GRADUATE MENTAL HEALTH AT MCMASTER

GRADUATE MENTAL HEALTH AND WELLNESS AT MCMASTER

UNIVERSITY

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Lay Abstract

This project investigated the mental health experiences of graduate students (i.e. Master's degree or Ph.D. students) at McMaster University through an online survey. This survey was designed with the goal of determining the following: whether students were experiencing distress; what kinds of mental health services McMaster students use; and what some of the characteristics were for the students who seek help. I found that numerous students experienced overwhelming depression and overwhelming anxiety. A person's racial background did not strongly influence whether they accessed services. Students were more likely to access a combination of supports between talking to a professional and talking to family, friends, or partners about mental health issues. Stereotypes or prejudices around mental health did not strongly influence which students accessed services. This thesis offers some important insights into the mental health experiences of graduate students, a topic which is often ignored in academia.

Abstract

Overview: Most of the mental health literature on students focuses on the experiences of undergraduates. In nearly all instances when graduate students are examined, their experiences are typically combined with those of undergraduates, despite graduate students representing a different group of students. **Research questions:** I asked what are correlates of psychological distress for graduate students? Which services or supports were students accessing? What were the characteristics of students who accessed help? **Methods:** This study used an online survey conducted during the spring and summer of 2018 that examined the mental health experiences of 389 graduate students at McMaster University. **Results:** I found that there was no consistent pattern for which groups of graduate students experienced distress markers: year of study did not predict which students would experience distress, and white and non-white students were equally likely to seek help. Students were more likely to seek a combination of formal and informal supports than select one type over the other. Finally, students who experienced stigma were equally likely to seek help as those who did not experience it. **Contributions to literature:** This thesis has highlighted some important findings about the graduate student population at McMaster University. By providing this information, I have helped extend the mental health literature to the graduate student group that is so often underrepresented or misrepresented.

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Chapter 1: Introduction

The importance of studying mental health and wellness

There has been an increased awareness of the importance of promoting mental health and wellness among young people in postsecondary education settings, given recent media attention to the rise in mental health problems among students. A variety of different media sources have examined the mental health issues facing students, ranging from *Maclean's* and *University Affairs* to professors posting on the *Psychology Today* website. I consider some of these viewpoints below.

A campus crisis for a broken generation?

*Maclean'*s author Kate Lunau (2012) reported on evidence suggesting that university students in Canada (and the United States) are suffering by feeling hopeless, depressed, and sometimes suicidal. Lunau (2012) considered statistics from a variety of universities that seemed to indicate that mental health problems among students were increasing. Examples range from the 200% increase in demand from students in crisis at Ryerson University's student development and counselling centre to the increase in students reporting feelings of hopelessness and overwhelming anxiety at the University of Alberta, and even to four students committing suicide in a 16-month period at Queen's University (Lunau, 2012).

Lunau (2012) considered reasons for this increase in mental health challenges from a discussion paper related to a Queen's University commission on mental health, some of which indicated recurring public discussions around student mental health. The

Queen's University discussion paper considers the following as possible explanations of the apparent deterioration of student mental health: stress associated with moving away from home; the rigorous academic demands of university; social pressures; parental expectations; and the fear connected with the dismal-looking job market for students when they graduate (Lunau, 2012). It also reflected on some possible reasons for increases in student use of university counselling centres, which included the possibility that more students who begin university already had a pre-existing mental illness, and that the symptoms of which have been found to increase while the students are in university. Also, the authors suggested that there is less stigma around seeking help than there has been in the past. An additional explanation that was offered was that more students seem unprepared to cope with the changing world around them, a world in which students feel a competitive need to be the best in their class (Lunau, 2012).

This article offers mixed viewpoints and sources of information. Lunau (2012) offered many statistics found through studies, including the National Colleges Health Assessment survey, all of which seem to point to increasing mental health issues around university students. However, in many other instances, the possible reasons for this increase in mental health issues and the accompanying help-seeking behaviour that Lunau cites seem more like speculation than credible scientific findings.

The main argument that Lunau (2012) made, namely that university students are a broken generation facing a new mental health crisis, is questionable. This is especially true given some of the patterns she points to, particularly around the claim that there is less stigma attached to help seeking, and students are more likely to seek help now than in

the past. While more students may be seeking help than in the past, which may be connected to the reduced stigma around help seeking, it is unclear whether today's students actually face greater mental health challenges than past generations. It is possible that the mental health challenges facing today's students are simply more visible to the public than in the past due reduced stigma and more students speaking out about their struggles with mental health.

Is the student mental health crisis real?

In addition to journalists such as Lunau (2012) reporting on student mental health issues, there are also professors who have expressed concern with the mental health crisis or lack thereof on university campuses. Two such professors with conflicting views on the state of student mental health include Dr. Gregg Henriques and Dr. Loretta Graziano Breuning, both based in the United States.

Henriques (2014) is of the same mindset as Lunau (2012): he firmly believes that the claim of a student mental health crisis is neither an exaggeration nor alarmist. Pointing to statistics around recent increasing rates of anxiety and depression, much higher rates of today's students surpassing clinical cut-offs in mental health categories than did students in recent decades, and a tripling of the suicide rate among young adults aged 15 to 24, he argues that there is sufficient support for the theory of a student mental health crisis (Henriques, 2014).

Not convinced by Henriques' online post to *Psychology Today*, Breuning (2014) responded that mental health "crisis-mongering" is not helpful. She argued that the alleged mental health crisis is not a crisis at all, but rather is a combination of increasing

expectations and the reliance on mental health professionals instead of using other emotional self-regulation tools (Breuning, 2014). Mental health service providers, in her view, cause service users to take on the victim role and blame the mental health system for their shortcomings rather than taking responsibility for and using their personal power to independently fix these issues (Breuning, 2014).

Both perspectives offer an interesting take on the possible existence of the student mental health crisis. Henriques (2014) offers a variety of statistics and studies as evidence that a mental health crisis exists among university students. In contrast, Breuning's (2014) article cites no statistics or studies, and rather seems to be focused mainly on conjecture. However, the information in her article appears to come from her book *The Science of Positivity: Stop Negative Thought Patterns By Changing Your Brain Chemistry* (2016). If this is the case, it is possible that the information in this article is based on studies that are cited in the book.

The importance of studying graduate student mental health

While it is unclear whether there is a mental health crisis among university students, the articles by Lunau (2012), Henriques (2014), and Breuning (2014) all point to an important conclusion: student mental health is important and topical. However, these articles mostly highlight the importance of mental health for undergraduate students. Aside from Henriques (2014), who very briefly discussed the mental health of graduate students, these authors only addressed undergraduate students' mental health. By overwhelmingly excluding graduate students from the discussion on mental health, the

authors seem to take for granted that the only population of interest for student mental health is undergraduates.

Making this inadvertent assumption is problematic, given the tremendous increases in graduate student enrolment in Canada since the 1980s. The Association of Universities and Colleges of Canada (AUCC, 2011) reports that graduate student enrolment in Canada has increased from about 77,000 in 1980 to almost 190,000 in 2010. Master's degree enrolments have more than tripled, from 25,000 in 1980 to 82,400 in 2010 (AUCC, 2011). Ph.D. enrolments have more than quadrupled, from 9,800 in 1980 to 45,000 in 2010 (AUCC, 2011). The AUCC (2011) explains that graduate enrolment has increased at a much faster pace than undergraduate enrolment since 1980. These dramatic increases in graduate student enrolment in Canada suggest that it is imprudent to focus so much of the mental health discussion on undergraduates, at the expense of excluding this growing graduate student population.

Prominent findings on student mental health

Given the attention that popular media have given to student mental health, it is helpful to discuss some prominent studies that reinforce the scholarly importance of studying this topic. The studies below illustrate the current relevance of student mental health. The important findings in these studies also suggest that my study on graduate student mental health is very timely.

Boak, Hamilton, Adlaf, Beitchman, Wolfe, and Mann (2014) used the Ontario Student Drug Use and Health Survey to study Ontario public school students and their self-reported health every two years from 1977 to 2013. The statistics below concern data

collected between the years 2011 and 2013, which included a total of $10,272$ Ontario public school students in Grades 7 through 12 (Boak et al., 2014). Considerable proportions of youth faced psychological distress, and there was a marked divide between those who sought help and those who lacked the information for where to go: approximately 22% of students had at least one visit with a mental health professional in the last year, while 28% of students needed help but did not know where to seek it (Boak et al., 2014).

Other studies have focused on young adults who are attending university, including the American College Health Association – National College Health Assessment (ACHA-NCHA) which regularly publishes results of its health studies of university students in Canada. ACHA-NCHA (2013) found that while about 6% of university students in Ontario have been diagnosed with a psychiatric condition, much larger proportions of students have reported experiencing psychological distress. In 2012, 23% of students reported feeling hopeless, 20% reported feeling overwhelmed by all that they had to do, and 18% felt so depressed that it was difficult to function (ACHA-NCHA, 2013).

Kitzrow (2003) acknowledges that mental health issues affect all aspects of a student's functioning: they can experience negative physical, emotional, cognitive, and interpersonal effects. Consider how one mental health issue – depression – can have a wide range of negative impacts on a student's life: depression disturbs mood, causes fatigue or low energy, creates sleep and eating problems, and it causes social withdrawal and removal from normal activities (Kitzrow, 2003). Mental health issues can have a

negative impact on academic performance, retention, graduation rates, as well as personal and emotional adjustment (Kitzrow, 2003). The issue of retention is further reinforced by the reality that many students leave university due to unrecognized mental health issues, often withdrawing from the institution before seeking services or disclosing their mental health issues to the appropriate resources (Sancrant, 2014).

Connecting my research to existing studies

My research area of graduate student mental health is important because recent studies have demonstrated that the mental health of graduate students in the United States is concerning, particularly concerning depression. Panger, Tryon, and Smith (2014) found that 37% of Master's degree students and 47% of Ph.D. students at the University of California, Berkeley reported sufficient symptoms that met the threshold for depression. Depression can involve loss of interest in activities, helplessness, difficulty concentrating and remembering details, among other symptoms that can harm individuals' mental health (Panger et al., 2014).

While I realize that depression is a very important mental disorder which impacts graduate students, I am not limiting my inquiry to only investigating depression. I consider all mental health concerns McMaster graduate students have. These mental health concerns may manifest in specific mental disorders such as anxiety disorders, mood disorders, personality disorders, psychotic disorders, and so forth. Alternatively, these mental health concerns may manifest in general mental health issues, including symptoms of psychological distress: some of these include feeling overwhelmed, hopeless, and/or exhausted (not from physical activity).

A concerning gap in research

While there is a large amount of research concerning the topic of undergraduate students' mental health and wellness, there is a noticeable and concerning gap around the mental health and wellness of graduate students. Perhaps this discrepancy in research is due to the smaller population of graduate students compared to undergraduates. Even if the larger number of undergraduate students has caused less practical interest in graduate students, it is still important to study the mental health and wellness concerning these students. This thesis will help to contribute to resolving the general gap in research on graduate student mental health and wellness, a gap that appears to be especially pronounced in Canada.

Research questions

The above research demonstrates that mental health issues, whether they are formally diagnosed and/or addressed, are affecting a substantial proportion of young students. In this thesis, I develop a "snapshot" picture of the mental health and wellness situation among graduate students at McMaster University. It will also help me to extend the body of evidence around student mental health.

In this thesis, I focus on addressing the following research questions:

1. What are the correlates of psychological distress in McMaster graduate students?

2. What kinds of supports do graduate students at McMaster access?

3. What are some of the characteristics of these students who seek help?

Chapter 2: Literature Review

I conducted a literature review of peer-reviewed journal articles in the area of mental health and wellness. While the focus of my research is on graduate student mental health and wellness in Canada, many of the journal articles in the literature review pertain to general student mental health or to the mental health of the general population in Canada or the United States. Most of the journal articles were written by researchers in the United States. This general geographic scope of research is due to the reality that there is not a great deal of information about university student mental health in Canada, let alone graduate student mental health in Canada. Given that many of the articles cited below originate in the United States, the American use of the word "college" will suggest university.

The process for reviewing the mental health literature was quite broad. A considerable amount of time was spent searching for journal articles on the databases Google Scholar, Scholars Portal, and Sociological Abstracts concerning general mental health findings in Canada, the United States, and in one article, Australia. I used search terms including but not limited to the following: mental health; mental wellness; university students; college students; students; Canada; US; Canadian; American; stigma; help seeking; psychological distress; distress; mental health services; and mental health supports. While I did not use the search term UK, I did review an article about a study on UK undergraduate students. I originally narrowed my selection timeframe to focus on reviewing articles published in the last 11 years, from 2008 to present. However, in the

search process some useful articles that appeared were published before 2008, so I broadened my scope to include those articles as well.

I originally planned to restrict my literature review to articles focusing on Canadian university students. However, I quickly noticed that much of the mental health literature did not focus on this subgroup. Much of the literature around mental health addresses American college students. Consequently, I broadened my search criteria to include articles studying this subgroup. I also realized that some important articles in the mental health field did not study students specifically, but instead discussed the mental health experiences of the general population. Rather than ignoring these important articles, I decided to broaden my search criteria again to consider articles written about the mental health experiences of the general population in Canada and the United States.

Some of the articles I consulted reported on groups in countries outside of Canada and the United States. However, not all these articles outside of North America are discussed in this literature review. One article outside of North America that is discussed in this literature review focuses on university students in Australia. I broadened my search criteria to include other western countries where necessary to enable me to find an article that compares experiences of psychological distress among university students to that of the general population. I could not find a Canadian article or an American article that made this important comparison. Stallman's (2010) article provided this comparison, which helped me contextualize student distress and explain why I am focusing on university students in this thesis.

This literature review will be divided into three main sections: defining psychological distress, risk and protective factors associated with poor mental health, and student mental health services. Within the defining psychological distress section, I will discuss distress in students compared to the general population before focusing on student psychological distress. While discussing student distress, I will consider its sources, resources to mediate psychological distress, the relationship between year of study and psychological distress, and some consequences of distress. Within the risk and protective factors associated with poor mental health, I will discuss types of risk, specifically stigma, as well as types of protective factors. Within the student mental health services section, I will examine the following: certain students' need for help; narratives for experiences in seeking help; individuals' ability to help a friend with mental health issues; informal and formal supports as a point of first contact; subgroup differences in accessing mental health services; reasons for help negation; reasons for further subgroup differences in help negation; barriers to continuing to seek help after first contact with mental health services; and stigma as a barrier to help seeking.

Defining psychological distress

Psychological distress is a key factor that correlates with individuals' mental health issues. Greater psychological distress is often associated with worse mental health. This section will focus on defining psychological distress and explaining how it affects university students. I will first compare the psychological distress experiences of students to those in the general population, before focusing on students' experience. I choose to

focus on psychological distress among students as they are the most relevant population to consider, given that this thesis is centred on the mental health experiences of graduate students at McMaster.

I next set out two major sources of stress that affect students and non-students alike: life events and chronic strains. I then cite some specific types of students who experienced worse mental health associated with certain distress-inducing factors. Next, I consider how enlisting in supports and most importantly, coping abilities, can help any individuals to mediate or reduce stress. The latter proves to be especially useful in improving individuals' mental health.

I then discuss how level of study and year of study have different results for students' psychological distress. Year of study refers to undergraduate students and how long they have been studying at their specific degree: in other words, it concerns whether they are a first-year student, second-year student, and so forth. In contrast, level of study refers to what type of degree the student is completing: in other words, whether they are completing an undergraduate degree or a graduate degree. Although the data analysis in this thesis focuses solely on graduate students, I include reference to the literature on undergraduate students here and elsewhere because there is not a great deal of information written solely on the mental health experiences of graduate students.

Indicators of psychological distress such as hopelessness, depression, anxiety, stress levels, self-injury, and considering suicide are considered in relation to different groups of undergraduates and between undergraduate and graduate students. Additional

studies which focus specifically on depression and anxiety measurements among undergraduates of diverse years of study are also considered.

Finally, this section closes with consideration of the different consequences of psychological distress on students. The relationship with developing disabilities is central to this discussion. Other important consequences highlight the impact on everyday functioning for students, including their ability or inability to study, work, and complete everyday activities.

Students vs. the general population

It is worthwhile making a comparison between the levels of psychological distress experienced by students and the general population to demonstrate that they are a special population of interest. Stallman (2010) explains that methodological issues in mental health research have made it difficult to make direct comparisons of distress between students and the general population. However, Stallman's (2010) study aimed to make those comparisons by benchmarking university students' prevalence and severity of mental health problems with that of the general population.

Stallman (2010) surveyed over 6000 students from two large Australian universities and used the Kessler-10 measure of non-specific psychological distress to screen for diagnostic criteria for anxiety and mood disorders in the previous 28 days. The results were then compared with national prevalence studies by the Australian Bureau of Statistics reported in 2006 and 2008 (Stallman, 2010). Stallman (2010) found that university students reported significantly higher levels of psychological distress than the general population; a total of just over 19% of students reported very high levels of

distress, compared with just 3% of individuals in the general population. Students were also more likely to report elevated levels of distress; almost 84% of students reported elevated levels, compared with 29% of the general population (Stallman, 2010). Stallman's research indicates that university students are a particularly at-risk group in terms of psychological distress, much more so than the general population.

Psychological distress in students

Because this thesis focuses on the mental health of graduate students at McMaster, and because Stallman's (2010) findings suggest that this subgroup faces particularly high levels of distress, the rest of this section will focus mainly on students' psychological distress. It is worth noting that some of the discussion will apply to the general public and students based on the mental health literature, while others will be relevant only to students. I begin by discussing some of the sources of psychological distress that can impact all individuals before moving on to list some of the sources of distress that specifically impact students. Next, I consider some of the resources that can be used to mediate the impact of distress. I then compare the distress experienced among students at various years of study in undergraduate degrees before comparing students at different levels of study (i.e. those in undergraduate degrees versus those in graduate degrees). Finally, I conclude this section by considering why this is a discussion worth considering; I outline the consequences of psychological distress, particularly the impacts it can have on individuals' mental health.

Sources of psychological distress

This section discusses the sources of psychological distress. It is worth noting that the below discussion on the general cause of stress and the sources of life events and chronic strains apply to students as well as the general public. Following this broad description of stress, I consider some of the specific sources of stress for students.

Psychological distress can often be rooted in an individual's experience of stress. It is worth examining some of the sources of stress and the ways in which individuals can mediate it. Stress manifests when an individual struggles to re-establish balance following change (Pearlin, Menaghan, Lieberman, & Mullan, 1981). Two major sources of stress include life events and chronic strains (Pearlin et al., 1981). Life events can be powerful pre-cursors to stress; they can generate new role strains or exacerbate those strains which already exist, something which can then result in stress (Pearlin et al., 1981). Chronic role strains can lead to a decline in how people perceive their self-worth and how much they consider themselves in control of life-influencing forces, causing them to see their failures and inability to alter unwanted aspects of their lives (Pearlin et al., 1981).

It is useful to note some of the sources of psychological distress that specifically impact students, given the focus of this thesis. The following students reported worse mental health: those who had negative experiences with campus climate; those who experienced social stressors related to their race; those who were singled because of their sexual orientation; and those who observed a racially-tense campus climate (Byrd & McKinney, 2012). These students experienced psychological distress due to the factors listed above.

Resources to mediate psychological distress

With an understanding of what generally causes stress and some of the specific sources of stress, it is important to consider ways in which stress can be managed or mediated. I begin by considering how accessing supports proves useful for individuals in mediating stress. I then highlight and discuss how coping abilities have been found to have the greatest impact in managing stress and improving an individual's mental health.

Individuals can respond to stress by utilizing mediating resources: elements used by people in their own defence against stress-provoking conditions (Pearlin et al., 1981). Pearlin et al. (1981) found that supports and coping were two useful mediating resources. Supports involve an individual's ability to respond to negative life experiences by accessing and using individuals, groups, and organizations (Pearlin et al., 1981). Coping functions include the following: transforming situations which create stress; reducing the threat of problems by modifying their meaning; and managing stress symptoms (Pearlin et al., 1981).

Byrd and McKinney (2012) found that coping abilities had the largest impact on students' mental health. Strong coping abilities, self-esteem, and spirituality were all factors which helped students become less vulnerable to high-stress experiences, something which proved useful in managing the tension of stress related to college (Byrd & McKinney, 2012). In addition to helping manage the transition, students with greater coping skills and who were spiritual reported better mental health (Byrd & McKinney, 2012). It should be noted that Byrd and McKinney (2012) did not directly explain what it

meant to be spiritual; it is possible that they intended for spiritual to be read as "religious", given that they used these two words together in the same passage.

Year and level of study and psychological distress

This section centres on the impact that year of study and level of study can have on students and their psychological distress. Year of study considers undergraduate students, and it focuses on what year they are in during their current studies. In other words, the main point of comparison is whether they are first-year students, second-year students, and so forth. Level of study refers to which type of degree students are currently working toward completing; in other words, the main point of comparison is whether the students are in their undergraduate degree or in their graduate degree. The following list includes some of the indicators of distress considered by studies cited in this section: negative feelings and behaviours such as hopelessness, depression, anxiety, stress levels, self-injury, and considering suicide.

Some researchers have noticed that there are also differences in mental health and its impacts between undergraduate students and graduate students. Wyatt and Oswalt (2013) analyzed data from the American College Health Association – National College Health Assessment (ACHA-NCHA) II data set which examined around 34,000 undergraduate and graduate students' self-reported feelings and behaviours related to poor mental health and mental health diagnoses. In the previous 12 months (before the fall 2009 ACHA-NCHA study), undergraduates reported higher rates of negative feelings and behaviours such as hopelessness, depression, and anxiety, self-injury, and considering suicide than graduate students (Wyatt & Oswalt, 2013). More undergraduates reported

average stress in this study, while more graduate students reported tremendous, above average, and below average stress (Wyatt & Oswalt, 2013).

Jackson and Finney (2002) provided a detailed analysis on negative life events and psychological distress among college students in years one through four. In this study, the authors found that first-year students experienced more distress and were more depressed than fourth-year students (Jackson & Finney, 2002). A similar result was observed in a different study on chronic life stress and college students: first-year students were found to have higher levels of chronic stress and psychological distress than upper-year students (Towbes & Cohen, 1996). The authors explained this difference between year of study and chronic stress and distress with the idea that transitioning into college from high school was more difficult than transitioning from year to year in college (Towbes & Cohen, 1996). Second-year students were found to be slightly angrier and more hostile than fourth-year students (Jackson & Finney, 2002). Jackson and Finney (2002) noticed that younger students were more vulnerable to negative life events than older students, something which could result in younger students not making use of effective coping strategies. In this study, the maturity of older students seemed to offset the distress associated with negative events (Jackson & Finney, 2002).

A longitudinal study on university students from the United Kingdom also examined student psychological well-being over the first three years of university, administering a survey before students began their studies and then once in each fall and spring semester up to the end of year three. The researchers conducting this study found that overall, student psychological well-being decreased over the course of the three years

(Bewick, Koutsopoulou, Miles, Slaa, & Barkham, 2010). The most dramatic decreases in psychological well-being occurred during these times: between pre-study and year one surveys, year two and year three surveys, and pre-study and year three surveys (Bewick et al., 2010). While depression measurements were consistently lower than anxiety levels, both depression and anxiety levels increased over the three years (Bewick et al., 2010). Women had significantly lower general psychological well-being scores than men; however, there were no significant differences between men and women in depression and anxiety measurements (Bewick et al., 2010). When compared to the general population, students had significantly lower psychological well-being than non-students (Bewick et al., 2010). This finding was reinforced by Stallman's (2010) study that found university students are an at-risk group that experiences worse mental health challenges than the general population. However, this finding also contradicted the survey of students in the United Kingdom given that their mental health depreciated as students entered into higher years of study (Bewick et al., 2010).

Consequences

One of the most important topics to consider within the larger discussion of psychological distress focuses on the consequences of distress. Understanding the consequences of distress answers the question "Why is this important?" The main focus below is centred on the consequence of disability while also considering how mental illnesses can impact the everyday activities of students.

Students with high levels of psychological distress are more likely to develop disabilities (Stallman, 2010). Stallman (2010) found that these disabilities can affect the

ways in which students function: students with serious mental illnesses experienced 23

times as many days when they were completely unable to work, study, or manage

everyday activities than students without mental illnesses. Students with serious mental

illnesses also experienced 10 times as many days where they needed to reduce the amount

of work, studying, or everyday activities they completed than students without mental

illnesses (Stallman, 2010). Eisenberg and Hunt (2010) also found that one of the risk

factors and consequences for males in particular with mental illnesses is suicide. This

finding should not be read to suggest that female students are free from the risk of

suicide, but rather that males are at a higher risk for suicide than females in the student

population. Silverman, Meyer, Sloane, Raffel, and Pratt (1997) found that the suicide

rates for female undergraduate students younger than 25 and older than 25 were 3.2 and

9.4 per 100,000, respectively. These figures are considerably lower than the suicide rates

for male undergraduate students younger than 25 and older than 25, which were 7.9 and

15.6 per 100,000, respectively (Silverman et al., 1997). In contrast, Silverman et al.

(1997) noticed that there was little gendered difference among graduate students: the rates

for men and women were 11.6 and 9.1 per 100,000, respectively.

Risk and protective factors associated with poor mental health

There are a variety of general risk factors such as socioeconomic status which are

ultimately associated with worsened mental health, and which have additional impacts on

the lives of students beyond mental health outcomes. Stigma is an example of a specific

risk factor which is associated with reduced help seeking and which leads to greater social

distance between individuals with mental health disorders and the general public. In

contrast, there are also different protective factors such as age and year of study which work to help an individual or student maintain a strong level of mental health. I will discuss these risk and protective factors in the subsections that follow.

Types of risks and their impacts

There are general risk factors which can be detrimental to an individual's mental health. In this subsection, I will consider different risk factors before discussing the impacts they have on both the general population and on students. I will then specifically focus on the risk factor of stigma by providing a theoretical definition, outlining different types of stigma, and discussing some of the consequences produced by stigma.

In a study of undergraduate and graduate students at a large university, the researchers found that non-white students and bisexual students were more likely to screen positive for depression than white students and heterosexual students (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Students with financial concerns and/or who grew up in poverty were more likely to screen positive for depressive disorders and anxiety disorders than students who did not have financial problems (Eisenberg et al., 2007). The researchers found that mental health concerns impacted these students' academic obligations and performance: just over 18% of undergraduates and 14% of graduate students reported missing academic obligations, while just over 44% of undergraduates and 41% of graduate students reported that their academic performance was impacted by mental or emotional difficulties in the past four weeks (Eisenberg et al., 2007).

In another study, researchers found additional risk factors which were negatively correlated with mental health. The following factors were negatively correlated with

mental health: work/life responsibilities interfering with school work; perceived negative campus climate; and limited faculty interaction (Byrd & McKinney, 2012). Byrd and McKinney (2012) found how students were generally, but not specifically, impacted: those students with higher self-esteem, good coping skills, and spirituality had an improved ability to handle stressful events than those who did not have these characteristics or abilities.

Types of stigma

Researchers have identified various types of stigma and indicated the effect that stigma can have on help-seeking behaviour. I will mainly focus on two types of stigma, personal stigma and perceived public stigma, while briefly mentioning self-stigma. The reason for restricting my attention to mainly personal stigma and perceived public stigma is because these are the two types that seem to have received the most attention in the mental health literature.

Personal stigma involves each individual's grouped negative stereotypes and prejudices about mental illness (Eisenberg, Downs, Golberstein, & Zivin, 2009). Perceived public stigma involves an individual's perception of the negative stereotypes and prejudices held by the public collectively (Eisenberg et al., 2009). Self-stigma involves the internalizing of perceived public stigma by those who identify as mentally ill (Eisenberg et al., 2009). Perceived public stigma can prevent an individual in need of help from seeking it due to fear of discrimination and criticism (Eisenberg et al., 2009). Personal stigma and self-stigma can also prevent help seeking; the individual may not

want to admit that they have a problem because doing so may involve taking on negative attitudes and beliefs (Eisenberg et al., 2009).

Consequences of stigma

With the above descriptions of personal stigma and perceived public stigma in mind, it is possible to consider their consequences. I have briefly noted that both types of stigma can prevent help seeking. It is worthwhile to compare personal stigma and perceived public stigma to see which type of stigma has the greatest impact on help-seeking behaviour. It is also useful to consider how these stigmas can manifest in everyday life and affect individuals who experience stigma.

One study compared perceived public stigma with personal stigma to determine which one had a greater impact on help-seeking behaviour. While perceived public stigma levels were higher than personal stigma levels, personal stigma was more strongly associated with not seeking help in the future than perceived public stigma (Lally, O'Conghaile, Quigley, Bainbridge, & McDonald, 2013). Personal stigma was therefore found to be a more powerful barrier to mental health treatment use in the university student population considered in this study (Lally et al., 2013). Lally et al. (2013) noticed the following details in their study: there were higher levels of perceived public stigma and personal stigma for Asian students; there was higher personal stigma for young students; and there were lower levels of personal stigma for people with mental illnesses, those who received mental health treatment, and those with a perceived need for mental health treatment.

It is important to note how the above stigma can manifest in everyday life. In one study, Reavley and Jorm (2011) found that young participants aged 15 to 25 were most likely to claim that individuals with mental disorders were unpredictable, especially those with schizophrenia or psychosis. These young people perceived all mental disorders except for social phobias and post-traumatic stress disorder as dangerous, and there was a strong fear that people with mental disorders would not disclose their illnesses (Reavley & Jorm, 2011). There was a sense of social distance that was observed through this study: respondents were most unwilling to work on a project with a person with a mental disorder, yet these respondents were much more likely to develop a close friendship with an individual who has a mental disorder (Reavley & Jorm, 2011).

Protective factors

While risk factors increase the likelihood of compromised mental health in the general public and among students, there are also protective factors which work in the opposite manner. Protective factors help to promote strong mental health and they work to reduce the likelihood of psychological distress and the onset of mental disorders. Below I outline some examples of protective factors which prove helpful for maintaining robust mental health.

Types of protective factors

There are a variety of protective factors to consider which help to maintain strong mental health. Age, year of study, living situation, and marital / relationship status will all be considered. Age is influential: students who were older than 25 reported fewer mental

health concerns than students between the ages of 18 and 22 (Eisenberg et al., 2007). It is worth noting that year of study can also be a protective factor, one that might be linked with age. In one study, first-year students reported the most stress, followed by upper-year undergraduates, and then graduate students (Stallman, 2010). However, Stallman's (2010) findings were contradicted by a UK study that found that psychological well-being decreased for undergraduate students as they progressed into upper years (Bewick et al., 2010). Living situation also proved to have an association, as students who were living in residence reported fewer mental health concerns than those who were living off-campus and not with parents (Eisenberg et al., 2007). Lastly, the researchers noticed that marital or relationship status was important: students who were married or in a domestic partnership reported fewer mental health concerns than those who were single (Eisenberg et al., 2007).

There are a variety of additional factors which have been found to influence an individual's mental health in a positive and helpful manner. Byrd and McKinney (2012) found that the following factors were positively correlated with mental health: strong spiritual identity; academic self-confidence; heterosexual orientation; and other psychological traits (coping abilities, confidence communicating, inter-group awareness; social engagement; and institutional satisfaction). All of these other psychological characteristics are protective because they help students become less vulnerable to high-stress experiences and are important in managing the tension of stress related to college (Byrd & McKinney, 2012).

Student mental health services

I have now highlighted some important mental health literature concerning psychological distress and both risk and protective factors for mental health. This section considers students and their experiences with mental health services broadly. I begin by outlining some of the major changes since the middle of the 20th century that have impacted students and resulted in a need for mental health support. I then consider the experiences of individuals who have accessed mental health services in terms of their narratives around choice, coercion, or "muddling through" supports. The next subsection takes a different approach: rather than focusing solely on the experiences of individual students themselves in seeking help, I investigate their experiences in perceiving their friends' need for support and attempting to help their friends through challenging times with mental health. I then compare informal and formal supports as a point of first contact for students who face mental health issues. Then, the following subsection focuses on subgroup differences in accessing mental health services; I consult the literature to answer the questions "Which types of students are more likely to access mental health services?" and "Which types of students are less likely to access mental health services?" With a notion of the students who often do and do not access services discussed, I turn to highlighting some of the common reasons students indicated for choosing not to seek help. I then provide a discussion on further subgroup differences in help negation. Next, I consider barriers to help seeking after an individual makes first contact with mental health

services. I close this section by describing how stigma can act as a powerful barrier to seeking help.

A need for help

The following discussion focuses on demonstrating how major changes since the middle of the 20th century have resulted in a great student need for mental health support. In doing so, I illustrate how students experience great psychological distress at diagnostic levels for mental disorders. I also reinforce this idea of a need for support by pointing to the long delay many individuals face in accessing mental health services.

There have been pronounced changes in student issues since the middle of the 20th century, issues which can result in psychological distress (Kitzrow, 2003). This resulting psychological distress has led to a greater recognition that many students need help in dealing with mental health struggles. Below, I will outline some of these major changes before discussing how students' psychological distress relates to their mental health and suggests the confirmation of diagnostic criteria for mental disorders.

Students face a diverse range of problems related to mental health such as suicidality, substance abuse, depression, and anxiety, which have created a greater need for counselling and put much greater strain on college counselling centres (Kitzrow, 2003). Other diverse student problems which overburden these counselling centres include the following: divorce; family dysfunction; experimentation with drugs, alcohol, and sex; and the reality that many mental health issues first appear in adolescence or early adulthood (Kitzrow, 2003).

Mental health and wellness issues are prevalent among post-secondary students in the United States, as evidenced by common indicators of psychological distress found in the American College Health Association's National College Health Assessment II survey (Hunt & Eisenberg, 2010). Hunt and Eisenberg (2010) found that nearly half of college students in the United States meet the *Diagnostic and Statistical Manual of Mental Disorders* criteria for one or more mental disorders. Upon examining risk factors for mental health issues among college students, male students were at greater risk for suicide while female and lower socioeconomic status students were at greater risk for having depression and anxiety disorders (Hunt & Eisenberg, 2010).

A troubling reality is the time that elapses during which mental health issues go untreated. Much like the average population, college students experienced an average delay of 11 years between the onset of mental illness symptoms and when the individuals seek help (Hunt & Eisenberg, 2010; Eisenberg, Golberstein, & Gollust, 2007). This delay in help seeking proves to be problematic given how help negation (the avoidance of seeking help even though it is needed) is connected to longer-lasting illnesses and frequent relapses (Hunt & Eisenberg, 2010).

Narratives for experiences in seeking help

This subsection describes the experiences individuals have when they first seek help. Pescosolido, Gardner, and Lubell (1998) found three main types of stories or narratives indicating the experiences individuals have when first seeking help. The most common accounts for first-time service users involved stories of choice, followed next by accounts of "muddling through", and lastly narratives of coercion (Pescosolido et al.,

1998). In accounts of choice, individuals rationally make a decision to seek help on their own (Pescosolido et al., 1998). The opposite experience reflects accounts of coercion: when individuals actively refuse to seek help and are instead forced into care by police or are under pressure to seek help from family, friends, or co-workers (Pescosolido et al., 1998). Accounts of "muddling through" involve neither agreement nor active resistance to seeking help; in this narrative, family members often make choices for the individual who does not actively participate or refuse the services (Pescosolido et al., 1998). This experience can involve friends feeling comfortable enough to approach an individual who might be experiencing mental health challenges and ask if they need to talk to someone or could benefit from accessing mental health services (Vidourek, King, Nabors, Lynch, & Merianos, 2014).

Ability to help a friend with mental health issues

Help seeking is about more than an individual's action or lack thereof in accessing mental health services for himself or herself. It is also about one's ability to notice a friend who might be experiencing mental health issues and assisting them in seeking help. This subsection discusses students' self-reported confidence in assisting a friend with a mental disorder in various ways. I close this discussion by outlining some of the characteristics that correlate with students' ability to assist a friend with a mental disorder in various ways.

In one study, students felt confident in their ability to do the following: recognize a friend with a mental disorder; ask a friend if they are experiencing mental health issues; encourage or convince a friend to see a counsellor; and support a friend with a mental

health problem (Vidourek, King, Nabors, Lynch, & Merianos, 2014). There were a variety of traits that influenced a college student's confidence in helping a friend with a mental health problem. There were gendered differences as females were more confident than males in supporting a friend with mental health issues and in encouraging this friend to seek counselling (Vidourek, King, Nabors, Lynch, & Merianos, 2014). Age was also influential because first- and second-year students were more confident than upper level undergraduate and graduate students in being able to support a friend's mental health issues (Vidourek, King, Nabors, Lynch, & Merianos, 2014). Vidourek, King, Nabors, Lynch, and Merianos, 2014 (2014) noted a possible explanation for this pattern is that first- and second-year students have received more exposure to new initiatives around increasing students' knowledge about mental health than upper-year undergraduates and graduate students, which may have translated into increased confidence in helping a friend who might be struggling. Outcome expectations were also important here: students who were more optimistic about the results associated with seeking help were more optimistic in their ability to help a friend with a mental health issue than students who were less optimistic about effective results (Vidourek, King, Nabors, Lynch, & Merianos, 2014).

First point of contact: Informal vs. formal supports

While I have provided some of the narratives that have been cited around first-time experiences in seeking mental health help, I have not discussed the types of supports that are accessed, nor have I provided a notion of how many students seek mental health services. This subsection looks to provide that information by offering statistics

concerning student help seeking and by introducing and comparing formal and informal supports for students.

Before discussing the characteristics of students who do or do not seek help, it is important to acknowledge the important finding that most college students with mental health disorders do not seek help; more specifically, of students aged 19 to 25, only 18% of college students who had an apparent mental health disorder in the past year sought help (Eisenberg, Hunt, & Speer, 2012). When students with mental health issues do seek help, they are more likely to reach out to informal supports such as family and friends than to mental health professionals (Eisenberg et al., 2012; Wilson & Deane, 2009; Oliver, Reed, Katz, & Haugh, 1999). For some students, reaching out to informal supports acts as a first point of contact; if and when informal support is ineffective, help seekers often then turn to professional mental health specialists such as psychiatrists and psychiatric centres (O'Neil, Lancee, & Freeman, 1984).

Subgroup differences in accessing mental health services

There are subgroup differences in accessing mental health services. I will outline some of the different characteristics of the individuals who are more likely to seek help and those who are less likely to seek help. I will also briefly discuss some of the reasons why certain subgroup differences exist, particularly in investigating the notion of perceived benefits of help seeking and how the power of gender roles influences men.

Demographic factors such as gender, race, and socioeconomic status are important correlates for help seeking, though there are other non-demographic factors that are also associated. Several characteristics have been found to be associated with lower use of

medication and therapy. For example, there are differences in gender, with men using fewer mental health services than women (Yargason, Linville, & Zitzman, 2008; Golberstein, & Gollust, 2007); race, with Asians, blacks, and Hispanics accessing fewer services than white and multi-racial students (Eisenberg, Hunt, Speer, & Zivin, 2011; Yargason et al., 2008); age, with younger students accessing fewer services than older students; and religiosity, with highly religious students accessing fewer services than non-religious students (Eisenberg et al., 2011). There are further differences concerning sexual orientation, with heterosexual students accessing fewer services than bisexual or gay / lesbian students (Eisenberg et al., 2011); mental health, with students who have lower levels of depression and anxiety seeking less help than those with higher levels of these issues (Eisenberg et al., 2011), and income and marital status, with students who grew up impoverished seeking less help than those who grew up in affluence, and with married students seeking less help than single students (Eisenberg et al., 2007). Yargason et al. (2008) found that nationality was also influential, with international students less likely to seek help than those born in the United States. Graduate students had lower rates of seeking help relative to their apparent needs for services than undergraduates (Eisenberg, Hunt et al., 2012). However, this finding is reversed in an older study where seeking help was correlated with being a graduate student and with being older (O'Neill et al., 1984).

Many of the above subgroup differences might be explained by perception of the benefits of help seeking. Vidourek, King, Nabors, and Merianos (2014) found in a study that women perceived more benefits associated with help seeking than did men, and that whites perceived more benefits than non-whites. Students in this study indicated that the

top three benefits of help seeking include improved mental health, reduced stress, and resolving one's problems (Vidourek, King, Nabors, & Merianos, 2014).

The power of gender roles becomes clearer in a study that found men who more strongly support masculine norms have more negative attitudes toward seeking psychological help through counselling (Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). Vogel et al. (2011) noticed that masculine norms were positively associated with self-stigma: "the internalization of negative views of society toward mental illness and seeking help" (p. 369). Self-stigma often results in individuals believing that they are inferior or weak for needing to seek counselling (Vogel et al., 2011). Because masculine norms are associated with self-stigma, it follows that those who are most impacted by masculine norms have the most negative views toward help seeking, which can ultimately prevent them from accessing necessary counselling. In other words, those who feel that being a man involves living up to masculine norms may avoid seeking help due to a belief that seeking help is not something that men should do.

Reasons for help negation

This subsection highlights some of the most common reasons in the mental health literature for why individuals in the general population and students do not seek help. I begin by focusing on the barriers to seeking help. I continue by considering further barriers to continuing to seek services after an individual initially makes contact with mental health services. I close this subsection by more specifically focusing on stigma as a barrier and discussing how it has a gendered impact on individuals.

There are a variety of reasons why students avoid seeking mental health services, some of which are more common than others. Eisenberg et al. (2011) found the following were the most common reasons why students negated seeking help: preferring to deal with the issues on their own; believing that the stress was normal for a college student; and not having enough time to seek help. Other researchers confirmed individuals' sense of their experiences being normal was a common response, something which is an important reason why individuals with mental health issues go untreated for so long (Bluhm, Covin, Chow, Wrath, & Osuch, 2014). Other responses which were common included getting the necessary support from other sources and assuming that services are too costly for them to afford (Eisenberg et al., 2011). Additional responses for avoiding help involved the following: the perception that they do not need help; questioning whether medication or therapy is helpful; thinking the problem will go away on its own; and worrying what others will think (Eisenberg et al., 2011). The last point about worrying what others will think seems to speak largely to a fear of stigma from other individuals if they know the person in question is seeking help.

Additional reasons for help negation have been found, some of which overlap with those listed above. Eisenberg et al.'s (2012) findings indicate that the following were reasons for help negation among individuals: believing that the stress is normal for college or graduate school; preferring to solve the problems independently; not having enough time to seek help; and questioning how serious their needs are. Johnson and Coles (2013) confirmed that wanting to solve the problems independently was an important reason for help negation, while adding that individuals also avoided help because they

initially thought the problem was small and that it would improve and go away on its own.

Another factor influencing help negation included personal stigma: this notion of how individuals view other people with mental health issues but not necessarily themselves reduced their own perception that they needed medication or counselling, as well as reduced their potential use of these supports (Eisenberg et al., 2012). This point about perception of need is important because students who perceived a need for support were more likely to intend to and actually seek out the support than those who do not perceive a need (Eisenberg et al., 2012). Other possible reasons for help negation included assuming informal supports would not be helpful; avoiding help to appear strong; and remaining silent to avoid possible consequences from seeking help such as stigma (Wilson & Deane, 2009). One study found that some students felt that seeking counselling suggested that they were weak (Curtis, 2010). This perception seemed to speak again to the stigma that surrounds help seeking.

Reasons for further subgroup differences in help negation

I have discussed above some of the general reasons for help negation among individuals in the general population and students. However, there are subgroups who are more likely to give certain reasons for why they do not seek help. It is worthwhile to describe some of the reasons for help negation that are more often specific to certain subgroups such as year of study in university.

The study by Vidourek, King, Nabors, and Merianos (2014) discussed barriers to help seeking while also examining subgroup differences for which individuals were most

likely to fear these barriers. The top barriers to help seeking were embarrassment, denial, and not wanting to be labelled "crazy" (Vidourek, King, Nabors, & Merianos, 2014). The barriers of embarrassment and trying to avoid the label of "crazy" seemed to connect well to the notion of stigma and the sense of "othering" it can produce. The following subgroup differences were noticed in this study: first- and second-year students perceived more barriers than third- and fourth-year students; white students perceived more barriers than non-whites; and students with a family history of mental health treatment were more likely to seek help than those without a family history of treatment (Corrigan et al., 2001, cited in Vidourek, King, Nabors, & Merianos, 2014).

Lack of knowledge about available mental health services plays a key role in explaining why students often do not seek needed help (Yargason et al., 2008; Eisenberg et al., 2007). Yargason et al. (2008) found that in their study of undergraduate students at one US university, most students knew nothing or had inadequate knowledge about on-campus mental health services. Students were more likely to have knowledge about mental health services if they had mental distress, lived on campus, and were in university for a longer amount of time (Yargason et al., 2008).

After first contact: Barriers to continuing to seek help

Another study by Prairie Research Associates (2014) discusses similar barriers current mental health patients face concerning help seeking, both when attempting to seek help and after support from services is attained. When mental health support was achieved, the following barriers still existed: feeling shame or embarrassment due to stigma; barriers of personal reasons such as thinking the problem is not serious and is

something that can be resolved without external help; the public and service providers' misunderstandings concerning mental health; and lack of knowledge concerning available services in one's community (Prairie Research Associates, 2014). Those individuals who actively sought help also experienced accessibility barriers, some of which included: language barriers; barriers in proximity of service and hours of operation; discriminatory barriers based on individuals' age, sex, and sexual orientation; and long wait times, particularly for psychiatric care and mental health counselling (Prairie Research Associates, 2014). One concerning reality is that many individuals who seek help when they are experiencing a mental health crisis are only able to access support through a hospital's Emergency Room, something which can be traumatizing when these individuals are exposed to the volatile individuals who are sometimes found in the hospital's psychiatric ward (Prairie Research Associates, 2014).

Stigma as a barrier to help seeking

The perception of stigma is something that requires more attention, and its prominence has been threaded through the above literature review. Greater stigma is associated with less emotional openness and less favourable attitudes toward help seeking; this stigma is more likely to come from men than women (Komiya & Good, 2000). Individuals who are more closed off emotionally perceive a greater stigma associated with help seeking (Komiya & Good, 2000). Males were found to be more reluctant to seek help (Komiya & Good, 2000; Fleury, Ngui, Bamvita, Grenier, & Caron, 2014), as were those who were less open with emotions, and those who had less severe psychological symptoms (Komiya & Good, 2000). In contrast, Komiya and Good (2000)

found that females were more likely to have open attitudes concerning emotions and attach less stigma to help seeking. Gender roles could explain these gendered differences, as men are often expected to contain their emotions, be logical, and be independent, all of which discourage help seeking (Komiya & Good, 2000).

Theoretical framework

The theoretical framework used in my research is based around the concept of stigma. I focus on Erving Goffman's text *Stigma: Notes on the Management of Spoiled Identity*. I begin by discussing Goffman's definition of stigma as it relates to differentness as well as a discrepancy between virtual social identity and actual social identity. This differentness is decided through a normative benchmarking completed by the normals (those without mental health issues) against *the own* (those who experience mental health issues). I then extend Goffman's work on stigma to consider its connection to my research questions, both in terms of student awareness and use of on-campus mental health services and correlates of psychological distress. In relating stigma to my research questions, I focus on how individuals with mental health issues internalize harmful stereotypes and prejudice around mental illness, which ultimately leads to help negation.

Defining stigma

Goffman (1963) provided the following succinct definition of stigma: "an undesired differentness from what we had anticipated" (p. 5). This differentness relates to a negative discrepancy between the concepts of "virtual social identity" and "actual social identity" (Goffman, 1963). Virtual social identity refers to the assumptions made by

individuals concerning another person's category and attributes (Goffman, 1963). Actual social identity refers to the actual category and attributes held by the person in question (Goffman, 1963). Stigma does not necessarily need to involve a mental disorder, as Goffman discusses physical disabilities as well. However, for the purpose of this thesis, stigma will consistently be used in reference to mental health issues.

Stigma involves "normals" (in this case, individuals who do not have mental health issues) making assumptions about the "own" (individuals who *do* experience mental health issues); normals use their own experiences as the normative benchmark against which the experiences of the own are measured (Goffman, 1963). When there is an unfavourable difference between normals' assumptions about what is normative behaviour and the actual behaviour of *the own* who have mental health issues, the result is stigma (Goffman, 1963). In other words, when *the own* do not act in a way that matches the normals' expectations surrounding proper behaviour, normals direct stigma toward *the own*. When *the own* cannot act as the normals do, *the own* are stigmatized by the normals.

Relating stigma to students and mental health services

Using Goffman as a theoretical framework proves useful because the experience of stigma relates to my research questions. I will begin by discussing the second research question, that which focuses on graduate student use of mental health services. It is known that stigma negatively impacts help seeking and can ultimately lead to help negation. The assumptions that normals make when comparing their attributes and behaviour to that of *the own* leads to a process of "othering". I suggest that the normals

who believe in this virtual social identity reject the experiences of *the own* rather than being empathetic and considering the importance of difference among individuals. Individuals with mental health issues ultimately come to see themselves as being less than the normals. *The own* come to internalize the stereotypes and prejudice that are directed at them, something which works to increase their feelings of other-ness.

It is the stigma that results from this discrepancy between virtual and actual social identities that I feel leads individuals with mental health issues to avoid seeking help. I suggest that the reason stigma has such a negative impact on help seeking is because *the own* do not want to identify with their perceived reality that they do not meet the normative benchmark established by the normals. Common ideas of *the own* being weak, unstable, and incapable compared to the normals are unhelpful ideas, and they consequently contribute to help negation as *the own* try to distance themselves from these stereotypes. I suggest that because they want to feel as though they meet the normative benchmark established by normals, some of *the own* ignore or refuse to acknowledge their need for mental health help and try to normalize their experiences.

I hypothesize that individuals who experience stigma are less likely to seek help for the above reasons, even if they do in fact need help from mental health services. It is logical to assume that many of these students may not know where to turn for support due to their refusal to seek help after being stigmatized. I suggest that this lack of awareness would likely be a result of not wanting to identify as having mental health issues. If a student who is struggling with their mental health does not realize what is happening, they would be much less likely to learn what mental health services are available on

campus. These stigmatized individuals who need help but do not seek it are missing many of the benefits of help seeking. They are missing the benefits of formal sources of support such as psychiatrists, counsellors, and other mental health professionals *and* the benefits of informal sources of support such as family, friends, and partners.

Relating stigma to psychological distress

Goffman's explanation of stigma also applies to my first research question, which focuses on the correlates of psychological distress. I suggest that stigma can also be a positive correlate of psychological distress insofar as my earlier discussion of stigma is connected with help negation. I hypothesize that stigma leads to help negation because individuals with mental health issues avoid help in an effort to distance themselves from harmful stereotypes and prejudice surrounding mental illness. If an individual with mental health issues is avoiding necessary help, it follows that their original psychological distress will likely worsen when they avoid help and try to solve the problem on their own. In other words, stigma can contribute to psychological distress.

Hypotheses drawn from literature

After reviewing the literature, I have found that there are several important topics which deserve further attention. Each topic is listed below, along with the justification for analyzing it further. Following the justification, I offer my hypotheses that I will be testing and discussing in the results section.

Important literature findings and justification

Factors influencing individuals' psychological distress and tendency to seek help emerge as some of the key topics to examine in my research. I examine the association

between year of study and psychological distress, as well as the association between race and help-seeking behaviour. Other key topics for analysis involve the types of supports individuals do and do not access; I focus specifically on whether students are more likely to access informal or formal sources of support. Finally, I give special attention to the impact stigma has on students' access of mental health services.

The association between year of study and psychological distress

Psychological distress is a key indicator or symptom of the emergence of mental illness. Because mental illness typically emerges in youth aged 18 to 24, I am interested in testing the influence that age has on psychological distress. Two authors have found that students in higher years of study experience less psychological distress than students in lower years of study (Jackson & Finney, 2002; Towbes & Cohen, 1996). Students in higher years of study are older and have a greater maturity than students in lower years of study. This age and maturity prove useful in helping these students deal with the stresses of university. The studies cited above focus on undergraduate students in varying years of study. I am interested in determining if higher years of study are associated with decreased distress for graduate students as well.

Hypothesis 1a: Students in higher years of study experience less psychological distress than students in lower years of study.

Demographic factors and psychological distress

There is evidence for gendered differences in the experiences of psychological distress. For example, women are much more likely than men to be diagnosed with specific forms of anxiety or phobias, and women are twice as likely as men to be

diagnosed with post-traumatic stress disorder (Benenson & Markovits, 2014, cited in Kingston, 2014). While there is evidence of these gendered differences, there is no information on the demographic characteristics of the graduate students who I am studying in these hypotheses. This gap in the literature supports the importance of my next hypothesis; here, I theorize that there are differences in the demographic characteristics in graduate students who experience distress compared to those who do not.

Distress and attitudinal predictors of help seeking

There is evidence that students experiencing psychological distress who have a certain attitude toward help seeking are more likely reach out to a professional. In a study of 289 Australian undergraduate psychology students, Thomas, Caputi, and Wilson (2014) found that distressed students were more likely to seek help if they held one or more of the following attitudes toward help seeking: (i) if their first thought when experiencing a mental breakdown was to seek professional help, and/or (ii) if they believed that a person with an emotional problem is not likely to solve it alone, but rather is likely to solve it with professional help.

The two attitudes listed above are connected insofar as they are both rooted in the idea of teamwork. The idea of reaching out to a formal support during a mental breakdown requires a student to work with that professional, as does the attitude that emotional problems are more likely to be solved by working with a professional. Given that millennials are more prone to teamwork than previous generations (Woodall, 2004), I

suggest that the millennial students with psychological distress who completed my survey are more likely than those without this distress to hold one or more of these attitudes.

Hypothesis 1b: Students who experience distress have different demographic characteristics and different help-seeking behaviours than those who do not experience distress.

The association between race and help seeking

Help seeking is an essential topic for further study in the area of mental health because it is often one of the first steps to helping individuals receive support and official diagnoses for psychological distress and mental illnesses. It is important to determine which factors influence help-seeking behaviour or the lack thereof. Given the lack of research on graduate students' mental health, it is necessary to determine which factors influence help seeking among this group.

There are many factors which influence an individual's decision to seek help or negate help. One of these important factors is race. I am interested in testing the influence an individual's race has on their help-seeking behaviour or the lack thereof. Eisenberg, et al. (2011) found that whites are more likely to seek help through therapy and medication, while Asians, blacks, and Hispanics are less likely to seek help through therapy and medication. In other words, racial minority students are less likely to seek help than white students. While Eisenberg et al. (2011) focused on undergraduate students, I am interested in testing whether the same racial patterns influence help seeking among graduate students.

Hypothesis 2: Racial minority students are less likely to seek help than white students.

The types of supports students are most likely to seek

My third hypothesis focuses on help seeking as it relates to formal mental health services such as doctors / psychiatrists, psychologists, therapists, counsellors, and other mental health professionals. However, formal services are only one type of support individuals can seek when the need arises. Other supports that can also be accessed include informal supports such as being able to talk about feelings of distress or mental health challenges with family, friends, and partners. It is worthwhile to consider the types of supports students are seeking because certain supports may be less intimidating and therefore less of a barrier to access than others.

There is a difference in the first point of contact between students and the supports they seek. Several authors have noted that students are more likely to first reach out to informal supports such as family and friends than to formal supports such as doctors / psychiatrists and other mental health professionals (Eisenberg et al., 2012; Wilson & Deane, 2009; Oliver, Reed, Katz, & Haugh, 1999). Once again, these studies focus on undergraduate students. I am interested in testing whether the same pattern exists whereby graduate students are more likely to first access informal supports than formal supports.

Hypothesis 3: Students are more likely to access informal supports (e.g. family, friends, and partners) than formal supports (e.g. psychiatrists, counsellors, and other mental health professionals).

The association between stigma and help seeking

My fourth and final hypothesis addresses stigma as it relates to help seeking. Eisenberg et al. (2011) identified that one of the major barriers to help seeking among students is a fear of what others will think of these students for seeking help. I noted that this fear of judgment is largely a fear of the stigma that is associated with mental health. I consider stigma through the lens of Goffman (1963): stigma refers to "an undesired differentness from what we had anticipated" (p. 5), something which largely relates to a negative discrepancy between virtual and actual social identities. Seeking help is often associated with negative judgment being directed towards the help seeker, mainly due to others' belief that the help seeker is different from the normals. The above finding about stigma as a major barrier to help seeking focuses again on undergraduate students. I am interested in testing whether stigma is a major barrier to help seeking among graduate students.

Hypothesis 4: Students who experience stigma are less likely to access mental health services than students who do not experience stigma.

Chapter 3: Methods

This study is based on an online survey I conducted titled "Graduate Student Mental Wellness Service Use at McMaster University". The survey was designed as a cross-sectional analysis of the mental health and wellness experiences of graduate students at McMaster University. The survey was created through Lime Survey software, the platform provided by McMaster University. The statistical software package Stata (Version 15) was used for quantitative data analysis. The following sub-sections outline my rationale for completing this research, the ethics review process, the survey instrument, the analytic strategy I used to examine my data, and incentives used to recruit participants to complete the survey.

Rationale

The purpose of this section is to outline the reasons why I am conducting this research, reasons which focus on novelty and gaps in the literature. While there is a considerable amount of literature focusing on undergraduate student mental health, there is very little information on graduate students. In many cases, the research conducted focuses solely on undergraduates. In rare studies, graduate students are included *in addition* to the undergraduates who dominate the sample considered. There are very few studies that focus only on graduate students in general, which reflects a major gap in the mental health literature. This gap is particularly problematic in the Canadian literature, given how there are far fewer Canadian articles in the mental health field than there are in the American mental health field in the United States. I am hoping to add something new

to the mental health literature in Canada through my research because my survey focuses solely on graduate students at McMaster University. By addressing and working to narrow this gap in the literature, my research stands as something that is worthwhile and justified.

Research ethics

Because this survey involved conducting research on human participants, an ethics application was required by the McMaster Research Ethics Board (MREB). The ethics application and all supplemental documents were completed and submitted by email to the MREB. Upon reviewing the ethics application, the MREB requested various revisions and justifications for some of the questions that were asked in the survey.

One concern the MREB raised was that the survey was not about mental health generally, but rather about mental health service use. In response, I acknowledged that the survey focused mainly on graduate students' use of mental health services. However, I also noted that there were more general questions in the survey around students' experiences with stigma, help seeking, and psychological distress which I planned to connect to any use of services. The purpose of making this connection was to compare my findings to those of other respondents in the larger mental health literature.

Another concern raised by the MREB was that the reviewers believed that there were further risks to participants who took my survey than I had initially realized. I noted in the ethics application form that some respondents may feel upset or triggered when asked questions about when they last experienced different types of psychological distress. However, in the letter of intent, I suggested that the potential risks, harms, and

discomforts involved in taking the survey were minimal and no greater than those experienced in everyday life. In my revisions, I put greater emphasis on the potential harm respondents may undergo when reflecting on their mental health experiences as graduate students. In my letter of intent, I provided examples of some of the types of questions that are asked in the survey so that respondents were able to decide if taking the survey would create too much discomfort, or if they felt comfortable in taking the survey.

I also attempted to mitigate the experience of harm and discomfort by providing the contact information to McMaster University's Student Wellness Centre at the end of the survey. The purpose for doing so was to provide respondents with on-campus resources they could access should they feel the need to discuss any discomfort that may have been triggered by taking the survey. The MREB agreed that providing resource contact information was important, but it also noted that the on-campus resources were not available at all times, and that wait times to receive support from resources such as counselling were often long. As an alternative, the MREB requested that I provide contact information to resources such as phone help lines that operate 24 hours per day, 7 days per week. I complied with the additional MREB request to include this contact information in the letter of intent before the survey began, in the event that a respondent needed help after closing the survey before reaching the contact information at the end.

The MREB reviewers also raised a question about why my survey (like most surveys) had a section designed to collect demographic information. The MREB was uncertain how collecting demographic data was related to my study, and it suggested that I remove the demographic-related questions if they were unnecessary. I responded by

explaining that in the literature, different sub-populations (holding different demographic markers such as race, gender, and age) have different mental health experiences. I highlighted that it was important for me to compare my findings to the mental health literature to determine if my respondents were having similar or different experiences due to their demographic markers.

Once these revisions were completed and resubmitted, the MREB granted ethics clearance to the study and I was able to begin recruiting participants and collecting data.

Survey instrument

This section will discuss the outline of the online survey, the format of the questions, and the themes into which questions were grouped. All questions from the survey are listed in Appendix A. It should be noted that the breadth of questions asked in my survey exceed those addressed in my research questions. This is so that I may use the data from this survey in future analyses outside of this thesis. The online survey involved respondents answering a total of 40 closed-ended questions, each with a series of pre-determined responses to select. There were no open-ended questions. Some of these questions utilized simple yes/no responses based on questions such as "Have you accessed mental health services?" Other questions used more complex arrays / matrices / charts where respondents would select multiple responses. An example of an array question involves respondents using a Likert scale to evaluate the effectiveness of McMaster University's Counselling Services in meeting a variety of student needs. Questions in the survey were organized into one of four groups, based on key themes that

emerged from the literature review: demographic characteristics; stigma and help seeking; psychological distress; and mental health service use.

Demographic characteristics

Different sub-groups of individuals have different experiences, diverse experiences which are often connected to their sociodemographic characteristics. In the demographic information section, common questions around sociodemographic markers included self-described racial background, gender, age, whether the respondent had a disability, and if a disability was present, the type of disability. Respondents were also asked questions around their degree type (e.g. Master's degree, PhD, "other" options such as graduate diplomas or certificates), current year of study, and family background (i.e. highest education completed by mother and father). Lastly, questions concerning respondents' current living arrangement, relationship status, and self-reported rating of their mental health and wellness were also asked in this section.

Stigma and help seeking

The survey section on stigma and help seeking was designed to learn about respondents' possible experiences with negative attitudes toward mental health and possible involvement in seeking help from mental health services. Questions concerning stigma involved asking respondents if they had ever felt bad or stigmatized for their possible mental health issues and the sources of any stigma they may have experienced. In order to determine if respondents were stigmatizing towards others, participants were asked to rate their likelihood of the following: recognizing a friend who is experiencing mental health issues, approaching a friend about their possible mental health experiences,

encouraging a friend to seek professional help, and supporting a friend with mental health issues. Respondents were also asked if they had ever avoided seeking needed help, and for those who did negate help, the reasons why. Questions were asked about who respondents would contact in a mental health crisis, and how they would reach out for help. Finally, some questions asked respondents to describe some details surrounding their choice to seek help: they were asked when and where they accessed services, as well as the types of mental services they have utilized.

Stigma was a major theme that was present throughout many of the articles reviewed, and it is something that can inform whether an individual seeks help. It was important to develop a greater understanding of how stigma can affect an individual, which motivated the use of questions to determine whether students are experiencing stigma and the sources of this stigma. It was also important to learn whether students in need of support were seeking it, since more severe issues can manifest when the necessary mental health support is not accessed. I wanted to understand the reasons why certain individuals negated seeking help so that I could make recommendations for how to encourage help-seeking behaviour.

Psychological distress

In the section on psychological distress, respondents were asked questions about whether they have experienced any indicators of psychological distress, something which can often be connected to mental health issues. The indicators of psychological distress were borrowed from the 2013 American College Health Association – National College Health Assessment II (ACHA-NCHA II), a national survey investigating university and

college students' health. ACHA-NCHA II asks post-secondary students questions around a variety of health topics, including physical and sexual health, mental health, substance use, and safety and violence. Many colleges and universities in Canada and the United States use the ACHA-NCHA II survey on a regular basis to develop a greater understanding of their students' health patterns.

The questions that were borrowed from the 2013 ACHA-NCHA II survey focused on psychological distress. I asked participants when they had experienced any of the following indicators of psychological distress: hopelessness; overwhelm; exhaustion not caused by physical activity; feeling very lonely; feeling very sad; feeling so depressed that it was difficult to function; overwhelming anxiety; and overwhelming anger. Respondents were asked if and when they had experienced these indicators of psychological distress: in the last 30 days; in the last 12 months; not in the last 12 months; or never. Lastly, respondents were asked to self-report their overall stress level in the past 12 months.

The motivation for including questions concerning psychological distress was largely to have an idea of how many students were experiencing possible symptoms of mental health issues. I was interested in connecting indicators of psychological distress to help-seeking behaviour to determine if those individuals who are not seeking help are in strong need of services. This desire is to understand how necessary help seeking might be related to my research question focusing on learning about the mental health needs of McMaster graduate students. If there were unmet needs around help seeking, it is important for me to be able to make recommendations to help in resolving these needs.

Mental health service use

The final survey section required respondents to evaluate the mental health services they have accessed, both on campus and in the larger community. In order to determine graduate student knowledge of on-campus supports, respondents were provided with a list of the supports provided through McMaster's Student Wellness Centre and were asked to identify the services with which they were familiar. Participants were asked if they accessed mental health services, and if so, whether they accessed them at McMaster, in the larger Hamilton community, or in a different city or community outside of Hamilton.

For those graduate students who accessed on-campus services, respondents were asked to identify which McMaster services they accessed and when these services were accessed. Next, respondents were asked to evaluate the effectiveness of the on-campus services in terms of the following criteria: whether appointments were scheduled within a reasonable timeframe; how easy the services were to access; whether their concerns were treated in a confidential and respectful manner; whether the services were what helped the respondents remain at McMaster; and overall how well their needs were met. Finally, for those graduate students who accessed mental health services in a larger community outside of McMaster, these respondents were asked to evaluate how effective these services were in supporting their mental health needs.

The motivation for including evaluative questions for the mental health services that respondents access or have accessed relates to my research question concerning how to better meet respondents' mental health needs through McMaster or the larger

community. If there are certain aspects of on-campus services that were not helping students meet their mental health needs, I need to be able to make recommendations concerning how to resolve this issue. Alternately, if there are aspects of service provision at McMaster that work very well, I need to be able to note what is helpful for students so that their needs can continue to be met in the future.

Incentives

As a way of thanking graduate students for their participation in this research, respondents were offered the opportunity to participate in a raffle for one of three $25 Tim Horton's gift cards. Those who wished to participate in the raffle were required to provide an email address or a phone number I could use to contact them if they were selected as a winning respondent in the raffle. The raffle involved selecting three random survey ID numbers, matching those numbers to the corresponding lines of contact information, and contacting those respondents by their preferred method of contact to inform them that they have won the raffle.

Recruitment

On May 1, 2018, the survey was activated. On the same date, the first round of recruitment messages was sent by email to each graduate administrator in all of McMaster University's graduate programs. These emails included a recruitment message, the survey web address, and an attached letter of consent. Graduate administrators were asked to forward the email to their graduate student mailing list. The same email with recruitment message, survey web address, and letter of consent was sent to graduate

administrators two more times: on June 5, 2018 and July 25, 2018. The survey was expired on August 27, 2018, after which I began cleaning and organizing the data set.

The following information concerns some general details regarding response statistics. There was no cut-off for the maximum number of graduate students who could participate in the survey. The survey was open to any graduate student (e.g. Master's degree students, PhD students, or students in "other" options such as graduate diplomas or certificates) studying at McMaster University. A total of 389 respondents started the survey. A total of 236 respondents completed the survey, while there were 153 respondents who began the survey but who only completed part of it. These partial responses were kept, but non-responses to specific questions were coded as missing data using Stata.

Analytic strategy

The strategy I am using to analyze my data is quantitative in nature. I used the statistics software program Stata to perform bivariate statistical analyses on a series of variables from my survey. The variables I am using in these analyses are categorical or ordinal; these levels of variables mean that each different value of the variable is a characteristic that cannot be ordered (Moore, Notz, & Fligner, 2013), and that each value of the variable is ordered but the values do not have equal intervals between them (Evans, 2014), respectively. I cannot run numeric tests such as t-tests, correlations, or ANOVAs because these categorical variables do not take numerical values required for these tests; and while the ordinal variables do take numerical values, it does not make sense to conduct arithmetic operations such as adding and averaging them (i.e. there is no

"average" gender or race). Because the variables I am using in these analyses are categorical or ordinal, it is only appropriate to run a series of cross-tabulations to determine statistical significance and proportional breakdown of each category within the variable. A cross-tabulation is a table that reports the number of observations (i.e. participants) whose values or characteristics fall into each cell of the table (Moore et al., 2013). The cross-tabulation represents the relationship or lack thereof between two categorical variables (Moore et al., 2013).

Using the Pearson's Chi-squared (χ^2) test

The statistical test that I am using for cross-tabulations is the Pearson's Chi-squared test. The Chi-squared test determines if there is a relationship or association between the two categorical variables by considering two different hypotheses: the null hypothesis and the alternative hypothesis (Moore et al., 2013). The null hypothesis assumes that the categorical variables' outcomes (i.e. the number of participants who have each of the variable values) are statistically independent, occurred by random chance, and do not have a relationship or association (Moore et al., 2013). The alternative hypothesis assumes that the categorical variables' outcomes are associated or related, did not occur by random chance, and do depend on each other (Moore et al., 2013).

There is a statistical value known as a *p*-value that is computed by statistics programs such as Stata (Moore et al., 2013). This value is used to determine the likelihood that the possible association or lack thereof found in the data occurred by random chance (Moore et al., 2013). Ranging from 0 to 1, smaller *p*-values indicate less possibility for random chance to explain any possible association between the variables

(Moore et al., 2013). Larger *p*-values indicate a greater possibility for random chance explaining any possible association between the variables (Moore et al., 2013).

The threshold that I am using in this thesis is a *p*-value of 0.05. This indicates that I accept any *p*-value smaller than 0.05 as strong evidence that the association between the variables is not due to chance (thus supporting the alternative hypothesis) (Moore et al., 2013). If the *p*-value is larger than 0.05, I then theorize that the association between the variables is due to random chance (therefore supporting the null hypothesis) (Moore et al., 2013). I am using 0.05 as the threshold for supporting or rejecting the null hypothesis because it is a very common *p*-value threshold used in sociology (Moore et al., 2013).

Assumptions made when using the Chi-squared test

Several assumptions or conditions must be met in order to be able to use the Chi-squared test (Moore et al., 2013). The three assumptions that must be met in order to use the Chi-squared test include: (i) the sampling method is a simple random sample; (ii) each variable being studied and tested is categorical or ordinal; and (iii) when the data is displayed in a cross-tabulation, the expected frequency count for each cell of the table is at least 5 in a two-by-two table (Moore et al., 2013). These conditions are discussed below.

Simple random sample (SRS)

A simple random sample (SRS) is a sampling technique that has the following properties: the population consists of *N* objects or participants; the sample consists of *n* objects or participants; and when it is equally likely for all possible samples of *n* objects to occur, the sampling method is referred to as simple random sampling (Moore et al.,

2013). The population N refers to the entire group of individuals about which I am interested in learning more information (Moore et al., 2013). In this thesis, the population refers to all of the graduate students at McMaster University. The sample n refers to the part of the population from which I collect information and study (Moore et al., 2013). In this thesis, the sample refers to the 389 McMaster University graduate students who completed my survey. If the sample is representative of the population (i.e. if the sample has similar proportions of men vs. women, Master's students vs. Ph.D. students as appear in the population), I can then use the sample to draw conclusions about the entire population (Moore et al., 2013). The final condition of an SRS requires that all individuals in the population are equally likely to be selected to participate (Moore et al., 2013).

My sampling method meets the requirements of an SRS. I have a population of 4,561 graduate students at McMaster University about whom I am hoping to learn more information and study. I have a sample of 389 graduate students at McMaster who chose to complete my survey. Finally, all of graduate students at McMaster University were equally likely to be selected to participate in my survey. This point is true because I sent out a recruitment email to all of the graduate administrators at McMaster University requesting that they then distribute my message to their entire graduate student email list. Because all of the graduate administrators I contacted forwarded my recruitment message with the survey link to their graduate student email list, all of the graduate students at McMaster were contacted about my survey and had an equal opportunity to choose to participate in it.

Variables studied are categorical or ordinal in nature

All of the variables of interest that I consider in this statistical analysis are categorical or ordinal in nature (Moore et al., 2013). Categorical variables' values (e.g. the response options "male", "female", and "other" in the survey question "What sex were you born?") are different to the extent that they are simply categories (Moore et al., 2013). There is no meaningful numeric difference between the values of these variables (Moore et al., 2013). As such, it follows that it does not make sense to conduct arithmetic processes such as adding and dividing (Moore et al., 2013). Arithmetic processes are common in statistical tests such as t-tests and ANOVAs (Moore et al., 2013).

Moore (2013) discusses all variables in terms of being categorical (see above) or continuous (numeric, with the ability to conduct arithmetic operations on the variable values). However, the discussion that Evans (2014) offers around assumptions of the Chi-squared test extends this discussion to suggest that this test can also involve ordinal variables. Ordinal variables have numeric values that differ in quantity, but whose intervals are not equal (Evans, 2014). When a Chi-squared test is conducted, each observation must only be recorded in only one cell, which means that each observation is mutually exclusive (Evans, 2014). The use of categorical or ordinal variables helps to ensure mutual exclusivity in variable values (Evans, 2014).

No more than 20% of expected frequencies are less than 5; all expected frequencies are 1 or greater

Testing the null hypothesis in a cross-tabulation involves comparing the observed counts or frequencies in the table with the expected counts: the counts that would be

expected from random variation if there were no relationship between the two variables (Moore et al., 2013). The expected counts are determined by multiplying the row total of the frequencies by the column total of the frequencies, and then dividing by the table total of the frequencies (Moore et al., 2013).

In order for the Chi-squared statistic to be used accurately, no more than 20% of expected counts can be less than 5 (Moore et al., 2013). In particular, all four expected counts in a two-by-two table must be 5 or greater (Moore et al., 2013). In addition, all expected frequency counts must be 1 or greater (Moore et al., 2013). After calculating the expected counts for all of the tables where a cross-tabulation was conducted, I found that none of the cells had an expected frequency less than 5, which also confirms that all expected frequency counts are 1 or greater (Moore et al., 2013).

Data

In this sub-section, I will make note of the variables of interest I selected to analyze through running statistical tests. Next, I discuss any recoding required for these variables to make the data analysis more manageable. Finally, I refer to the survey questions and response categories from which these variables were created.

Variables of interest

While there were over 150 variables in my online survey, the amount of space available in this thesis only afforded me the opportunity to run a handful of tests on a total of eight different variables. Because all of these variables of interest were categorical variables, all of the tests that I ran and discussed in my results section involved cross-tabulations to test for Pearson's Chi-squared statistic. The variables of interest that I

tested are as follows, grouped together by each distinct cross-tabulation that was conducted: year of study and measures of psychological distress; race and help seeking; informal supports and formal supports; and experience of stigma and help seeking. Each of these variables is briefly discussed below.

Year of study

The variable *yearofstudy2* was based on the survey question "What is your current year of study in your graduate program?" Response options for this survey were essentially divided between being in a certain year for a Master's degree or a certain year for a Ph.D. The response options for being in a M.A. were as follows: Master's year 1; Master's year 2; and Master's year 3 or higher. The response options for being in a Ph.D. were as follows: Ph.D. year 1; Ph.D. year 2; Ph.D. year 3; Ph.D. year 4; Ph.D. year 5 or higher.

In order to make the results from the tests I ran more manageable and useful, I recoded year of study into three different values. Again, these values were based on whether the respondent was in a Master's degree or a Ph.D. The values that I used when recoding year of study are Master's, early Ph.D., and late Ph.D. The value "Master's" refers to being in year 1, year 2, or year 3 or higher of a Master's degree. The value "early Ph.D." refers to being in year 1 or year 2 of a Ph.D. program. The value "late Ph.D." refers to being in year 3, year 4, or year 5 or higher of a Ph.D. degree.

Measures of psychological distress

I used two measures of psychological distress in my survey: feeling so depressed it was difficult to function and experiencing overwhelming anxiety. These variables were

coded as *distress_toodepressed2* and *distress_anxiety2*. The question from which these two variables emerged was "Please specify when you have felt any of the following emotions: hopelessness; overwhelmed by all that you had to do; exhausted (not from physical activity); very lonely; very sad; so depressed it was difficult to function; overwhelming anxiety; and overwhelming anger". I selected the distress measures "so depressed it was difficult to function" and "overwhelming anxiety" because these are two of the most commonly used measures of distress in the mental health literature (AHCA-NCHA, 2013; Bewick et al., 2010; Eisenberg et al., 2011; Hunt & Eisenberg, 2010). The response options for each of these variables involved the following: "never; not in the last 12 months; in the last 30 days; in the last 12 months". These response categories were not recoded.

Race

The variable *race2* was based on the variable self-described race. It emerged from the survey question "Which of the following best describes your racial background?" Response options for this question were as follows: "Aboriginal; Asian – East; Asian – South; Asian – Southeast; Black – Africa; Black – Canada; Black – Caribbean region; Latin American; Indian Caribbean; Middle Eastern, mixed background; White – Canada; White – Europe; other(s); and other". I recoded race into a dichotomous variable with two values: white and non-white. The original response options of "White – Canada" and "White – Europe" were coded as white. All other responses were coded as non-white. I chose to recode race into these two categories because the breakdown of each of the many

non-white racial categories was very small, while whites were an overwhelming majority (64.23% after adding "White – Canada" and "White – Europe").

Help seeking

The next variable for this test centred around general help seeking. The variable *use_general2* emerged from the survey question "Do you access any mental health and wellness services?" Response options for this question were "yes" and "no". The variable *use_general2* was not recoded.

Informal supports

The variable informal supports consisted of three distinct variables centring on the use of non-professional mental health supports. The three variables were *services_friends2*, *services_family2*, and *services_partner2*. These variables emerged from the survey question "What types of mental health services do you access?" The response options for these three variables involved "informal support: talking with friends", "informal support: talking with family", and "informal support: talking with a spouse or significant other". These variable values were not recoded.

Formal supports

The variable formal supports consisted of two variables, only one of which was used in the data analysis, that centred on the use of professional mental health supports. The two variables were *services_types_talktopro2* and *services_types_medication2*. The survey question from which these variables emerged was "What types of mental health services do you access?" The response options for these two formal support variables were "professional support: counselling / therapy / help line" and "professional support:

medication". I did not use "professional support: medication" in the data analysis

comparing formal and informal supports because the first option of "professional support:

counselling / therapy / help line" implies the use of a mental health professional. In order

to be prescribed medication, it is required that the individual meet with a health

professional who has at least some mental health expertise, someone who can be

considered a formal mental health support and who can either prescribe medication or

refer the individual to a professional who can prescribe medication. I suggest that

individuals who access medication as a formal support must first access the formal

support of talking to a mental health professional. By considering the variable

services_types_talktopro2, I am also indirectly considering all respondents who access

medication. The variable value for formal supports was not recoded.

Stigma

The variable *expstigma2* was based on the variable "stigma". It emerged from the

survey question "Has anyone ever made you feel bad or stigmatized because of your

mental health issues?" Response options for this question were "yes" and "no". These

variable values were not recoded.

Chapter 4: Results

Student demographics and background details

This sub-section details some of the demographic and background details of the graduate students who participated in my survey. According to the most recent statistics about McMaster University's graduate student population, published by the Office of Institutional Research and Analysis, McMaster presently has approximately 4,561 graduate students (Institutional Research and Analysis, 2017). I contacted the graduate administrators for every graduate program at McMaster and requested that they forward my recruitment letter, letter of consent, and survey link to all of their students by email. Out of these 4,561 graduate students, 389 participated to some extent in my survey, yielding a response rate of about 8.5%. While a considerable number of graduate students completed my survey, my sample was not representative of the larger McMaster University graduate student population. I provide examples below to illustrate why my sample is not representative. A total of 236 respondents completed the entire survey, while 153 students began but did not complete the entire survey.

Concerning level of study, 51% of respondents were Ph.D. students, 46% were Master's degree students, and 2% were in a different type of graduate program such as a graduate diploma or certificate. These proportions for respondents' level of study in my survey do not mirror those of the graduate student population at McMaster University, which are as follows: Master's students comprise 65% of the graduate student population; Ph.D. students make up 32%; and graduate certificate / diploma students constitute 3% (Institutional Research and Analysis, 2017). My sample has an over-representation of

Ph.D. students and an under-representation of Master's students. When considering year of study, Ph.D. students were further categorized by whether they were in the early stages of their Ph.D. (years 1 or 2) or the later stages of their Ph.D. (year 3 or higher). A total of 53% of Ph.D. students were in the early stages of their degree, while 47% were in the later stages of their degree.

Regarding gender, 73% of participants were women, while 27% were men. These proportions for students' gender do not mirror the gender breakdown of graduate students at McMaster University. In 2017, 52% of McMaster's graduate students were women while 48% were men (Institutional Research and Analysis, 2017). I have an over-representation of women in my survey and an under-representation of men. In terms of race, nearly 65% of graduate students were white, compared to 35% who were non-white. As discussed in the methods section, non-white referred to Aboriginals, Asians, blacks, Latin American, Indian Caribbean, Middle Eastern, as well as mixed and other racial backgrounds. However, because McMaster University does not collect race statistics, I cannot know if the racial breakdown of my respondents is representative of the larger McMaster population of graduate students.

There are several background details that were considered around the topic of mental health experiences for graduate students. In terms of stigma, 69% of respondents had not experienced stigma, while a 31% indicated that they had experienced stigma. When asked if they have accessed mental health services at or outside of McMaster University, 64% of students had not utilized such services, compared to 36% who did.

Finally, when considering the topic of psychological distress, students were asked to indicate when, if at all, they had felt too depressed to function or felt overwhelming anxiety. Responses to feeling too depressed to function ranged from 38% for the option "never" to 26% for "not in the last 12 months", 22% for "in the last year", and 14% for "in the last month". Responses to feeling overwhelming anxiety ranged from 35% for the option "in the last year" to 30% for "in the last month", 17% for "not in the last 12 months", and 18% for "never".

Tables of descriptive statistics

The following table represents the descriptive statistics for all of the variables of interest that I used to test my hypotheses that have been discussed. Because all of the variables that I tested were categorical or ordinal in nature, I removed the mean and standard deviation measurements from each variable. This leaves the variable, the number of observations, percentage for each category, and the minimum and maximum possible response values. The minimum and maximum possible response values pertain mainly to coding purposes. The variables which have minimums of 0 and maximums of 1 refer to dichotomous variables that have "yes" and "no" as the response options.

Table 1: Descriptive statistics for all variables in model

Characteristic	N	%	Minimum	Maximum
Year of study				
Master's	123	47.7	1	3
Early Ph.D.	71	27.5	1	3
Late Ph.D.	64	24.8	1	3
So depressed it was difficult to function				
In the last year	54	21.9	1	4
In the last month	34	13.8	1	4
Over one year ago	65	26.3	1	4
Never	94	38.1	1	4
Overwhelming anxiety				
In the last year	86	35.0	1	4
In the last month	74	30.1	1	4
Over one year ago	42	17.1	1	4
Never	44	17.9	1	4
Gender				
Male	69	26.6	0	1
Female	190	73.4	0	1
Race				
White	167	64.5	0	1
Non-white	92	35.5	0	1
Help seeking				
Yes	89	36.2	0	1
No	157	63.8	0	1
Services: talk to professional				
Yes	126	32.4	0	1
No	263	67.6	0	1
Services: talk to family				
Yes	103	26.5	0	1
No	286	73.5	0	1
Services: talk to friends				
Yes	135	34.7	0	1
No	254	65.3	0	1
Services: talk to partner				
Yes	108	27.8	0	1
No	281	72.2	0	1
Experienced stigma				
Yes	78	31.2	0	1
No	172	68.8	0	1

Describing the dispersion for all of the variables in the model

The purpose of this section is to provide a summary of some of the main characteristics of the respondents in my survey as identified in Table 1. I focus on the characteristics of select variables which I consider in my statistical model. I begin by listing the variables on which I ran statistical tests and the categories for each variable. I then summarize compare categories by describing which responses were most commonly selected by participants.

Year of study

When considering year of study, I recoded the possible values of this variable to "Master's", "early Ph.D.", and "late Ph.D.". Nearly half (47.7%) of respondents were completing a Master's degree. Slightly above one-quarter (27.5%) of participants were in the early stages of their Ph.D., while slightly below one-quarter (24.8%) were in the later stages of the doctoral degree.

Distress – "so depressed it was difficult to function"

When examining the distress measure "so depressed it was difficult to function", I used the values "in the last month", "in the last year", "over one year ago", and "never". The two main values I examined in this section are "in the last month" and "in the last year": 13.8% of respondents reported this measure of distress in the last month, while 21.9% reported it in the last year. The two categories I did not analyze in this section are "over one year ago" and "never": 26.3% of participants experienced this depression over one year ago, while 38.1% had never experienced it.

Distress – overwhelming anxiety

I used the same values discussed above to analyze the distress measure "overwhelming anxiety": these included "in the last month", "in the last year", "over one year ago", and "never". I again focused on the categories "in the last month" and "in the last year": 30.1% of students experienced overwhelming anxiety in the last month, and 35.0% reported it in the last year. The two values I did not investigate here have the following proportions: 17.1% of participants felt this distress measure over one year ago, while 17.9% have never felt overwhelming anxiety.

Gender

I recoded gender to reflect two categories of gender identity: male and female. Because I only had one respondent select "other" as their response to the question "Which gender do you identify with?", I recoded that case as a missing value that was not used so that the analysis would be more straightforward. It is also worth noting that in this thesis, I use the concepts of "males" and "females" instead of "men" and "women" when discussing gender. This is used for ease of succinct discussion. A total of 26.6% of respondents were male, compared with 73.4% who were female.

Race

The next variable listed in this table of descriptive statistics is race. I recoded race to reflect two categories of racial backgrounds: white and non-white. The race categories that were recoded to white included "white – Canada" and "white – Europe". All other race categories were recoded to non-white and included the following: "Aboriginal"; "Asian – East", "Asian – South", and "Asian – Southeast"; "Black – Africa", "Black –

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Canada", and "Black – Caribbean region"; "Latin American"; "Indian Caribbean"; "Middle Eastern"; "mixed background"; and "other(s)". A total of 64.5% of respondents were white, compared to 35.5% who were non-white.

Help seeking

The variable help seeking was a dichotomous variable that used the values "yes" and "no" to indicate whether a graduate student had accessed mental health services at McMaster, in the Hamilton community, or in a different city or community. A total of 36.2% of participants responded yes, indicating that they had received mental health services.

Formal supports – talk to mental health professional

The variable "talk to mental health professional" was originally part of the question "What types of mental health services do you access?" which contained multiple parts. I recoded this variable to be dichotomous, consisting of the categories "yes" and "no". This variable reflected whether or not a graduate student has accessed counselling, therapy, or a help line, which I condensed into accessing a mental health professional. The majority of respondents (67.6%) selected no, indicating that they had not accessed professional mental health support, while 32.4% had accessed this support.

Informal supports – talk with family

The next three variables can be grouped into the label "informal supports." They reflect persons with whom an individual with mental health issues can talk to for social support. However, it is important to note that the individuals who offer their support are not formally trained counsellors or mental health professionals. This feature is what

separates informal supports such as family, friends, and partners from formal supports such as mental health professionals.

The variable "talk to family" was a variable originally part of the question "What types of mental health services do you access?". I recoded this variable to be dichotomous and consisting of the categories "yes" and "no". Slightly over one-quarter (26.5%) of students had spoken to family members about mental health issues, compared with 73.5% who had not.

Informal supports – talk with friends

The variable "talk to friends" was a variable originally part of the question "What types of mental health services do you access?". I recoded this variable to be dichotomous and consisting of the categories "yes" and "no". Over one-third (34.7%) of respondents replied yes, indicating that they had discussed their mental health issues with friends. Nearly two-thirds (65.3%) of participants replied no, suggesting that they had not discussed their mental health issues with friends.

Informal supports – partner

The variable "talk to friends" was a variable originally part of the question "What types of mental health services do you access?". I recoded this variable to be dichotomous and consisting of the categories "yes" and "no". Slightly over one-quarter (27.8%) of students had spoken about their mental health issues with their romantic partner, while the majority (72.2%) of participants had not done so.

Stigma

The variable "experienced stigma" was a dichotomous variable with the categories "yes" and "no", measuring whether an individual has experienced stigma. Nearly one-third (31.2%) of respondents selected "yes" as their response. In contrast, a total of 68.8% indicated that they had not experienced stigma.

Summarizing findings: Comparing students who do and do not feel overwhelming depression

The purpose of this section is to offer some of the key findings from examining a cross-tabulation between experiencing overwhelming depression and other variables of interest. Here I am testing my exploratory hypothesis that students with overwhelming depression are different than those without it in terms of my other variables of interest. The other variables of interest analyzed include the following: year of study; gender; race; accessing mental health services; talking to a mental health professional about mental health issues; talking to family about mental health issues; talking to friends about mental health issues; talking to a partner about mental health issues; and experiencing stigma. The original variable concerning overwhelming depression was recoded into a dichotomous, yes/no variable. The response options "in the last month", "in the last year", and "over one year ago" were recoded to "yes". The response option "never" was recoded to "no". *Table 2* below provides a statistical summary of the cross-tabulation results for the variable overwhelming depression and the other variables of interest.

Table 2: Descriptive statistics by too depressed it was difficult to function

Characteristic[1]	Students with overwhelming depression N=153		Students without overwhelming depression N=94		Analysis	
	N	*%*	*N*	*%*	χ^2	*p*
Year of Study					0.79	0.674
Master's	74	48.4	44	46.8		
Early Ph.D.	44	28.8	24	25.5		
Late Ph.D	35	22.9	26	27.7		
Gender					0.05	0.826
Male	41	26.8	24	25.5		
Female	112	73.2	70	74.5		
Race					1.05	0.305
White	96	62.8	65	69.2		
Non-white	57	37.3	29	33.7		
Help seeking					15.24	<0.001
Yes	69	46.0	20	21.3		
No	81	54.0	74	78.7		
Services: talk to professional					28.00	<0.001
Yes	97	63.4	27	28.7		
No	56	36.6	67	71.3		
Services: talk to family					0.72	0.397
Yes	60	39.2	42	44.7		
No	93	60.8	52	55.3		
Services: talk to friends					0.62	0.431
Yes	86	56.2	48	51.1		
No	67	43.8	46	48.9		
Services: talk to partner					5.78	<0.05
Yes	76	49.7	32	34.0		
No	77	50.3	62	66.0		
Experienced stigma					10.67	<0.01
Yes	59	39.1	18	19.2		
No	92	60.9	76	80.9		

1. *df=2, df=1, df=1, df=1, df=1, df=1, df=1, df=1, df=1*

The results in Table 2 reveal that experiencing overwhelming depression was not significantly associated with year of study (Pearson χ^2=0.79, df=2, p=0.674), gender (Pearson χ^2=0.05, df=1, p=0.826), or race (Pearson χ^2=1.05, df=1, p=0.305). However, when considering help-seeking behaviour, respondents who reported experiencing overwhelming depression were more likely to seek mental health services (46%) than those who did not experience this distress (21.3%) (Pearson χ^2=15.24, df=1, p<0.001). Furthermore, considering help seeking, students feeling overwhelming depression were more likely to seek help from a mental health professional (63.4%) than students without overwhelming depression (28.7%) (Pearson χ^2=28.00, df=1, p<0.001). The differences between students with and without overwhelming depression and other service use such as talking to family (Pearson χ^2=0.72, df=1, p=0.397) and talking to friends (Pearson χ^2=0.62, df=1, p=0.431) were not significantly different from one another. However, there was a difference for those who talked to their partner, with almost half of those experiencing overwhelming depression indicating that they did this, compared to only 34% of those who did not experience overwhelming depression (Pearson χ^2=5.78, df=1, p<0.05).The experience of stigma seems to have be associated with overwhelming depression. Just over 39% of students with overwhelming depression indicated that they experienced stigma, compared to only 19.2% of students without overwhelming depression (Pearson χ^2=10.67, df=1, p<0.01).

Summarizing findings: Comparing students who do and do not feel overwhelming anxiety

The purpose of this section is to offer some of the key findings from running a cross-tabulation between the variable overwhelming anxiety and other variables of interest. The other variables of interest analyzed include the following: year of study; gender; race; use of mental health services; talking to a professional about mental health issues; talking to family about these issues; talking to friends about these issues; talking to a partner about these issues; and experiencing stigma. I recoded the experience of anxiety into a dichotomous variable whereby the response options "in the last month", "in the last year", and "over one year ago" were recoded to "yes". The response option "never" was recoded to "no". Table 3 below provides a statistical summary of the cross-tabulation results for experiencing overwhelming anxiety and the other variables of interest.

Table 3: Descriptive statistics by overwhelming anxiety

Characteristic[2]	Overwhelming anxiety					
	Students with overwhelming anxiety N=202		Students without overwhelming anxiety N=44		Analysis	
	N	*%*	*N*	*%*	χ^2	*p*
Year of Study					0.23	0.891
Master's	97	48.0	21	47.7		
Early Ph.D.	56	27.7	11	25.0		
Late Ph.D	49	24.3	12	27.3		
Gender					2.72	0.099
Male	49	24.3	16	36.4		
Female	153	75.7	28	63.6		
Race					0.23	0.630
White	130	64.4	30	68.2		
Non-white	72	35.6	14	31.8		
Help seeking					20.57	<0.001
Yes	86	43.2	3	6.8		
No	113	56.8	41	93.2		
Services: talk to professional					32.67	<0.001
Yes	119	58.9	5	11.4		
No	83	41.1	39	88.6		
Services: talk to family					0.57	0.449
Yes	86	42.6	16	36.4		
No	116	57.4	28	63.6		
Services: talk to friends					2.75	0.097
Yes	115	56.9	19	43.2		
No	87	43.1	25	56.8		
Services: talk to partner					3.18	0.075
Yes	94	46.5	14	31.8		
No	108	53.5	30	68.2		
Experienced stigma					15.21	<0.001
Yes	74	37.0	3	6.8		
No	126	63.0	41	93.2		

2. *df=2, df=1, df=1, df=1, df=1, df=1, df=1, df=1, df=1*

Similar to the above findings, as year of study increases, the proportion of students who reported overwhelming anxiety decreases. A similar pattern emerged among students without this anxiety; thus, there were no statistically significant differences between these two groups (Pearson χ^2=0.23, df=2, p=0.891). There were no differences in gender (Pearson χ^2=2.72, df=1, p=0.099) or race (Pearson χ^2=0.23, df=1, p=0.630) between those who experience overwhelming anxiety and those who did not.

When examining help seeking, 43.2% of students with overwhelming anxiety sought help, compared to less than 10% of students without overwhelming anxiety (Pearson χ^2=20.57, df=1, p<0.001). Of those students with overwhelming anxiety, 58.9% spoke to professionals, compared to only 11.4% without anxiety (Pearson χ^2=32.67, df=1, p<0.001). There were no differences between these two groups on whether they talked to family (Pearson χ^2=0.57, df=1, p=0.449), friends (Pearson χ^2=2.75, df=1, p=0.097) or their partner (Pearson χ^2=3.18, df=1, p=0.075). Finally, a greater proportion of students with overwhelming anxiety experienced stigma (37%) compared to those without overwhelming anxiety (6.8%) (Pearson χ^2=15.21, df=1, p<0.001).

Year of study and measures of psychological distress

I hypothesized that students in higher years of study would report less psychological distress than students in lower years of study. I focused on two common measures of psychological distress from the mental health literature: depression and anxiety. The variables I used to measure this involved feeling too depressed it was difficult to function and overwhelming anxiety. The results of the cross-tabulation are illustrated in *Figures 1* and *2* below:

Year of study and depression

Figure 1: Year of study by depression
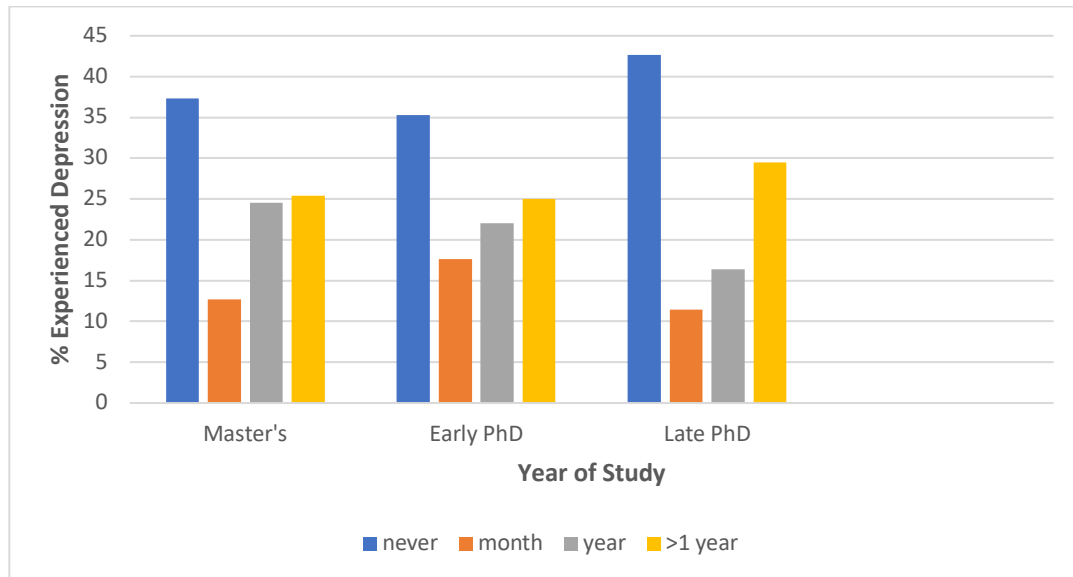
This section focuses on graduate students' experiences with depression. More specifically, students were asked when they had last experienced feeling so depressed it was difficult to function. The response options were as follows: "never"; "in the last 30 days"; "in the last 12 months"; and "not in the last 12 months".

The following statistics concern all graduate students as a whole in terms of feeling so depressed it was difficult to function. A total of 247 graduate students responded to this question. Over one-tenth (N=34, 13.77%) of graduate students reported feeling so depressed it was difficult to function in the last month. Over one-fifth (N=54, 21.86%) of respondents indicated they experienced this kind of depression in the last year. Over one-quarter (N=65, 26.32%) of participants felt depressed over one year ago. Lastly, over one-third (N=94, 38.06%) of students have never felt this type of distress.

The following statistics relate to when Master's degree students last felt so depressed it was difficult to function. Out of the 118 Master's degree students who responded to this question about overwhelming depression, 12.71% (N=15) experienced this distress in the last month, while 24.58% (N=29) felt it in the last year. Out of these 118 Master's students, 25.42% (N=30) experienced it more than one year ago, and 37.29% (N=44) have never felt it.

The following statistics refer to when students in their early Ph.D. (i.e. in years one or two of their doctoral degree) felt so depressed it was difficult to function. Out of the 68 early Ph.D. students who responded to this question about depression, 17.65% (N=12) felt this kind of depression in the last month, while 22.06% (N=15) experienced it in the last year. Out of these 68 early Ph.D. students, 25.00% (N=17) felt this distress over one year ago, and 35.29% (N=24) never experienced it.

The following statistics refer to when students in their late Ph.D. (i.e. in years three or higher of their doctoral degree) felt so depressed it was difficult to function. Out of the 61 late Ph.D. students who responded to this question about depression, 11.48% (N=7) felt this kind of depression in the last month, while 16.39% experienced it in the last year. Out of these 61 late Ph.D. students, 29.51% (N=18) experienced this distress over one year ago, and 42.62% (N=26) never felt it.

I hypothesized that graduate students in upper years would experience less psychological distress (i.e. overwhelming depression in this case) than graduate students in lower years. My findings support my hypothesis in some ways but reject it in others. When considering the time period within the last year, there is a clear pattern whereby

each higher year of study (i.e. Master's to early Ph.D., and early Ph.D. to late Ph.D.) reported a smaller proportion of feeling so depressed it was difficult to function. However, when considering the time period within the last month, the pattern is less clear: a greater proportion of early Ph.D. students felt overwhelming anxiety than Master's students (rejecting my hypothesis), while a smaller proportion of late Ph.D. students experienced this anxiety than early Ph.D. students (supporting my hypothesis).

However, it is important to note that the above findings were not found to be statistically significant. There was no statistically significant association found between year of study and the psychological distress measure feeling so depressed it is difficult to function (Pearson χ^2=3.1107, df=6, p=0.795). This lack of statistical significance suggests that the patterns that emerged in the data likely could have occurred by random chance rather than one variable being associated with another.

Year of study and anxiety

Figure 2: Year of study by anxiety
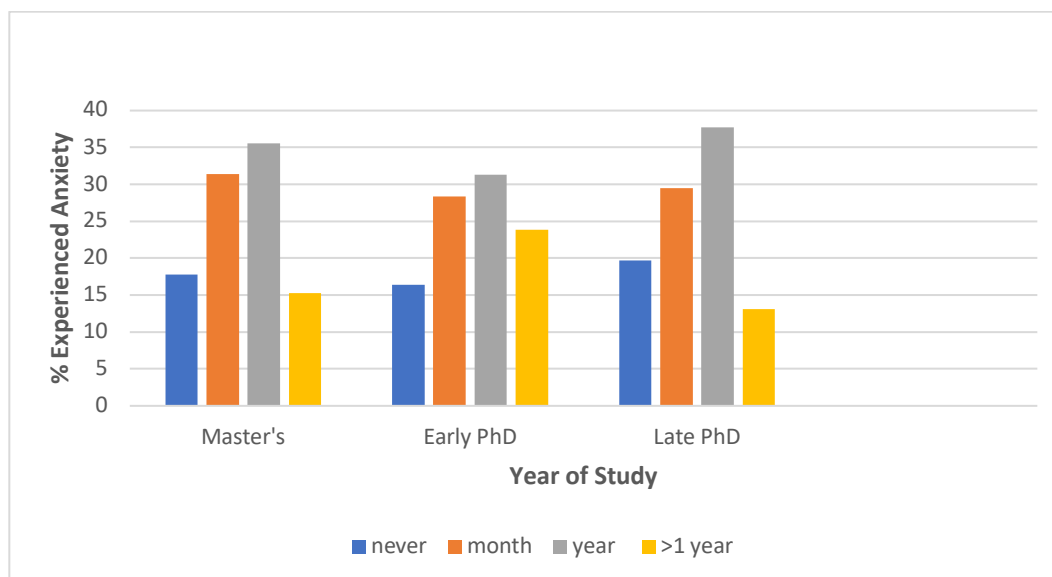
This section focuses on graduate students' experiences with anxiety. More specifically, students were asked when they had last experienced feeling overwhelming anxiety. The response options were as follows: "never"; "in the last 30 days"; "in the last 12 months"; and "not in the last 12 months".

The following statistics concern all graduate students as a whole concerning the experience of overwhelming anxiety. A total of 246 graduate students responded to this question. Nearly one-third (N=74, 30.08%) of graduate students reported feeling overwhelming anxiety in the last month, compared with over one-third (N=86, 34.96%) of respondents who indicated they experienced this anxiety in the last year. Less than one-fifth (N=42, 17.07%) of students experienced overwhelming anxiety over one year ago, while less than one-fifth (N=44, 17.89%) of participants have never felt this distress.

The following statistics focus on Master's degree students and the last time they experienced overwhelming anxiety. Out of the 246 Master's students who responded to this question about overwhelming anxiety, 31.36% (N=37) experienced this anxiety in the last month, compared to 35.59% (N=42) who felt it in the last year. Out of the 246 Master's students, 15.25% (N=18) responded that they felt overwhelming anxiety over one year ago, while 17.80% (N=21) have never experienced it.

The following statistics refer to when early Ph.D. students experienced overwhelming anxiety. Out of the 67 early Ph.D. students who responded to this question in the survey, 28.36% (N=19) experienced this anxiety in the last month, compared to 31.34% who felt it in the last year. Out of the 67 early Ph.D. students, 23.88% (N=16) felt

overwhelming anxiety over one year ago, while 16.42% (N=11) have never experienced this type of distress.

The following statistics refer to when late Ph.D. students experienced overwhelming anxiety. Out of the 61 late Ph.D. students who responded to this question in the survey, 29.51% (N=18) experienced this anxiety in the last month, compared to 37.70% (N=23) who felt it in the last year. Out of the 61 late Ph.D. students, 13.11% (N=11) indicated that they have felt overwhelming anxiety over one year ago, while 19.67% (N=12) have never experienced this distress.

I hypothesized that graduate students in upper years would experience less psychological distress (i.e. overwhelming anxiety in this case) than graduate students in lower years. Once again, the data partially support my hypothesis while also partially rejecting it. The same pattern emerges when considering the time periods in the last month and in the last year: a greater proportion of Master's students report overwhelming anxiety than early Ph.D. students (supporting my hypothesis), while a greater proportion of late Ph.D. students have experienced this distress than early Ph.D. students in both time periods (rejecting my hypothesis).

Again, it is important to note that the above findings were not found to be statistically significant. There was no statistically significant association found between year of study and the psychological distress measure overwhelming anxiety (Pearson χ^2=3.3293, df=6, p=0.767). This lack of statistical significance suggests that the emergent data patterns likely occurred by random chance rather than one variable being associated with another.

Race and help seeking

I hypothesized that racial minority (i.e. non-white) students would be less likely to seek help than white students. The results of the cross-tabulation I conducted are shown below in *Figure 3*:

Figure 3: Race by help seeking
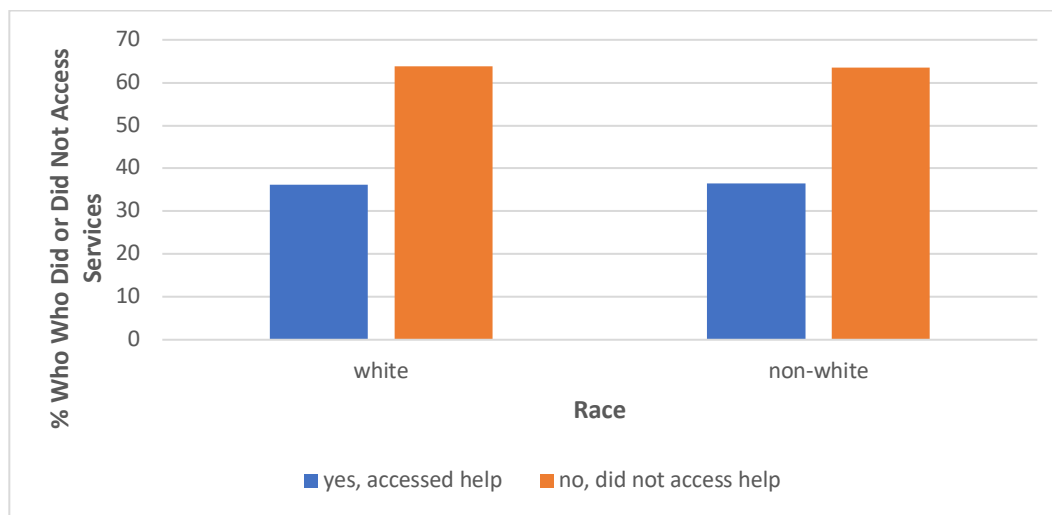
The data in *Figure 3* indicates that there is a strong sense of racial equality in the area of help seeking. There are very little differences between whites and non-whites in terms of help-seeking behaviour. The proportion of whites who accessed services is nearly identical to that of non-whites. Given that there is virtually no difference between white and non-white help seeking, my hypothesis that racial minority groups are less likely to seek help has been rejected.

However, these findings are not statistically significant. There was no statistically significant association found between race and help seeking (Pearson χ^2=0.0012, *df*=1, *p*=0.973). This lack of statistical significance suggests that the emergent data patterns

likely occurred by random chance rather than one variable being meaningfully associated with another.

Formal supports vs. informal supports

I hypothesized that graduate students would be more likely to access informal supports to deal with mental health issues than formal supports. In order to test this, I examined variables from the question "What types of mental health services do you access?" In this question, I consider informal supports such as talking to a family member about a mental health issue to be an informal mental health service. The variable I used to examine the use of formal supports was talking to a mental health professional such as a counsellor, a therapist, or a help line. I originally analyzed three variables to examine the use of informal supports: talking to family, friends or partners. However, in order to use one test to determine if an association existed between formal and informal supports, I used Stata to combine the supports family, friends, and partners into one new variable coded as "informal supports". The results of the cross-tabulation I conducted using formal and informal supports are shown in *Figure 4*, which compares the numbers and types of mental health supports accessed by respondents*:*

Figure 4: Formal vs. informal supports
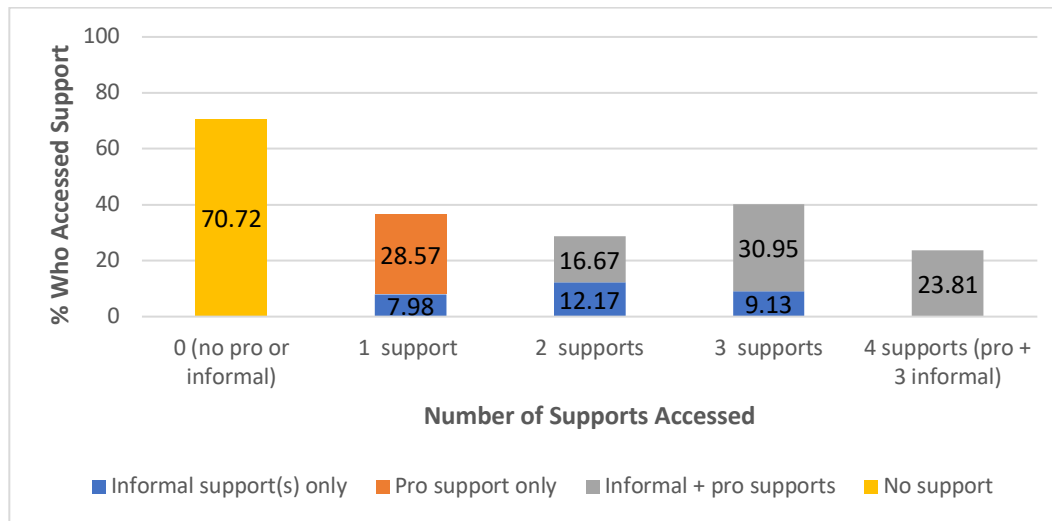
The vast majority of students (70.72%) indicated that they did not access any

formal or informal mental health supports. For those who did access only one support,

respondents were more likely to talk to a professional (28.57%) than talk to one informal

support from the options of family, friends, or a partner (7.98%). When considering those

who accessed two supports, respondents were more likely to seek help from a

professional *and* one informal support (16.67%) than two informal supports (12.17%).

For those who accessed three supports, respondents were more likely to seek help from a

professional *and* two informal supports (30.95%) than three informal supports (9.13%).

Finally, a total of 23.81% of students indicated that they accessed help from 4 supports,

consisting of accessing a professional and talking to all three of the informal supports

listed above.

I originally looked to learn whether graduate students were more likely to access

mental health help from informal supports or formal supports. The data above indicates

that the vast majority of respondents did not access any mental health help. But for those

participants who did access services, they were more likely to seek help from a *combination* of professional and informal supports rather than choosing one type of support over the other. These results were found to be statistically significant (Pearson χ^2=62.17, *df*=3, *p*<0.001). These statistics indicate that there is likely an association between these variables, and that the results did not occur by random chance.

Stigma and help seeking

I hypothesized that graduate students who have experienced stigma would be less likely to seek help from mental health services. The results of the cross-tabulation I conducted are shown below in *Figure 5:*

Figure 5: Stigma by help seeking
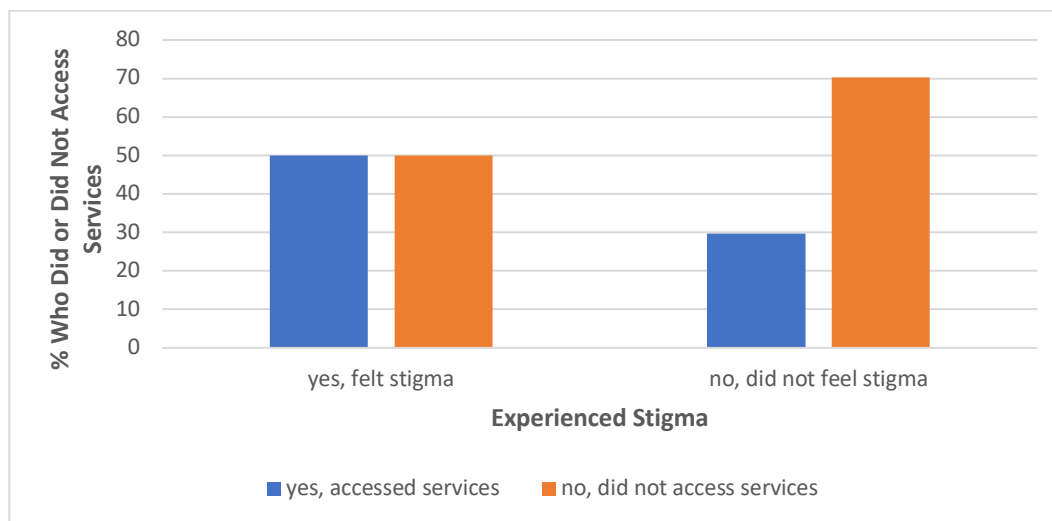
Figure 5 demonstrates that graduate students who experienced stigma were actually equally likely to seek help as not seek help. A total of 50.00% of respondents who experienced stigma accessed mental health services, compared with 50.00% of students who experienced stigma but did not seek help. These statistics demonstrate that

the experience of stigma has about the same impact on seeking help as it does on negating

help.

The above results were found to be statistically significant. There was a

statistically significant association found between experiencing stigma and help seeking

(Pearson χ^2=9.2949, df=1, p=0.002). This finding suggests that it is very likely that one

variable had an association on the other variable, and it is unlikely that these results

occurred by random chance.

Chapter 6: Discussion

This section will focus on comparing the findings set out in my results section to findings in the mental health literature around the same topics. I focus on findings from the following themes: the relationship between year of study and feeling so depressed it was difficult to function; the association between year of study and overwhelming anxiety; the relationship between race and help seeking; the relationship between accessing formal supports and informal supports; and the association between stigma and help seeking. After comparing my findings to the literature, I look to highlight possible reasons why several of my results did not correspond with what has previously been found in the mental health literature.

Comparing my findings to the literature

Year of study and depression – mixed results

When considering the time period "in the last year", there was a clear progression whereby students in higher years of study were more likely to feel so depressed it was difficult to function than students in each previous year of study. These findings correspond with what is known in the literature on undergraduate students: undergraduates in higher years of study experience less distress and depression than students in lower years of study (Jackson & Finney, 2002). It seems as though the reason why depression among students decreases the longer these students are in school is because the respondents have become more accustomed to the rigours of university and have developed greater coping skills through maturation.

However, there were mixed results when considering the time period "in the last month" for depression. When considering depression in the last month, Master's students had lower distress than early Ph.D. students, and early Ph.D. students had greater distress than late Ph.D. students; these findings indicated that there is not a consistent progression of decreasing depression over increasing time of study in graduate school. These results reject previous some findings in the mental health literature that as students progress through university, their depression decreases, while confirming one UK study which suggested depreciating mental well-being over increasing years of study.

It is possible that the characteristics of the generation of students who I surveyed has an impact on their levels of distress, and in this case, depression. The majority of the students who I surveyed fit within the millennial generation: they were born in 1982 or later. Watkins, Hunt, and Eisenberg (2011) explain that millennials are a generation that has increasingly been the product of hyper-parenting: a parenting style whereby parents become overly involved in the lives of their children and do more for their children than previous generations of parents have. Having their parents do so much for them has left millennials less prepared to deal with the independence of adulthood and being a university student (Watkins et al., 2011). Being a graduate student, particularly a Ph.D. student, requires a great deal of independence. Following Watkins et al (2001), it may be that because millennials are increasingly unprepared for this independence due to their hyper-parents, they may face increased psychological distress in their graduate experience when being forced to take on these independent roles.

It is also possible that the reason why so many graduate students are reporting that they have experienced overwhelming depression and anxiety – considerably outnumbering the students who have not experienced these markers of distress, as demonstrated in *Table 2 and Table 3* – is due to the increasing severity of mental disorders or challenges to mental health. Hunt and Eisenberg (2010) note that while it seems that the prevalence of mental disorders among university students has remained consistent over time, there has been a definite and recent increase in the severity of the types of mental disorders university students face. In the past, students brought typical developmental challenges such as stress and anxiety to university; however, today students are bringing more severe disorders such as depression and schizophrenia to university (Hunt & Eisenberg, 2010). Students with these more severe mental disorders are now seeking mental health services and coming to university, whereas in the past they would be much less likely to do so due to the heightened stigma that would prevent them from reaching out for help (Hunt & Eisenberg, 2010) or perhaps even attending postsecondary education in the first place. The severity of these disorders could be associated with greater anxiety and depression than in the past, as well as the expanding access to education that has traditionally prevented students with mental health problems from considering postsecondary pathways (McCloy & DeClou, 2013).

Year of study and anxiety – mixed results

When considering the distress measure of overwhelming anxiety, there was a similar pattern that emerged in the time periods "in the last year" and "in the last month". In both time periods, a greater proportion of Master's students reported overwhelming

anxiety than early Ph.D. students, while more late Ph.D. students reported anxiety than early Ph.D. students. Undergraduate students in higher years of study have been found to report less distress than students in lower years of study (Towbes & Cohen, 1996; Jackson & Finney, 2002). The reality that the Master's students I surveyed were more likely to report anxiety than early Ph.D. students is similar to the research concerning undergraduate students and year of study. However, my finding that late Ph.D. students are more likely to report anxiety than early Ph.D. students does not support the research concerning undergraduate students and year of study.

One possible explanation for these findings is similar to the explanation I offered for my findings around overwhelming depression and year of study: the majority of the students I surveyed are millennials. The hyper-parenting that most millennials experience has the ability to reduce their independence and capacity to deal with challenges without parental support (Watkins et al., 2011). Therefore, when these millennials begin their university studies – and I would argue particularly their more independent graduate studies – they may be less prepared for the demands of this more challenging time of their lives, one that demands much more independence than their previous years (Watkins et al., 2011). It is possible that this unpreparedness may manifest in increased anxiety for students. However, it is also possible that university efforts to expand access to groups which have originally experienced greater barriers to continuing on into post-secondary education has helped greater numbers of people with disabilities, including those which bring symptoms of increased anxiety, enter into university.

Race and help seeking – rejecting the literature findings

When analyzing the relationship between race and help seeking, there were nearly identical findings between white and non-white respondents. Whites and non-whites were nearly equally likely to seek help. This finding does not support what has previously been found in the mental health literature, namely that racial minority students such as blacks and Asians are less likely to seek help than white undergraduates.

The generational characteristics of the millennials who completed my survey could explain my findings of near racial equality for help seeking. Millennials are often more open about mental health, which is often accompanied by a greater confidence and willingness to talk about mental health issues (Howe & Strauss, 2000, cited in Pescosolido, 2016). The growing phenomenon of millennial celebrities – many of whom are diverse in gender, racial background, nationality, and sexual orientation – using social media as a platform to discuss their mental health challenges and look to help normalize these issues further illustrates the willingness, openness, and confidence of this generation in discussing mental health. Pescosolido (2016) acknowledges that millennials are more confident in their ability to change the world than past generations. Judging by the awareness and success of Bell Canada's "Let's Talk" Day each winter, which is accompanied by an outpouring of support through social media, there appears to be evidence in support of Howe and Strauss' (2000, cited in Pescosolido, 2016) above claim around millennial characteristics concerning mental health.

There is recent evidence in the strength of researchers integrating a mental health module into existing school courses to increase mental health knowledge and reduce

stigma (Milin et al., 2016, cited in Pescosolido, 2016). Milin's tactic of increasing mental health knowledge by adding to existing school courses may prove more influential in reducing stigma than by creating a new anti-stigma campaign in schools (Pescosolido, 2016). Because different schools have different approaches to how to reduce mental health stigma, I assume that some of the respondents to my survey may have witnessed school efforts to integrate mental health modules into existing classes when they were in high school. By learning more about mental health through these stigma-reduction efforts, it is possible that schools are overriding the more common help-negating response of racial minority students in favour of encouraging them to seek help when needed.

Informal vs. formal supports – mixed results

While analyzing the types of supports accessed by the graduate students who completed my survey, I found that formal supports were sometimes more commonly accessed than informal supports and sometimes less commonly accessed. The type of informal support in question seems to influence whether informal supports were more common than formal supports. For example, I found that respondents who accessed only one type of support were more likely to talk to a mental health professional about mental health issues than talk to family or a partner. Yet a more prominent finding is that greater number of students accessed more than one support, and in so doing they accessed a combination of professional and informal supports. These findings in one sense reject what has previously been found in the mental health literature, where students are more likely to access informal supports than formal supports. In another sense, the student use of informal supports alongside talking to a professional highlight how common it is for

students to access informal supports; this detail seems to support previous findings in the mental health literature.

There are several different possible explanations for my findings. Firstly, reductions in stigma have led to an increase in help seeking on university campuses (Watkins et al., 2011). Because it is much more acceptable to seek help from mental health professionals now than ever before, it follows that there will be an increase in accessing formal supports such as mental health professionals when needed. This theory would explain why seeking help from formal supports can sometimes be more common than seeking help from informal supports.

Stigma may play an important role in the types of supports that students access. In a health study that examined 118 graduate students in the Chemistry Department at the University of Minnesota in the United States, Boynton Health found that students were less likely to seek mental health help from primary care doctors or counsellors than from family or friends (Mousavi, Sohrabpour, Anderson, Stemig-Vindedahl, Golden, Christenson, Lust, Bühlmann, 2018). Mousavi et al. (2018) suggest that this preference for informal supports over formal supports is due to stigma that exists even from mental health professionals. It seems to follow that perhaps family and friends are less stigmatizing than professionals working in or affiliated with the mental health system.

Lastly, it is possible that the characteristics of the millennials who responded to my survey can be used to explain the preference for seeking help from a combination of formal and informal supports rather than choosing one type over the other. Millennials are often teamwork-oriented, believing that past generations placed too much emphasis on

individualism (Woodall, 2004). This preference for collaboration may mean that millennials are more likely to try to solve any mental health issues collectively with the help of mental health professionals and informal supports such as family, friends, and partners. They may feel that having a diverse team of formal and informal supports is the best way for them to work toward stronger mental health. Whatever the combination of formal and informal supports, the end result appears to be that millennials likely do not plan to deal with any mental health issues alone.

Stigma and help seeking – rejecting the literature findings

While examining the relationship between stigma and help seeking among respondents who completed my survey, I found that those students who have experienced stigma were equally likely to seek help as to negate help. In the larger mental health literature, stigma has been found to be a barrier to help-seeking behaviour. My findings reject what has been found around stigma and help seeking in the mental health literature. I consider two possible reasons why my results differ from those of the mental health literature below.

One possible explanation for the lack of a barrier created by stigma concerns the source of the stigma. In the literature review chapter, I identified three types of stigma: perceived public stigma, personal stigma, and self-stigma (Eisenberg et al., 2009). However, it is worth noting that Pescosolido and Martin (2015) have discussed additional types of stigma, including courtesy stigma, structural stigma, and provider-based stigma. The most pertinent type of stigma for this discussion is provider-based stigma: prejudice or discrimination that arises from occupational groups that are designed to help

stigmatized groups (Pescosolido & Martin, 2015). Sartorius (2007, cited in Pescosolido & Martin, 2015) highlights how healthcare professionals often use stigmatizing words around patients and stereotype certain kinds of patients. This stigma can extend as far as refusing to treat patients outside of their purview; for example, some healthcare professionals have refused to treat patients with mental health issues in the Emergency Room or Intensive Care Unit within a hospital (Sartorius, 2007, cited in Pescosolido & Martin, 2015).

It is possible that this provider-based stigma is more common through healthcare providers in larger communities than it is in university mental health supports such as counselling centres and on-campus psychiatrists. It is also possible that students experience greater stigma from some of their informal supports (e.g. certain family members or certain friends) than on-campus mental health services. If either or both of these scenarios are true, it would be logical for students to continue to seek help from these on-campus mental health services.

Firstly, as noted above, there have been reductions in stigma which have led to an increase in help-seeking behaviour on university campuses (Watkins et al., 2011). This stigma reduction means that it is much more acceptable and normal for individuals to seek help from mental health services now than in the past. Similar to behaviour among undergraduate students, the norm of seeking help when needed could result in more graduate students feeling comfortable enough to reach out for help when they feel that they are experiencing mental health challenges. There would be much smaller chance of stigma causing an uneven distribution of help-seeking behaviour among individuals who

have experienced stigma. In other words, it is less likely that those who have been stigmatized and who negate help would far outnumber those who have been stigmatized and seek help.

In addition, help-seeking trends among millennials could stand as another possible explanation for my findings around stigma and help seeking. As noted above, Watkins et al. (2011) found that many millennials first seek help for mental health issues before entering university. This reality means that these students are much more likely to continue seeking help when they begin their university studies. I again suggest that the same can be said for graduate students who may have first accessed mental health services during or before their undergraduate degree.

Chapter 7: Conclusion

The purpose of this chapter is to offer concluding remarks based on the information provided in the preceding chapters of this thesis. This chapter is organized into three sections: (i) recommendations; (ii) limitations; and (iii) next steps. In the recommendations section, I offer suggestions based on what I found in my results section. In the limitations section, I highlight issues with my research such as methodological flaws and problems with representativeness that limit the effectiveness of this research. Finally, in the next steps section, I discuss some possible directions for future research in the field of student mental health.

Recommendations

Recommendation 1: Conduct further research on the correlation between year of study and psychological distress for graduate students, as well as reliability and validity of these measures

Based on my findings, I recommend that future research be completed around indicators of psychological distress and graduate students' year of study. I found that there often was not a clear or consistent pattern for two measures of psychological distress among graduate students: feeling so depressed it was difficult to function and overwhelming anxiety. While I expected the emergence of a consistent pattern similar to that found in the mental health literature, namely that these distress measures would continually decrease as year of study increased, I did not find such a pattern.

This additional research could be conducted in different manners, some of which are discussed below. It would be useful to conduct further research to test the reliability of

this finding. In other words, I am interested in determining if a future survey that compared year of study and measures of depression and anxiety among graduate students would produce the same results as my study.

It would also be useful to test the validity of the questions I used to measure psychological distress. I borrowed the questions and response categories for measures of psychological distress from the American Colleges Health Association – National Colleges Health Assessment II (ACHA-NCHA II) survey. While the ACHA-NCHA II survey has been used for many years, the way in which it asks students to self-report whether they have felt distress such as overwhelming anxiety relies on student knowledge of what the experience of that distress involves. It is possible that students are over-reporting overwhelming anxiety when they might not be experiencing the symptoms of that anxiety. Questions which list the physical and cognitive symptoms of distress such as overwhelming anxiety (e.g. increased heart rate, feelings of being flushed, racing thoughts) might be more useful in accurately measuring whether a student has experienced the measures of psychological distress. This checklist would better determine if researchers are actually studying or measuring what they intend to study or measure.

Recommendation 2: Conduct further research with racial minority students at McMaster University to determine why they are more comfortable in seeking help than other non-white students in the mental health literature

Based on my findings, I recommend that further research be done to determine what factors are encouraging racial minority students to seek help at McMaster University. I found that non-white students at McMaster University are nearly equally

likely to seek help as their white peers. This finding rejects what was previously known in the mental health literature: racial minorities are less likely to seek help than whites. I am interested in learning why this difference between my findings and what is known in the literature exists, with the further hope that learning this will help me make recommendations for how to continue to encourage non-white students to seek help at McMaster and possibly encourage help-negating non-white students at other universities to seek help.

There are several possible methods to further this research. Perhaps the most effective method would be to conduct interviews with non-white McMaster University students who have accessed mental health services. These interviews could be structured to ask questions about reasons why these racial minority students reached out to services and focus on what made them feel comfortable enough to do so.

An additional method to further this research would be to look for other patterns in my existing data. In the mental health services section of my survey, I ask questions focused on evaluating students' experiences with the Student Wellness Centre at McMaster University. Some of these questions ask students who accessed services at McMaster how well the services accomplished the following: (i) scheduled appointments within a reasonable time; (ii) were easy to access; (iii) and treated student concerns in a confidential and respectful manner. It would be worthwhile to look for patterns between student evaluations of the Student Wellness Centre and racial background. For example, perhaps non-white students give overwhelmingly positive reviews of the Student

Wellness Centre at McMaster, which could indicate that the quality of service received is a possible major reason why these students seek help.

Recommendation 3: Have the Student Wellness Centre provide free workshops for students on how to offer support to friends who may be experiencing mental health challenges

Based on my findings, I recommend that the Student Wellness Centre counsellors offer free workshops to McMaster University graduate and undergraduate students on how to recognize, offer support to, and refer friends to services if they are experiencing mental health challenges. I found that friends were a commonly-accessed informal mental health support. Given this finding, it is important for graduate students (and undergraduates) to know how they can help friends who may be struggling with mental health issues, especially if the friends reach out to these students during a mental health crisis. Being informed in how to respond to friends who may be experiencing mental health challenges will not only benefit the friends who are struggling, but it will also help the students offering the support to avoid burnout by learning how to refer friends to on-campus mental health services.

There are multiple methods for enacting this mental health support training. Perhaps the most informative method would be to offer free on-campus workshops for students, led by counsellors from the Student Wellness Centre who teach the fundamental skills of how to recognize, support, and refer friends who may be experiencing mental health challenges to on-campus services. Alternatively or additionally, take-away tip

sheets with summaries of how to recognize, support, and refer friends could be left in the waiting area of the Student Wellness Centre.

Recommendation 4: Conduct additional research on resilience factors to determine how they influence students who experience stigma to still seek mental health services

Based on my findings, I recommend that additional research be conducted on resilience factors to determine their influence on students who experience stigma but still seek help. I found that students who experienced stigma were equally likely to seek mental health services as negate help. This finding rejects what was previously known in the literature whereby the experience of stigma leads to help negation. I want to learn why this difference between my findings and what is known in the mental health literature exists. I hope to determine what key factors of resilience are at play to enable students who are stigmatized to persevere and still reach out for help. Learning what factors about resilience influence help seeking will help me make further contributions to the mental health literature as it relates to resilience, and hopefully allow me to make recommendations for how students can improve their resilience.

Limitations

This section discusses possible flaws in my research that reduce its effectiveness and accuracy. I focus on limitations such as lack of representativeness and methodological flaws such as the issue of self-reporting and selection effects through my recruitment incentives.

The issue of representativeness

Perhaps the most pressing issue with my research is the fact there is at least some evidence that my sample of respondents is not representative of the overall population of graduate students at McMaster University. There was an over-representation of both Ph.D. students and women in my survey when compared to the characteristics of McMaster's graduate student population. This means that the responses offered by participants to my survey are more likely to reflect the experiences of doctoral students than Master's degree students and women than men. It is also possible that there were other groups of students who were over-represented. This theory remains only a possibility, though, given that my source for characteristics of the McMaster graduate student population did not report on many of the other characteristics I studied in this research. For example, the Office of Institutional Research and Analysis did not report on the racial background of graduate students at McMaster, which means that I do not have adequate information to determine how racially representative my survey findings are.

Selection effects through recruitment

There may have been selection effects or bias in the recruitment of my survey respondents. Firstly, I offered an incentive to students who responded to my survey. Students who responded to my survey had the opportunity to participate in a raffle for one of three $25 Tim Horton's gift cards as a thank you for being involved in my research. This incentive may have encouraged the participation of students who were only interested in winning a gift card and who are uninterested in providing truthful responses to survey questions.

There is also a potential that the students who responded to the survey did so because they are very dissatisfied with the on-campus mental health services at McMaster and chose to participate only to voice their frustrations. Similarly, there is a potential that the students who responded to the survey did so because they are facing challenging mental health issues and chose to participate only to voice their struggle. This possible reality could mean that there is an overrepresentation of students who are frustrated with the Student Wellness Centre at McMaster and/or their own mental health challenges.

This possible opting into my survey by those students with negative experiences to on-campus services and with their own mental health could create a bias in my results whereby there are far more negative mental health experiences shared and fewer positive or neutral experiences. One of my goals with this research was to create a "snapshot" of the mental health experiences of graduate students at McMaster. Doing so requires me to be able to represent not only the negative experiences of students, but also those that are positive or neutral. My survey findings are therefore limited if there is an over-reporting of negative experiences when in reality there may be more students who have had a positive or neutral experience with their mental health and on-campus services.

Reliability issues

This issue of representativeness also raises additional questions around reliability. Reliability is an issue here because if my survey were to be conducted again, it is unclear whether similar findings would be achieved. This is particularly true if a repeat survey achieves greater representativeness by more closely mirroring the characteristics of the graduate student population at McMaster. Perhaps in a repeat of this research, self-

identified race would be more closely associated with different help-seeking behaviours, meaning that non-white students would mirror those in the mental health literature by being less likely to seek help than whites.

The issue of self-reporting

Because this research involved using a survey, all responses offered were done so through self-reporting. There are a variety of ways in which self-reporting can be problematic. When relying on respondents to self-report, there is potential for a discrepancy in their self-perceived behaviours and their actual behaviours. In other words, respondents may act and feel differently than they reported in my survey. In some cases, students may unintentionally misrepresent their past experiences and actions. In other cases, students may purposely provide false responses for fear of being judged in a negative manner, based on trying to pass off their actions as mirroring what is socially desirable. In either event, there is a possibility which suggests that the information I gathered from participants may not be accurate or truthful.

General issues with using surveys

There is a methodological flaw inherent in survey research that may have an impact on my findings. This issue reflects the reality that my survey, by design, may not have been broad enough to account for the full context of my respondents' mental health experiences. This issue is possible given that my survey did not make use of any open-ended questions where participants could write out long responses to communicate their mental health experiences. My survey required students to select predetermined response options to a series of closed-ended questions.

These closed-ended questions often corresponded with the experiences of undergraduate students previously studied in the mental health literature. While using the experiences and question response options found and used in previous research is useful for comparing my findings to previous findings in the mental health literature, this strategy of closed-ended questions is not always accurate in discovering the real and contextually nuanced mental health experiences of respondents. This is especially true when comparing the findings of surveys with closed-ended questions to the findings of interviews.

I often provided an "other" response category where students could type out a short answer to indicate that their experience was not captured by the possible responses I offered. However, participants seldom used this response category, which could reflect a reality that it is often easier for respondents to choose the response that is somewhat close to their experience than to type out a longer response that actually matches with their mental health experience.

<div align="center">Next steps</div>

The purpose of this section is to identify next steps to be taken, given the information that has been discussed throughout this thesis. Some of these next steps may seem overly broad. However, some of these next steps are broad given the general dearth in information on graduate students' mental health in general, and more specifically information on the mental health of Canadian graduate students.

Drawing comparisons between universities

My research is useful in discussing the general mental health experiences of graduate students at McMaster University. However, McMaster is only one university, and my findings relate only to this educational institution. It is quite possible that graduate students at other universities have different experiences. This could be especially true in universities that do not fit the profile of McMaster: in other words, schools that are not mid-sized, research-intensive institutions. Different universities which have smaller student populations, fewer graduate programs, and are located in different cities in Ontario or different provinces in Canada could include graduate students with very different mental health experiences from those at McMaster. This possibility supports the idea of expanding on my research to conduct similar studies with the graduate students at a variety of different Canadian universities in and outside of Ontario.

Comparing graduate and undergraduate students

Most of the literature on student mental health focuses on undergraduate students. Aside from a few select US studies conducted with graduate students, the vast majority of studies that do involve graduate students combine them with the findings for undergraduates. I suggest that doing so is an error given that these two groups are very different and face different challenges and responsibilities due to their age differences.

Considering the different characteristics of and responsibilities placed on graduate students, it is worthwhile to compare the mental health experiences of graduate students to those of undergraduates. This could be accomplished by conducting research within universities that survey both graduate students and undergraduates before examining if

these experiences differ based on the differing characteristics and responsibilities of

graduate students.

Comparing graduate students with the general population

Some of the studies I have encountered compare undergraduate students with the

general population of the same age. Doing so can be useful in terms of determining if

there are specific challenges associated with being a student that might have more

harmful mental health outcomes than those associated with being a non-student.

However, to my knowledge, there are no studies which compare the mental health

experiences and outcomes of graduate students to those of the general population of the

same age. Graduate students are older and therefore passing through different life course

experiences than undergraduates, including possibly marrying a partner and having

children. It would therefore be of great value to compare the mental health experiences

and outcomes of graduate students to those of same-aged non-students as each group

passes through the life course periods.

Conducting longitudinal research

While it is useful to have a single "snapshot" of McMaster University graduate

students' mental health experiences, my cross-sectional data only speaks to the situation

of graduate students attending McMaster in 2019. It would prove useful to have some

long-term data on the same group of students as time progresses, which highlights the

importance of conducting longitudinal research. The ideal scenario would be to begin

studying first-year undergraduates at McMaster and then conduct a series of follow-up

surveys and interviews in each subsequent year of their undergraduate degree, as well as

onto and throughout their graduate degree(s) if they choose to continue on in academia. However, the scope and cost of this kind of project might prove to be too large to be manageable. If so, it might be more practical to begin the study in the first year of students' Master's degree or Ph.D., and then conduct annual or biennial follow-up surveys and/or interviews with the same students.

References

American College Health Association – National College Health Assessment
(ACHA-NCHA). (2013). *Ontario Province Reference Group Executive
Summary*. Author.

Association of Universities and Colleges of Canada. (2011). Volume 1 –
Enrolment [website]. Retrieved from https://www.univcan.ca/wp-
content/uploads/2015/11/trends-vol1-enrolment-june-2011.pdf

Bewick, B., Koutsopoulou, G., Miles, J., Slaa, E., & Barkham, M. (2010).
Changes in undergraduate students' psychological well-being as they
progress through university. *Studies in Higher Education, 35*, 633-645.
doi: 10.1080/03075070903216643

Bluhm, R. Covin, R., Chow, M., Wrath, A., & Osuch, E. (2014). "I just have to
stick with it and it'll work": Experiences of adolescents and young adults with
mental health concerns. *Community Mental Health Journal, 50*, 778-786. doi:
10.1007/s10597-014-9695-x

Boak, A., Hamilton, H.A., Adlaf, E.M., Beitchman, J., Wolfe, D., & Mann,
R.E. (2014). *The mental health and well-being of Ontario students, 1991-
2013: Detailed ODUHS Findings*. [ProQuest eBrary]. Retrieved from
http://site.ebrary.com.cat1.lib.trentu.ca:2048/lib/ocultrent/detail.action?docID=10
993172

Breuning, L.G. (2014). Why I don't believe reports of a mental health crisis
[website]. Retrieved from https://www.psychologytoday.com/ca/blog/

your-neurochemical-self/201402/why-i-don-t-believe-reports-mental-health-crisis

Byrd, D.R., & McKinney, K.J. (2012). Individual, interpersonal, and institutional

level factors associated with the mental health of college students. *Journal*

of American College Health, 60(3), 185-193. Retrieved from

http://journals1.scholarsportal.info/pdf/07448481/v60i0003/185_iiailftmhocs.xml

Curtis, C. (2010). Youth perceptions of suicide and help-seeking: "They'd think I

was weak or 'mental'". *Journal of Youth Studies*, 13, 699-715. doi:

10.1080/13676261003801747

Eisenberg, D., Downs, M.F., Golberstein, E., & Zivin, K. (2009). Stigma and help

seeking for mental health among college students. *Medical Care Research*

and Review, 66, 522-541. doi: 10.1007/s10447-011-9129-1

Eisenberg, D., Golberstein, E., & Gollust, S.E. (2007). Help-seeking and access to

mental health care. *Medical Care, 45*, 594-601. doi: 10.2307/40221479

Eisenberg, D., Gollust, S.E., Golberstein, E., & Hefner, J.L. (2007). Prevalence

and correlates of depression, anxiety, and suicidality among university students.

American Journal of Orthopsychiatry, 77, 535-542. doi: 10.1037/0002-

9432.77.4.534

Eisenberg, D., Hunt, J., & Speer, N. (2012). Help-seeking for mental health on

college campuses: Review of evidence and next steps for research and

practise. *Harvard Review of Psychiatry, 20*, 222-232. doi:

10.3109/10673229.2012.712839

Eisenberg, D., Hunt, J., Speer, N., & Zivin, K. (2011). Mental health service

utilization among college students in the United States. *The Journal of Nervous and Mental Disease, 199*, 301-308. doi: 10.1097/NMD.0b013e3182175123

Evans, A.N. (2014). *Using basic statistics in the behavioral and social sciences (5th ed.). Los Angeles: SAGE.*

Fleury, M.J., Ngui, A.N., Bamvita, J.M., Grenier, G., & Caron, J. (2014). Predictors of healthcare service utilization for mental health reasons. *International Journal of Environmental Research and Public Health, 11*, 10559-10586. doi: 10.3390/ijerph111010559

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York: Simon & Schuster Inc.

Henriques, G. (2014). The college student mental health crisis [website]. Retrieved from https://www.psychologytoday.com/ca/blog/theory-knowledge/201402/the-college-student-mental-health-crisis

Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health, 46*, 3-10. doi: 10.1016/j.jadohealth.2009.08.008

Jackson, P.B., & Finney, M. (2002). Negative life events and psychological distress among young adults. *Social Psychology Quarterly, 65*(2), 186-201. Retrieved from http://www.jstor.org.libaccess. lib.mcmaster.ca/ stable/3090100

Johnson, E.M., & Coles, M.E. (2013). Failure and delay in treatment-seeking

across anxiety disorders. *Community Mental Health Journal, 49*, 668-674. doi:

10.1007/s10597-012-9543-9

Kingston, A. (2014). The new worry epidemic: Experts now argue it can have

devastating effects on work, health and children [website]. Retrieved

from https://www.macleans.ca/society/life/the-new-worry-epidemic/

Kitzrow, M.A. (2003). The mental health needs of today's college students:

Challenges and recommendations. *NASPA Journal, 41*(1), 167-181. Retrieved

from http://journals2.scholarsportal.info.cat1.lib.trentu.

ca:8080/pdf/19496605/v46i0004/5037_tmhnotcscar.xml

Komiya, N., & Good, G.E. (2000). Emotional openness as a predictor of college

students' attitudes toward seeking psychological help. *Journal of

Counseling Psychology, 47*, 138-143. doi: 10.1037/0022-0167.47.1.138

Lally, J., O'Conghaile, A., Quigley, S., Bainbridge, E., & McDonald, C. (2013).

Stigma of mental illness and help-seeking intention in university students.

The Psychiatrist Online, 37, 253-260. doi: 10.1192/pb.bp.112.0411483

Lunau, K. (2012). Campus crisis: The broken generation [website]. Retrieved

from https://www.macleans.ca/news/canada/the-broken-generation/

McCloy, U., & DeClou, L. (2013). *Disability in Ontario: Postsecondary education

participation rates, student experience and labour market outcomes.* Toronto:

Higher Education Quality Council of Ontario.

Moore, D.S., Notz, W.I., & Fligner, M.A. (2013). *The basic practice of statistics (6th ed.).*

New York: W.H. Freeman and Company.

Mousavi, M.P.S., Sohrabpour, Z., Anderson, E.L., Stemig-Vindedahl, A., Golden, D.,

Christenson, G., Lust, K., & Bühlmann, P. (2018). Stress and mental health in

graduate school: Empowerment creates lasting change. *Journal of Chemical

Education, 95,* 1939-1946. doi: 10.1021/acs.jchemed.8b00188

Office of Institutional Research and Analysis. (2017). *McMaster University fact

book: 2017-2018.* Hamilton, ON: McMaster University.

Oliver, J.M., Reed, C.K.S., Katz, B.M., & Haugh, J.A. (1999). Students' self-

reports of help-seeking: The impact of psychological problems, stress, and

demographic variables on utilization of formal and informal support. *Social

Behavior and Personality, 27*(2), 109-128. Retrieved from

http://search.proquest.com.libaccess.lib.mcmaster.ca/socabs/

docview/61573893/C56AADC8D5024592PQ/1?accountid=12347

O'Neil, M.K., Lancee, W.J., & Freeman, S.J.J. (1984). Help-seeking behaviour of

depressed students. *Soc. Sci. Med., 18*(6), 511-514. Retrieved from

http://journals2.scholarsportal.info.libaccess.lib.mcmaster.ca/details/02779536/v1

8i0006/511_hbods.xml

Panger, G., Tryon, J., & Smith, A. (2014). *The Graduate Assembly: Graduate

student happiness & well-being report*. Available at http://ga.berkeley.edu/

wp- content/uploads/2015/04/wellbeingreport_2014.pdf

Pearlin, L.I., Menaghan, E.G., Lieberman, M.A., & Mullan, J.T. (1981). The

stress process. *Journal of Health and Social Behavior, 22*(4), 337-356. Retrieved

from http://www.jstor.org.cat1.lib.trentu.ca:2048/stable/pdf/

2136676.pdf?acceptTC=true

Pescosolido, B.A. (2016). The beginning of the end? Deploying rigorous research in real-world settings to reduce stigma. *Journal of the American Academy of Child & Adolescent Psychiatry 55*(5), 353-354. Retrieved from https://journals-scholarsportal- info.libaccess.lib.mcmaster.ca/pdf/ 08908567/v55i0005/ 353_tbotedristrs.xml

Pescosolido, B.A., Gardner, C.B., & Lubell, K.M. (1998). How to get people into mental health services: Stories of choice, coercion and "muddling through" from "first-timers". *Soc. Sci. Med. 46*(2), 275-286. Retrieved from http://journals1.scholarsportal.info/pdf/02779536/v46i0002/275_ hpgimhoccatf.xml

Pescosolido, B.A., & Martin, J.K. (2015). The stigma complex. *Annual Review of Sociology, 41*, 87-116. doi: 10.1146/annurev-soc-071312-145702

Prairie Research Associates. (2014). Mental health and addictions online and in-person consultations: Final report of findings. [ProQuest eBrary]. Retrieved from http://site.ebrary.com.cat1.lib.trentu.ca:2048/lib/ocultrent/ detail.action?docID=11009344

Reavley, N.J., & Jorm, A.F. (2011). Young people's stigmatizing attitudes towards people with mental disorders: Findings from an Australian national survey. *Australian and New Zealand Journal of Psychiatry, 45*, 1033-1039. doi: 10.3109/00048674.2011.614216

Sancrant, L.M. (2014). Help is on the way! Enlisting faculty and staff support for

students with mental illness (Doctoral dissertation). Retrieved from ProQuest

Dissertations & Theses Global. (3644293)

Silverman, M.M., Meyer, P.M., Sloane, F., Raffel, M., & Pratt, D.M. (1997). The

big ten student suicide study: A 10-year study of suicides on midwestern

university campuses. *Suicide and Life-Threatening Behavior, 27*, 285-303.

doi:10.1111/j.1943-278X.1997.tb00411.x

Stallman, H.M. (2010). Psychological distress in university students: A

comparison with general population data. *Australian Psychologist, 45*, 249-257.

doi: 10.1080/00050067. 2010.482109

Thomas, S.J., Caputi, P., & Wilson, C.J. (2014). Specific attitudes which predict

psychology students' intentions to seek help for psychological distress. *Journal

of Clinical Psychology, 70,* 273-282. doi: 10.1002/jclp.22022

Towbes, L.C., & Cohen, L.H. (1996). Chronic stress in the lives of college

students: Scale development and prospective prediction of distress. *Journal of

Youth and Adolescence, 25*, 199-203. doi: 10.1007/BF01537344

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

Behavioral Medicine: An Open Access Journal, 2, 1009-1022. doi:

10.10801/21642850.2014.963586

Vidourek, R.A., King, K.A., Nabors, L.A., Lynch, A., & Merianos, A. (2014).

College students' perceived confidence in mental health help-seeking. *International Journal of Mental Health Promotion, 16*, 83-90. doi: 10.1080/14623730.2014.892257

Vogel, D.L., Heimerdinger-Edwards, S.R., Hammer, J.H., & Hubbard, A. (2011). "Boys don't cry": Examination of the links between endorsement of masculine norms, self-stigma, and help-seeking attitudes for men from diverse backgrounds. *Journal of Counseling Psychology, 58*, 368-382. doi: 10.1037/a0023688

Watkins, D.C., Hunt, J.B., & Eisenberg, D. (2011). Increased demand for mental health services on college campuses: Perspectives from administrators. *Qualitative Social Work, 11*, 319-337. doi: 10.1177/1473325011401468

Wilson, C.J., & Deane, F.P. (2009). Help-negation and suicidal ideation: The role of depression, anxiety, and hopelessness. *J Youth Adolescence, 39*, 291-305. doi: 10.1007/s10964-009-9487-8

Woodall, D.M. (2004). Enter the millennial. *American Society for Engineering Education, 13*(9), 59. Retrieved from https://www-jstor-org.libaccess.lib.mcmaster.ca/stable/pdf/24161145.pdf?refreqid=excelsior%3A57 244d3c67b75bf74d051964de859951

Wyatt, T., & Oswalt, S.B. (2013). Comparing mental health issues among undergraduates and graduate students. *American Journal of Health Education, 44*, 96-107. doi: 10.1080/19325037.2013.764248

Yargason, J.B., Linville, D., & Zitzman, B. (2008). Mental health among college

students: Do those who need services know about and use them? *Journal of*

American College Health, 57, 173-182. doi: 10.3200/JACH.57.2.173-182

Appendix A: Survey

<u>Demographic Information</u>

o What degree are you currently completing?

    o Ph.D. degree

    o Master's degree

    o Other: _____

o What sex were you born?

    o Male

    o Female

    o Other: _____

o What gender do you identify with?

    o Man

    o Woman

    o Other: _____

o Which of the following best describes your racial background?

    o Aboriginal

    o Asian – East (e.g. China, Japan, Korea)

    o Asian – South (e.g. India, Pakistan, Sri Lanka)

    o Asian – Southeast (e.g. Malaysia, Philippines, Vietnam)

    o Black – Africa (e.g. Ghana, Kenya, Somalia)

    o Black – Canada

    o Black – Caribbean region (e.g. Jamaica, Barbados)

- Latin American (e.g. Argentina, Chile, El Salvador)

- Indian Caribbean (e.g. Guyana with origins in India)

- Middle Eastern (e.g. Egypt, Iran, Lebanon)

- Mixed Background: _____

- White – Canada

- White – Europe (e.g. England, Italy, Portugal, Russia)

- Other(s): _____

- Other: _____

- What is your current year of study in your graduate program?

  - Master's year 1

  - Master's year 2

  - Master's year 3 or higher

  - Ph.D. year 1

  - Ph.D. year 2

  - Ph.D. year 3

  - Ph.D. year 4

  - Ph.D. year 5 or higher

- Which age range do you fall under?

  - 20-24

  - 25-29

  - 30-34

  - 35-39

- o 40-44

- o 45-49

- o 50 or older

o What is the highest level of education held by your mother? What is the highest level of education held by your father?

Mother

- o Less than high school diploma

- o High school diploma

- o College certificate

- o College diploma

- o Bachelor's degree

- o Master's degree

- o Ph.D.

- o Post-doctorate

Father

- o Less than high school diploma

- o High school diploma

- o College certificate

- o College diploma

- o Bachelor's degree

- o Master's degree

- o Ph.D.

- Post-doctorate

o What is your current living arrangement?

- Live alone

- Live with roommates

- Live with parent(s)

- Live with partner

- Other: _____

o What is your relationship status?

- Not in a relationship

- In a relationship, but not living together

- In a relationship, and living together

o Do you have a disability of any kind?

- Yes

- No

o What type of disability do you have?

- Physical disability

- Mental health disability

- Learning disability

- Other: _____

o How would you rate your mental health and wellness?

- Very good

- Good

- Fair

- Poor

- Very poor

o Did you live in a different city before you started your graduate program at McMaster

University?

- Yes

- No

o Where did you move from?

- From a different city within Ontario

- From a different province within Canada

- From a different country outside of Canada

Stigma and Help Seeking

o Has anyone ever made you feel bad or stigmatized because of your mental health

issues?

- Yes

- No

- Non-applicable

o Where has the stigma you experienced come from?

- Public figure (celebrity, politician, etc.)

- General public

- Family member(s)

- Friend(s)

- o Significant other

- o Media

- o Myself

- o Social media

- o Other: _____

o Have you ever needed mental health support but NOT accessed it?

- o Yes

- o No

o Why did you decide against accessing mental health support?

- o I believed my stress was normal in university

- o I did not perceive a need for it at the time, but I now realize there was a need

- o I believed the problem would fix itself

- o I did not have enough time to seek help

- o I believed that no one would understand my problems

- o I feared what other people would think about me if they knew I was seeking help

- o I was not emotionally open enough to seek help

- o Privacy concerns: I feared that what I discussed would not be kept confidential

- o I did not know much about available mental health services

- o I was skeptical about the effectiveness of treatment

- o I felt embarrassed

- o I did not think I could afford the help

- I felt that it was something that I could or should be able to fix on my own

- Other: _____

o Who would you contact first if you were experiencing a mental health crisis?

- Family member

- Friend

- Significant other / partner

- Police

- Other significant person

- Support services outside of McMaster University

- Support services at McMaster University

- Online resources

- Mental health professional

- No one

- Other: _____

o How would you contact that person or resource?

- Call by phone

- Text by cell phone

- Send an email

- Send a message through social media

- Other: _____

o Have you ever accessed mental health services on campus or in the community (in Hamilton or in a different area)?

- o Yes

- o No

o What reason(s) led you to seek mental health services?

- o I perceived a need for mental health support, and I chose to seek help

- o I was legally forced to seek help by the police, lawyers, or judges, even though I may have initially resisted

- o Family and/or friends perceived a need and encouraged me to seek help, even though I may have initially resisted

- o Family and/or friends made decisions for me to seek help, and I neither resisted nor actively agreed

- o Other: _____

o If a need for mental health services was perceived (by you or other individuals), how long did it take for you to seek support?

- o 1 week or less

- o Between 1 week and 1 month

- o Between 1 month and 3 months

- o Between 3 months and 6 months

- o Between 6 months and 12 months

- o More than 12 months

o What types of mental health services do you access?

- o Professional support: counselling / therapy / help line

- o Professional support: medication

- o Informal support: talking with family

- o Informal support: talking with friends

- o Informal support: talking with spouse / significant other

- o Other: _____

o How confident are you in your ability to do the following:

	Very confident	Confident	Neither confident nor unsure	Unsure	Very unsure	Prefer not to answer
Recognize a friend who may have mental health issues						
Ask a friend who may have mental health issues if they are experiencing those kinds of problems						
Encourage a friend who may have mental health issues to seek counselling or other mental health services						
Support a friend who may have mental health issues						

Psychological Distress

o   Please specify when you have felt any of the following emotions:

	Never	Not in the last 12 months	In the last 30 days	In the last 12 months
Hopelessness				
Overwhelmed by all that you had to do				
Exhausted (not from physical activity)				
Very lonely				
Very sad				
So depressed it was difficult to function				
Overwhelming anxiety				
Overwhelming anger				

o   Within the last 12 months, how would you rate the overall level of stress you experienced?

    o   No stress

    o   Less than average stress

    o   Average stress

    o   More than average stress

    o   Tremendous stress

<u>Accessing Mental Health Services</u>

o Listed below are the on-campus mental health services offered at McMaster University. Please select any and all services you were aware of before taking this survey.

  o Counselling services (e.g. one-on-one appointments with counsellors, psychologists, and social workers)

  o Health care services (e.g. nurses, family medicine doctors, naturopathic medicine doctors, psychiatrists)

  o Student Accessibility Services (e.g. seeking accommodations for disability-related issues from Accessibility Advisors, Learning Strategists, Adaptive Technologists)

  o Wellness programs and training (e.g. wellness workshops, group wellness skills programs offered by counselling services)

o Do you access any mental health and wellness services?

  o Yes

  o No

o Where do you access mental health and wellness services?

  o At McMaster University

  o In the larger Hamilton community (e.g. private psychologists, counsellors, therapists)

  o In another city or community outside of Hamilton

  o Other: _____

o   Which on-campus mental health and wellness services have you accessed?

  o   Counselling services (e.g. one-on-one appointments with counsellors, psychologists, and social workers)

  o   Health care services (e.g. nurses, family medicine doctors, naturopathic medicine doctors, psychiatrists)

  o   Student Accessibility Services (e.g. seeking accommodations for disability-related issues from Accessibility Advisors, Learning Strategists, Adaptive Technologists)

  o   Wellness programs and training (e.g. wellness workshops, group wellness skills programs offered by counselling services)

o   When did you most recently access the following on-campus mental health and wellness services?

	More than 1 year ago	In the last 12 months	In the last 30 days
Counselling services			
Health care services			
Student Accessibility Services			
Wellness programs and training			

o   How satisfied were you that your needs were met by the following services?

	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied	Non-applicable
Counselling services						
Health care services						
Student Accessibility Services						
Wellness programs and training						

o   Please evaluate the following aspects of Counselling Services:

	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied	Non-applicable
Appointments were scheduled within a reasonable time						
Counselling services were easy to access						
My concerns were treated in a confidential and respectful manner						
As a result of the counselling support I received, I was able to remain at McMaster University (without the counselling support, I would not have been able to continue my studies at McMaster University)						
Overall, the counselling support I have received from Counselling Services has met my needs						

o   Please evaluate the following aspects of Student Accessibility Services:

	Very satisfied	Satisfied	Neither satisfied nor dissati-sfied	Dissati-sfied	Very dissati-sfied	Non-appli-cable
Appointments were scheduled within a reasonable time						
Student Accessibility Services was easy to access						
My concerns were treated in a confidential and respectful manner						
As a result of the support I received, I was able to remain at McMaster University (without the support, I would not have been able to continue my studies at McMaster University)						
Overall, the support I have received from Student Accessibility Services has met my needs						

o   Please evaluate the following aspects of Health Care Services:

	Very satisfied	Satisfied	Neither satisfied nor dissati-sfied	Dissati-sfied	Very dissati-sfied	Non-appli-cable
Appointments were scheduled within a reasonable time						
Health Care Services was easy to access						
My concerns were treated in a confidential and respectful manner						
As a result of the support I received, I was able to remain at McMaster University (without the support, I would not have been able to continue my studies at McMaster University)						
Overall, the support I have received from Health Care Services has met my needs						

o Please indicate how effective you feel the community service(s) you have accessed have been in supporting your mental health and wellness needs:

	Very Effective	Effective	Neither effective nor ineffective	Ineff-ective	Very ineff-ective	Non-appli-cable
Local community counselling						
Local addictions support						
Local hospital (e.g. Emergency Room)						
Local Aboriginal support service						
Local support service for individuals who identify as lesbian, gay, bisexual, trans, queer, or curious						
Local support services for immigrants or international students						
Local Canadian Mental Health Association						
Local Early Psychosis Intervention program						