Understanding Students' Help-Seeking Behaviours for Mental Health Needs at a Canadian University

by

Mokhsum Taghizada

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science

In

Rehabilitation Science

Faculty of Rehabilitation Medicine

University of Alberta

Abstract

Introduction. The university population is more sensitive to mental health problems than other populations, as in 2009, the Ontario College Health Association released a report indicating that university students were more likely to experience mental illness symptoms than non-university students. The top two concerns for mental health were anxiety and depression, as 36.1% of students reported having anxiety, while 37.9% reported symptoms of depression**.** To address mental health problems, each institution in Alberta, regardless of size, has multiple groups involved in health promotion, including counselling centres, student affairs offices, disability offices and the student' associations, to name a few. Given the variety of mental health services offered on university campuses, it remains an open question as to whether students facing mental health impairments truly understand or are aware of these services. What is missing here are students' accounts of their help-seeking behaviour in accessing specific mental health resources on a major Canadian university campus.

Research Purpose and Questions. This study aimed to understand the experiences of students facing mental health problems and their ability to connect with mental health resources at a Canadian University. Participants recruited for the study were students who faced a mental health concern involving depression, anxiety and or both. This study sought to answer the following research questions: (1) What is students' awareness of mental health resources on- and off-campus? (2) What are the experiences of students seeking mental health resources on campus? (3) What are common factors encouraging or inhibiting students from seeking mental health support?

Methods. This study used mixture of methods design. Data collection involved first administering surveys to the entire undergraduate student body and then recruiting 22 participants for semi-structured interviews. For the surveys, the inclusion criteria were students from the undergraduate population. During the survey, students completed an initial screening tool, a Mental Health Continuum (MHC). The MHC was divided into four colour blocks (green, yellow, orange, red) on a sliding scale. The healthy and adaptive coping level was represented by green, the reacting-mild and reversible category by yellow, the injured-more severe functioning impairment category by orange, and red for ill-clinical illnesses and disorders requiring concentrated medical care. The least severe section green was represented by the numerical value of 1, while the most severe section red was given a value of 4. Students who had a total MHC score of 12 or higher were recruited for the interview, as they were more likely looking to seek mental health services. All interviews were transcribed verbatim. Descriptive statistics and mean comparisons were used to initially analyze the survey data. Conventional content analysis method was used to analyze the qualitative transcriptions. The seven-step mixed-method analysis identified by Onwuegbuzie and Teddlie in 2003 was used to guide the integration of the quantitative and qualitative data.

Results. A total of 263 participants responded to the survey, with a majority identifying as women (74.9%) and between the ages of 18-22 (87.8%). Variety of faculties and undergraduate years were also represented within the survey, with most respondents studying within the Faculty of Science and Arts. There were similar percentages of respondents from the first year to the fourth year of undergraduate studies, with a small percentage of participants in their fifth year or greater. Overall, participants who identified as women had significantly higher MHC ratings than men. Moreover, students of varying undergraduate years had significant differences in their familiarity of mental health services on campus, with fourth year undergraduate students being most familiar with formal services on campus. In terms

of help-seeking behaviour, familiarity nor MHC rating were clear indicators of help-seeking behaviour. It was determined through interviews that help-seeking behaviour was influenced by individual perception of mental health, individual perception of formal services on campus, environmental factors, and accessibility of mental health services on campus.

Discussion & Conclusion. This study has suggested that increased MHC ratings of participants does not guarantee increased help-seeking behaviour. Therefore, student's help-seeking behaviour begins with their individual perception on their mental health status, whether their distress levels affect their daily functioning. The student's environment played a role in determining their individual perception of mental health. An increased discussion of mental health and services on campus can lead to increased knowledge on the topic, leading to more positive help-seeking behaviour by students. As a result, the recommendations provided by the study are in relation to how mental health services can better clarify their purpose through promotion to catch students attention. Overall, this study can inform the University stakeholders on the current state of students' interactions with mental health services and policies that can be implemented to improve the services outreach. Furthermore, the results of this study can impact future mental health policy development on campus and serve as a quality check on the current services that the University campus offers and its reach to students on campus.

Preface

This thesis is original work by Maks Taghizada. The research project is titled “Understanding Students’ Help-Seeking Behaviours for Mental Health Needs at a Canadian University: A Mixed Methods Study”, which this thesis is a part, received ethics approval from the University of Alberta Research Ethics Board (Pro00116647, February 3, 2022). No part of this thesis has been previously published.

Acknowledgments

I would first like to thank my supervisor, Dr. Shu-Ping Chen for the support, patience, and guidance. She has provided me throughout my program. She has been very understanding and has always been there to assist me with any edits that need to be made to my project and or thesis. She truly is the best mentor, giving me the confidence to complete my thesis. Also, it is an honor for me to be able to present to my committee members, Dr. Tim Barlott, Dr. David Nordstokke and chair Dr. Mary Roduta Roberts.

I would also like to thank my family, including my brother Rasul Taghizada, my dad Bakhtiyar Taghizade and mom Bella Taghizade in supporting me with unconditional love throughout my study. As well, I would like to thank my friends who have provided me with the belief and positivity to be able to finish this program during difficult times.

Lastly, I would like to thank all the participants that took part in this study. With their participation, we can raise awareness on overall student help-seeking behaviour for mental health services on campus and look to better the mental health environment for all students.

Table of Contents

CHAPTER I: Introduction

1.1 Student Mental Health

The World Health Organization defines mental health as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully and is able to contribute to his or her community" (WHO, 2004). Mental health problems can negatively affect an individual's ability to work productively and cope with everyday stresses. The university population is particularly more sensitive to mental health illnesses than other populations. In 2009, the Ontario College Health Association released a report indicating that university students were more likely to report mental illness symptoms than non-university students within the emerging adulthood category (Ontario College Health Association, 2009). The American College Health Association issued a National College Health Assessment (NCHA) to 67,972 students attending 98 different institutions within Canada and found that 24.3% and 20.0% of participants received diagnoses or treatments for anxiety and depression, respectively, within 12 months prior to completing the survey (American College Health Association, 2019). Furthermore, in a convenience sample of students from a large western university in Canada, a survey found the top two concerns for mental health were anxiety and depression (Robinson et al., 2016); 36.1% of students reported having anxiety, while 37.9% reported symptoms of depression. As well with the Covid-19 pandemic, some factors may become more prominent than others in influencing students' mental health. For instance, in a study done among undergraduate college students in the United States, 71% indicated that their stress and anxiety had increased due to the Covid-19 pandemic, and 91% of participants indicated that Covid-

19 increased the "level of fear and worried about their own health and the health of their loved ones" (Son, 2020).

Although mental health problems such as anxiety and depression are common on campuses, students may not be fully equipped with the tools to deal with stressors, negatively affecting their productivity levels (Blanco, 2008). Productivity levels can affect a student's workload, causing increased stressors and having a negative impact on their well-being. These tools include students' knowledge regarding the mental health system on campus, proper evaluation or self-awareness of their mental status, and the use of available campus resources to improve their mental health. In Canada, mental health services offered on campuses vary in type. These include counselling services by mental health professionals, peer support programs, student assistance programs, disability services (for academic accommodations), and programs for specific cultures and gender orientations (Heck, 2014). Academic institutions do offer varying mental health services based on campus size. Generally, larger campus populations had increased variety in the mental health resources offered to students (Chang, 2020). A survey done on 39 post-secondary institutions across Canada found that most participants (student leaders or staff members) were familiar with services on campus involving clinical/counselling, disability support, referrals for off-campus services, Indigenous services, LGBTQ services and mental health workshops (Chang, 2020). Specifically, in Alberta, it was found that small-sized schools (2000 students and less) did not have access to a psychiatrist through their medical services, while in medium-sized schools (2000-10,000 students), 57% of medical services offered psychiatrist services. For large post-secondary institutions (10,000 students and greater), all medical services had access to a psychiatrist (Heck et al., 2014). Overall, regardless of size, each institution had multiple groups involved in health promotion, including the counselling centre, students' affairs office, disability office and the students' association, to name a few (Heck et al., 2014). However, many students enter

university or college with questions about the application processes for mental health services and support that are often met with long wait times to attain these mental health services (Giamos et al., 2017).

Given the variety of mental health services offered on university campuses, it remains an open question whether students facing mental health needs truly understand or are aware of these services or support. What is missing here is students' accounts of their awareness and consideration of accessing specific mental health resources on a major Canadian university campus. This study aimed to fill that gap by examining undergraduate students' help-seeking behaviours for mental health services. These findings can be applied to other major universities in North America with similar availability of mental health resources to the University.

1.2 Defining Help-Seeking Behaviour

Help-seeking is defined as the behaviour in which students are willing to seek out formal or informal mental health supports for their mental health needs. Informal supports include those who are not trained as mental health professionals (Samuel & Kamanetsky, 2022). This can include family members and friends, who are regarded as students' most common sources of help (Goodwin, 2016). The reason being is that these two sources can offer confidentiality, as well as a developed level of trust and comfort for a student needing to seek mental health support (Samuel & Kamanetsky, 2022). The Internet is another category when it comes to informal support, as demonstrated by the Horgan& Sweeney study (2010). This study collected data from 922 University students between the ages of 18-24 using a self-designated questionnaire. The research group found that 68% of participants indicated that they used the Internet for mental health support. The top three reasons for students using the Internet for mental health support were anonymity, containing a vast amount of information, and its

ease of accessibility (Horgan & Sweeney, 2010). Moving on to formal support, these include psychologists, psychiatrists, counsellors, and other mental health professionals on campus or within the community (Canadian Institute for Health Information, 2019). Other mental health professionals can include peers and volunteers, such as those trained by the university to attend to the student body's mental health needs. For undergraduate students, campus-based mental health services are important for understanding the everyday stressors that university students face, whereas community-based services are typically tailored to support clinical populations who meet DSM-V criteria for clinical diagnosis (Samuel & Kamanetsky, 2022).

1.2.1 Demographic Factors Influencing Help-Seeking Behaviours

Overall, it has been found that individuals who have sought professional help generally hold more positive attitudes towards mental health services than those who have not sought services (Masuda et al., 2005). Attitudes play a large role in help-seeking behaviour. Attitudes toward seeking mental health services is defined as the "propensity to seek or resist professional support during a personal crisis or psychological discomfort" (Fischer & Turner, 1970, p.79). Negative attitudes toward mental health services can explain why students are reluctant to access these services despite the presence of formal mental health services (Samuel & Kamanetsky, 2022). This is demonstrated by the Donald group, which conducted a study on 3,000 young adults, revealing that 39% of men and 22% of women were disinclined to seek help from formal services despite requiring these services (Donald, 2000). One of the main reasons contributing to a lack of help-seeking behaviour is gender, with women reporting more favourable attitudes toward seeking professional help than men (Ang et al., 2004; Chandra & Minkovitz, 2006; Mackenzie et al., 2006). Moreover, students who identify in the LGBTQQ community report higher rates of psychological distress and mental health-related academic impairment. However, nearly two-thirds of these students fail to utilise mental health services in

universities (Dunbar et al., 2017). Aside from gender, race and cultural identity can also influence student attitudes towards accessing formal mental health services (Samuel & Kamanetsky, 2022). For instance, minor ethnic students have indicated that they rely more heavily on informal support such as religious leaders, community organizations and student organizations (Hunt et al., 2015). Negative attitudes toward formal mental health resources by ethnic minorities can result from mistrust and the belief that mental health service providers do not have an adequate understanding of their culture (Goldston et al., 2008).

There is a general understanding of demographic factors influencing help-seeking behaviours within the literature. This study will investigate specific factors influencing the help-seeking behaviours of undergraduate students in a major Canadian post-secondary institution.

1.3 Overview of the Study

This study aimed to understand the experiences of students facing mental health problems and their considerations in connecting with mental health resources at the University. As mentioned before, depression and anxiety are the most prevalent mental health problems on a university campus. Therefore, participants recruited for this study were students who faced a mental health concern involving depression, anxiety, or both.

1.3.1 The Study Context

At the University, multiple mental health services exist (University of Alberta, 2022). These mental health services include:

- The Sexual Assault Centre: Providing support to those who have faced trauma.
- Counselling and Clinical Services: Providing a short-term mental health service which assists students through mental health professionals such as psychologists and psychiatrists.

- Wellness Supports: Providing community outreach - a short-term mental health service that works to connect students with long-term mental health services off-campus.
- The Landing: Providing support to the LGBTQ2+ community
- Peer Support Centre: Containing trained volunteers to offer peer support as well as crisis management, primarily serving as a confidential space for students to express their concerns.
- First People's House: supporting individuals of Indigenous backgrounds
- the University Health Centre: Physicians primarily provide support for physical symptoms, but mental health diagnosis and support can be provided as well. Mental health support can include referrals to other mental health services on campus.
- International Student Services: Providing support for international students in adjusting to life in Canada.

Furthermore, Counselling and Clinical Services specifically focus on assisting with mental health problems such as anxiety and depression, while all other services do provide different types of support (e.g., academic peer support).

Aside from services, there are also promotions for mental health by the University, such as #UalbertaCares. This is an online initiative in which a video series highlights mental health coping strategies and the various mental health resources available on campus. Overall, this study will focus on students' knowledge of these mental health resources and initiatives at the University, as well as factors contributing to the decision to seek these resources.

1.3.2 Research Questions

1. What is students' awareness of mental health resources on- and off-campus?
2. What are students' experiences seeking mental health resources on campus?
3. What factors encourage or inhibit students from seeking mental health support?

1.4 Definition of Key Terms

Undergraduate Students: According to Statistics Canada (2009), undergraduate students are classified as individuals obtaining their "first degrees, usually Bachelor of Arts (BA) and Bachelor of Science (BSc) degrees."

Mental Health: Mental health is defined as, "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully and is able to contribute to her or his community" (WHO, 2004).

Help-Seeking Behaviour: Help-seeking is defined as the behaviour in which students are willing to seek out formal or informal mental health supports for their mental health needs. Formal supports include examples such as psychiatrists, psychologists, counsellors, and other mental health professionals on campus or within the community. Informal supports include those who are not trained as mental health professionals, such as family, friends, or the Internet (Samuel & Kamanetsky, 2022).

Mental Health Services: These services are meant to advocate for undergraduate mental health on and off campus. Much of this study will focus on mental health services on campus, with some off-campus services comparison coming from students' experiences. As well, student's understanding of on-campus initiatives will be included, as these initiatives are looking to advocate for the mental health of undergraduate students through online methods, for example, #Ualberta Cares, as well as the various mental health resources available at the University campus (University Student's Mental Health, 2015).

1.5. Thesis Outline

This thesis was constructed using a traditional thesis format divided into five chapters. Chapter I, Introduction, includes background and context of undergraduate student mental health, the study objectives and definition of key terms. Chapter II, Literature Review, provides a review of the available literature on undergraduate students' mental health. Chapter III, Methods, contains the study design, data collection process, data analysis methods, and detailed explanations of the questions used in data collection. Chapter IV, Results, presents the findings of this study. Chapter V, Discussion, summarizes the findings of the present study in relation to the research field, as well as the implications for future research.

CHAPTER II: Literature Review

2.1 What is Mental Health?

As mentioned in Chapter 1, the World Health Organization (WHO) defined mental health as a state of well-being in which every individual realizes their own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to her or his community (WHO, 2004). This WHO definition was progressive, as it did not refer mental health as an illness status. Removing the illness aspect helped to work against the stigma that individuals with mental health problems face. This definition also focused on individuals' relation with the society and community they are a part of. It wasn't placing all the emphasis on the individual and can expand their mental health status to the productivity they offer to their society or community. As a result, an individual not performing to society's expectations can experience a negative mental health state. A negative mental health state can result from personal stigma, as individuals who won't realize their potential may expect that society will negatively judge them. However, this is the individual's beliefs about how they will be evaluated, not the social stigma society places on an individual, labeling them as "ill." Moreover, the WHO definition did not elaborate on mental health by the concept of "well-being." The reason for the imprecision is that mental health is not to be determined as a constant positive state, as every individual faces difficult obstacles resulting in a negative mental health state from time to time.

Galderisi further defined mental health as "a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express, and modulate one's own emotions, as well as empathize with others; flexibility and ability to cope with adverse life events and function in social roles; and harmonious relationship between body and mind represent important components of mental health

which contribute, to varying degrees, to the state of internal equilibrium" (Galderisi, 2015, p. 231-232). This definition shapes an individual's mental health by physical, emotional, and psychological factors. These three factors determine an individual's internal state in relation to their coping skills, emotional tolerance, and communication with those around them. Galderisi's definition echoes WHO's conception that mental health is a "dynamic state of internal equilibrium" and whether an individual can return to a balanced positive mental health state once encountering a difficult obstacle in life (Galderisi, 2015, p. 231-232).

2.1.1 Mental Health in Relation to Young Adults

The two prevalent mental health problems among children and adolescents are depression and anxiety (Malla, 2018). Late adolescence or emerging adulthood, a period that lasts for approximately six years between the ages of 18 and 24, is a crucial stage in developing social identity and preparing for the transition into adulthood (Mahmoud, 2012). Unaddressed depression and anxiety, which arise in adolescence, can make for a much more difficult transition into emerging adulthood and increase the magnitude of mental health problems such as substance abuse (Schmidt et al., 2007). This unaddressed depression and anxiety can remain due to not seeking help. When transitioning into adulthood, some adolescents don't perceive the need for mental health services, even if they are in significant psychological distress (Babajide, 2020). Another reason can be stigma, as many adolescents, when transitioning into emerging adulthood, think of having stable career and relationship paths and do not want to be judged for seeking mental health services (Babajide, 2020). Furthermore, in terms of mental health services, there can be a lack of continuity between pediatric and adult services, making it difficult for new mental health providers to "fully assess" the needs of adolescents transitioning into emerging adulthood (Babajide, 2020).

In emerging adulthood, a significant divide occurs in individuals' lives regarding the decision to attend a postsecondary institution or not. As such, it is essential to discuss the mental health statuses of individuals in postsecondary institutions versus those who don't participate in postsecondary institutions. In the United States, a study comparing the prevalence of psychiatric disorders among college and non-college students found that these two groups were similar for any mood or anxiety disorders and alcohol use disorders (Blanco, 2008). Furthermore, non-college students may have been former college students and decided to drop out due to poorer mental health, financial reasons, etc. (Kovess-Mastefy, 2016). In Canada, many emerging adults attend postsecondary institutions by age 21, with 81.9 percent of Ontarians, 75.7 percent of Atlantic Canadians, 70.3 percent of Quebecers, and 68.9 percent of Western Canadians who have attended either college or university (Finnie, 2017). As many emerging adults attend postsecondary institutions, this study will focus on an undergraduate population as a representation of the mental health status of individuals between the ages of 18-24.

2.1.2 Prevalence of Mental health problems in Postsecondary Students

In Canada, among 400 college students who participated in a study, anxiety (36.1%) and depression (37.9%) were reported as the top two concerns (Robinson, 2016). For many of these students, high levels of psychological distress due to academics and their personal life in unison with a lack of coping skills result in their depression and anxiety worsening. Furthermore, in some cases, students' psychological distress is increased to a level where they cannot complete their program. For instance, Canadian data indicates that after five years, 15% of university students and 20% of community college students had not graduated due to stressors affecting their mental health (Statistics Canada, 2009). A study analyzing Japanese undergraduate students found that the number of suicide attempts, duration of social withdrawal, and duration of temporary leaves or absences were significantly associated with university dropout rates (Ishii et al., 2018). The Covid-19 pandemic can also play an

increased role in dropout, for example, a private university in Peru had the student dropout rate increased by 1.24% in the engineering faculty since the pandemic's beginning (Savio, 2022). Furthermore, high levels of anxiety and depression were prevalent among university students during the Covid-19 pandemic. For instance, a survey completed by 1173 students from a university in the north of England found that 50% of participants experienced higher than clinical cut-offs for anxiety and depression (Chen, 2022).

2.1.3 Factors Influencing Students' Mental Health

Academic stressors challenge students' mental health, with time management being a key component of academic stress (Linden, 2020). The main contributor to time management is academic workload, as well as students having to manage multiple exams, assignments, and other responsibilities within a short time frame (Linden, 2020). Academic barriers can also contribute to increased academic stressors, particularly for students with disabilities. For instance, a study done in Canada surveyed and interviewed staff and students with visual impairments in universities and colleges. Staff members stated factors such as a lack of timely access to materials in an alternative format or difficulties with adaptive technology, which led to academic barriers for students with visual impairments (Reed & Curtis, 2012). As a result, these students required more time to read than those without visual impairments. As well, they had many materials that were not in an accessible format (Reed & Curtis, 2012). These academic barriers can add to the increased academic workload, primarily for students who require accommodations for disabilities, resulting in increased academic stress and poor mental wellbeing.

In general, unresolved academic stress can lead to burnout, affecting a student's level of efficiency and productivity (Galbraith & Merrill, 2012), and resulting in a negative mental health state. Burnout is a type of long-term and severe stress, which can become overwhelming and increase the risk

for mental health problems such as anxiety and depression (Limone & Toto, 2022). Students with a mental health diagnosis such as anxiety may have increased difficulties regarding time management, resulting in increased academic stress. As demonstrated by Holmes and Silvestri (2016), students with anxiety disorders face challenges in academics due to alertness/attention challenges, memory/executive functions, and peer relationship factors (Holmes & Silvestri, 2016). Moreover, students from a minority background diagnosed with anxiety and depression can further worsen their symptoms when faced with discrimination. Discrimination increased minority students' feelings of anxiety, depression, and loneliness over time (Jochman, 2019).

Aside from mental health diagnosis, early childhood trauma can also result in mental health problems and emotional impairment for undergraduate students (Allen, 2008). One study on psychology students in the United States found that students who experienced child abuse, such as psychological maltreatment, were more prone to mental health diagnoses such as depression and anxiety during their undergraduate years (Allen, 2008).

Another stressor shown to have a negative impact on mental health is financial difficulties; increased stress about financial debt results in greater anxiety and depression levels (Richardson, 2017). In addition, stress about financial debt can further worsen the conditions of students diagnosed with anxiety and depression (Richardson, 2017). In addition to financial stressors, moving out from home during undergraduate studies was a significant stressor for students (Kawase et al., 2008). A changing environment, decreased social support, and challenges in managing independent living can be reasons for these students who need to seek mental health services (Kawase et al., 2008).

Overall, multiple factors influence mental health, as indicated by this section. Like the topic of mental health, multiple factors also exist for help-seeking behaviour for mental health resources, whether those are encouraging or inhibiting factors.

2.2 Students' help-seeking

Although there have been many efforts (such as ramping up mental health services, building peer support networks, developing inclusive campus guidelines, etc.) made on Canadian campuses, not all students with mental health problems seek services to improve their situation. A Canadian University Survey Consortium revealed this concern in 2017, which found that only 13% of students reached out for personal counselling (Canadian University Survey Consortium, 2017). The Blanco research team (2008) conducted a national epidemiological study in the United States for help-seeking behaviours in college students with mental health problems such as anxiety. Their results demonstrated that less than 20% of college students seek mental health treatment for anxiety disorders and that less than 40% of students seek services for mood disorders. These results indicate that, in general, help-seeking behaviour is low for the college student population, regardless if a student has a mental health diagnosis.

2.2.1 Defining Help-Seeking Behaviour

Help-seeking behaviour is an adaptive coping process in which an individual attempts to obtain external assistance to deal with mental health problems (Rickwood & Thomas, 2012). As mentioned, help-seeking behaviour can involve formal or informal services (Samuel & Kamanetsky, 2022). Formal services fall under a trained mental health professional's umbrella, further branching into specific terms such as counselors, psychiatrists, and psychologists (Rickwood &Thomas, 2012). Other specific formal supports can include crisis lines/helplines, family doctors, clergy, work supports, and academic supports such as in-campus peer support groups. Informal supports are those without mental health professional training, including family, friends, peers, partners, social networks, social media, and the Internet. A research group led by Rickwood and Thomas conducted a systematic review of help-seeking behaviour based on 316 relevant articles for all populations within the society. The majority of the articles were

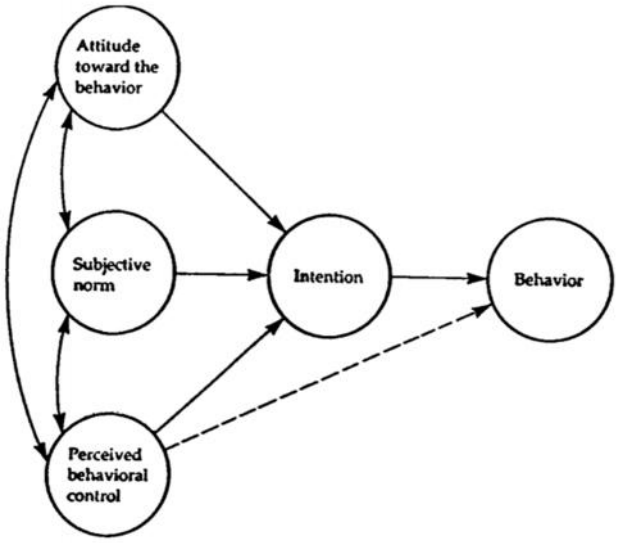
from the US (45%), and only 6% were from Canada, with help-seeking behaviour analyzed for 51% of individuals over the age of 18 and only 14% of the literature involving participants between the ages of 18 and 25 (Rickwood & Thomas, 2012). Most of the reviewed studies were community-based (41%), followed by 20% involving a population of college or university students. The majority of the reviewed studies employed self-report questionnaires (52%), while the next most commonly used measure for help-seeking behaviour was conducted through interviews (11 %). These measures were used to understand past help-seeking behaviour in 48% of the studies analyzed and attitudes towards help-seeking for 44% of the literature collected. For most studies (22%), attitudes towards help-seeking and help-seeking behaviour were the main focus. Only 10% of studies examined hypothetical help-seeking attitudes or intentions; the term hypothetical is used as these studies were analyzing the help-seeking attitudes of people who are not experiencing mental health problems, what their behaviour would look like if they were to require mental health services (Rickwood &Thomas, 2012). Overall, the study found no clear definition of help-seeking and no agreed measures for help-seeking behaviour. Despite a large amount of literature analyzed, the researchers found that many of the studies (81%) were descriptive and applied no conceptual framework for help-seeking behaviour of mental health services (Rickwood & Thomas, 2012). The most used conceptual framework was the theory of planned behaviour (4%), in which help-seeking behaviour is influenced by intention (Rickwood & Thomas, 2012).

Ajzen developed the theory of planned behaviour (TPB) in 1991 to help predict an individual's involvement in health behaviour in which they have self-control (Ajzen, 1991). Based on the TPB, the likelihood of health behaviours depends on the intention (motivation) to perform and the ability to control (Ajzen, 1991). The intention indicates the amount of work an individual is willing to perform

the behaviour. The intention is further divided into three subcategories: attitudes, subjective norms, and perceived behavioural control, as shown in the figure below (Ajzen, 1991).

Figure 1

The Theory of Planned Behaviour



Note. Adapted from "Theory of Planned Behaviour", by I. Ajzen, 1991, Organizational Behaviour and Human Decision Processes, 50, p. 182 DOI: 10.1016/0749-5978(91)90020-T

1. Attitudes, based on the evaluation of help-seeking behaviour for mental health support (Ajzen, 1991), first involve evaluating specific behaviours (Tomczyk, 2020). For instance, individuals seeking mental health services will determine whether help-seeking behaviour is required for their current mental health state. Furthermore, an individual's attitude is shaped by behavioural beliefs, whether they will consider help-seeking for formal services or if other informal supports may benefit them more (Tomczyk, 2020).
2. Subjective norms include what others think of mental health support. This involves whether the community around an individual is promoting help-seeking behaviour for mental health services

(injunctive norms) and if there is a large quantity within that community practicing help-seeking behaviours (descriptive norms) (Tomczyk, 2020).

3. Perceived behavioural control is divided into self-efficacy and controllability of a behaviour. Self-efficacy refers to the confidence in seeking out mental health services, while controllability is about the availability of mental health services (Tomczyk, 2020). Self-efficacy can reflect past experiences, as well as anticipated experiences in seeking mental health services (Ajzen, 1991). An increased negative experience with mental health services or negative perceived outcome in seeking a mental health service can result in decreased perceived behavioural control.

A study by Bohon in 2016, conducted with 495 participants diagnosed with depression at a large Northern California University, found that attitudes had a positive correlation of 0.70 with the intention to seek mental health services, while perceived behavioural control had a correlation of 0.29 on the intention to seek formal services (Bohon, 2016). Furthermore, attitude toward mental health services had a positive correlation of 0.77 with subjective norms and a positive correlation of 0.85 with perceived behavioural control. Finally, subjective norms of mental health services had a positive correlation factor of 0.95 with perceived behavioural control (Bohon, 2016). Overall, the theory of planned behaviour focuses on the attitude component, as it has the largest positive correlation with the intention to seek mental health services. The other two factors, subjective norms, and perceived behavioural control, also have a large correlation with attitude. Therefore, subjective norms and perceived behavioural control can shape the degree of negativity or positivity of a student's attitude towards mental health services. It is essential to note that the relative attitude, subjective norms, and perceived behavioural control can vary across behaviours and situations (Ajzen, 1991).

In another study by Shi on Chinese students' help-seeking behaviour after a natural disaster, it was found that the correlations between the different components of intentions in the TPB differed from

that of the Bohon study in 2017 (Shi, 2020; Bohon, 2017). However, Shi found that attitude, subjective norms, and perceived behavioural control were all significant predictors of intention to seek professional help (Shi, 2020). Although, across all situations, the correlation between different components of the TPB may differ, they are all statistically significant in explaining an individual's help-seeking behaviour for mental health services. The statistical significance across varying situations supports the validity of the TPB model.

The Theory of Planned Behavious has informed the conception of this study when considering the topic of help-seeking behaviour for mental health resources, guided the development of interview questions, and served as a framework for qualitative data analysis. For instance, during the interview, students were asked about facilitators or inhibitors within their environment for help-seeking behaviour. In considering environment, the study addressed the subjective norms of the TPB. After data collection through interviews or surveys, the data analysis steps involved comparing the themes developed through the study and determining whether they are represented by the categories of the TPB. Overall, theories like the TBP are important to inform the study on the development of research purpose or rationale, how this study impacts a specific area of research. Furthermore, theory influences the methodology of research involving data collection, analysis and the understanding or interpretation of that data (Stewart, 2016).

2.3 Internal barriers to access mental health services

As many undergraduate students do not seek mental health services even when in psychological distress, internal barriers regarding accessing mental health services must be addressed. Barriers can be attributed to the student's internal factors, such as the perceived need for support, mental health literacy,

and internalized stigma surrounding the need to disclose one's mental health problems to a professional service.

2.3.1 Low Level of Perceived Need for Mental Health Support

The intention to seek mental health support is correlated with the perceived need for help (Cellucci, 2006). Those with more severe symptoms and previous mental health diagnoses may be more willing to reach out for help, as demonstrated by the Gadalla's study in 2008 (Gadalla, 2008). The study found that women with recurring major depressive episodes, high-stress levels, and suicidal thoughts were more likely to reach out for mental health services than those with less severe symptoms (Gadalla, 2008). Furthermore, these individuals may also have sought professional treatment previously and are more prone to recognize signs if they appear. Those who have sought mental health services in the past have more positive views toward formal services than individuals who have not sought professional support (Masuda, 2005). On the other hand, students with untreated mental health problems may not have faced severe difficulties beforehand and most commonly report that their problem will improve by itself, and that stress is normal in college (Eisenberg, 2011). These students also question their mental health problem's severity, minimizing their perceived need for mental health support. As a result, students with decreased perceived need for mental health support prefer to manage their problems independently or attribute this behaviour to a lack of time in their schedule (Eisenberg, 2011). Moreover, students are most likely to seek support from informal services, such as friends, family, etc. (Samuel & Kamanetsky , 2022), because these informal supports have an already developed level of trust, openness, comfort, and an established channel of communication (Rickwood, 2005).

2.3.2 Limited Mental Health Literacy and its Interaction with Help-Seeking Behaviours

Mental health literacy is a term that was first introduced in 1997 to describe "knowledge and beliefs about mental disorders which aid in their recognition, management, and prevention" (Jorm et al.,

2003, p. 1071). The definition later expanded to include "knowledge and skills that enable people to access, understand and apply information for mental health" (Canadian Alliance on Mental Illness and Mental Health, 2008, p. 8). Mental health literacy is essential to student help-seeking, as it allows students to recognize common mental health problems, demonstrate an understanding of treatments for their mental health problems, and know where to reach out for help when needed (Jorm, et al., 2006). Mental health literacy is the first step in a student's journey to recognizing they require assistance for mental health problems and influences subsequent help-seeking behaviours. A low level of mental health literacy can be a barrier to a student's help-seeking behaviours (Almanasef, 2020).

2.3.3 Internalized Stigma and Pressure to Disclose

Psychological distress about disclosing mental health problems plays a big barrier in students reaching out for help. Most students are afraid to disclose as they fear tarnishing their relationship with their faculty and future career prospects (Knis-Matthews, 2007). Additionally, students fear facing stigma when coming forward to their institution about mental health problems and, as a result, use non-disclosure as a defence mechanism against stigma (Knis-Matthews, 2007). Internalized stigma due to societal pressure can lead to avoiding help-seeking, especially for individuals between the ages of 18-24, as demonstrated by Marcus and Wenstra's study (2012). They found that, generally, the young adult group (18-24) with anxiety and depression was not favourably disposed towards using professional care to address mental health problems. Instead, the young adult group reported being more interested in managing mental health problems on their own or with the support of family and friends rather than seeking professional mental health services (Marcus & Wenstra, 2012). The top three reasons for lack of help-seeking behaviours were students' lack of recognition of mental health problems (37%), being ashamed or uncomfortable with seeking help (22%), and concern about the stigma of being diagnosed with a mental health problem (17%) (Marcus& Wenstra, 2012). Furthermore, in a survey completed by

698 students from a Midwestern USA college, it was determined that two of the top three barriers to seeking mental health services were “embarrassment” and not wanting to be labeled “crazy” (Vidourek, 2014). In contrast, two of the lowest perceived barriers were not wanting to get help and being placed on medication (Vidourek, 2014). The result indicates that students who require mental health services do demonstrate a help-seeking attitude but do not translate that attitude into behaviour due to fear of judgement from the society or community around them.

2.4 External Barriers to Access Mental Health Services

In addition to the three internal barriers discussed, students at postsecondary institutions also face external barriers which influence their help-seeking behaviours on campus. Students’ beliefs and attitudes can result from the diversity of mental health support available on campus, as different students may relate to varying services based on their background. Furthermore, the level of promoting mental health services on campus can further enhance or inhibit students’ help-seeking behaviours. However, given the size of a postsecondary institution, the promotion of mental health services can widely differ between institutions.

2.4.1 Faculty Members’ Low Mental Health Literacy in Assisting Students to access Mental Health Services

In postsecondary settings, academic supports are one of the services to help students relieve psychological distress. Academic supports can include accommodations such as extra time in examinations or permitted absenteeism to ensure student success (Brockelman, 2011). However, seeking academic support services can only occur when the students themselves disclose their situation or when a faculty member recognizes a student is struggling. As mentioned, postsecondary students have difficulty seeking mental health services because of internalized stigma. Nevertheless, in most

cases if a student doesn't disclose, the faculty won't be alerted to the mental health problems the student is facing. This is demonstrated by the Brockelman study in 2015, where researchers administered surveys to all South Carolina university faculty staff to develop an idea of their mental health literacy. The study found that despite students facing mental health problems, faculty staff could not recognize the common symptoms of a mental illness like depression. Furthermore, over 40% reported a complete lack of familiarity with personality disorders, paranoia, and schizophrenia (Brockelman, 2015). However, decreased understanding of mental health disorders does not mean that faculty members are insensitive to the topic of mental health. This is demonstrated by a study done in a Mid-Atlantic college, which found that all participants (teaching staff) in the study were aware of formal services like the Counselling Centre on campus (Kalkbrenner, 2021). Furthermore, all participants stated they would refer students with mental health problems to the Counselling Centre but were unaware of the specific services provided by the on-campus resource or the effectiveness of said service (Kalkbrenner, 2021). All participants were comfortable accepting students with mental health diagnoses and referring them to mental health resources (Kalkbrenner, 2021). Therefore, teaching staff are not insensitive to student mental health but are unaware of the organization of mental health resources by the college and have received limited education on the topic of mental health services by the college (Kalkbrenner, 2021).

2.4.2 Lack of Diversity in Mental Health Supports Available on Campus

A study done in Alberta by Heck in 2014 stated that 44% of small and 71% of medium and large institutions indicated that counselling centre staff had undergone cross-cultural training. However, the study indicated that staff was considered diverse in gender, race, and nationality at only 11% of small and 57% of medium and large institutions. This lack of diversity in mental health services can negatively impact help-seeking behaviours in students on campus. Many students come from cultural backgrounds that may not favour mental health services; cross-cultural training can educate mental

health staff members on the stigma students from various cultures face and how to approach their barriers sensitively and safely. Employing a staff of diverse backgrounds at mental health services can help to facilitate students' help-seeking behaviours on campus, as students will be more able to relate to a mental health professional of a similar background. For instance, Indigenous students who experienced suicidal ideation preferred to obtain help from a professional of an Indigenous background (Scheel et al., 2011). Aside from culture, gender orientation is also important for students seeking professional mental health services. Like cultural preferences, students in the LGBTQ community may not feel represented by the services offered on campus. A study on California students found that students of LGBTQ background were more likely than non-LGBTQ students to report not using on-campus mental health services as they were accessing off-campus supports (Dunbar, 2017). LGBTQ students preferred seeking services off-campus, despite convenient, low-cost, and accessible services on-campus, as they benefited more from LGBTQ affirmative mental health services (Dunbar, 2017). Overall, the lack of representation on campus, whether for gender orientation or culture, can result in students transitioning to off-campus mental health supports or altogether avoiding mental health supports.

2.4.3 Insufficient Promotion and Information Delivery of Mental Health Services on Campuses

The promotion of mental health services can differ as the sizes of postsecondary institutions vary. A study was conducted on various Canadian institutions to determine the available information about mental health services. Institution size was determined by the number of students enrolled on campus. Small-sized institutions had less than 2000 students, medium-sized institutions had 2000-10,000 students, and large-sized institutions had greater than 10 000 students. Overall, smaller-sized institutions had less general information regarding mental health services (Jaworska, 2016). Less widespread information can indicate a lack of mental health services promotion on campus; A lack of

information can affect students' help-seeking behaviours, as it can create uncertainty in what to expect from seeking these professional services. Furthermore, regarding increase of awareness on Alberta campuses, it was found that 44% of small, 89% of medium, and 88% of large institutions indicated that they had campus mental health promotion programs in place (Heck, 2014). The difference in the promotion can be due to a lack of resources but is also an indication that smaller-sized schools do not have procedures for collecting and sharing mental health data across campuses. This promotion is essential for students to understand the specifics of what each mental health service offers.

Aside from the quantity of mental health services promotion, the quality of mental health promotion also must be considered. Students' expectations of these mental health services must be considered when determining the promotion quality. A study conducted on 610 students from universities in Warsaw looked to determine students' expectations of mental health service promotion (Sokolowska, 2016). Respondents expected mental health services to have an interesting and engaging promotion, allowing student feedback to better promote these services through in-person interactions such as workshops (Sokolowska, 2016). The respondents also mentioned having promotional events that targeted teaching staff on campus, increasing the education available regarding mental health to the entire campus (Sokolowska, 2016).

Overall, a large institution with an increased number of students may have increased resources for mental health promotion, but it does not necessarily mean they are effectively promoting mental health services, even with an increased number of mental health services than a smaller institution with fewer students. This may suggest that mental health service promotion is most effective when there are an adequate number of services on campus but also that they are meeting students' expectations, indicating the quality of the service promotion.

2.4.4 Social Stigma and Discrimination in Relation to Help-Seeking Behaviours for Mental Health Services

Students' help-seeking behaviour is influenced by social stigma on three levels: individual, structural, and discrimination resulting from the interaction of social and self-stigmatization (Schomerus & Angermeyer, 2008). Individual level refers to how the behaviour of individual group members in an environment can influence others within that group (Pincus, 1996). For instance, a student who has not sought mental health services can be affected by the perspective of their peers, who are also against using formal services. Structural stigma refers to institutions' policy and structure around mental health, which can negatively impact students' help-seeking behaviour (Pincus, 1996). This can include, for instance, not having enough mental health services on campus or a lack of diversity in mental health services, excluding a minority of the student population. Self-stigmatization, as mentioned before, refers to how the members of a minority group, such as those facing mental health problems, internalize the stigma of the environment around them and are less likely to seek mental health services as a result (Schomerus & Angermeyer, 2008). If a campus environment looks down upon students with mental health problems, then students with a diagnosis are less likely to access services as a fear of being discriminated against.

A midwestern university interviewed 682 participants about the barriers they face during help-seeking behaviour for mental health services. One of the factors investigated by the researchers was stigma-related attitudes in relation to seeking mental health services. The results indicated that women were significantly less than their men counterparts to hold stigma-related values (Vidourek, 2014). For instance, women were less likely than men to identify an individual seeking mental health services as "mentally weak," "crazy," and the feeling that people with mental health problems should be able to "handle it on their own" (Vidourek, 2014). However, the study found no significant differences in

stigma-related attitudes toward mental health-seeking behaviours for students based on grade, involvement in a campus organization, and race/ethnicity (Vidourek, 2014). Furthermore, students who had sought services such as mental health counseling were less likely to perceive an individual seeking mental health services as weak (Vidourek, 2014).

Overall, social stigma can play a role in students' help-seeking behaviour, as demonstrated by Lally in 2013 and Pedersen&Paves in 2014. In both studies, the term personal stigma was brought up in relation to social stigma. Personal stigma was demonstrated by participant's personal attitudes towards mental health, including prejudice and stigmatizing attitudes towards others with mental health problems (Lally, 2013; Griffiths, 2004). Furthermore, personal stigma contributed to overall development of social stigma, creating internalized stigma for those affected by mental health problems; internalized stigma is created when individuals with mental health problems begin to relate to the negative statements of social and personal stigma (Watson, 2007). Overall, both studies found that participants' perceived levels of public stigma were higher than personal stigma (Lally, 2013; Pedersen & Paves, 2014). This indicates that students may have an "inflated" social stigma around help-seeking behaviour for mental health services (Lally, 2013). One-third of participants in the Pedersen & Paves study believed they would be treated negatively if they sought mental health services. In contrast, three fourth of the participants reported that they wouldn't negatively judge a peer seeking mental health services (Pedersen & Paves, 2014). This finding demonstrated misconceptions between attitudes toward help-seeking behaviour and the behaviour to seek mental health services due to social stigma (Pedersen & Paves, 2014). Students can express a positive help-seeking attitude and not judge those seeking mental health services. However, their behaviour toward seeking mental health services depends on social stigma, resulting in decreased utilization of formal services.

2.5 The Influence of the COVID-19 Pandemic on Student Help-Seeking Behaviours

Help-seeking behaviours among students in college remained low, even with the stressors experienced during the Covid-19 pandemic (Liang, 2020). A prospective cohort study done by Upton and colleagues on participants (mean age of 22.0) before the Covid-19 pandemic and during the first wave of the pandemic found that despite increases in generalized anxiety and depression during the pandemic, there was no increased usage of mental health professional services during the pandemic (Upton, 2021). This result is despite the increased scores for depressive disorders during the first wave months of the Covid-19 pandemic between May and June (Upton, 2021). Instead, participants commonly reported self-help behaviours, yet it is unclear how effective these behaviours were towards improving participants' mental health (Upton, 2021). Increased help-seeking behaviours were displayed by students who had previously sought mental health services or those with poor mental health status during the Covid-19 pandemic (Liang, 2020).

Nevertheless, Coulaud and colleagues in 2022 found that students who wanted to seek mental health services had difficulty doing so. Their study focused on young adults between 18-29 in France and Canada to determine if their participants' mental health needs were met during the Covid-19 pandemic (Coulaud, 2022). Of the 8424 participants who completed the survey, 3222 reported the need to access mental health services in the last six months. Of those 3222, 1280 (58.2%) participants in Canada and 766(74.8%) in France reported that they were not able to access the necessary mental health services during the Covid-19 pandemic. For both countries, participants who faced the greatest barriers to mental health services were those living in rural areas, who lost all their income due to Covid, and those who self-reported ethno-racial discrimination (Coulaud, 2022). Specifically for Canada, the regions with increased barriers to mental health services were the territories and Quebec (Coulaud, 2022).

These barriers can be explained by the preference students may have for in-person mental health services rather than the virtual platform present during the Covid-19 pandemic. A study by Hawke and colleagues surveyed youth (ages 14-29) on their attitudes towards virtual services (Hawke et al., 2021). The study demonstrated that participants not attending virtual services stated reasons such as a lack of human connectedness and personal care in a virtual format. Participants were also opposed to virtual platforms due to anxiousness or discomfort, technical concerns, and privacy or confidentiality issues (Hawke et al., 2021).

Aside from the delivery of mental health services, another study determined that a barrier to help-seeking behaviour during the Covid-19 pandemic was the attitude of students towards seeking formal services (Theurel, 2022). These attitudes included self-reliance to overcome mental health problems and difficulty communicating negative thoughts and emotions (Theurel, 2022). Students are also more likely to confide in family and resort to the Internet to overcome mental health problems than seek formal support, as one in five students in the study used the Internet to gather information about mental health and the services available (Theurel, 2022). The use of informal services was expected, as there is increased trust and openness with these sources (Rickwood, 2005).

During the Covid-19 pandemic, most countries (70%) reported transitioning to telemedicine/teletherapy for mental health services provided to their population, replacing in-person consultations (World Health Organization, 2020). Furthermore, helplines have played a role in providing mental health support, as 68% of countries reported using them to assist their population's mental health needs (World Health Organization, 2020). With the transition to online services, youth between the ages of 14-29 have reported increased accessibility due to convenience and being able to communicate with their mental health professional in a safe, socially distanced setting (Hawke et al., 2021). The Canadian Association of College and University Student Services assessed mental health

service delivery for post-secondary students during the Covid-19 pandemic; 64 student affair professionals responded to the study, with Directors of Health or Counselling Centres representing 45% of this sample. The survey found that over 90% of participants in varying post-secondary institutions pivoted to remote services within three weeks of the Covid-19 pandemic starting. As well, two thirds offered only remote services, with 29% offering hybrid between in person-services and virtual services (Rashid & Genova, 2020). Overall, two-thirds of participants reported positive/very positive staff adaptation, while 31% somewhat positive experiences (Rashid & Genova, 2020).

2.6 Help-Seeking Behaviour for On-Campus Resources – A Gap in the Literature

Multiple mental health services exist on campuses, with many having individual purposes yet serving overlapping mental health problems as other services on campus (Bourdon, 2020). Anxiety and depression symptoms are the most common reasons for students reaching out to on-campus professional mental health services like Counselling and Clinical Services (Bourdon, 2020). Furthermore, students who face significant life events are most likely to seek the help of Counselling and Clinical Services (Bourdon, 2020). In terms of the University Health Services, where outpatient primary care is available for physical conditions and mental health support, it was found that women and those with significant life events were more likely to access these resources (Bourdon, 2020). As a result of Counselling and Clinical Services and the University Health Services offering overlapping supports, participants facing significant life events were open to receiving support from either service. The study by Bourdon predicted participants on campus mental health service utilization because of student background and mental health problems. However, the study did not address students' help-seeking behaviour for formal services on campus. That is where a literature gap lies, as there is not a broad depth of literature

analyzing students' help-seeking behaviour in various post-secondary institutions across Canada or North America.

One study that examined the experiences of students' help-seeking behaviour was conducted in Southern Ontario and conducted surveys across 326 respondents (Karam, 2019). The study demonstrated that help-seeking behaviour was negatively affected by factors such as a lack of mental health service promotion after the first year of undergraduate studies, stigma, and waitlist to access mental health services (Karam, 2019). The results suggested that the institutional destigmatizing efforts and better promotion of mental health can help increase positive help-seeking behaviour (Karam, 2019). Destigmatizing efforts included creating a positive environment for mental health and "equating mental health with physical health"; both options suggested a move towards normalizing help-seeking behaviour on campus (Karam, 2019). In terms of promotion, students in the study indicated an increased quantity of advertisements for mental health services and increased quality in clarifying the purpose of these formal services (Karam, 2019). Purpose clarification was necessary, as participants were unaware of each formal service offered in terms of their benefits for student mental health (Karam, 2019). The study by Karam provided insight into the factors facilitating and inhibiting help-seeking behaviours of students at a major Canadian university. However, the study's primary method was a survey through which demographic information was unknown, which did not allow for a comparison of different groups' help-seeking behaviour; if demographics were known, the author could have compared different genders' help-seeking behaviour to each other based off the surveys. There was also uncertainty as to whether the respondents in this study had attended mental health services on campus and if they required mental health services in the first place, as the respondents completed no mental health screening. As a result, further studies of help-seeking behaviour are needed, where help-seeking behaviour of different groups are compared, as well as a deeper analysis of help-seeking behaviour

through semi-structured interviews. Furthermore, a mental health screening is required to determine if participants need formal services on campus. It can explain why students on campus who required mental health services decided not to display positive help-seeking behaviours. Overall, this study will address the limitations of the Karam study and add to help-seeking literature by determining students' help-seeking behaviour for mental health services in a major Canadian postsecondary institution.

2.7 Summary

In this chapter, the term mental health was first defined, as well how it applies to young adults and those within post-secondary institutions. The term help-seeking behaviour was also discussed, first conceptualizing the behaviour and then factors influencing it, such as internal and external barriers to accessing mental health services. The literature review also presented how Covid-19 influenced help-seeking behaviour and the change in mental health service delivery during the Covid-19 pandemic. Overall, there has been literature addressing help-seeking behaviour and the factors influencing it. However, a literature gap still lies in understanding post-secondary students' help-seeking behaviour, especially for on-campus mental health services. Therefore, the aim of this study is to add to the overall help-seeking behaviour literature, as well specifically the help-seeking behaviour of post-secondary students for formal services on a major Canadian post-secondary institution.

CHAPTER III: Research Methodology

3.1. Overview of Methodology

This study used a mixture of methods, involving a quantitative and a qualitative phase. Phase one involved a quantitative survey. Phase two was qualitative interviews, and phase three integrated the qualitative and quantitative aspects. This study was informed by a mixed-methods design but did not strictly follow the mixed-methods design (Fetters, 2013). The quantitative data collection involved first administering surveys to participants, followed by the qualitative data collection recruiting a certain number of survey participants for semi-structured interviews. The interviews allowed researchers to understand participant's experiences in-depth and assisted in explaining the data gathered through individual surveys. The interviews and surveys were complementary and informed each other about the experiences of students with mental health resources on campus.

A mixed methods framework was referenced because neither a survey or interview were sufficient alone to answer all of the research questions. The survey was necessary to gather information on which students required mental health resources and the students to choose from this sample for the interview. Furthermore, the survey looked to answer research question one, what are student's awareness of mental health resources on campus. The survey asked students to identify the mental health resources on campus that they were familiar with. However, the survey alone could not answer this research question, as it only asked for student's familiarity with mental health services on campus. The interview section was necessary to explore students' understanding and knowledge of mental health resources in depth, as well investigate their knowledge of off-campus resources. Furthermore, the interview explored research questions two, what are student's experiences seeking mental health resources on campus. Students would speak on their perspective of help-seeking behaviour and process

they went through to attain mental health services, describing the accessibility of these formal services. The interview also addressed research question three, factors inhibiting or encouraging students to seek mental health services. Students during the interview had the opportunity to expand on what they expected from mental health services in general and the environmental factors influencing their help-seeking behaviours. When combining the survey and interview results, it was necessary to analyze whether the awareness of mental health services present on the survey matched that of the interview. For instance, if majority of students were familiar with a few select mental health services on campus, were those same services frequently used or mentioned by participants in the interview? Overall, a mixture of methods design will benefit this study, as the quantitative data from the survey will help generate the qualitative sample and explain the findings from the qualitative findings in the interview (Fetters, 2013). Whereas the qualitative findings from the interview will further build on the findings from the quantitative section in the survey and indicate if there are any discrepancies between the two sets of results (Fetters, 2013).

3.2 Participant Recruitment and Data collection procedure

The target population for this study were undergraduate students at the University. An ethics application was submitted before any data collections were conducted. After submission of the study to the ethics board, edits were made by the researcher, which were incorporated by the study. A delegated reviewer from the ethics board then made final comments on the study before approval. The study's approval number was Pro00116647. (See Appendix A for the Ethics Approval letter).

3.2.1 Survey

Recruitment occurred through a campus undergraduate newsletter that was sent to the entire student body, inviting them to participate in the survey. The inclusion criteria for the survey were any

students from the undergraduate population. The survey took approximately 5 to 10 minutes. Students' participation was voluntary and results were anonymous and confidential. Students agreed and consented to participate by clicking the online survey link. When participants completed the survey, they were given instructions on how to enter their name and contact information into draws for survey promotion. As well, the final section of the survey asked participants to express whether they would like to participate in the interview section of the study. The survey launched near the beginning of February 2022 and lasted approximately three weeks. To promote the survey, the undergraduate student's newsletter was used, with a promotion for the survey sent out once a week for three weeks; the newsletter was only accessible by the undergraduate population on campus. Furthermore, the promotion also included an incentive that participants were able participate in a draw if they completed the survey. The survey was created using the Hosted in Canada Surveys platform.

3.2.2 Interview

The researcher reached out to those survey participants who indicated their interest to participate in the interview and who met the inclusion criteria. The inclusion criteria involved participants who had a total Mental Health Continuum (MHC) score of 12 or greater (explained in the next section). The reason being was that the researcher is trying to determine the experiences of students with mental health problems who were looking to seek mental health services. Generally, participants who had a score of 12 or higher indicated they were in the orange or red categories for some of the components of the MHC, such as mood. Whereas participants with a score lower than 12 had an increased number of responses in the yellow and green sections of the MHC, the healthier aspects of the continuum. As a result, participants with a score lower than 12 were excluded because of a decreased need they were to reach out to mental health services due to mental health problems.

Participants were contacted by the researcher to set up an appropriate time for semi-structural interviews and received a consent form to fill and sign before the interview. The study recruited 22 participants for interviews between the months of January and April, 2022. The interviews occurred in person in a research lab or online over Zoom for about one hour. All interviews were recorded and transcribed verbatim.

3.3 Quantitative Data Collection- Survey

The survey consisted of (1) demographic questions including age, gender, year of study, country of origin, and the major of their study; (2) the Mental Health Continuum (Department of National Defence Canada, 2017) to screen students' mental status; (3) a question for the students to self-report any psychiatric diagnosis/treatment; (4) a list of all the mental health services at the University to assess students' awareness and experience with the services, and (5) a question asking participants if they would like to further participate in an interview. See Appendix E for the complete survey questionnaire.

The Mental Health Continuum: The Mental Health Continuum (MHC) was developed by the Department of National Defence Canadian Armed Forces (National Defence Canada, 2017). The continuum helps students attend to and monitor signs and behaviour of their mental health status and determine steps to improve their mental health (Chen, 2020). The Mental Health Continuum components are represented by the six items: Mood, Attitude and Performance, Sleep, Physical Symptoms, Social Behaviour, and Alcohol and Gambling (Chen, 2020). Participants can differ in their well-being levels in each of the six components, with one end of the continuum representing optimal positive mental health and no impairments, while the other end represents negative mental health and the presence of impairments such as extreme levels of anxiety (Chen, 2020). Furthermore, the continuum is divided into four colour blocks (green, yellow, orange, and red) on a sliding scale from

left to right (Chen, 2020). The healthy and adaptive coping levels are represented by green, the reacting-mild and reversible category by yellow, the injured-more severe functioning impairment section by orange, and ill-clinical illnesses and disorders requiring concentrated medical care by red (Chen, 2020) (see Figure 2). The least severe section green is represented by the numerical value of 1, while the most severe section red is given a value of 4. Overall, the MHC has demonstrated significant correlations with a criterion measure (Kessler Psychological Distress Scale) among the university student population, indicating evidence of good construct validity (Chen 2020). Furthermore, the two factor loadings were greater than 0.5, indicating that all six categories in the Mental Health Continuum are essential (Chen, 2020).

Figure 2

Mental Health Continuum

Mental Health continuum	1	2	3	4
Mood	☐ Normal mood fluctuations; Calm &takes things in stride	☐ Irritable/Impatient; Nervous; sadness/ Overwhelmed	☐ Anger; Anxiety; Pervasively sad/Hopeless	☐ Angry outbursts/ aggression; Excessive anxiety/panic attacks; Depressed/suicidal thoughts
Attitude and performance	☐ Good sense of humour; Performing well; In control mentally	☐ Displayed sarcasm; Procrastination; Forgetfulness	☐ Negative attitude; Poor performance/workaholic; Poor concentration/ decisions	☐ Overt insubordination; Can't perform duties, control behaviour or concentrate
Sleep	☐ Normal sleep patterns; Few sleep difficulties	☐ Trouble sleeping; Intrusive thoughts; Nightmares	☐ Restless disturbed sleep; Recurrent images/ nightmares	☐ Can't fall asleep or stay asleep; Sleeping too much or too little
Physical symptoms	☐ Physically well; Good energy level	☐ Muscle tension/ Headaches; Low energy	☐ Increased aches and pains; Increased fatigue	☐ Physically illnesses; Constant fatigue
Social behaviour	☐ Physically or socially active	☐ Decreased activity/ socializing	☐ Avoidance; Withdrawal	☐ Not going out or answering phone
Alcohol and Gambling	☐ No/limited alcohol use/ gambling	☐ Regular but controlled alcohol use/gambling to cope	☐ Increased alcohol use/gambling – hard to control with negative consequences	☐ Frequent alcohol or gambling use – inability to control with severe consequences

3.4 Qualitative Data Collection- Interviews

The interviews aimed to capture students' perspectives of mental health, determine how knowledgeable they are for mental health services on campus, and their help-seeking behaviours. Open-

ended questions were used in the semi-structural interview to expand on participants' ideas; this allowed the participants to expand on their responses and elaborate further on their help-seeking behaviour. The interview included questions of (1) factors influencing participants' decision on help-seeking; (2) their knowledge and/or experience of specific mental health services on campus, (3) the accessibility of mental health resources on campus, and (4) the facilitators and difficulties they have faced in attaining these services. See Appendix G for the interview guide.

During the interview stage, the topic of reflexivity was also considered. Reflexivity is defined as, "set of continuous, collaborative, and multifaceted practices through which researchers self-consciously critique, appraise, and evaluate how their subjectivity and context influence the research processes." (Olmos-Vega., et al 2022). For instance, I did consider my role as a previous student at the post-secondary institution the study was being conducted at. I am aware of mental health resources on campus and ensured to not offer my perspective on the topic to participants or the study in general to remain objective. My role as a researcher, a former insider of the student group, and my lived experience influenced my decision making about the study approach. Furthermore, my subjectivity was questioned by my supervisor, as well as my peers to ensure that participants' responses were not influenced. During the interview, the participants were able to expand on the topics they deemed important regarding help-seeking without prompting from the researcher. Through personal reflexivity and discussion with my supervisor, my own judgments, values, beliefs, and life experience were also examined during the data analysis process to identify their impact on how I interpreted the data. My potential researcher biases, for example "presuming more barriers than facilitators for help seeking", were discussed. Overall, my role and position in the research was acknowledging through reflexivity.

3.5 Data analysis

The researcher conducted initial quantitative and qualitative data analyses, then integrate both data following Onwuegbuzie and Teddlie's mixed-methods analysis (2003).

3.5.1 Initial Analysis of the Survey Data

The data set was transferred from Hosted in Canada Surveys platform to the Statistical Package for the Social Science (SPSS) version 28.0.1.1 (IBM, 2021) for analysis. Descriptive statistics were used to characterize the data collected from all participants. For the MHC data, the means and standard deviations of all participant's scores were calculated. The frequency of participants in each of the colour-coded sections of the MHC were also determined. As well, the frequency of participant's familiarity with each of the mental health services on campus were calculated to see if there are any similar patterns that are determined during the qualitative analysis of the study. After the normality of the data was tested, independent-sample t-tests were conducted to compare the means of MHC and the numbers of service familiarity between men and women. One-way ANOVA tests were used to compare the means of MHC and the numbers of service familiarity among students at different years of study.

3.5.2 Initial Qualitative Analysis

The conventional content analysis method (Hsieh & Shannon, 2005) was used to analyze the transcriptions to develop an understanding of students' knowledge and experiences within the campus mental health services.

1. Conventional content analysis involves steps of first familiarizing oneself with the data through reading the transcript and writing initial thoughts (Erlingsson, 2017).
2. The next step is dividing the text into meaning units, which are sections helpful towards answering the research question. Meaning units were broad and served to divide different sections of the transcript. For instance, participants spoke about reasons they

were against attending mental health services and this unit was classified as, “Reasons for not choosing mental health services”.

3. The third step is then to formulate codes from those meaning units. Codes were standalone labels within meaning units and they described what the meaning units were. There were over 100 of meaningful units coded. Meaningful units were not as concise or specific as codes and each meaningful unit could have multiple codes within, resulting in the large number of codes.
4. The next step was to develop categories from similar codes (Erlingsson, 2017). The two main categories developed were individual factors influencing help-seeking behaviour and external factors influencing help-seeking behaviour. The individual influences had 3 sub-categories, while the external factors had 8 sub-categories. The external factors sub-categories consisted of examples such as peer influence on help-seeking behaviour or teaching staff influence on help-seeking behaviours. Individual factors sub-categories were related to participant attitudes towards mental health services and the topic of mental health.
5. The two main categories were further integrated into themes to better differentiate the codes that were present in each of the sub-categories. For instance, the two sub-categories mentioned before, “peers” and “teaching staff” were combined into the theme “environmental factors”; the theme term environment factors allows for conceptualizing the codes, as both are describing informal external influences on an individual’s help-seeking behaviour. A sub-category describing the influence of mental health services on student help-seeking behaviour also fell into the “external factors” category. However, this sub- category was then merged with three other subcategories into a theme labelled,

"Accessibility of mental health services on campus", as they were an external influence that involved formal supports. Themes gave overall meaning to the research questions posed in this study. Codes were standalone labels within meaningful units, whereas themes connected those codes within those meaningful units and differentiated codes from other themes as described above.

Overall, conventional content analysis is used when an existing theory or research literature on a phenomenon is limited, as is the case for this project. Categories will not be determined before the interviews but allowed to develop as the interview data is analyzed. As the process continues, codes will emerge based on the conversation with the participant, as well as subcategories of these codes. The advantage of a conventional approach to content analysis is not imposing a preconceived category or code for interviews with participants (Hsieh & Shannon, 2005).

The themes of the study were presented to peers through a peer checking process. This process involved the researcher's supervisor, other more experienced colleagues, and graduate students. Peers were presented with the themes identified by the researcher, and they discussed with the researcher whether those themes were appropriate in answering the research questions and research purpose. The peer checking process was completed at the end of theme development. The preliminary themes were edited based on peer feedback and updated to best reflect the research questions.

3.5.3 Integration of Qualitative and Quantitative data

The mixed-method that informed this study consists of seven steps identified by Onwuegbuzie and Teddlie in 2003. The steps consist of data reduction, data display, data transformation, data correlation, data consolidation, date comparison and data integration. Data reduction is defined as reducing the dimensionality of the quantitative data and the qualitative data (e.g., conventional content

method analysis). Data display visually describes the quantitative and qualitative data, followed by data transformation, where data are quantized or qualitized; in our study's case, the data display was qualitized afterwards. Data correlation involves qualitative data being correlated with quantitative data or vice versa. The following step is data consolidation, where both quantitative and qualitative data are combined. The next step, data comparison, compares the findings from the qualitative and quantitative data sources. In the final step data integration, qualitative and quantitative data findings are integrated into either a coherent whole or two separate sets.

3.6 Summary

This chapter presented the research methods that were used in the study, with information about participants, procedures, measurement tools and analysis plan of determining help-seeking behaviour of students on campus.

CHAPTER IV: Results

4.1 Survey

A total of 263 students participated in the survey. Participants recruited for this study represented a diverse range of ages, genders, degree programs, and years of study (see Table 1). Most participants identified as women (74.9%), between ages 18-22 (87.8%), and had a single marital status (96.6%). In regard to the faculty of study, the majority of survey respondents were from the Faculty of Science (36.1%), followed by the Faculty of Arts (23.2%). When looking at the year of the study, there were similar percentages of respondents from the first year to the fourth year of undergraduate studies. There was a drop in the number of respondents for the fifth year (5.7%), as the majority of undergraduate students completed their first degree within four years.

4.1.1 Student Mental Health Screening

Regarding the MHC scores, a similar pattern emerged among four of the six domains (see Table 2). The majority of participants ranked in the yellow category of the continuum for mood (43.0%), attitude/performance (54.4%), physical symptoms (42.2%), and social behaviour (46.8%), followed by the green category for around one-third of the participants. This pattern indicated that the majority of participants did face healthy distress levels throughout the semester and that these distress levels were manageable. They experienced normal mood fluctuations, good sense of humor, and were physically and socially active. The remainder of the participants were most represented by the orange category, with the lowest representation coming from the red category of the MHC. Generally, less than 20% of respondents identified in the orange and red categories for the four domains.

Table 1

Participant Demographic Profile (Total N= 263)

	n	%
Gender		
Woman	197	74.9
Man	51	19.4
Non-Binary	10	3.8
Other	5	1.9
Age (in years)		
18-22	231	87.8
23-28	22	8.4
+29	10	3.8
Marital status		
Single	254	96.6
Married	8	3.0
Divorced	1	0.4
Faculty of Study		
Science	95	36.1
Arts	61	23.2
Engineering	20	7.6
Education	16	6.1
Nursing	13	5.1
Business	11	4.2
Medicine and Dentistry	8	3.0
Physical Education & Recreation	8	3.0
Law	4	1.5
Pharmacy and Pharmaceutical Sciences	2	0.8
Native Studies	2	0.8
Other	23	8.7
Year of Undergraduate Studies		
First Year	64	24.3
Second Year	75	28.5
Third Year	60	22.8
Fourth Year	50	19.0
Fifth Year	15	5.7

However, this pattern did not show for the other two domains, sleep and alcohol/drug use. In the sleep domain, there was an increased number of respondents within the red and green categories; 37.6%

of participants fell into the red category, followed by the green category (36.5%), yellow category (20.5%), and orange category (5.3%). Based on the MHC, this is an indication that over 40% of students experienced poor sleep hygiene (orange or red). For the alcohol/drug use domain, the majority of participants (84.8%) reported being in the green category, indicating that they drink or use drugs in moderation or do not use alcohol and drugs as a coping mechanism for their stressors throughout the academic year. However, 12.5% of the participants were in the yellow category, suggesting that this group of students drink or use drugs regularly or in binges to manage stress.

Table 2

Mental Health Continuum

N=263	Healthy (Green)	Reacting (Yellow)	Injured (Orange)	Ill (Red)
Mood	93 (35.3%)	113 (43.0%)	42 (16.0%)	14 (5.3%)
Attitude and Performance	81 (30.8%)	143 (54.4%)	27 (10.3%)	12 (4.5%)
Sleep	96 (36.5%)	54 (20.5%)	14 (5.3%)	99 (37.6%)
Physical Symptoms	88 (33.4%)	111 (42.2%)	47 (17.9%)	17 (6.5%)
Social behaviours	75 (28.5%)	123 (46.8%)	50 (19.0%)	15 (5.7%)
Alcohol and drug use	223 (84.8%)	33 (12.5%)	6 (2.3%)	1 (0.4%)

4.1.2 Participant Familiarity with Mental Health Services

This survey section addressed the first research question in regard to student awareness of mental health resources on campus. The qualitative interview section further addresses students' awareness of mental health resources by comparing their preference for off-campus resources to on-campus mental health supports. Overall, students were most aware of Counselling and Clinical Services (65.3%) and University Health Centre (65.3%) and least aware of #Ualberta Cares (3.6%) (see Table 3).

This large difference in familiarity can be explained by the fact that #Ualberta Cares is an on-campus initiative that is online. At the same time, the University Health Centre and Counselling and Clinical Services are in-person services that students seek specifically for professional mental health support.

Table 3

Student Familiarity with Mental Health Services

N=263	n	%
Mental Health Service		
University Health Centre	173	65.8
Counselling and Clinical Services	171	65.0
Peer Support Centre	158	60.1
Sexual Assault Centre	154	58.6
The Landing	121	46.0
Wellness Supports	112	42.6
International Student Services	92	35.0
First People's House	70	26.6
#Ualberta Cares	10	3.8

4.1.3 Analysis of MHC and Familiarity of Mental Health Services by Gender and Year of Study

All MHC categories, received a score of 1-4 with 1 being the least severe mental health status (the green category) and 4 being the most severe mental health status (the red category), were totalled. The sum of these mental health scores can range from 6 (healthy mental health) to 24 (ill mental health). For the survey results, 49 participants (18.6%) had a score of 13-14; 28 participants (10.6%) had a score of 15-16; and 17 (6.5%) participants had a score of 17-19. No participants had a score of 20 or higher. The mean of all sum MHC scores was 11.3, with a standard deviation of 3.2. As a result, the majority(n=185) of the participants fell within +/- 1 standard deviation of the average MHC score, between scores of 8.1 and 14.5. A smaller number of participants (n= 33) fell within +2 standard

deviations of the average MHC score, between 14.5 and 17.7. A few participants (n= 14) fall within +3 standard deviations of the average MHC score, with scores greater than 17.7.

MHC ratings of men and women were compared to determine if a significant difference existed between the two groups. As shown in Table 4, the mean scores of MHC between men (mean=10.6, n=51) and women (mean=11.6, n=197) were significantly different, t(246)=-2.1, p=0.04. Effect size calculated was d=-0.2, 95% CI [-0.5, 0.08], indicating a small effect size. MHC ratings of first-year students to fourth-year students were also compared. Students across all years had an MHC rating mean between 11.2 and 12.1. Mean MHC ratings between the four undergraduate years were not significantly different, F(3,245)=0.9, p=0.4.

Table 4

Descriptive and Analytical Analysis of MHC Rating and Familiarity of Mental Health Services (Gender and Year of Study)

		Gender				Year of study				
	Total (N=263)	Men (n=51)	Women (n=197)	Non-Binary* (n=10)	T-test (men & women)	1st (n=64)	2nd (n=75)	3rd (n=60)	4th (n=50)	ANOVA
MHC total scores										
Mean	11.3	10.6	11.6	11.4	t=-2.1	11.4	11.2	12.1	11.2	$F_{(3, 245)}$=0.9
SD	(3.2)	(3.4)	(3.1)	(2.5)	d=-0.2 p=.04**	(3.3)	(3.2)	(3.1)	(3.2)	p=.4
# of familiar service										
Mean	4.0	3.6	4.1	5.1	t=-1.5	3.6	3.6	4.2	4.7	$F_{(3, 245)}$=4.0
SD	(2.0)	(2.1)	(2.0)	(2.3)	p=.10	(1.9)	(1.8)	(2.1)	(2.1)	η 2=0.05 p=.01**

*Non-binary participants' MHC scores and familiarity ratings were not used in the statistical analysis due to the small sample size. Overall, non-binary participants had a MHC score mean of 11.4 with a standard deviation of 2.5. As well, non-binary participants were familiar with an average of 5.1 services, with a standard deviation of 2.3.

** T statistics and F value: significant at the 0.05 level.

Familiarity of mental health services was compared between men and women to determine if there were any significant differences; in the survey, participants responded with “yes” or “no” to the provided mental health services list. As shown in Table 4, men were aware of an average of 3.6 mental health services, while women were familiar with a mean of 4.1 mental health services. Mean numbers for the familiarity of mental health services between men and women were not significantly different, $t(246)=-1.5$, $p=0.1$.

Familiarity with mental health services was also compared for students between the first year and fourth year of undergraduate studies. Students across all undergraduate years were familiar with a minimum mean of 3.6 services and a maximum mean of 4.7 formal services. However, familiarity with mental health services was significantly different between the four undergraduate years ($F(3, 245)=4.002$, $p=0.01$), with higher grade years having increased familiarity of mental health services. Fourth year undergraduate students were most familiar with mental health services, followed by third year students. First year and second year undergraduate students both had equal means for familiarity of mental health services (see Table 4). A post hoc Least Significant Differences analysis was also completed and found that there were significant differences at $p<0.05$ in familiarity of mental health services between second year and third year undergraduate students. As well, there were significant differences between the fourth, first- and second-year undergraduate students. The effect size calculated was $\eta 2=0.05$, 95% CI [0.0, 0.1], indicating a medium effect size between groups.

4.2. Interviews

Out of the 277 survey respondents, 22 participants were chosen for an interview. Regarding the 22 interview participants, five identified as men, two as non-binary, and fifteen as women. Four participants had an MHC score of 19, two had a score of 18, one a score of 17, one a score of 16, six a

score of 15, four a score of 14, three a score of 13, and one with a score of 12. The participants chosen for the interview reflected students who required help-seeking behaviour, as the majority of those selected had an MHC score of 15 or higher. (See Table 5 for the complete participant profile and summary of their help-seeking behaviours)

Table 5

Interview Participants Demographic Profiles and Help-Seeking Behaviour Summary

#	Gender	Year of Study	Faculty	# Of Familiar Services	MHC rating	Help-Seeking Behaviour Summary
1	Man	2nd	Medicine	3	14	Lack of help-seeking behaviour, despite acknowledging the importance of mental health services. Relies more heavily on family support.
2	Man	1st	Engineering	4	17	An international student who realizes the need for mental health support but has not sought any formal services on or off campus. This is primarily due to an environment with high academic stress levels.
3	Woman	3rd	Science	6	19	Comfortable reaching out to mental health services. Initially, she faced stigma in reaching out to mental health services but began the process through her physician on campus because of a personal tragedy.
4	Man	1st	Law	5	13	An international student that has healthy coping mechanisms and does not seem to be wanting to seek formal services. Furthermore, he stated that he would seek informal services such as family and friends before seeking formal services on campus.
5	Non-Binary	3rd	Engineering	7	12	Has faced anxiety since youth and, as a result, sought mental health services to develop healthy coping mechanisms during university.
6	Woman	1st	Law	7	15	Can face family judgement for seeking mental health service. Prefers to seek off-campus supports due to negative experience with on-campus support.

7	Non-Binary	1st	Arts	2	14	A more mature student who utilizes off-campus supports through work benefits, as there is a lack of familiarity with on-campus resources. Extreme levels of anxiety, requiring accommodations.
8	Man	4th	Science	2	14	Values seeking mental health services from time to time. Feels the stigma of seeking mental health services as a male and is less inclined to as a result.
9	Woman	3rd	Science	2	19	Believes in promoting mental health services and that all students should seek formal services. She is currently seeking mental health services on campus and off campus.
10	Woman	3rd	Education	6	13	She believes seeking mental health services is necessary to develop healthy coping strategies. However, she is unwilling to because of her peer's negative experiences with on-campus mental health services.
11	Woman	4th	Nutrition	7	14	A campus ambassador who has a general understanding of on-campus mental health services. Values informal supports such as family over seeking formal services.
12	Woman	4th	Science	9	18	She faces clinical depression but is also a mental health volunteer at a service on campus. She displays help-seeking behaviour for her depressive symptoms and promotes positive help-seeking behaviour for other students.
13	Woman	3rd	Arts	6	18	Previous negative experiences with on-campus-supports Relies on family doctor off-campus to acquire mental health resources. Will not seek mental health resources until she describes herself feeling at a low point or when her doctor recommends it.
14	Woman	4th	Science	7	15	Initially struggled with seeking on-campus help during the first year, having panic attacks and anxiety. In the second year, began living on residence with increased outreach of mental health supports. This outreach resulted in increased help-seeking behaviour and advocacy for mental health in regard to other students.
15	Woman	2nd	Science	5	19	Stated that she requires to seek mental health services and needs formal support. However,

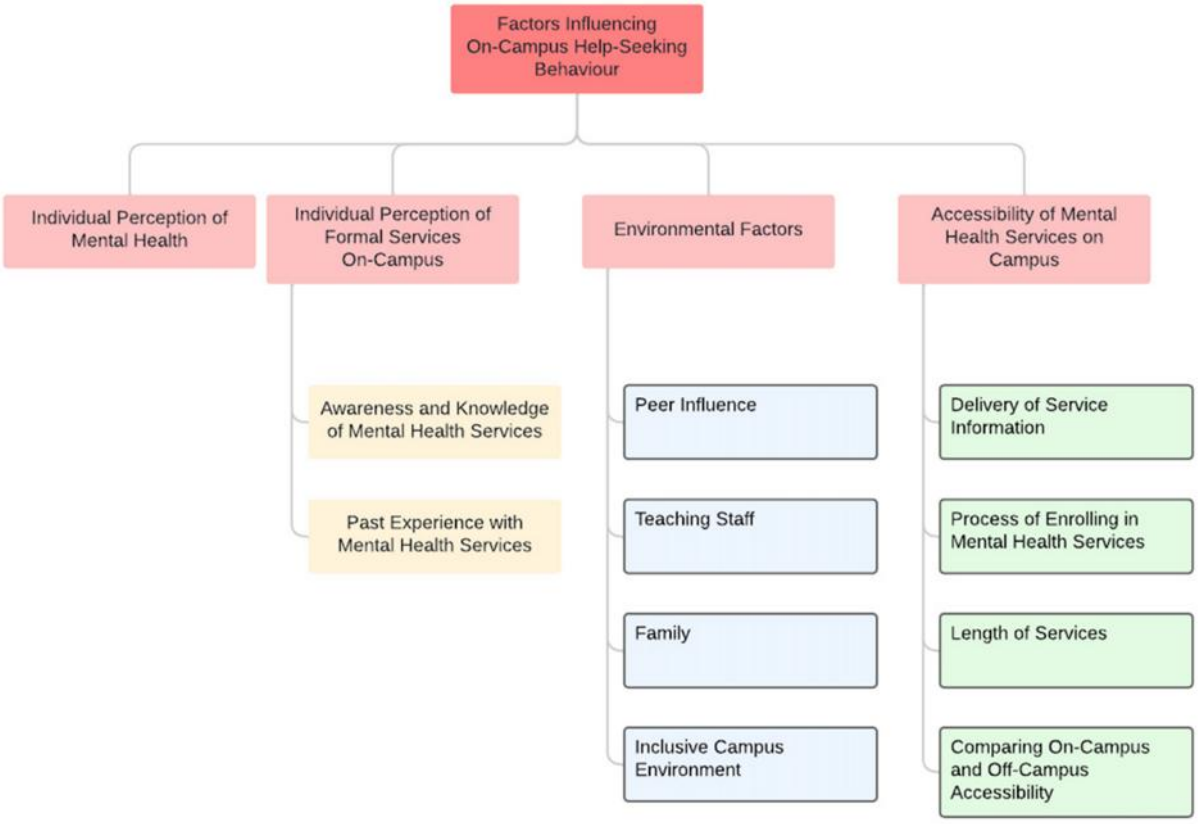
						she is not inclined to seek on-campus or off-campus support due to previous negative experiences with formal mental health services.
16	Man	3rd	Business	6	14	An international student who relies more heavily on informal supports such as family and friends, with limited knowledge of mental health resources on campus. His friend group does not have a positive perception of mental health services on campus.
17	Man	2nd	Science	1	19	Has sought on-campus supports such as counselling and clinical services and off-campus supports such as crisis lines. Values anonymity when receiving services. As a result, prefers off-campus support and does not feel comfortable with friends or family finding out that he is seeking mental health services.
18	Woman	2nd	Science	3	15	Attends counselling and clinical services on campus and prefers on-campus supports rather than off-campus because on-campus supports can better understand students' needs.
19	Non-Binary	1st	Arts	2	15	Seeks mental health services because of diagnoses relating to depression, anxiety, and OCD. Seeks off-campus resources, as the commute to on-campus is very lengthy Participant also values in-person services, which off-campus can provide.
20	Woman	1st	Science	2	16	Has researched seeking off-campus mental health services in the past but has not gone ahead in action. Is She is not aware of the confidentiality policy of services on campus.
21	Woman	4th	Arts	3	15	Requires help-seeking behaviour for a depression diagnosis. She seeks off-campus supports, as they provide her with clarity of the mental health professionals supporting her and their background.
22	Woman	3rd	Engineering	1	13	Normalizes mental health problems and describes them as part of the university experience. Less inclined to seek mental health supports. Has had negative experiences with off-campus services regarding trust and, as a result, won't seek on-campus resources.

4.2.1 Qualitative Data Themes

Four common themes emerged from the data, which influence student help-seeking behaviour on campus. The four themes include students' perception of mental health, student perception of formal services, environmental factors, and accessibility of mental health services on campus, as demonstrated in Figure 3.

Figure 3

Factors influencing on-campus Help-Seeking Behaviour



Theme 1: Individual Perception of Mental Health

The participants' views of their mental health state and whether that state requires attention vary. Participants' perception of their mental health would be one factor influencing their help-seeking behaviours, either inhibiting or encouraging. Most participants will not look further into formal services unless they believe they need support. Furthermore, a higher MHC value does not necessarily mean a participant is aware of their mental status and willing to seek mental health services on campus. For instance, given an orange or red value in either of the six categories of the MHC, some participants were still reluctant to seek mental health services. Participant twenty-two stated:

> I feel like if I am really mental sick, then I have to attend mental health services. For example, if I feeling depressed or leaning towards thoughts of suicide. For normal study pressure, I can adjust my mood and find a balance. (P22)

This participant had rated her mood and attitude/performance in the orange section of the MHC, as well as placing her sleep symptoms in the red section. Her MHC rating regarding these two sections would indicate she would benefit from formal services. However, she believes she is not at a greater risk for mental health problems to seek services.

Participants don't seek mental health services until they can no longer individually cope with their mental health problems and feel in need of formal services. As one participant reflected, "for me, to get through this [mental health problems] by myself, I don't think I could. So naturally, I think I should seek support [support for mental health services]" (P9). This participant faced panic attacks in class. As a result, she was convinced that she required mental health supports. Most participants initially believed they should not seek mental health services until their quality of life was affected. Help-seeking behaviour is initiated by the participant's perception of what they perceive as a desirable state to seek mental health services.

Theme 2: Individual Perception of Formal Services on Campus

Theme 1 presents the initial step participants needed to take in seeking mental health services. Afterward, the participants' knowledge of and experience with these mental health services determines the likelihood they seek formal services on campus.

Subtheme 2-1: Awareness and Knowledge of Mental Health Services

Participants' knowledge of mental health services was determined by their understanding of the roles and purpose of mental health services on campus. Some participants lack understanding of mental health services. They either are unaware of the available services or could not identify or differentiate the purposes of the on-campus services. For instance, one participant noted, "I was confused with #UAlbertaCares and the Counseling Services because I didn't know what each of them meant. I thought both were really related to how people are facing difficulties in the day-to-day life" (P2). This participant had assumed a mental health initiative like #UalbertaCares offered the same services as a professional mental health service on campus, such as Counselling and Clinical Services. Such confusion results in students being reluctant to reach out, as they want to avoid a service that does not meet their needs.

Some students have a general understanding of mental health services, as they can recognize the name of the service but cannot identify if that specific service will meet their needs. This can inhibit students from seeking formal services in the first place, as they may get redirected multiple times before finding one that suits their needs. Participant six shared:

> The purpose [of mental health services] matters a lot, because it already takes a lot of courage and conviction trying to get yourself started in trying to access supports in the first place. Then you gather up all that courage and walk into the support you're accessing, and you tell them I'd like a specific service, but they don't provide that service and recommend others

> instead. That may deter you from accessing mental health services because you might get redirected multiple times to get it all together.

Other than being able to differentiate the purpose of each mental health services, participants often had difficult time understanding whether a formal mental health service offered professional support or was primarily supported through volunteers. The importance of this difference is explained by Participant 11, who stated,

> I think it's really important because, again, it kind of ties back into the comfort someone has talking with volunteers who can be seen as just another student. But if they [students seeking formal services] are meeting with a healthcare professional, they [healthcare professional] have that higher degree of knowledge and professionalism. Students might be comfortable with that, so I do think it's very important for individuals to distinguish what types of people are working at mental health services.

Understanding who is providing support at a mental health service can increase the comfort and trust for students in seeking formal services on campus. This is because most students expect that they will receive professional supports from all mental health services on campus. Without a clear distinction, expectations for mental health services on campus will not be met, resulting in decreased trust in these formal services. This can further result in reduced help seeking behaviours of students and less likely that students will reach out to formal services in the future.

There was a minority of participants who displayed a good understanding of mental health services on campus, such as Participants 15 and 18. This was usually because of referrals to services (such as Counselling and Clinical Services) by their physicians at the University Health Centre, living on campus residence, or being mental health advocates on campus. These students generally had a more positive help-seeking behaviour for services on campus, as they had an increased mental health literacy.

This translated to them wanting to access formal services throughout their undergraduate career. In most cases, students who were knowledgeable of mental health services were most understanding of a professional support like Counselling and Clinical Services. Most student's wanting to seek mental health services are in mental health distress and are looking for professional supports to help them cope healthily. As participant three stated:

> I guess a lot of these [Peer Support Centre and Sexual Assault Centre], I've heard of and know very little bit about, but like I don't really like know what they really do or what's going on, besides the Health Centre and Counselling and Clinical Services.

As a result, even students who exhibit positive help-seeking behaviours for mental health services on campus may only have a proficient understanding of professional mental health services on campus. There was no participant that truly had a full understanding of all mental health services on campus.

Subtheme 2-2: Past Experience with Mental Health Services

Past experiences with other mental health services, whether on-campus or off-campus, can play a prominent role in students' attitudes towards seeking mental health services on campus. Some students who did not have positive experience with on-campus mental health support in the past are reluctant to seek future on-campus services, like participant 15 denoted:

> I think if I were to seek some mental health services, I think I would start with off-campus supports, as I have gone to a counselor in high school, and they weren't very helpful. So, for a more permanent solution, if I started looking for therapy, it would be off campus.

Participants weigh previous perspectives into account when avoiding post-secondary mental health resources. This pattern of relying on past experiences with mental health supports relates to research questions one and three. With a lack of awareness of mental resources on campus, a past negative experience with mental health support will inhibit the on-campus help-seeking behaviour of students.

On the other hand, an experience with a previous mental health resource can also be positive for participants, leading to increased help-seeking behaviours for mental health services. However, these positive experiences do not necessarily translate to increased help-seeking behaviour for on-campus mental health resources. Some participants mentioned finding a mental health service that met their needs off campus and continuing to seek those services instead of resorting to on-campus formal services.

Theme 3: Environmental Factors Influencing Help-Seeking Behaviour

The environment around an individual can greatly impact help-seeking behaviour, as it can involve the influence of the human environment such as peers, family, and teaching staff, and the opportunity to become an advocate in an inclusive campus environment.

Sub Theme 3-1: Peer Influence

Most participants heard about mental health services through a peer on campus. However, learning mental health resources through word of mouth does not often result in a positive perception of formal services on campus. As one participant described: "One service I can think of is the counseling services. But I have not heard many good things about them. I've always heard of people going and then feeling worse than they have when they came in there." (P10). This participant relies heavily on other's perspectives for help-seeking behaviour, as she has not sought mental health services on campus. Furthermore, peer influence can negatively impact help-seeking behaviour regarding online sources such as social media. Some blog posts online negatively review mental health services on campus, deterring other students away from these formal services. This is demonstrated by a participant who stated, "I heard through online forums how they[campus mental health] have too many services to care. And that's why I feel like maybe if I were to go to campus, it wouldn't be as beneficial as a

private [off-campus] practice."(P8). However, some online sources can provide students with information on the mental health services available on campus, resulting in positive-help-seeking behaviour. Students in mental health distress can resort to social media to find mental health resources to reach out to.

Sub Theme 3-2: Teaching Staff on Campus

Some participants gathered information about mental health resources from their classes when that information was present on the syllabus, and the professor or teaching assistant briefly touched base on these resources. As a result, professors and teaching assistants can shape students' experiences and knowledge about mental health resources on campus. This is described by P1, who stated:

> I think they would be the primary bridge to really connect these are the students with the services, because otherwise with prevention, how would you know? I think perhaps they[professors and teaching assistants] may be a really big bridge because they're be the first to notice a student is struggling, or perhaps signs that student is you know in that state of stress.

This perspective focused on a more positive environment to foster help-seeking behaviour and create an inclusive environment where students feel comfortable reaching out to teaching staff about their mental health problems.

Sub Theme 3-3: Family

The family often served as an alternate level of support for students facing mental health problems. Family offered a source of comfort and confidentiality, negating the need for formal services for participants. One participant stated, "I guess I'm very used to using my family as the support, that it does seem like it would be like a huge difference talking to someone who isn't my family about things that are affecting me personally" (P11). This participant references the uncertainty in talking to a professional who is part of a formal service, as it is a "huge difference" from the support they would get

from family. Another participant stated, " I've still been reaching out to my brother. My brother has always been there, my family's always been there, so they're kind of a constant support. I don't think my mental health would have been preserved without them" (P1). For both participants, family is constant support that is comfortable and easy to access rather than going to a formal service with uncertainty. Moreover, participants with families that are understanding and inclusive on the topic of mental health are more likely to seek formal services themselves. This is reflected by a participant, who stated, " I am very pro mental health support as my mom runs a mental health capacity building program in my home community. So I am very encouraging of it[topic of mental health], as I think it's very useful"(P14). The mother of this participant, being involved in the mental health field, encouraged her to seek out mental health services to create a balance between support from formal mental health services and family support.

Sub Theme 3-4: An inclusive Campus Environment

The University campus has multiple mental health services that utilize trained volunteers. As a result, there are multiple opportunities for students to get involved within the mental health field and increase their knowledge of mental health services on campus. Students who are mental health advocates on campus generally have increased help-seeking behaviours and are more likely to promote mental health services to their peers and the rest of the campus community. As well, these students are looking to create an inclusive mental health environment for their peers to reach out to mental health services on campus. In general, a positive environment on campus for help-seeking behaviours inspires students to become mental health advocates to encourage their peers to utilize formal services. As participant 14, a teaching assistant in the physics department stated:

The physics department over the summer, we're actually putting together a Teaching

Assistant training module for incoming Teaching Assistants. Part of the module will include looking for red flags in student mental health and the mental health services to refer these students to.

Students who are mental health advocates can promote a more positive mental health environment for other students, as they themselves were part of an environment on campus where mental health was greatly promoted. This initiative to promote mental health services on campus can positively influence the rest of the student bodies help-seeking behaviour.

Theme 4: Accessibility of Mental Health Services on Campus

Accessibility refers to the process of attaining mental health services on campus and whether this process encourages or inhibits students' help-seeking behaviour. Accessibility is divided into information made available about mental health services, the process of enrolling for services, the length of formal services on campus, and comparison of on-campus formal services to off-campus.

Subtheme 4-1: The delivery of service information

Participants became familiar with mental health services through their syllabus or student newsletters on campus. However, the information delivered did not capture most participants' attention. This is because the syllabus presentation focuses on the academic portion. Mental health resources may be briefly mentioned to familiarize students with some of the mental health services on campus but not in enough detail to impact help-seeking behaviour positively. For student newsletters, the reason maybe the timing of message delivery. Some mental health services are promoted during specific times of a semester, where students are more focused on their academics. For instance, one participant states, "During final season, they [student newsletters] always link the mental health services. But I think it's important to have promotion year-round" (P15). Having mental health service information promoted

year around is crucial, as students may need to access mental health support throughout the academic year. Most students have an increased workload and decreased accessibility for mental health information and services during high academic stressor periods. As a result, making information more readily available throughout the academic year can increase access to mental health services.

As mentioned before, mental health services are advertised through student newsletters. Other sources of mental health service advertisements included posters, workshops, and in-person interaction with students during on-campus events or mental health services coming out to lectures. For many participants, posters and emailing newsletters seemed to be most overlooked, as they weren't frequently advertised. As one participant stated, "Even those emails, sometimes really sending it frequently can help. I feel like when I see them, I don't really need it but when I need them, I can't find it." (P8). Many participants may face great mental health distress at specific points throughout the academic semester. A lack of frequent advertisement of service information throughout the semester can be ineffective in impacting help-seeking behaviour towards a positive direction. Moving on to mental health service workshops and in-person interaction with students, these seemed more effective in catching students' attention but were not a systematic method of advertisement. Furthermore, a select few mental health services, such as Peer Support Centre and Sexual Assault Centre, relied on these forms of advertisement As one participant stated, "I know the sexual assault centre quite well, because they usually hold a lot of booths, especially when I was in my first year, they had a lot of those booths around the Student Union Building, promoting themselves" (P13). Professional supports, like Counselling and Clinical Services, were not mentioned as employing this advertisement method.

Overall, all mental health services on campus have a brief description of their services and links to their websites on the campus mental health page. However, one common website listing all mental

health services does not necessarily create ease of accessibility for our participants to access these formal services. As participant 18 described:

> You have to go back and forth to know what [mental health service] does what. I feel that reading through that when you have a clear mind is totally fine. But if I am overwhelmed by this [information on the mental health campus websites] or this is too time-consuming, I don't know if it's [mental health services on campus] going to help.

A lack of simplicity and openness in promoting mental health services can exist on the websites online, as the purposes of these formal services can often "blend together". Participant 12 reiterates this when she states:

> Right now their [mental health services website] welcome page has a lot of text, and it's all-important stuff, but I just don't know where to start. As well, they have a whole bunch of links that you can't necessarily view immediately until it takes a lot of clicking and some of their information is repeated."

Increased simplicity of the website's mental health services can result in increased understanding of the purpose of these formal services by the student body. This lack of simplicity can also deter individuals with accommodations from seeking mental health services, as they may face other mental health diagnoses and situations requiring plain text to better understand mental health services. Without text on mental health services websites being in plain language, many individuals with accommodations have difficulty navigating appropriate resources for their specific needs.

Subtheme 4-2: Process of Enrolling in Mental Health Services

Many participants identified long waiting times as an inhibiting factor in enrolling for mental health services. One participant noted, "I think that's[waiting time] another barrier for people. Because, if I see a wait time of two weeks, most likely the feelings that I'm feeling are gone in those two weeks"

(P10). Increased waiting times for mental health services resulted in students developing self-coping mechanisms for their mental health problems. However, in most cases, self-coping does not successfully result in resolving one's mental distress. The distress remains, but the participant is unable to receive services in a timely manner.

Many participants were unaware of the waiting times required for mental health services before applying, as this information had not been disclosed on the websites or other sources. Approximating waiting time for each service can help students manage expectations. As participant 12 stated:

> If I call counseling clinical services and they say we have a two week wait time, you know I am not going to be able to see someone tomorrow. So in the meantime, I should probably contact another service to help me.

Most participants agreed that, making approximate waiting times clear can help students seek alternative services such as shorter-term services to develop healthier coping mechanisms in the meanwhile.

Subtheme 4-3: Length of Services

The length of the services offered is an important factor for individuals applying to formal services and those within the services themselves. As participant 9 attending Counselling and Clinical Services during the winter semester stated:

> I didn't know if it [Counselling and Clinical sessions] was going to last the duration of the semester. I didn't know that when I first signed up if it was going to end in April and I never had any wrap up session, so I was not sure.

For some participants, attending formal services was more urgent, as they were in a higher risk mental health state. Therefore, increased clarity of the length of services would have allowed them to feel more

comfortable in continuing formal services on campus. As another participant attending Counselling and Clinical Services reiterates,

> It was short-term. They did specify, like, we didn't have, a specific timeframe, it would be six to eight weeks. But then, after that they would be like, "Oh, we'll see what happens from there." Yeah, I didn't even complete my six weeks, so – I'm pretty sure the clinical and counselling services, they usually provide more short-term" (P13).

Participant 13, even after attending formal services, was still unsure if this support was long-term or short-term. This initial lack of clarity can serve as a deterrence from students who have never attended formal services to reach out in the first place.

S*ubtheme 4-4: Comparison of On-Campus Services Accessibility to Off-Campus*

Comparing off-campus mental health resources to on-campus, it was found that some students preferred off-campus resources because of the comfort and clarity offered by these services. One participant stated, "There are some resources on campus, but I don't know what their formats look like or what specific help they can give. And I also wanted to find a therapist that I could continue with after I graduated." (P5). Many participants identified the comfort in seeking off-campus resources, as there were therapists that offered them long-term care during their studies and after graduation. Furthermore, participants mentioned the uncertainty that on-campus mental health resources present for them This uncertainty concerns what a specific on-campus mental health service offers and who offers these mental health resources. Participant 5 also mentioned that with off-campus resources, "They had photos of their therapist there. So, even just having a picture and a little bit of their [mental health professionals] background and what they specialize in made me feel a lot more comfortable." Again, this quote represented participants valuing the comfort of knowing who will support them when it comes to mental health resources. It removed the uncertainty factor and fostered help-seeking behaviour

in students for mental health resources on campus. Some participants did not want to seek on-campus mental health resources, as these services were not able to provide them with long term supports.

4.3 Integration of the Qualitative and Quantitative Findings

The survey results displayed students' familiarity with mental health services on a surface level. Respondents were most familiar with Counselling and Clinical Services and the Health Centre. Survey results relate to that of the interview, as many of the participants during the interview mentioned being familiar with Counselling and Clinical Services for professional mental health support. Most interview participants mentioned being familiar with Health Centre for providing treatment of physical health but not mental health support. Regarding the next two most recognized services on the survey, respondents indicated that it was the Peer Support Centre and the Sexual Assault Centre. As previously mentioned, these two services had an advertisement strategy that involved attending student events and lectures to present to students and this may have contributed to increased student familiarity with a formal service that did not provide professional support. For the remainder of services such as the Landing, First People's House and International Student Services, a range between 26.0% to 45.9% of participants recognizes these services. Participants did indicate during the interviews that these are services more tailored to individuals of specific backgrounds, whereas the other services mentioned before can be generalized to the student body. As a result, there is less of a familiarity with these three services in comparison to that of the Sexual Assault Centre, Peer Support Centre, Counselling and Clinical Services and the University Health Centre. Regarding the Wellness Centre, it was moderately recognized in the survey, with 43.0% of participants being familiar with it. However, during the interview, this service's purpose was not clearly understood by most participants, and it was not often brought up, indicating a lack of understanding for the student body towards the Wellness Centre. The

mental health initiative #Ualberta Cares was not well recognized in the survey, nor was it brought up during the interview when participants reiterated services that they were familiar with.

As the survey indicated, participants on average were aware of three to four mental health services on campus. Most participants who responded being familiar with multiple mental health services on the survey did not display positive help-seeking behaviour in the interview. This was further demonstrated by the interviews. Participants who displayed increased number of mental health service were not necessarily exhibiting positive help-seeking behaviour. As one participant mentioned, "They [mental health services on campus] haven't personally gotten my attention, but through living on residence, through advertisements in the first year is the only way I've gotten to know them. Since I joined Dean Business School I haven't heard much about them" (P16). The exception were participants who were mental health advocates on campus. They displayed increased familiarity of mental health services on the survey and increased help-seeking behaviour for mental health services during the interview. As a result, it can be suggested that it is not a familiarity of mental health services which plays a role in determining help-seeking behaviour but the knowledge which participants display about these formal services and the environment that surrounds them.

Moreover, MHC rating responses on the survey was not an indication of help-seeking behaviour either. Participants who responded with higher-than-average MHC rating of 11.4 were not displaying positive help-seeking behaviours during the interview. This is because many participants sought mental health services when they felt at their "lowest" or when their daily functioning was being impaired. Therefore, help-seeking behaviour was not necessarily associated with their mental stress levels but rather their ability to withstand the consequences of those stressors.

4.4 Summary

The results of this study depicted the factors involved in on-campus help-seeking behaviour. Surveys were distributed to 263 participants, the majority of them women (74.9%), between ages of 18-22 and a single marital status. Surveys also demonstrated the MHC rating of participants, as well their familiarity with mental health services. There was a significant different in the MHC rating between men and women in the study, as well a significant different in the familiarity of mental health services between participants in varying undergraduate years. However, it was determined through interviews that familiarity and MHC rating did not necessarily develop help-seeking behaviour.

Participants first needed to display a perceived need for mental health services before initiating positive help-seeking behaviour. As well, students' knowledge and awareness of mental health services played a factor in their confidence to seek out formal services on campus. Students' past experience with mental health services, whether on or off campus, played a role in their help-seeking behaviour. Negative experiences with on or off campus resources lead to negative help-seeking behaviours for formal services on campus, and vice versa.

In students' environment, peers, teaching staff, and family had varying effects on the help-seeking behaviour. In general, students who displayed positive help-seeking behaviours usually had people around them who openly discussed and displayed positivity about mental health and the services on campus. Professors can serve as a "bridge" to mental health services and increased teaching staff knowledge of formal services on campus facilitated positive help-seeking behaviours. Finally, the accessibility of mental health services on campus, including a clear and concise information delivery, the frequency of advertisement, the waiting time and length of formal services, were influencing the help-seeking behaviour of students. Fostering certainty, trust, and level of comfort for students seeking mental health services on campus is key to positive help seeking behaviours.

Overall, the survey determined students' need for mental health services and their familiarity with formal services on campus. The four themes of individual perception of mental health, individual perception of formal services, environment and accessibility of mental health services provided an in-depth understanding of factors influencing student help-seeking behaviour.

CHAPTER V: Discussion and Conclusion

5.1 Summary of Findings

This study aimed to explore the help-seeking attitudes of undergraduate students for mental health services on campus. Through the survey, there was an initial insight on students' mental status and knowledge of mental health resources on campus. The results indicate that the average MHC rating of all participants was 11.3, with around 75%- 80% of participants who scored in the healthy or reacting components of the MHC in the mood, attitude/performance, physical symptoms, and social behaviours domains, indicating that they are not in need of mental health services or facing diagnosis of anxiety and depression. However, 20%-25% of participants were in the orange or red categories, experiencing severe mental distress and functional impairment. In particular, 42% of participant had serious sleep disturbances. This is consistent with the national survey issued by the American College Health Association to 43,000 students attending 41 different institutions within Canada. The survey found that 18.4% and 14.7% of students respectively received diagnoses or treatments for anxiety and depression within 12 months prior to completing the survey (American College Health Association, 2016). Moreover, the current survey demonstrated that there was a significant difference between the MHC ratings of men and women; in the survey portion, women responded with significantly higher MHC ratings. This can be explained by women facing greater levels of distress and anxiety, as shown by the results conducted on medical students in the Shariati study and Chinese college women students in the

Li study (Shariati, 2007; Li et al., 2021). As well, a literature review by Otten and colleagues on studies in Germany demonstrated that women reported more mental health problems than men, specifically increased anxiety and depressive symptoms (Otten et al., 2021).

Regarding mental health service recognition, there was a significant difference between the familiarity in formal services of students in different undergraduate years. The results show that fourth-year undergraduate students were most familiar of on-campus mental health services, followed by third year students. This finding suggests that students in higher academic years may have increased knowledge of mental health services, as they have been enrolled in their undergraduate studies for a longer period and are more prone to seeing mental health service advertisements through their syllabus or other means. Miles and Colleagues found that increased mental health literacy or knowledge with the topic of mental health, including services, was associated with undergraduate students in their fourth year or later (Miles, 2020). Their study suggested that familiarity of the college campus, as well increased academic and life experience may be the contributors to increased mental health literacy.

Aside from the survey, the interview portion of our study provided the depth of knowledge students have about mental health services on campus, their general perspective on the topic of mental health, and factors encouraging them or inhibiting them from seeking mental health services on campus. The analysis explored a variety of themes, including student perception of mental health, perception of formal services on campus, environmental factors influencing help-seeking behaviours and accessibility of mental health services on campus.

5.2 Theory as a Framework to Interpret the Findings

In considering Ajzen's (1991) theory of planned behaviour, this study's findings align with the dimensions of student intention to seek mental health services (Ajzen, 1991). The attitudes component

of the concept applies to the first and second themes of the findings, individual perception of mental health and individual perception of formal services on campus. If both perceptions are positive, then students will develop a positive attitude around help-seeking behaviour and are more likely to seek formal services. Mojtabai (2016) demonstrated that participants' willingness and comfortability was significantly associated with their positive help-seeking behaviours in the future. The willingness component referred to participant's attitude about mental health services, while comfortability addressed whether participants had a positive view of formal services. No matter individuals with or without a history of seeking professional services, or with different mental health diagnosis such as anxiety or mood disorders, attitudes play a key role in their help-seeking behaviours (Mojtabai, 2016).

Regarding the subjective norm aspect of theory of planned behaviour, this applies to theme three of the findings, environment. Environment, the groups within a student's social circle such as peers, professors, and family can play a role in help-seeking behaviour. A more inclusive environment and positive norms of mental health are more likely to positively influence a student's perspective on help-seeking. Perceived positive norm can oppose negative attitudes students may have towards seeking help from mental health services. For instance, Corrigan found that individuals who were aware of mental health problems either through knowing a family member or peer who has experienced these problems were less likely to endorse prejudicial attitudes about mental health. Prejudicial attitudes, the belief that those with mental health problems were inferior to "normal" individuals and required extensive care, may lead to avoidance of treatment (Corrigan, 2001). On the other hand, students who learned about mental health or were familiar with the topic through college were less likely to endorse prejudicial attitudes toward help-seeking behaviour (Corrigan, 2001). Corrigan's findings relate to this study, as this study demonstrated that participants who were mental health advocates on campus or had family who was supportive of the topic of mental health, had positive help-seeking behaviour for formal

services. This is because participants had an increased knowledge of mental health through environmental exposure and a greater openness to the topic of mental health by people around them.

The final component, perceived behavioural control, applies to the final theme of the findings, accessibility of mental health services. Controllability here refers to the clarity of mental health services on campus and the accessibility of these services. Whereas the self-efficacy sub-category is in relation to the confidence students have in their help-seeking behaviour because of understanding the purpose of each mental health service on campus and choosing one that fits their needs. The controllability component is related to student's knowing how to access mental health services, such as being aware of the location of mental health services and how to contact these services, whether through online, in-person or telephone means (Karam, 2019). A lack of these factors resulted in decreased accessibility and lower controllability for students, as well negatively influencing perceived behavioural control. Regarding self-efficacy, students stated that a barrier to accessing mental health services was the lack of clarity in the purpose of formal services on campus (Karam, 2019). Furthermore, a factor that played into self-efficacy was the mental health status of a student. A student with mental health problems had increased stress or suffering, meaning that their ability to seek out mental health services differed from an individual not facing mental health stress (Karam, 2019). As a result, with increased mental health stress and a lack of clarify of the purpose of formal services on campus, these students' self-efficacy is lowered, and their help-seeking behaviour is negatively impacted. Having increased quantity of mental health advertisements through sources such as general student newsletters, as well increased quality of advertisement through mental health services interacting with students is beneficial for student help-seeking behaviour.

5.3 Key Findings

5.3.1 Perceptions of Needs

The findings suggests that students' help-seeking behaviour first begins with their perception of the needs to seek mental health services. Participants frequently believed they had to be at a low point or facing high distress levels to access mental health services or be accepted into a formal service. Moreover, an increased MHC rating was not an indication of increased help-seeking behaviour for formal services. As other studies have shown, common mental disorders such as depressive and anxiety disorders are not an indication of a student's help-seeking behaviour for mental health services (Geebreegziabher, 2019). In a study conducted on an Ethiopian university, it was found that those for at risk for common mental disorders, 83.8% had sought help from informal services, with only 16.2 % seeking help from formal services (Geebreegziabher, 2019). Through interviews, like other studies such as Michel, 2018 and Doll, 2021, our study demonstrated that most students are willing to go and seek mental health services when the mental distress levels that they face impair their functioning, such as their social life or occupation. Therefore, it is not necessarily that a mental health diagnosis will determine whether a student will go ahead to seek mental health services. Instead, it is how effectively these students believe they can cope with the stressors that mental distress causes.

5.3.2 Perceptions of Services

Through examining survey and interview results, it is important to note that familiarity of a mental health service alone does not result in positive help-seeking behaviour from students for these services. For instance, the majority of survey respondents were familiar with Counselling and Clinical Services on campus, a service that provides professional mental health support. As well, during the interviews, the same trend occurred, with Counselling and Clinical Services being repeatedly

mentioned. The survey displayed student's familiarity with mental health services on campus by them indicating "yes" or "no" on the dropdown menu. In the interview however, students were asked allowed to elaborate on the services that they were familiar with and their knowledge of these services, such as identifying the purpose of a mental health service they mentioned being familiar with in the survey or recognizing how to enroll in said services. For instance, participants who displayed an increased help-seeking behaviour for Counselling and Clinical Services demonstrated proficient understanding of this services and as well had previously attended sessions at Counselling and Clinical Services. Moreover, students who had experience with mental health services in general were more likely to have increased help-seeking behaviours for formal services.

Students' past experience with mental health services and their knowledge of mental health services did contribute to their overall mental health literacy. A more positive past experience with mental health services, as well an increased understanding of mental health services on campus was an indication of increased mental health literacy. In general, with increased mental health literacy around mental health services on campus, students were more willing to seek these services, as demonstrated by other studies (Almanasef, 2021; Smith & Shochet, 2011).

Throughout the narratives, it was clear that environment can play a large role in how students perceive formal mental health services. Participants who had heard bad reviews of mental health services from peers, or had peers who viewed help-seeking negatively, were often inhibited from seeking mental health services. For instance, a study in the North West of Ireland determined that one of the key factors in young men's help-seeking behaviour was the fear of rejection from their peer group if they were to display help-seeking behaviours (Lynch et al., 2018). Participants stated how their peers viewed professional help-seeking as a sign of "weakness" (Lynch et al., 2018). On the other hand, peers also had a positive influence on help-seeking behaviour, with some participants being mental

health advocates on campus and wanting to encourage positive help-seeking behaviours. This included participants who had been a part of organizations such as the Peer Support Centre on campus. A study led by Suresh demonstrated that between September 2016 and April 2019, 60.4% of students who had attended the Peer Support Centre in McGill university had not accessed any other professional service (Suresh, 2021). Furthermore, approximately 70% of the participants accessing the Peer Support Centre were on the waitlist for other professional services (Suresh, 2021). In terms of service quality, 88.2% of the providers at the Peer Support Centre felt prepared for the topics that came up during their sessions with clients. These results are an indication that peers on campus can provide a safe space for individuals in need of mental health services and positively influence their help-seeking behaviours if they are not able to attend other formal services on or off campus.

Families, an informal mental health resource, also played a role in developing positive help-seeking behaviour. This is because many participants felt more comfortable with informal sources, as a result of increased trust, accessibility and confidentiality. This result echoes Samuel and Kamanetsky's finding that family was the second most common source of help-seeking behaviour after friends for first year undergraduate students in a Canadian university (Samuel & Kamanetsky, 2022).

Aside from family and peers, teaching staff on campus also played a role in help-seeking behaviour of students, often serving as a bridge between students and formal services. Many participants stated that mental health resources were present on the syllabus for their classes. However, other methods of mental health promotion could have been explored by teaching staff, as demonstrated by the Jaworska's study in 2016. One of these methods included professors requesting for mental health services to present on their programs and address uncertainties students may have had of said service. However, Jaworska found that regardless of institution size, rarely do professors or teaching staff request for mental health services to present in their classes (Jaworska, 2016). As demonstrated by our

study, mental health services' in-person interaction with students can be more effective in garnering student attention and more positively impacting student help-seeking behaviour. Teaching staff can facilitate these in person presentations by taking initiative in reaching out to mental health services to present for their students. Moreover, increased openness to the topic of mental health by teaching staff can positively impact help-seeking behaviour of students. A positive environment around mental health created by teaching staff led to student's feeling increased comfort in discussing their mental health problems. A study done in relation to teaching staff found that their increased involvement in the topic of mental health led to student's becoming more aware of their symptoms and the severity of their situation (Eigenhuis et al., 2021). This suggests that increased mental health literacy of teaching staff on campus can lead to an increased positive help-seeking behaviour from their students. Overall, a positive environment for mental health can lead to student's having an increased understanding of mental health services on campus. On campus, this primarily involves student's peers and teaching staff.

5.3.3 Accessibility of Services

A significant portion of this study was to address the literature gap surrounding the accessibility of on campus services at a major Canadian university. One of the biggest deterrents to the accessibility of mental health services is the lack of clarification on campus regarding approximate waiting times of mental health services. An indication of approximative waiting times by mental health services can be beneficial, as it helps to address the uncertainty student's face when seeking formal services. With a lack of clarification for waiting times, student's develop frustration regarding uncertainty and resort to self-coping mechanisms that may not be as beneficial as the support that formal services can provide. A study by Punton on young adults between the ages of 19-22 found that all participants on a waiting list for mental health services experienced worsened symptoms with varying degrees of severity (Punton, 2022). Coinciding with worsening symptoms, some participants in the Punton study also employed

negative self-coping mechanisms such as self-harm and substance abuse (Punton, 2022). Furthermore, nearly all participants in the Punton study sought alternative treatment while waiting for mental health services (Punton, 2022). This finding does not quite reflect our findings, as some participants in our study were willing to stay on the waiting list for one mental health service such as Counselling and Clinical Services before moving on to other formal services on campus or off campus. This may be because some of our participants experienced a shorter wait time between three to six weeks, while the eligibility criteria for the Punton study were students who faced mental health problems at least six weeks before accessing their mental health services. Due to this eligibility criteria, students in the Punton study felt the increased need to seek other mental health services rather than remain on the waiting list.

There is an increased number of students reaching out to Counselling and Clinical Services. For example, Xiao and colleagues' study surveyed 476, 388 students across 161 Counselling and Clinical centres on campus in the United States and found that, between 2009-2014, there was a 30% increase in the utilization of Counselling and Clinical services on campus, despite a 6% institutional enrollment increase (Xiao et al., 2017). Furthermore, these students are coming from an increased high-risk background relating to self-harm and suicide (Xiao et al., 2017). As a result, Counselling and Clinical Services resources can be strained and not able to meet the needs of all students on campus.

In general, many students in our interviews who had attended sessions at the Counselling and Clinical Service experienced longer wait times than other formal services on campus such as the Peer Support Centre. These participants indicated that during the waiting period, there were no referrals to other mental health resources on campus by Counselling and Clinical Services. With a lack of clarification and referrals to other mental health services on or off campus, students can exhibit increased self-coping mechanisms for mental health problems and decreased help-seeking behaviours.

5.4 Impact of the COVID-19 Pandemic on Student Help-seeking Behaviours

The current study was conducted during the Covid-19 pandemic, during which mental health service delivery by on campus resources were affected. Some participants described a lack of accessibility, due to a lack of in person services during this time. The student need for in person formal services was revealed by a survey collected during the first few months of the Covid-19 pandemic with 64 student affairs professionals across Canadian post-secondary institutions (Rashid & Genova, 2020). The survey found that students had a hard time separating school from family life, as well difficulty in establishing boundaries with family when at home (Rashid & Genova, 2020). These factors can explain why some participants would like in person services, so that there is increased privacy, as well a level of comfort when discussing a vulnerable topic in a mental health session. Moreover, during the Covid-19 pandemic, students' levels of stress and anxiety have increased as a result of factors such as irregular sleep patterns, increased social isolation, class workload, financial difficulties, negative academic performances and depressive thoughts (Son, 2020). Overall, literature has explored how the Covid-19 pandemic has affected student mental health and the transition to alternative sources for mental health service delivery. Yet there is a literature gap in addressing how mental health service promotion on campus has changed since the onset of the pandemic, whether that be in terms of quality or quantity of promotion. Our study had participants indicating that there was not sufficient advertisement of on campus mental health services but there was no clarification in terms of the change in advertisement from before Covid-19 to the onset of the pandemic.

5.5 Recommendations

An intriguing point of discussion from this study was the recommendations made by participants to better the help-seeking behaviour of students on campus through how mental health services are

promoted. As discussed before, waiting times can be a significant hindrance to help-seeking behaviours. As a result, an indication on mental health websites about approximate waiting time can assist student's in feeling more certain about their help-seeking behaviour and relying less on self-coping mechanisms. Furthermore, many students found it difficult to navigate mental health service descriptions on the university website, as all the information seemed to "blend" together. Therefore, it is important to clearly define each service's purpose, including who is available to support students, the length of services, a general outline of attaining said service and the approximate waiting time that may be experienced by each service. As suggested by some participants, a visual aid such as a flow chart of all services can be a simple tool to guide students to appropriate mental health resources they need. Another tool that has been recommended is a common hub on campus to navigate students to mental health resources that fit their needs. This common hub can also assist with increased waiting times by professional supports, navigating students to short term mental health supports in the meantime.

As different students may be looking for various supports, distinguishing the person to provide services, for example volunteers or mental health professionals, is important to students. Those looking for short term supports are more comfortable in reaching out to volunteer-led formal services, while those looking for long term supports would be more comfortable with professional support. In contrast to on campus resources, participants who had attended services off campus mentioned that these services had a diverse staff and that they presented background information of each staff that supported clients. If the same information revealed on campus resources, students would feel more comfortable to reaching out. As well, many students consider diversity when seeking mental health services. By seeing a diverse staff being promoted by mental health services on campus, students will feel more comfortable reaching out to a formal mental health service that can relate to their background.

5.6 Strengths and Limitations

A strength of this study was the use of a heterogeneous sample for both the survey and interviews. Within the study, there were a variety of undergraduate years, genders, faculties, and age groups. This allowed the study to develop a greater level of understanding of the various themes and sub-themes that can affect the help-seeking behaviour of students for on campus mental health resources.

Nevertheless, sampling bias for the survey and interviews may have limited the generalizability of the findings. First, a low response rate of 0.8 must be considered. There are approximately 32,048 undergraduate students but only 263 participants responded for the survey. Response rates could have been low, as the general newsletter was the only source of advertisement used for the study. As well, response rates could have increased if the survey were launched at a different period that did not coincide with the exam season.

Second, the participants recruited may be more aware of their mental health status and open to discussing their help-seeking behaviour compared to those who did not participate. Therefore, this data may not represent all students on campus who are going through mental health stresses or represent all students' interactions with mental health services. In addition, this study used a convenience sampling method from one university. The findings of this study cannot be generalized to the general population of Canadian post-secondary students.

Moreover, the survey was distributed near the end of January and interviews were conducted between mid-March and early April. Both time periods could have coincided with exam periods for students. As a result, in the survey, students may respond an increased MHC rating due to the stressors that they were facing at the time. The study timeline may potentially influence the findings of student mental health status.

5.7 Future Research

This study was conducted on one major Canadian post-secondary institution and resulted in four main themes for help-seeking behaviours. It can be beneficial to conduct this same method of study on other major Canadian post-secondary institutions and determine if similar themes emerge, as this study was conducted in one single campus and cannot be generalized to all post-secondary institutions. Moreover, it can be beneficial to focus on gender differences for help-seeking behaviour for on-campus mental health resources. This study addressed the general topic of help-seeking behaviour for all students and allowed students to expand on gender inclusivity of services if they preferred. However, future research can specifically inquire about the relationship between gender inclusivity and help-seeking behaviour. Finally, future studies can further investigate the role of teaching staff and peers on the help-seeking behaviour of students, creating a deeper understanding of environmental influences for student's navigating mental health resources. Another future direction can be to understand the influence of the Internet on student's help-seeking behaviour, particularly peer influence occurring online or through social media.

5.8 Conclusion

This study contributed towards the overall help-seeking behaviour of students on post-secondary institutions for mental health services, more specifically on campus formal services. To our knowledge, this study was the first of its kind to employ a survey and interview methodology to investigate students' help-seeking behaviour for mental health services on a major Canadian post-secondary institution. Through surveys and interviews, we identified students who were facing increased stressors in their daily functioning and were possibly interested in seeking mental health services or had sought services in the past. Four themes emerged for factors influencing student help-seeking behaviour,

identifying individual perception of participants towards the topic of mental health and mental health services, and how the environment, as well the structure of formal services can influence those individual perceptions. Overall, the results suggest that students are in favor of formal services on campus. However, to seek these mental health services, students first need to display a positive attitude towards the topic of mental health, as well be surrounded by a positive environment which promotes the use of mental health services. Moreover, this study has demonstrated that despite the diverse amount of mental health services on campus, there are improvements that can be made to the promotion of these programs to better the help-seeking behaviour of students. Further research can be conducted to determine if the patterns found in this study for student help-seeking behaviour on campus can be applied to other major Canadian post-secondary institutions.

References

Allen B. (2008). An Analysis of the Impact of Diverse Forms of Childhood Psychological Maltreatment on Emotional Adjustment in Early Adulthood. *Child Maltreatment*, 13(3):307-312. doi:10.1177/1077559508318394

Almanasef M. (2021). Mental Health Literacy and Help-Seeking Behaviours Among Undergraduate Pharmacy Students in Abha, Saudi Arabia. *Risk management and healthcare policy*, 14, 1281–1286. https://doi.org/10.2147/RMHP.S289211

Ajzen I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179-211. 10.1016/0749-5978(91)90020-T.

American College Health Association. (2019). *American College Health Association-National College Health Assessment II: Canadian Consortium Executive Summary Spring 2019*. Silver Spring, MD: American College Health Association.

American College Health Association. (2016). *American College Health Association-National College Health Assessment II: Canadian Reference Group Executive Summary Spring 2016*. Hanover, MD: American College Health Association.

Ang, R.P., Lim, K.M., Tan, AG. et al. (2004). Effects of gender and sex role orientation on help-seeking attitudes. *Current Psychology*, 23, 203–214. https://doi.org/10.1007/s12144-004-1020-3

Babajide, A., Ortin, A., Wei, C., Mufson, L., & Duarte, C. S. (2020). Transition Cliffs for Young Adults with Anxiety and Depression: Is Integrated Mental Health Care a Solution? *The journal of behavioural health services & research*, 47(2), 275–292. https://doi.org/10.1007/s11414-019-09670-8

Blanco C, Okuda M, Wright C, Hasin DS, Grant BF, Liu SM, Olfson M. (2008). Mental health of college students and their non-college-attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Arch Gen Psychiatry*, 65(12), 1429-37. doi: 10.1001/archpsyc.65.12.1429.

Bohon, L. M., Cotter, K. A., Kravitz, R. L., Cello, P. C., Jr, & Fernandez Y Garcia, E. (2016). The Theory of Planned Behaviour as it predicts potential intention to seek mental health services for depression among college students. *Journal of American college health*, 64(8), 593–603. https://doi.org/10.1080/07448481.2016.1207646

Bourdon, J. L., Moore, A. A., Long, E. C., Kendler, K. S., & Dick, D. M. (2020). The relationship between on-campus service utilization and common mental health problems in undergraduate college students. *Psychological services*, 17(1), 118–126. https://doi.org/10.1037/ser0000296

Brockelman, K. F. (2011). Faculty Members' Ratings of the Effectiveness of Academic Strategies for University Students with Psychiatric Disabilities. *Journal of Postsecondary education and Disability*, 24(1), 43-52.

Brockelman, K. F., & Scheyett, A. M. (2015). Faculty perceptions of accommodations, strategies, and psychiatric advance directives for university students with mental illnesses. *Psychiatric rehabilitation journal*, 38(4), 342–348. https://doi.org/10.1037/prj0000143

Canadian Alliance on Mental Illness and Mental Health. (2008). *National integrated framework for enhancing mental health literacy in Canada*. Ottawa, Ontario. Retrieved from http://camimh.ca/key-reports/mental-health-literacy.

Canadian University Survey Consortium. (2017). *Middle-Year students survey 2017: Master report*. Retrieved from www.cusc-ccreu.ca.

Chandra, A., & Minkovitz, C. S. (2006). Stigma starts early: gender differences in teen willingness to use mental health services. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine*, 38(6), 754.e1–754.e7548. https://doi.org/10.1016/j.jadohealth.2005.08.011

Chen, SP., Chang, WP. & Stuart, H. (2020). Self-reflection and screening mental health on Canadian campuses: validation of the mental health continuum model. *BMC Psychology,* 8(76). https://doi.org/10.1186/s40359-020-00446-w

Chen, T., & Lucock, M. (2022). The mental health of university students during the COVID-19 pandemic: An online survey in the UK. *Plos one*, 17(1), e0262562. https://doi.org/10.1371/journal.pone.0262562

Cellucci T, Krogh J, Vik P. (2006). Help seeking for alcohol problems in a college population. *J Gen Psychology*, 133(4), 421-33. doi: 10.3200/GENP.133.4.421-433.

Chang, WP., Chen, T., Stuart, H. & Chen, SP. (2021). Environmental scan of mental wellness resources available on Canadian post-secondary campuses. *Higher Education,* 81, 1007–1021. https://doi.org/10.1007/s10734-020-00594-3

Christen Erlingsson, Petra Brysiewicz. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93-99. https://doi.org/10.1016/j.afjem.2017.08.001

Corrigan, P. W., Edwards, A. B., Green, A., Diwan, S. L., & Penn, D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia bulletin*, 27(2), 219–225. https://doi.org/10.1093/oxfordjournals.schbul.a006868

Coulaud, P. J., Jesson, J., Bolduc, N., Ferlatte, O., Jenkins, E., Bertrand, K., Salway, T., Jauffret-Roustide, M., & Knight, R. (2022). Young Adults' Mental Health and Unmet Service Needs in the Context of the COVID-19 Pandemic Across Canada and France. *Community mental health journal*, 1–11. https://doi.org/10.1007/s10597-022-01000-1

Del Savio AA, Galantini K, Pachas A. (2022). Exploring the relationship between mental health-related problems and undergraduate student dropout: A case study within a civil engineering program. *Heliyon*, 8(5):e09504. doi: 10.1016/j.heliyon.2022.e09504.

Dietsche, Peter. (2012). Use of Campus Support Services by Ontario College Students. *Canadian Journal of Higher Education*, 42(3), 65-92. doi:10.47678/cjhe.v42i3.2098

Doll, C. M., Michel, C., Rosen, M., Osman, N., Schimmelmann, B. G., & Schultze-Lutter, F. (2021). Predictors of help-seeking behaviour in people with mental health problems: a 3-year prospective community study. *BMC psychiatry*, 21(1), 432. https://doi.org/10.1186/s12888-021-03435-4

Donald, M., Dower, J., Lucke, J. and Raphael, B. (2000). *The Queensland Young People's Mental Health Survey Report*. Centre for Primary Heath Care, School of Population Health, and Department of Psychiatry, University of Queensland.

Doré, I., O'Loughlin, J. L., Sabiston, C. M., & Fournier, L. (2017). Psychometric Evaluation of the Mental Health Continuum-Short Form in French Canadian Young Adults. *Canadian journal of psychiatry*, 62(4), 286–294. https://doi.org/10.1177/0706743716675855

Dunbar, M. S., Sontag-Padilla, L., Ramchand, R., Seelam, R., & Stein, B. D. (2017). Mental Health Service Utilization Among Lesbian, Gay, Bisexual, and Questioning or Queer College Students. *The Journal of Adolescent Health : official publication of the Society for Adolescent Medicine*, 61(3), 294–301. https://doi.org/10.1016/j.jadohealth.2017.03.008

Eigenhuis, E., Waumans, R. C., Muntingh, A., Westerman, M. J., van Meijel, M., Batelaan, N. M., & van Balkom, A. (2021). Facilitating factors and barriers in help-seeking behaviour in adolescents and young adults with depressive symptoms: A qualitative study. *PloS one*, *16*(3), e0247516. https://doi.org/10.1371/journal.pone.0247516

Eisenberg D, Hunt J, Speer N, Zivin K. (2011). Mental health service utilization among college students in the United States. *J Nervous and Mental Disease*, 199(5), 301-8. doi: 10.1097/NMD.0b013e3182175123

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African journal of emergency medicine* , 7(3), 93–99. https://doi.org/10.1016/j.afjem.2017.08.001

Fetters, M.D., Curry, L.A. and Creswell, J.W. (2013), Achieving Integration in Mixed Methods Designs—Principles and Practices. *Health Services Research*, 48: 2134-2156. https://doi.org/10.1111/1475-6773.12117

Finnie, R. & Mueller, R. E. (2017). ACCESS TO POST-SECONDARY EDUCATION: HOW DOES QUÉBEC COMPARE TO THE REST OF CANADA?. *L'Actualité économique*, 93(3), 441–474. https://doi.org/10.7202/1058428ar

Fischer, E. H., & Turner, J. I. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology*, 35(1, Pt.1), 79–90. https://doi.org/10.1037/h0029636

Gadalla T. (2008). Association of comorbid mood disorders and chronic illness with disability and quality of life in Ontario, Canada. *Chronic diseases in Canada*, 28(4), 148–154.

Galbraith, C. S., & Merrill, G. B. (2012). Academic and work-related burnout: A longitudinal study of working undergraduate university business students. *Journal of College Student Development*, 53(3), 453–463. https://doi.org/10.1353/csd.2012.0044

Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. (2015). Toward a new definition of mental health. *World Psychiatry,* 14(2):231-3. doi: 10.1002/wps.20231.

Gebreegziabher, Y., Girma, E., & Tesfaye, M. (2019). Help-seeking behaviour of Jimma university students with common mental disorders: A cross-sectional study. *Plos one*, 14(2), e0212657. https://doi.org/10.1371/journal.pone.0212657

Giamos, Dimitris & Lee, Alex & Suleiman, Amanda & Stuart, Heather & Chen, Shu-Ping. (2017). Understanding Campus Culture and Student Coping Strategies for Mental health problems in Five Canadian Colleges and Universities. *Canadian Journal of Higher Education,* 47(3), 136-151. https://doi.org/10.47678/cjhe.v47i3.187957.

Goldston, D. B., Molock, S. D., Whitbeck, L. B., Murakami, J. L., Zayas, L. H., & Hall, G. C. (2008). Cultural considerations in adolescent suicide prevention and psychosocial treatment. *The American psychologist*, 63(1), 14–31. https://doi.org/10.1037/0003-066X.63.1.14

Goodwin, J., Behan, L., Kelly, P., McCarthy, K., & Horgan, A. (2016). Help-seeking behaviours and mental well-being of first year undergraduate university students. *Psychiatry research*, 246, 129–135. https://doi.org/10.1016/j.psychres.2016.09.015

Griffiths, K. M., Christensen, H., Jorm, A. F., Evans, K., & Groves, C. (2004). Effect of web-based depression literacy and cognitive-behavioural therapy interventions on stigmatising attitudes to depression: randomised controlled trial. *The British journal of psychiatry : the journal of mental science*, 185, 342–349. https://doi.org/10.1192/bjp.185.4.342

Hartrey, L., Denieffe, S., & Wells, J. S. G. (2017). A systematic review of barriers and supports to the participation of students with mental health difficulties in higher education. *Mental Health and Prevention*, 6, 26–43. https://doi.org/10.1016/j.mhp.2017.03.002

Hawke, L.D., Sheikhan, N.Y., MacCon, K., & Henderson, J. (2021). Going virtual: youth attitudes toward and experiences of virtual mental health and substance use services during the COVID-19 pandemic. *BMC Health Serv Res*, 21, 340. https://doi.org/10.1186/s12913-021-06321-7

Heck, E., Jaworska, N., DeSomma, E., Dhoopar, A. S., MacMaster, F. P., Dewey, D., & MacQueen, G. (2014). A survey of mental health services at post-secondary institutions in Alberta. *Canadian journal of psychiatry*, 59(5), 250–258. https://doi.org/10.1177/070674371405900504

Holmes, A., & Silvestri, R. (2016). Rates of Mental Illness and Associated Academic Impacts in Ontario's College Students. *Canadian Journal of School Psychology*, 31(1), 27–46. https://doi.org/10.1177/0829573515601396

Horgan, A., & Sweeney, J. (2010). Young students' use of the Internet for mental health information and support. *Journal of psychiatric and mental health nursing*, 17(2), 117–123. https://doi.org/10.1111/j.1365-2850.2009.01497.x

Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687

IBM Corp. (2021). *IBM SPSS Statistics for Macintosh*, Version 28.0. Armonk, NY: IBM Corp

Ishii, T., Tachikawa, H., Shiratori, Y., Hori, T., Aiba, M., Kuga, K., & Arai, T. (2018). What kinds of factors affect the academic outcomes of university students with mental disorders? A

retrospective study based on medical records. *Asian journal of psychiatry*, 32, 67–72. https://doi.org/10.1016/j.ajp.2017.11.017

Jaworska, N., De Somma, E., Fonseka, B., Heck, E., & MacQueen, G. M. (2016). Mental Health Services for Students at Postsecondary Institutions: A National Survey. *Canadian journal of psychiatry*, 61(12), 766–775. https://doi.org/10.1177/0706743716640752

Jochman, J. C., Cheadle, J. E., Goosby, B. J., Tomaso, C., Kozikowski, C., & Nelson, T. (2019). Mental Health Outcomes of Discrimination among College Students on a Predominately White Campus: A Prospective Study. *Socius : sociological research for a dynamic world*, 5, 10.1177/2378023119842728. https://doi.org/10.1177/2378023119842728

Jorm, A. F., Barney, l. J., Christensen, H., Highet, N. J., Kelly, C. M., & Kitchener, B. A. (2006). Research on mental health literacy: What we know and what we still need to know. *Australian and New Zealand Journal of Psychiatry*, 40, 3-5.

Jorm, A. F., Griffiths, K. M., Christensen, H., Korten, A. E., Parslow, R. A., & Rodgers, B. (2003). Providing information about the effectiveness of treatment options to depressed people in the community: a randomized controlled trial of effects on mental health literacy, help-seeking and symptoms. *Psychological Medicine*, 33, 1071-1079.

Kalkbrenner MT, Jolley AL, Hays DG. (2021). Faculty Views on College Student Mental Health: Implications for Retention and Student Success. *Journal of College Student Retention: Research, Theory & Practice*, 23(3):636-658. doi:10.1177/1521025119867639

Karam, Stephanie, "Help Wanted: Investigating Help-Seeking Behaviour Among Post-Secondary Students in Relation to Their Mental Health and Well-Being" (2019). *Electronic Thesis and Dissertation Repository*. 6140. https://ir.lib.uwo.ca/etd/6140

Kawase, E., Hashimoto, K., Sakamoto, H., Ino, H., Katsuki, N., Iida, Y., Umekage, T., Fukuda, R., & Sasaki, T. (2008). Variables associated with the need for support in mental health check-up of new undergraduate students. *Psychiatry and clinical neurosciences*, 62(1), 98–102. https://doi.org/10.1111/j.1440-1819.2007.01781.x

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological medicine*, *32*(6), 959–976. https://doi.org/10.1017/s0033291702006074

Knis-Matthews, Laurie & Bokara, Josephine & DeMeo, Lorena & Lepore, Nicole & Mavus, Lauren. (2007). The meaning of higher education for people diagnosed with a mental illness: Four students share their experiences. *Psychiatric rehabilitation journal*, 31(2), 107-14. 10.2975/31.2.2007.107.114.

Kovess-Masfety, V., Leray, E., Denis, L. et al. (2016). Mental health of college students and their non-college-attending peers: results from a large French cross-sectional survey. *BMC Psychology*, 4, 20. https://doi.org/10.1186/s40359-016-0124-5

Lally, J., ó Conghaile, A., Quigley, S., Bainbridge, E., & McDonald, C. (2013). Stigma of mental illness and help-seeking intention in university students. *The Psychiatrist*, 37(8), 253-260. doi:10.1192/pb.bp.112.041483

Lamers, S. M., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of clinical psychology*, 67(1), 99–110. https://doi.org/10.1002/jclp.20741

Li, M., Su, H., Liao, Z., Qiu, Y., Chen, Y., Zhu, J., Pei, Y., Jin, P., Xu, J., & Qi, C. (2021). Gender Differences in Mental Health Disorder and Substance Abuse of Chinese International College Students During the COVID-19 Pandemic. *Frontiers in psychiatry*, 12:710878. https://doi.org/10.3389/fpsyt.2021.710878

Liang, S. W., Chen, R. N., Liu, L. L., Li, X. G., Chen, J. B., Tang, S. Y., & Zhao, J. B. (2020). The Psychological Impact of the COVID-19 Epidemic on Guangdong College Students: The Difference Between Seeking and Not Seeking Psychological Help. *Frontiers in psychology*, 11, 2231. https://doi.org/10.3389/fpsyg.2020.02231

Limone, P., & Toto, G. A. (2022). Factors That Predispose Undergraduates to Mental Issues: A Cumulative Literature Review for Future Research Perspectives. *Frontiers in public health*, 10, 831349. https://doi.org/10.3389/fpubh.2022.831349

Linden, B., Boyes, R., & Stuart, H. (2020). The Post-Secondary Student Stressors Index: Proof of concept and implications for use. *Journal of American College Health*, 1–9. Advance online publication. https://doi.org/10.1080/07448481.2020.1754222

Lynch, L., Long, M., & Moorhead, A. (2018). Young Men, Help-Seeking, and Mental Health Services: Exploring Barriers and Solutions. *American journal of men's health*, 12(1), 138–149. https://doi.org/10.1177/1557988315619469

Mackenzie, C. S., Gekoski, W. L., & Knox, V. J. (2006). Age, gender, and the underutilization of mental health services: the influence of help-seeking attitudes. *Aging & mental health*, 10(6), 574–582. https://doi.org/10.1080/13607860600641200

Mahmoud JS, Staten R, Hall LA, Lennie TA. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles. *Issues in Mental Health Nursing,* 33(3), 149-56. doi: 10.3109/01612840.2011.632708.

Malla A, Shah J, Iyer S, et al. (2018). Youth Mental Health Should Be a Top Priority for Health Care in Canada. *The Canadian Journal of Psychiatry*, 63(4), 216-222. doi:10.1177/0706743718758968

Marcus, Madalyn & Westra, Henny & Minds, Mobilizing & Angus, Lynne. (2012). Mental Health Literacy in Canadian Young Adults: Results of a National Survey. *Canadian journal of community mental health*, 31(1), 1-14. doi:10.7870/cjcmh-2012-0002.

Masuda, A., Suzumura, K., Beauchamp, K. L., Howells, G. N., & Clay, C. (2005). United States and Japanese college students' attitudes toward seeking professional psychological help. *International Journal of Psychology*, 40(5), 303–313. https://doi.org/10.1080/00207590444000339

Michel, C., Schnyder, N., Schmidt, S. J., Groth, N., Schimmelmann, B. G., & Schultze-Lutter, F. (2018). Functioning mediates help-seeking for mental problems in the general population. *European psychiatry: the journal of the Association of European Psychiatrists*, 54, 1–9. https://doi.org/10.1016/j.eurpsy.2018.06.009

Miles, R., Rabin, L., Krishnan, A., Grandoit, E., & Kloskowski, K. (2020). Mental health literacy in a diverse sample of undergraduate students: demographic, psychological, and academic correlates. *BMC public health*, 20(1), 1699. https://doi.org/10.1186/s12889-020-09696-0

Mojtabai, R., Evans-Lacko, S., Schomerus, G., & Thornicroft, G. (2016). Attitudes Toward Mental Health Help Seeking as Predictors of Future Help-Seeking Behaviour and Use of Mental Health Treatments. *Psychiatric services*, 67(6), 650–657. https://doi.org/10.1176/appi.ps.201500164

Murray, Aja & Mckenzie, Karen & Murray, Kara & Richelieu, Marc. (2015). An analysis of the effectiveness of university counselling services. *British Journal of Guidance & Counselling*, 44(1), 1-10. 10.1080/03069885.2015.1043621.

Nahm F. S. (2016). Nonparametric statistical tests for the continuous data: the basic concept and the practical use. *Korean journal of anesthesiology*, 69(1), 8–14. https://doi.org/10.4097/kjae.2016.69.1.8

National Defence Canada. (2017). *CAF Mental Health Programs and Services – Road to Mental Readiness Program (R2MR)*. Retrieved from: https://www.canada.ca/en/department-national-defence/services/benefits-military/health-support/mental-health/programs-and-services.html

Ontario College Health Association. (2009). *Towards a comprehensive mental health strategy: the crucial role of colleges and universities as partners*. Retrieved from: http://www.oucha.ca/pdf/mental_health/2009_12_OUCHA_Mental_Health_Report.pdf.

Onwuegbuzie AJ and Teddlie C. (2003. A framework for analyzing data in mixed methods research. In A Tashakkori & C Teddlie (Eds*) Handbook of mixed methods in social and behavioural research* (pp. 351-383) Thousand Oaks, CA: Sage.

Otten, D., Tibubos, A. N., Schomerus, G., Brähler, E., Binder, H., Kruse, J., Ladwig, K. H., Wild, P. S., Grabe, H. J., & Beutel, M. E. (2021). Similarities and Differences of Mental Health in Women and Men: A Systematic Review of Findings in Three Large German Cohorts. *Frontiers in public health*, 9, 553071. https://doi.org/10.3389/fpubh.2021.553071

Pedersen, E. R., & Paves, A. P. (2014). Comparing perceived public stigma and personal stigma of mental health treatment seeking in a young adult sample. *Psychiatry research*, 219(1), 143–150. https://doi.org/10.1016/j.psychres.2014.05.017

Pereira, A., Oliveira, C. A., Bártolo, A., Monteiro, S., Vagos, P., & Jardim, J. (2019). Reliability and Factor Structure of the 10-item Kessler Psychological Distress Scale (K10) among Portuguese adults. *Ciencia & saude coletiva*, 24(3), 729–736. https://doi.org/10.1590/1413-81232018243.06322017

Pincus FL. (1996). Discrimination Comes in Many Forms: Individual, Institutional, and Structural. *American Behavioural Scientist*, 40(2):186-194. doi:10.1177/0002764296040002009

Punton, G., Dodd, A. L., & McNeill, A. (2022). 'You're on the waiting list': An interpretive phenomenological analysis of young adults' experiences of waiting lists within mental health services in the UK. *Plos one*, 17(3), e0265542. https://doi.org/10.1371/journal.pone.0265542

Rashid, T. & Genova, L. D. (2020). *Campus Mental Health in Times of COVID-19 Pandemic: Data-informed Challenges and Opportunities*. Campus Mental Health: Community of Practice. Canadian Association of Colleges and University Student Services: Toronto, Ontario.

Reed M, Curtis K. (2012). Experiences of Students with Visual Impairments in Canadian Higher Education. *Journal of Visual Impairment & Blindness,* 106(7):414-425. doi:10.1177/0145482X1210600704

Richardson, T., Elliott, P., Roberts, R. et al. (2017). A Longitudinal Study of Financial Difficulties and Mental Health in a National Sample of British Undergraduate Students. *Community Mental Health Journal*, 53, 344–352. https://doi.org/10.1007/s10597-016-0052-0

Rickwood, D. J., Deane, F., Wilson, C. J., & Ciarrochi, J. (2005. Young people' s help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health* ,4(3): 1–34. https://doi.org/10.5172/jamh.4.3.218

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology research and behaviour management*, 5, 173–183. https://doi.org/10.2147/PRBM.S38707

Robinson, A. M., Jubenville, T. M., Renny, K., & Cairns, S. L. (2016). Academic and Mental Health Needs of Students on a Canadian Campus. *Canadian Journal of Counselling and Psychotherapy,* 50(2), 108-123.

Samuel, R., & Kamenetsky, S. B. (2022). Help-Seeking Preferences and Factors Associated with Attitudes Toward Seeking Mental Health Services Among First-Year Undergraduates. *Canadian Journal of Higher Education*, 52(1), 30–50. https://doi.org/10.47678/cjhe.v52i1.189245

Shariati, M., Yunesian, M., & Vash, J. H. (2007). Mental Health of Medical Students: A Cross-Sectional Study in Tehran. *Psychological Reports*, 100(2), 346–354. https://doi.org/10.2466/pr0.100.2.346-354

Scheel, Karen & Prieto, Loreto & Biermann, Jeanette. (2011). American Indian college student suicide: Risk, beliefs, and help-seeking preferences. *Counselling Psychology Quarterly*, 24(4), 277-289. doi: 10.1080/09515070.2011.638444.

Schmidt NB, Buckner JD, Keough ME. (2007). Anxiety sensitivity as a prospective predictor of alcohol use disorders. *Behaviour Modification*, 31(2), 202-19. doi: 10.1177/0145445506297019

Schomerus, G., & Angermeyer, M. C. (2008). Stigma and its impact on help-seeking for mental disorders: what do we know?. *Epidemiologia psichiatria sociale*, 17(1), 31–37. https://doi.org/10.1017/s1121189x00002669

Sheikhan, N. Y., Hawke, L. D., Ma, C., Courtney, D., Szatmari, P., Cleverley, K., Voineskos, A., Cheung, A., & Henderson, J. (2022). A Longitudinal Cohort Study of Youth Mental Health and Substance use Before and During the COVID-19 Pandemic in Ontario, Canada: An Exploratory Analysis. *The Canadian Journal of Psychiatry.* Advance online publication. https://doi.org/10.1177/07067437221097906

Shi, W., & Hall, B. J. (2020). Help-seeking preferences among Chinese college students exposed to a natural disaster: a person-centered approach. *European journal of psychotraumatology*, 11(1), 1761621. https://doi.org/10.1080/20008198.2020.1761621

Smith, C.L., & Shochet, I.M. (2011). The Impact of Mental Health Literacy on Help-Seeking Intentions: Results of a Pilot Study with First Year Psychology Students. *International Journal of Mental Health Promotion*, 13, 14 - 20.

Sokolowska, E., Zytka ZL., Kluczynska S., & Kornacka, WJ. (2016). What mental health promotion do university students need?. *Polish Journal of Applied Psychology*, 14(3), 53-72.

Son C, Hegde S, Smith A, Wang X, Sasangohar F. (2020). Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. *J Med Internet Res*, 22(9):e21279. DOI: 10.2196/21279

Statistics Canada. (2009). *Statistics Canada's Definition and Classification of Postsecondary and Adult Education Providers in Canada.* Retrieved from: https://www150.statcan.gc.ca/n1/en/pub/81-595-m/81-595-m2009071-eng.pdf?st=j4O3Dyrx

Statistics Canada. (2009*). Moving Through, Moving On: Persistence in Postsecondary Education in Atlantic Canada, Evidence from the PSIS.* Retrieved from: https://publications.gc.ca/collections/collection_2009/statcan/81-595-M/81-595-m2009072-eng.pdf

Suresh, R., Karkossa, Z., Richard, J., & Karia, M. (2021). Program evaluation of a student-led peer support service at a Canadian university. *International journal of mental health systems*, 15(1), 54. https://doi.org/10.1186/s13033-021-00479-7

Theurel, A., & Witt, A. (2022). Identifying barriers to mental health help-seeking in French University students during the Covid-19 pandemic. *Creative Education*, 13(02), 437–449. https://doi.org/10.4236/ce.2022.132025

Tomczyk, S., Schomerus, G., Stolzenburg, S., Muehlan, H., & Schmidt, S. (2020). Ready, Willing and Able? An Investigation of the Theory of Planned Behaviour in Help-Seeking for a Community Sample with Current Untreated Depressive Symptoms. *Prevention science : the official journal of the Society for Prevention Research*, 21(6), 749–760. https://doi.org/10.1007/s11121-020-01099-2

Upton, E., Clare, P., Aiken, A., Boland, V., Torres, C., Bruno, R., . . . Peacock, A. (2021). Changes in mental health and help-seeking among young Australian adults during the COVID-19 pandemic: A prospective cohort study. *Psychological Medicine*, 1-9. doi:10.1017/S0033291721001963

University of Alberta. (2022). *Mental Health Supports for Students*. Retrieved from https://www.ualberta.ca/current-students/wellness/mental-health/index.html

Vidourek, R. A., King, K. A., Nabors, L. A., & Merianos, A. L. (2014). Students' benefits and barriers to mental health help-seeking. *Health psychology and behavioural medicine*, 2(1), 1009–1022. https://doi.org/10.1080/21642850.2014.963586

World Health Organization. (2004). *Promoting mental health: Concepts, emerging evidence, practice: Summary report*. Retrieved from: https://apps.who.int/iris/handle/10665/42940

World Health Organization. (2020). *The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment.* Retrieved from: https://www.who.int/publications/i/item/978924012455

Xiao, H., Carney, D. M., Youn, S. J., Janis, R. A., Castonguay, L. G., Hayes, J. A., & Locke, B. D. (2017). Are we in crisis? National mental health and treatment trends in college counseling centers. *Psychological services*, 14(4), 407–415. https://doi.org/10.1037/ser0000130

Appendices

Appendix A: Ethics Letter of Approval

Notification of Approval

Date: February 3, 2022

Study ID: Pro00116647

Principal Investigator: Mokhsum Taghizada

Study Supervisor: Shu-Ping Chen

Study Title: Understanding Student's Knowledge of Mental Health Services at the University of Alberta: Mixed Methods Study

Approval Expiry Date: February 2, 2023

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee. The following documentation forms part of this approval:

Approved Documents:

Recruitment Materials
Recruitment Poster
Consent Forms
Informed Consent Form-Survey
Informed Consent Form-Interview
Questionnaires, Cover Letters, Surveys, Tests, Interview Scripts, etc.
Survey Questions
Interview Script
Protocol/Research Proposal
Proposal

Any proposed changes to the study must be submitted to the REB for approval prior to implementation. A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the REB does not constitute authorization to initiate the conduct of this research. The Principal Investigator is responsible for ensuring required approvals from other involved organizations (e.g., Alberta Health Services, Covenant Health, community organizations, school boards) are obtained, before the research begins.

Sincerely,

Theresa Garvin, PhD, MUA, BA
Chair, Research Ethics Board 1

Appendix B: Survey Advertisement

PARTICIPANTS NEEDED – RESEARCH STUDY

Undergraduate Students

Understanding the attitudes, beliefs, and perceptions of student's knowledge of mental health services on campus

Researchers from University of Alberta are investigating the attitudes, beliefs, and perceptions regarding student knowledge of mental health services on campus.

If you are an undergraduate student from any faculty, we would like to invite you to this study. This will involve participating first in an individual survey and then potentially being chosen for a 75-minute interview. The survey will take place online, approximately 10 minutes. The interview can take place either online or in person.

As an appreciation of your participation and time, anyone who completes a survey can enter their name into a draw. There will be 20 winners of the draw receiving prize money and 1 winner receiving a larger amount of prize winner than the 20 other individuals. As well, those who agree to participate in the interview and are chosen to do so, will also receive financial compensation for their time.

You are eligible to participate in this study if you meet the following criteria:

- Registered as an undergraduate student (full-time or part-time) atthe University of Alberta

The Principal Investigator for this Study is: Maks Taghizada, Master's Student at the Faculty of Rehabilitation Medicine: taghizad@ualberta.ca/780-492-3905

Pro00116647

Appendix C: Survey Cover Letter

Dear UofA undergraduate students,

You are invited to participate in a study to help us exploring Student's Knowledge of Mental Health Services at the University of Alberta:

Principal Investigator: Maks Taghizada, MSc candidate in Rehabilitation Science, Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB.
Email: taghizad@ualberta.ca

Supervisor: Dr. Shu-Ping Chen, Assistant Professor, Department of Occupational Therapy, Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB.
Phone number: (780) 492-3905. Email: shuping2@ualberta.ca

The survey will take approximately 15 minutes. Your participation is voluntary, and results will be anonymous and confidential. You can save your responses and return to the survey at any time. We will secure the data and access will be restricted to the research staff. You can stop the survey at any time by closing your browser. Feel free to skip answering any question**.** When you have completed the survey, you will be given instructions on how to enter your name and email into draws for one $100 gift card and twenty $20gift cards.

If you are distressed or have other personal issues you would like to discuss, we encourage you to contact campus Counselling & Clinical Services at 780-492-5205
https://uofa.ualberta.ca/current-students/counselling

If you have any questions about this survey, please contact Maks Taghizada at the above email. If you have any questions regarding your rights as a research participant, you may contact the Health Research Ethics Board at 780-492-2615. This office has no affiliation with the study investigators.

Are you an Undergraduate student?

- Yes
- No

If yes, please continue to complete this survey.

By continuing, you agree to participate in this survey.

Thank you in advance for your time in helping us in exploring the mental health of international student

Appendix D: Survey Consent Form

Title of the study: Understanding Student's Knowledge of Mental Health Services at the University of Alberta: A Mixed Methods Study

Principal Investigator:
Maks Taghizada
MSc Candidate in Rehabilitation
Medicine
University of Alberta
Edmonton, AB
Email: taghizad@ualberta.ca

Supervisor:
Dr. Shu-PingChen
Associate Professor
Department of Occupational Therapy
Faculty of Rehabilitation Medicine
University of Alberta
Edmonton, AB
Phone number: (780) 492-3905.
Email: shuping2@ualberta.ca

Invitation to Participate: You are invited to participate in this anonymous Internet survey because you are an undergraduate student at the University of Alberta.

Purpose of the Study: From this research we wish to explore the experiences of students facing mental health problems and their ability to connect with mental health resources at the University of Alberta.

Participation: You are being asked to participate in an anonymous Internet survey asking questions related to your mental health status and knowledge of mental health services on campus. The survey will take approximately 15 minutes. Your participation is voluntary, and the results will be anonymous and confidential. Whether you participate in this study will in no way affect the student status that you are entitled to.

Benefits: You are not expected to get any benefit from being in this research study. However, some people feel beneficial to share their thoughts. The results of this study will be beneficial to a range of stakeholders including education policymakers, university administrators, university student services, student organizations, the student body, and mental health service systems.

Risks: There are no risks associated with the survey. However, because the sensitive nature of some of the questions, you may feel uncomfortable when answering the questions. It is not possible to know all of the risks that may happen in a study, but the researchers have taken all reasonable safeguards to minimize any known risks to a study participant.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be used solely for the purposes of this research. The only people who will have access to the research data are the research team members. "In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the survey." Anonymity is guaranteed since you are not being asked to provide your name or any personal information in the survey. Only you are asked to provide your name and email address if you want to take part in the draw after you have completed the survey.

Data Storage: The survey data files will be securely stored in the PI's password-protected computer with the files encrypted at the faculty of Rehabilitation Medicine, University of Alberta. The data will be kept for 5 years and then destroyed.

Compensation (or Reimbursement): When you have completed the survey, you will be given instructions on how to enter your name and email into draws for one $100 gift card and twenty $20gift cards.

Voluntary Participation: You are under no obligation to participate and if you choose to participate, you may refuse to answer questions that you do not want to answer. You can change your mind and stop the survey at any time by closing your browser. Your data will be deleted from the database and not used in any analysis if you exit the survey at any time. However, once you submit the survey, the data will be included in the database and cannot be withdrawn. Given the anonymous nature of the survey once you have submitted your responses it will no longer be possible to withdraw them from the study.

Contact Information: If you have any questions about the research now or later, please contact, Maks Taghizada, MSc candidate in Rehabilitation Science, Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB. Email: taghizad@ualberta.ca.

If you are distressed or have other personal issues you would like to discuss, we encourage you to contact campus Counselling & Clinical Services at 780-492-5205
https://uofa.ualberta.ca/current-students/counselling

The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta (Pro00099239). If you have any questions regarding your rights as a research participant or how the research is being conducted, you may contact the Research Ethics Office at 780-492-2615.

Please keep this form for your records.

Completion and submission of the survey means your consent to

participate. Thank you in advance for your time.

Appendix E: Original Online Survey
First, we would like to know a bit about you.

What is your age as of today?

How do you identify your gender?
Male ☐ Female ☐ Other ☐ prefer not to respond

What is your marital status?
Single, never married ☐ Married ☐ Widowed ☐ Divorced ☐ Separated

What is your country of origin/nationality?
If country of origin is not Canada, how long have you resided in Canada for?
6 months or less ☐ 6-12 months ☐ 12-18 months ☐ 18-24 months
more than 2 years ☐ more than 3 years ☐ more than 4 years ☐ more than 5 years

What is your faculty/program of study?
Arts ☐ Business ☐ Science ☐ Education
Native Study ☐ Medicine and Dentistry ☐ Engineering
Law ☐ Pharmacy & Pharmaceutical Sciences
Nursing ☐ Physical Education and recreation ☐ Rehabilitation Medicine
Other, please specify:

What year are you at University of Alberta?
Undergraduate Program: ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐ 5th or more Master's Program: ☐ 1st ☐ 2nd ☐ 3rd ☐ 3th or more
PhD Program: ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐ 6th ☐ 6th or more

Have you been diagnosed or treated by a professional for any mental disorders within the last 12 months?
Yes ☐ No

Second, we would like to ask about your knowledge of mental health services. There are multiple items below, consisting of mental health services on campus. Please check off the ones that you are familiar with.

- ☐ Wellness Supports
- ☐ Access Open Minds
- ☐ International Student Services
- ☐ The Landing
- ☐ First People's House
- ☐ Peer Support Centre
- ☐ Sexual Assault Centre
- ☐ University Health Centre
- ☐ Ualberta Cares
- ☐ Counselling and Clinical Services

Finally, we would like to ask a bit about your mental health status. Please select the statement that best describes your status in each of the 6 categories below.

Mood

- ☐ Normal Mood Fluctuations. Calm and takes things in stride.
- ☐ Irritable, nervous and sad. Feeling overwhelmed..
- ☐ Angry, anxious and pervasively sad or hopeless. Feelings of worthlessness.
- ☐ Excessive anxiety/panic attacks. Depression and thoughts/actions to die by suicide.

Attitude and Performance

- ☐ Good sense of Humor. Consistent performance.
- ☐ Displayed sarcasm. Procrastination. Forgetfulness. Missing an occasional class or deadline.
- ☐ Negative attitude. Poor work performance/ Workaholic. Poor concentration/Decisions. Regularly missing class or deadlines.
- ☐ Overt Insubordination. Can't perform duties, control behaviour or concentrate. Inability to make a decision.

Sleep

- ☐ Normal sleep patterns. Few sleep difficulties.
- ☐ Trouble sleeping. Intrusive thoughts. Nightmares.
- ☐ Restless disturbed sleep. Recurrent images/nightmares.
- ☐ Can't fall asleep or stay asleep. Sleeping too much or little.

Physical Symptoms

- ☐ Physically well. Good energy level.
- ☐ Muscle Tension. Headaches and low energy.
- ☐ Increased aches and pains. Increased fatigues.
- ☐ Physical illnesses. Constant fatigue.

Social Behaviour

- ☐ Socially Active.
- ☐ Decreased social activity.
- ☐ Avoidance and or social withdrawal.
- ☐ Absent from social events/classes. Not going out or answering phone.

Alcohol or Drug Use

- ☐ No/Limited alcohol or drug use or drinking in moderation.
- ☐ Drinking or using drug regularly or in binges to manage stress.
- ☐ Increased alcohol or drug use – hard to control with negative consequences.
- ☐ Frequent alcohol or drug use – inability to control with severe consequences (addition).

THANK YOU!!!
Thank you for participating in this research project.

If you want to participate in the draw for a chance to win one $100 gift card and twenty $20 gift cards,
please enter your name and email address here:
If not, please leave the space blank and click the next button.

As well, would you like to participate in a follow up interview? If selected yes and chosen, you will receive an email from the Principal Investigator, Maks Taghizada regarding next steps.
Yes ☐ No

Participants who are chosen for the interview and choose to participate will receive a 30$ gift card.

Appendix F: Interview Consent Form

Study Title:

Understanding Student's Knowledge of Mental Health Services at the University of Alberta: A Mixed-Methods Study

Project Investigators

Maks Taghizada, Thesis Student, Faculty of Rehabilitation Medicine, University of Alberta, 8205 114 Street, 3-48 Corbett Hall, Edmonton, AB, T6G 2G4, Email: taghizad@ualberta.ca, Tel: 587-974-1423

Shu-Ping Chen, Assistant Professor, Department of Occupational Therapy, Faculty of Rehabilitation Medicine, University of Alberta, 8205 114 Street, 3-48 Corbett Hall, Edmonton, AB, T6G 2G4, Email: shuping2@ualberta.ca, Tel: 780-492-3905

Details of the Study

You are invited to participate in this study because you are a full-time or part-time University of Alberta student and may have valuable attitudes and beliefs towards the understanding of student knowledge of mental health services on campus. We will be discussing 4 areas in relation to mental health and mental health services. These 4 areas include (1) Factors influencing your help-seeking behaviour, (2) knowledge and/or experiences of specific mental health services on campus, (3) accessibility of mental health services on campus and (4) the facilitators and difficulties you have faced in attaining these services.

What's Involved?

If you agree to participate in the study, you will participate in an individual interview led by the Project Investigator or Research Assistant. In this interview, you will be asked a variety of questions about the four categories mentioned in the previous section. There are no right or wrong answers. The interview lasts about 75 minutes.

The interview will be audio recorded so that we can keep track of the information you share. These audiotapes will be transcribed verbatim. Your name will not be attached to your comments and your input will be identified on the transcript by an anonymous code. You will be given a 30$ gift card for your time and participation.

Risks

No risks to you are expected from participating in this study. Some people may feel shy or nervous initially, but find they become more comfortable as the interview continues. You can decide how much and what information you want to share in the interview. If there is any question you do not wish to answer, you can decide not to respond to the question.

Benefits

You may not benefit directly from this study. The interview will contribute to the understanding of your attitudes and beliefs towards the understanding of student knowledge of mental health services on campus. A possible benefit for you is the chance to share your perspective on a topic that may be important to you. Through participating, you are also providing the University of Alberta campus and its stakeholders with an idea of how to develop policies for mental health services on campus to best reach the student body.

Anonymity, Confidentiality and Data Retention

Any information that you share during your participation in the interview is confidential. Interviews can be conducted on a one-to-one setting, with yourself and the researcher, Maks Taghizada on Zoom or in person. It is up to you whether you would like to be interviewed in person or over zoom. In person interviews will take place in Corbett Hall, room CH 1-84. Zoom interviews will require full face recordings of participants throughout the full interview. We will use an anonymous code to remove your name from the written transcripts that come from the interview and you will not be identified in any report or publication. We will not store your name, e-mail address or any other identifying information with your data. The study information, transcripts and audio recordings will be maintained electronically in a password-protected computer for 5 years and then will be destroyed.

COVID-19 Mitigation for In-Person Interviews

All individuals are to wear masks if they are to interview in person; masks can be taken off for consuming a beverage before, during and after the interview. As well, there will be hand sanitizers ready for each interview that is to proceed in person. Each participant is expected to use some hand sanitizer before and after the interview. Also, all spaces will be wiped down with sanitizing wipes before and after the interview. As well, a 6-foot distance will be maintained between the interviewer and the participant during the interview. No hand shaking will occur when the participant introduces themselves to the interviewer.

Voluntary Participation

You are under no obligation to participate in this study. The participation is completely voluntary. It is your decision to take part in this study. You can change your mind about participating in the interview and are free to leave the study at any time. In an individual interview, you can contact the Principal Investigator to withdraw your data up to 2 weeks after the interview.

Further Information

Should you have any questions about the interview or are dissatisfied at any point with any aspect of this study, please do not hesitate to contact Maks Taghizada, Thesis Student at the Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB. Email: taghizad@ualberta.ca.

Or you can contact the research supervisor Dr. Shu-Ping Chen, Assistant Professor, Department of Occupational Therapy, Faculty of Rehabilitation Medicine, University of Alberta, AB. Phone number: 780-492-3905. Email: shuping2@ualberta.ca. We will also inform you of any new information that may affect your ability to participate in our study.

Participation Statement

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered to my satisfaction. If I have additional questions, I have been told whom to contact. I understand that my information will be kept private and confidential, and only the research team and transcriber will have access to it. I understand my participation is voluntary and I am free to withdraw any time during the study. I agree to keep the information of others learned in the group interview private and confidential. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it. By signing this consent form, I am showing that I agree to take part in this study. I have been given a copy of this form that I can keep.

_____ _____ _____

Signature of Participant Date Name of Participant (Please Print)

Statement of Investigator:

I have carefully explained to the participant the nature of the above study. I certify that, to the best of my knowledge, the participant understands clearly the nature of the study and demands, benefits, and risks involved to its participants.

_____ _____ _____

Signature of Investigator Date Name of Investigator (Please Print)

Appendix G: Interview Questions

Interview Guide

Opening Remarks

"Hello, my name is Maks Taghizada. I am a Master's Student in the Faculty of Rehabilitation Medicine and the lead research for this project entitled "Understanding Student's Knowledge of Mental Health Services at the University of Alberta." Today, you are invited to participate in this interview for the discussion of your attitudes, beliefs and perceptions regarding mental health services on campus. Our conversation will take approximately 60-75 minutes."

"Our conversation will be recorded on a digital recorder so that I can have later access to all of the details and topics we discuss. All your comments will remain confidential as stated in the consent form that you were given, and your name will not be used in any written reports. Before I begin recording, do you have any questions or concerns? I will now begin the recording"

"I am now going to ask you some questions based on 4 sections: (1) Factors influencing your help-seeking behaviour, (2) knowledge and/or experiences of specific mental health services on campus, (3) accessibility of mental health services on campus and (4) the facilitators and barriers you have faced in attaining these services. Each section will have some pre-determined questions but feel free to elaborate or add to the question if you feel like it does not wholly capture your attitudes, beliefs, and perceptions. Each section should last around 15 minutes or less. There are no right or wrong answers. This is just your perspective. If you do not have an answer or prefer not to answer a question, please say so."

"Before we start with each section, I would like to confirm your demographic data, just so that we are on the same page."

1. What gender do you self-identify as?
2. How old are you currently?
3. What is your current program of study and which year are you in?
4. Are you a domestic or international student? [If an international student - What is your country of origin?]

"As well, could you please clarify if you self-reported a psychiatric diagnosis or mental health concern in the survey you completed? If yes, then could you please indicate that specific condition"

"Thank you for going over those demographic questions with me. Those are questions that we ask of all participants and gives us better background information about participants. With that aside, I would like to move ahead to our first section, factors influencing your help-seeking behaviour"

1) "What is your perspective on reaching out to mental health services or supports?"
    a. "What is your reasoning for reaching out to mental health services or supports?"
    b. "Has your need for mental health services or resources changed since attending the University of Alberta campus? And if so, what factors do you think have contributed to that change?"
    c. "Are the help seeking behaviours that you display on campus different from that off campus? For example, are you more willing to seek mental health services off campus?"

d. "To end off our discussion for this section, I would like to ask you what kind of environment on campus would foster positive help-seeking behaviour for you moving forward."

"Thank you for discussing the help-seeking behaviour component to the interview. The next section goes into specific services that are present at the University of Alberta. This is to get an idea of your understanding of these supports and if that has influenced your mental health in dealing with your personal life, school, etc."

2) "On the survey that was sent out to all participants, multiple mental health services on campus were listed." Researcher at this point will read out to the participant all the services listed on the survey. "Out of all these services mentioned, which ones are you familiar with?"

a. "On the services you mentioned that you are familiar with, how do you know of these resources?"
b. "For the services that you did not mention being familiar with, what could they do for the future to better disseminate their information to students on campus?"
c. "Seeing all these services on campus, were you aware that the University of Alberta had diversity in their mental health services?"
    i. "Could you please elaborate on how important it is for the campus to promote a diverse set of mental health services, as well as to ensure students are aware of it."
    ii. "What other services would you want included on campus that are currently not present at the University of Alberta?"

“So those are the questions I had regarding your knowledge of services on campus. The next section is now moving on to your perspective of the accessibility of mental health resources on campus. This can include any of the mental health resources that we discussed from the last section”

3) “To start this section off, I would like to ask have you sought any mental health services in the past?”

e. If participant replies no, then researcher will ask, “Could you please elaborate on why you have not sought services in the past and are you willing to seek mental health services on-campus in the future?”

   i. If the participant is unsure about seeking on-campus mental health services in the future, then the researcher can ask, “What factors are leading you towards being unsure in accessing mental health services on campus?”

f. If participant replies yes, the researcher will follow up and ask, “Are you currently still seeking that mental health service and is it on-campus or off campus?”

   i. If the participant does indicate that is a service that is off campus, then the researcher can follow up with the question, “What are some reasons for you wanting to access resources off campus rather than on campus?”

   ii. If the participant indicates that it is an on-campus resource, then the researcher will ask, “How long have you been seeing this service, and could you please elaborate on if this service is meeting your expectations.”

1. Researcher will also follow up with the question, “How did you come to know of this service and was it easily accessible?”
2. Researcher will ask, “ What is your experiences with this specific mental health service?”

g. “In terms of accessibility, how difficult is it to reach out to any of the mental health resources described before from the survey?”

h. “Are you aware of the purposes of the services described in the survey?”

i. “Do you think that understanding the purposes of these mental health services improves the accesibility for these resources ?”

i. “Do you understand how to navigate the mental health services mentioned in the survey?”

i. “Are you aware of any waiting times experiences by these services?”

“Appreciate you going through that section with me. Just one final section and this has to do with difficulties and facilitators that you have faced into accessing mental health services on campus”

4) “I want to first look factors that are encouraging you to seek mental health services on campus. What are some of these factors? For example, you can touch base about family, social factors, etc.

d. “Building off on those questions, what are factors making it difficult for you to seek mental health services?”

e. “Does the mental health environment on campus encourage you towards seeking mental health services?”

f. “What are your expectations for any mental health service? Has the University of Alberta mental health services met those expectations?”

g. “What changes do you think could be made to mental health services on campus to better support all students?”

Closing Remarks:

“Thank you for your time and participation. Is there anything else you would have liked me to ask you? Do you have any questions for me? Once again, thank you for your participation!”