aspx?direct=true&db=edshol&ANedshol.hein.journals.okcu42.23&site=eds-live>
- Bailey, D. S., & Smith, G. (2014). Why 'parity of esteem' for mental health is every hospital doctor's concern. *British Journal of Hospital Medicine*, 75(5), 277-280.
- Bonaccorso, S., Ricciardi, A., Zangani, C., Chiappini, S., & Schifano, F. (2019). Cannabidiol (CBD) use in psychiatric disorders: A systematic review. *Neurotoxicology*, 74, 282–298. <https://doi-org.ezproxy.tru.ca/10.1016/j.neuro.2019.08.002>
- Bandelow, B., Michaelis, S., & Wedekind, D. (2017). Treatment of anxiety disorders. *Dialogues in clinical neuroscience*, 19(2), 93. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5573566/>
- Blessing, E. M., Steenkamp, M. M., Manzanares, J., & Marmar, C. R. (2015). Cannabidiol as a potential treatment for anxiety disorders. *Neurotherapeutics*, 12(4), 825-836.
- Calapai, G., Mannucci, C., Chinou, I., Cardia, L., Calapai, F., Sorbara, E. E., Firenzuoli, B., Ricca, V., Gensini, G.F. & Firenzuoli, F., (2019). Preclinical and Clinical Evidence Supporting Use of Cannabidiol in Psychiatry. *Evidence-Based Complementary and Alternative Medicine*. Retrieved from: <http://downloads.hindawi.com/journals/ecam/2019/2509129.pdf>
- Campbell, C.T., Phillips, M.S., & Manasco, K. (2017). Cannabinoids in pediatrics. *The Journal of Pediatric Pharmacology and Therapeutics*, 22(3), 176-185.
- Cancilliere, M. K., Yusuf, M., & Weyandt, L. (2018). Effects of co-occurring marijuana use and anxiety on brain structure and functioning: a systematic review of adolescent studies. *Journal of adolescence*, 65, 177-188.
- Crippa, J. A., Guimarães, F. S., Campos, A. C., & Zuardi, A. W. (2018). Translational investigation of the therapeutic potential of cannabidiol (CBD): toward a new age. *Frontiers in immunology*, 9. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6161644/>
- Jurkus, R., Day, H. L., Guimarães, F. S., Lee, J. L., Bertoglio, L. J., & Stevenson, C. W. (2016). Cannabidiol regulation of learned fear: implications for treating anxiety-related disorders. *Frontiers in pharmacology*, 7, 454.
- Lee, J. L., Bertoglio, L. J., Guimarães, F. S., & Stevenson, C. W. (2017). Cannabidiol regulation of emotion and emotional memory processing: relevance for treating anxiety-related and substance abuse disorders. *British journal of pharmacology*, 174(19), 3242-3256.

- Mandolini, G. M., Lazzaretti, M., Pigoni, A., Oldani, L., Delvecchio, G., & Brambilla, P. (2018). Pharmacological properties of cannabidiol in the treatment of psychiatric disorders: a critical overview. *Epidemiology and psychiatric sciences*, 27(4), 327-335.
- Turna, J., Patterson, B., & Van Ameringen, M. (2017). Is cannabis treatment for anxiety, mood, and related disorders ready for prime time?. *Depression and anxiety*, 34(11), 1006-1017.
- Urbaniak, G.C. & Plous, S. (2013). Research Randomizer (version 4.) [Computer software]. Retrieved on October 3, 2019, from <http://www.randomizer.org/>
- Vagel, M. D. (2014). *Crafting Phenomenological Research*. Walnut Creek, CA: Left Coast Press.
- Van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. New York, NY: Routledge.
- Walsh, Z., Gonzalez, R., Crosby, K., Thiessen, M. S., Carroll, C., & Bonn-Miller, M. O. (2017). Medical cannabis and mental health: A guided systematic review. *Clinical psychology review*, 51, 15-29.
- White, C. M. (2019). A review of human studies assessing Cannabidiol's (CBD) therapeutic actions and potential. *The Journal of Clinical Pharmacology*, 59(7), 923-934.  
DOI:10.1002/jcph.1387

### Tables

Table 1.	
Question 2: My age range is between 18 – 25 years.	
Response	%
Yes	100
No	-----

Table 2.	
Question 3: I identify as:	
Response	%
Male	21.05
Female	76.69
Trans	2.26
Other	----

Table 3	
Question 4: I have lived with anxiety for:	
Response	%
0-6 month	15.04
6 – 12 months	15.04
1 - 3 years	18.05
Over 3 years	51.88

Table 4	
Question 5: I am being medically treated for anxiety.	
Response	%
Yes	22.73
No	77.27

Table 5	
Question 6: I have received, or I am attending counselling for anxiety	
Response	%
Yes	47.73
No	52.27



Table 6	
Question 7: I use the following alternative (non-medical) treatments for coping with anxiety (for example: meditation, breathing exercise, yoga, etc).	
<b>Coded Responses</b>	<b>%</b>
Alcohol/cigarettes	4.08
Aromatherapy	1.02
Avoiding social interaction	2.04
Breathing exercises	45.92
CBD	5.10
CBT or Exposure therapy	2.04
Crafts	1.02
Exercise	33.67
Focussing on school	1.02
Grounding techniques	2.04
Journaling	4.08
Marijuana	4.08
Meditation	23.47
Mindfulness	2.04
Music	3.06
None	1.02
Pets	1.02
Planning ahead	1.02
Sleep	3.06
Social Connections	8.16
Spirituality	1.02
Yoga	18.37

Table 7			
Question 8: My experiences discussing my anxiety with doctors/nurses have been positive:			
Response	%	Mdn	M
		3	2.68
Strongly Agree	5.26		
Agree	40.35		
Neutral	37.72		
Disagree	14.01		
Strongly Disagree	1.75		

Table 8			
Question 9: My experiences discussing medication options with doctors/nurses have been negative.			
Response	%	Mdn	M
		3	3.31
Strongly Agree	2.65		
Agree	12.39		
Neutral	43.36		
Disagree	34.51		
Strongly Disagree	7.08		

Table 9			
Question 10: My experiences discussing my anxiety with my parents/guardians have been positive.			
Response	%	Mdn	M
		2	2.66
Strongly Agree	17.24		
Agree	36.21		
Neutral	17.24		
Disagree	21.55		
Strongly Disagree	7.76		

Table 10			
Question 11: My experiences discussing medication with my parents/guardians have been negative:			
Response	%	Mdn	M
		3	3.3
Strongly Agree	9.57		
Agree	18.26		
Neutral	26.96		
Disagree	23.48		
Strongly Disagree	21.74		

Table 11			
Question 12: I want more help with my anxiety.			
Response	%	Mdn	M
		2	1.89
Strongly Agree	38.79		
Agree	38.79		
Neutral	18.10		
Disagree	3.45		
Strongly Disagree	0.86		

Table 12			
Question 13: CBD may be used as a medical option for anxiety			
Response	%	Mdn	M
		2	2.23
Strongly Agree	18.97		
Agree	45.69		
Neutral	25.86		
Disagree	5.17		
Strongly Disagree	4.31		

Table 13.	
Question 14: If you answered “strongly agree” or “agree” to question 13, where you hear this information?	
Coded Responses	%
Cannabis store	3.33
Don’t recall	1.67
Everywhere	1.67
Family	8.33
Friends	28.33
Healthcare professional	8.33
Media/advertising	5.00
Online	16.67
Personal experience	20.00
Research	18.83
Word of mouth	6.00

Table 14			
Question 15: In general, I am comfortable talking about CBD with my doctor/nurse.			
Response	%	Mdn	M
		3	2.70
Strongly Agree	7.02		
Agree	40.35		
Neutral	28.95		
Disagree	22.81		
Strongly Disagree	0.88		

Table 15			
Question 16: In general, I am comfortable talking about CBD with my parents/guardians			
Response	%	Mdn	M
		3	2.8
Strongly Agree	20.18		
Agree	26.32		
Neutral	19.30		
Disagree	21.93		
Strongly Disagree	12.28		

Table 16			
Question 17: I would consider discussing CBD as an option for my anxiety with a doctor/nurse.			
Response	%	Mdn	M
		2	2.37
Strongly Agree	20.18		
Agree	45.61		
Neutral	15.79		
Disagree	14.04		
Strongly Disagree	4.39		

Table 17			
Question 18: I would consider discussing CBD as an option for my anxiety with my parents/guardians.			
Response	%	Mdn	M
		3	2.83
Strongly Agree	13.27		
Agree	36.28		
Neutral	17.70		
Disagree	19.47		
Strongly Disagree	13.27		

Table 18			
Question 19: I am able to discuss my anxiety with my friends.			
Response	%	Mdn	M
		2	2.25
Strongly Agree	26.32		
Agree	40.35		
Neutral	21.93		
Disagree	5.26		
Strongly Disagree	6.14		

Table 19			
Question 20: I talk about CBD with my friends			
Response	%	Mdn	M
		3	2.72
Strongly Agree	13.91		
Agree	33.04		
Neutral	28.70		
Disagree	15.65		
Strongly Disagree	8.70		

Table 20			
Question 21: I am easily able to find information regarding treatment for my anxiety.			
Response	%	Mdn	M
		3	2.76
Strongly Agree	8.70		
Agree	35.65		
Neutral	35.65		
Disagree	11.30		
Strongly Disagree	8.70		

Table 21	
Question 22: My concerns for treatments for anxiety include:	
<b>Coded Response</b>	<b>%</b>
Accessibility	4.35
Affordability	5.80
Effectiveness	14.49
Fear incorrect treatment	1.45
Fear of dependency	2.90
Fear of misdiagnosis	2.90
Focussing on anxiety worsens it	1.45
Hesitancy w/ healthcare professionals	8.70
Ineffective treatment plans	4.35
Interaction with other medications	1.45
Lack of knowledge	1.45
Long term dependence on medication	1.45
No concerns	8.70
Not being believed	8.70
Prefer natural treatments	5.80
Prefer not to take medication	5.80
S/E side effects	18.84
S/E increased anxiety	1.45
S/E of current medications	1.45
S/E flat affect	2.90
S/E increased mania	1.45
S/E increased suicidal ideation	1.45
S/E lowers libido	1.45
S/E no motivation	2.90
S/E of previous medication	1.45
S/E weight gain	1.45
Stigma	11.59
Stigma – mental health	4.35

Major themes: Side effect concerns, stigma concerns, hesitancy with healthcare professionals, concerns about efficacy, and accessibility.

Table 22	
Question 23: My concerns for CBD as a treatment for anxiety include:	
<b>Coded responses</b>	<b>%</b>
Accessibility	6.06
Accessibility – CBD	1.52
Accessibility – prescription	1.52
Addiction concerns	3.03
Associate CBD and marijuana	3.03
Concerns about dependency	6.06
Concerns about correct dosing	1.52
Concerns about effectiveness	6.06
Efficacy of treatment	1.52
Expense	7.58
Lack of knowledge	7.58
No concerns	19.70
No concerns – have used	3.03
Not applicable	3.03
Not enough research	10.61
Possible side effects (S/E)	15.15
Prefer nonmedical treatment	4.55
S/E triggers schizophrenia	1.52
S/E being high	3.03
S/E depression	1.52
S/E lack of motivation/focus	1.52
S/E long term side effects	1.52
S/E similar to marijuana	3.03
S/E similar to vaping	1.52
S/E sleepiness	3.03
Stigma	10.61
Stigma – family	3.03
Stigma – CBD not seen as legitimate	1.52
Stigma – drug seeking	1.52
Stigma – workplace	3.03
Too much intervention	1.52
Traveling with CBD	1.52

Major themes: side effect, stigma, accessibility, concerns about efficacy, and addiction/dependency concerns.



## Appendix A

Flyer distributed on TRU campus



**Are you between 18 and 25?  
Do you live with anxiety?**

**If you answered YES to both of these questions,  
please take 10 minutes to complete a survey  
and share your experiences anonymously.**

**You will have a chance to  
enter to win 1 of 20,  
\$20 Starbuck gift certificates**

**Find the survey at:**

**<https://www.surveymonkey.ca/r/5ZRSXV9>**

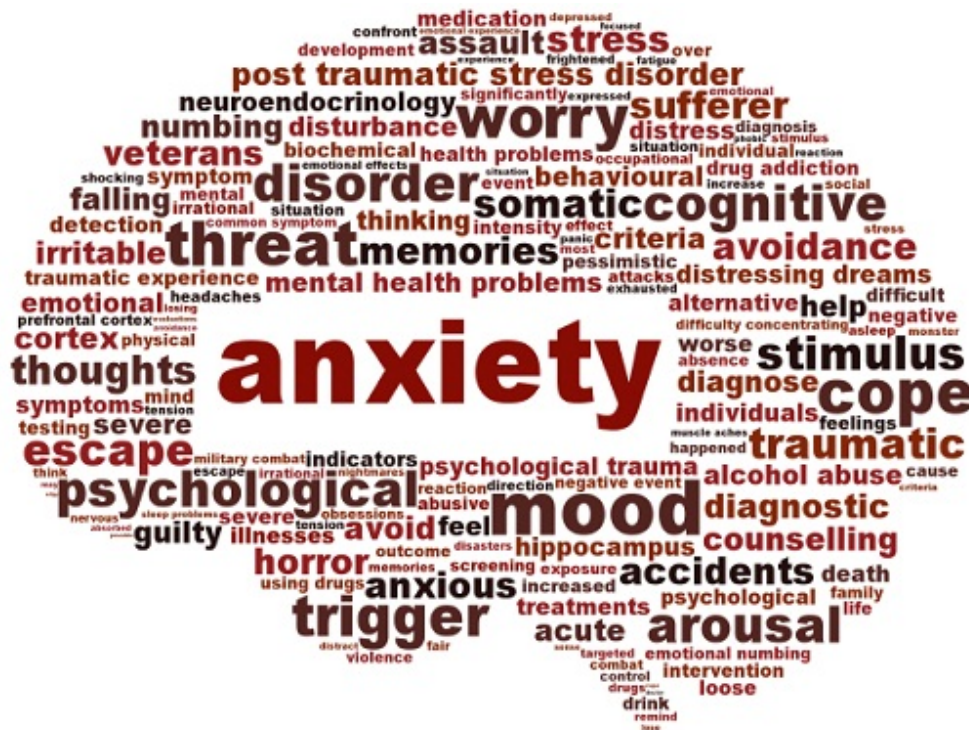
**Thank you for supporting  
undergraduate research!**

**Post shared on TRU Wellness's Facebook, Twitter and Instagram platforms.**



Are you between 18 and 25? Do you live with anxiety?  
In 10 minutes, you can anonymously share your experience  
by completing this survey and enter for a chance to  
win one of twenty \$20 Starbucks gift cards. Closes this Friday, September 27!  
Find the survey at: <https://www.surveymonkey.ca/r/5ZRSXV9>

## Poster distributed on TRU campus



# Do you live with anxiety?

**You will have a chance to enter to win 1 of 20,  
\$20 Starbuck gift cards.**

**<https://www.surveymonkey.ca/r/5ZRSXV9>**

## Appendix D

### Introduction to Survey and researcher contact information

#### Principle investigator:

Lanette LeWarne- TRU, Bachelor of Social Work Student

#### Faculty Supervisors:

Dr. Nan Stevens

Assistant Professor, School of Education and Social Work, TRU

Dr. Florriann Fehr

Assistant Professor, School of Nursing, TRU

#### Purpose of Study

This study aims to learn more about youth experiencing anxiety and how youth view treatment options, such as counselling, prescribed medication, and medical cannabis. Additionally, the goal of the study is to learn about treatment options that youth choose to access. You may respond to a social media "call out". In order to be eligible, you must self-identify as a person living with or experiencing anxiety (you may have a formal diagnosis). For the purposes of this study, youth is defined as 18-25 years old.

If you agree to join this study, you will be asked to complete a 15 question survey that has questions concerning your awareness of and experiences with treatment options for individuals living with anxiety. The survey is done electronically, using Survey Monkey, which ensures that responses will be confidential, as the researcher cannot connect the answers to an individual. You do not have to join this study. If you do choose to participate, you are free to change your mind and withdraw at any time. The survey results will be used in conference presentations, journal articles and/or teaching sessions. At any time, you may ask for the results of this study. Once you complete the survey, you can enter your email into a draw. Twenty participants will receive a \$20 Starbucks gift card.

If you have any questions about this study, please feel free to contact:

Dr. Nan Stevens      Telephone: 250-852-7158

Email: Nstevens@tru.ca

Lanette LeWarne      Telephone: 250:682:4233

Email: lewarnel16@mytru.ca

Dr. Airini:              Dean of Education and Social Work

Email: Airini@tru.ca

Research Ethics Chair contact information:

TRU-REB@tru.ca or 250-828-5000

## Appendix E

## Definitions for the survey, resources for anxiety support and consent

## Definitions for the Survey:

Anxiety: Disruptive feelings of fear, worry or nervousness that can cause sweating, increased heart rate, tension or stomach aches. They may feel a sense of "being on edge" even there is no danger present. Anxiety may feel different between people.

Cannabidiol (CBD): This is the non-active (a person does not get high from CBD) part of the marijuana plant that can be used for medical purposes. For the purposes of this survey, we are focussing on the non-active aspect of medical cannabis (CBD).

If you are triggered by the content of the questions and/or how the questions are worded, you may withdraw at any time. Please access TRU counselling services on campus at 250-828-5471. If you are not a TRU student, and you are triggered, you may withdraw at anytime. Please seek counselling with a mental health service provider in your community. Additionally, Anxiety Canada ([www.anxietycanada.com](http://www.anxietycanada.com)) has a 24-hour phone line (604-620-0744) for support

1. Would you like to participate in this survey?
  - Yes, I would like to participate in this research study
  - No, I decline to participate

## Appendix F

## Resources for anxiety support and instructions for gift card contest

If you have felt triggered by answering these questions, please seek support from a mental health service provider in your community. TRU students can access on campus support through TRU Wellness located in Old Main. Additionally, Anxiety Canada ([www.anxietycanada.com](http://www.anxietycanada.com)) has a 24-hour phone line (604-620-0744) for support.

Email the word "OPTIONS" to [anxietytreatmentsurvey@gmail.com](mailto:anxietytreatmentsurvey@gmail.com) for your chance to win one of twenty \$20 Starbucks gift cards. Winners will have their gift card sent to them electronically.

THANK YOU FOR TAKING THIS SURVEY!