

An Investigation of the Experiences of Graduate Students with a Mental Health Condition

by

Kathleen Amanda Clarke

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Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education
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Abstract

Discussion of postsecondary students' mental health often overlooks the graduate student population, focusing on the undergraduate student population instead. The overall purpose of this study was to explore the experiences of graduate students with mental health conditions and to examine the challenges they face and the supports they use.

The study followed a sequential-explanatory approach. In Phase 1, the 2016 Canadian Reference Group data from the National College Health Assessment was used to obtain an overall understanding of Canadian graduate students' mental health. Findings from the quantitative analyses showed significant differences between a sample of 1,461 graduate/professional students with mental health conditions and 3,291 graduate/professional students without mental health conditions. Specifically, participants with mental health conditions reported experiencing higher levels of stress and more impediments to academic performance. Additionally, participants with mental health conditions were significantly more likely to report accessing providers for mental health support and to report that they would seek mental health support in the future if they had a problem that was bothering them.

For Phase 2, 38 semi-structured interviews were conducted with doctoral students in Ontario who identified as having a mental health challenge or disability. Analyses found that some participants felt their mental health condition(s) delayed their academic progress. Participants who were not considered on-track to completing their degree on-time typically reported that the comprehensive exam stage was problematic. For support, participants often disclosed mental health-related concerns to peers and supervisors in addition to seeking formal support from on- or off-campus services.

Overall, the findings suggest that the experiences of graduate students with mental health challenges may differ from their peers without mental health challenges. For faculty, academic programs, departments, and student services offices, understanding such differences is important for the delivery of effective and tailored support that meets the needs of this specific population of students.

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Author Notes

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The opinions, findings, and conclusions presented/reported in this article/presentation are those of the author(s), and are in no way meant to represent the corporate opinions, views, or policies of the American College Health Association (ACHA). ACHA does not warrant nor assume any liability or responsibility for the accuracy, completeness, or usefulness of any information presented in this article/presentation.

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CHAPTER ONE: INTRODUCTION

Between 2009 and 2013, full-time enrollment at the master's level increased by 16% and by 13% at the doctoral level (Canadian Association for Graduate Studies [CAGS], 2018). During this time of enrolment growth, much of the discussion on graduate education focused on completion rates and time-to-completion. At the doctoral level, completion rates across Canada may range from just 56% in the humanities to 78% in health sciences (Hall & Arnold, 2013). The question of what factors contribute to extended time-to-completion and high rates of attrition in graduate programs has not been answered.

This study is located at the intersection of three research literatures. One concerns the challenges that doctoral students experience during their programs. Factors such as relationships with faculty and/or problems with advisors, broader departmental relationships, the culture of academia, the student community, personal circumstances such as relationships and family obligations, and financial pressures are often cited in the literature as being related to time-to-completion and attrition (Gardner, 2005; Golde, 2000; Lovitts, 2001; Nyquist et al., 1999). Another area of literature explores graduate student stress and well-being and investigates levels of stress, causes of stress, prevalence of mental health challenges, and use of mental health supports (Eisenberg, Gollust, Golberstein, & Hefner, 2007; Hyun, Quinn, Madon, & Lustig, 2006; Soet & Sevig, 2006; Wyatt & Oswald, 2013). The final area of literature focuses on graduate students with disabilities and typically concerns perceptions and attitudes of others (e.g., faculty) (Backels & Wheeler, 2001; Becker, Martin, Wajeeh, Ward, & Shern, 2002; Brockelman, Chadsey, & Loeb, 2006; Winger & Olson, 2015), help-seeking and accommodations (Baker, Boland, & Nowick, 2012; Brockelman, 2011). Though there is some

literature focused on graduate students with disabilities, literature pertaining to mental health disabilities specifically is scarce.

These literatures draw on different disciplines and research traditions and have little overlap. Studies typically do not consider the role of graduate student well-being in academic performance and time to completion. And, graduate students with mental health disabilities are largely missing from these literatures. Yet, without considering the relationship between well-being and academic performance we are left with a limited understanding of how postsecondary institutions can support the well-being of the graduate student population.

The Context of Graduate Education in Canada

In 2004 the Canadian Association of Graduate Studies (CAGS) highlighted an urgent need for Canadian universities to increase the number of master's and doctoral students who graduate. Some of the noted economic and social benefits of graduate level credentials include increased employment opportunities, higher income, and job security (Wiggers, Lennon, & Frank, 2011). The Council of Ontario Universities (COU, 2015) posited that "Highly skilled graduate students are critical to Ontario's future. They conduct cutting edge research, replenish faculty ranks, address human resources needs of both private and public sectors, and translate innovation into commercial activity" (para. 3). CAGS (2004a) suggested that universities were faced with three options: (a) increase the number of students admitted; (b) graduate more of the students that they admit; and/or (c) reduce time to degree. Reflecting on these options now, it is striking to see how graduate education in Canada has evolved, not only since 2004, but since at least 2000. While arguably we have not comprehensively addressed each of the options outlined by CAGS, we have certainly been discussing all of them, and acting on some of them.

The focus on graduate education across Canada since the early 2000's is demonstrated by the significant enrollment growth. CAGS regularly publishes reports based on Statistics Canada data. In their 2004 report that presented trends for the years 1990-2001, CAGS reported that in 2000 there were about 76,000 master's students and fewer than 27,000 doctoral students (CAGS, 2004b). In the report they published in 2018, they present data from 2013 showing there were about 123,000 master's students and 36,000 doctoral students at that time (CAGS, 2018).

In 2013, part-time students accounted for 27% of the total master's level enrollment and only 7% of the doctoral enrollment (CAGS, 2018). Concerning gender, female students accounted for 55% of full-time master's students and 48% of full-time doctoral students. The three main fields of study for master's students were Business, Management, and Public Administration (20%), Architecture, Engineering & Related Technologies (17%), and Health & Related Fields (15%) (CAGS, 2018). At the doctoral level, main fields of study were Architecture, Engineering & Related Technologies (19%), Physical & Life Sciences & Technologies (21%), and Social & Behavioral Sciences & Law (21%).

Provincially, Ontario accounted for 40% of Canada's full-time master's and doctoral student enrollment in 2013. In Ontario, there has also been enrollment growth as universities have expanded graduate programs. The most recent data on enrollment in Ontario shows that in the 2017/2018 academic year there were 28,874 full-time and 2,409 part-time master's students (31,283 total) (Higher Education Quality Council of Ontario [HEQCO], 2019a). A decade earlier, in the 2007-2008 academic year, there were 21,971 full-time and 2,533 part-time master's students (24,504 total) (HEQCO, 2019a). There has been significant growth since the 2000/2001 academic year when there were about 16,000 master's students. At the doctoral level, there were 12,116 full-time and 217 part-time students in 2017/2018 and 10,125 full-time and

197 part-time students in Ontario in 2007/2008 (HEQCO, 2019b). The number of doctoral students has nearly double since the 2000/2001 academic year when there were slightly fewer than 6,500 total doctoral students enrolled (HEQCO, 2019b). It is evident that there has been significant change in terms of the number of students enrolled in graduate studies in Ontario and across Canada.

Though nationally and provincially there has been success in increasing enrolment, this is not to say that all of these graduate students are completing the credential. Without completion, students may not benefit from the value of the credential. CAGS (2004a) discusses a study that assessed the outcomes over a 10-year period for a cohort of Canadian graduate students that was admitted to universities in 1992. At the institution with the lowest graduation rate, only 34% of its doctoral students in the humanities had graduated after 10 years (CAGS, 2004a). Though the graduation rates were quite varied depending on discipline and university, the report notes that in general the rates were alarmingly low considering the need for a highly skilled population.

In the previously mentioned 10-year cohort study, median times to completion at the master's level ranged from six semesters in the humanities to eight semesters in the life sciences and at the doctoral level, median time to completion ranged from fourteen semesters in the physical sciences to seventeen semesters in the humanities and social sciences (CAGS, 2004a). In terms of doctoral program completion, Hall and Arnold (2013) used a dataset they compiled from data provided by a group of fifteen research-intensive Canadian universities. Based on these data, mean times-to-completion for a doctoral program ranged from 5 years (in physical sciences and engineering) to just over 6 years (in the humanities), which is fairly consistent with the study CAGS (2004a) reviewed. Also, the proportion of those who successfully completed the Ph.D. within 9 years ranges from 78% in the health sciences to 56% in the humanities (Hall &

Arnold, 2013). This helps to paint a picture of what some are calling a “crisis” in doctoral education.

Given the substantial funding that has fueled expansion of graduate education in Canada, it seems logical that completion rates and time to completion would be topics worthy of concern. At the same time as these discussions have been taking place in Canada, similar discussions have been taking place internationally where enrollment growth, time-to-completion, and attrition are also being addressed. It is not surprising, then, that a growing number of international studies has sought to investigate and understand attrition, particularly at the doctoral level. In general, Gardner (2009) notes that the research in this area suggests that attrition rates are higher among students who are in the humanities and social sciences, are women, are students of colour, have less funding, and are less integrated with peers and faculty members.

Gardner (2009) suggests the higher education community should be concerned about attrition for three main reasons. First, the financial resources that are spent on recruiting students and providing assistantships are lost if the student does not persist to graduation. The social consequences of attrition are also significant as those who complete a doctoral degree are expected to continue post-graduation into roles of innovation, leadership, and research, so that countries can remain competitive nationally in today’s knowledge-economy (Gardner, 2009). The third reason is the personal aspect. Gardner draws on the work of Lovitts (2001) to suggest that there can be a long-term negative impact on the student when they leave their doctoral program. Lovitts suggests that students may leave their programs feeling that they have failed and points out that this can impact their future success.

Postsecondary Student Mental Health

In recent years, postsecondary student mental health has received growing attention by stakeholders such as government, community organizations, and professional associations. Some have even suggested there is a “mental health crisis” in higher education (Kadison, 2004; Lunau, 2012; “Off Course on Campus,” 2015). Across Canada, provincial governments have provided funding for special projects aimed at understanding postsecondary student mental health and implementing further supports for this population. For example, the Mental Health Innovation Fund was established in 2012 as part of the Ontario Ministry of Health and Long-Term Care (OMHLTC)’s (2011) *Open Minds - Healthy Minds* mental health and addictions strategy. The purpose of the Mental Health Innovation Fund, which receives \$6 million annually from the provincial government, is to “support new and innovative approaches to help postsecondary students, and those transitioning to college or university, access the mental health services they need” (Ontario Ministry of Advanced Education and Skills Development, 2015, para. 3). The Canadian Association of College and University Student Services (CACUSS) worked with the Canadian Mental Health Association (CMHA) to develop a guide called *Post-secondary Student Mental Health: A Guide to a Systemic Approach* (CACUSS & CMHA, 2013) which is aimed at supporting postsecondary institutions with the development of on-campus mental health strategies. Nationally, institutions have begun to respond to the increasing attention to student mental health by developing campus mental health strategies. Most postsecondary institutions across Canada have created mental health strategies and are now in the process of implementing these recommendations.

It has been estimated that one in five Canadians will experience a mental health problem or illness in their lifetime (Smetanin, Stiff, Briante, Adair, Ahmad, & Khan., 2011). Additionally,

Kessler, Amminger, Aguilar-Gaxiola, Alonso, Lee, and Ustun (2007) suggest three-quarters of all lifetime mental disorders start by the mid-20s. Postsecondary students' mental health specifically has received significant attention largely because most postsecondary students are within the high-risk age-range for mental illness, that is, ages 15-25. The risk is compounded by the fact that many students are living away from home for the first time and are also faced with stressors related to academics, balancing personal and academic demands, and meeting financial obligations, for example.

It is perhaps not surprising that mental health support staff, student organizations, and the media are suggesting that the number of postsecondary students experiencing mental health challenges while at college or university in Canada is increasing. At the same time, the demand for access to mental health support may also be increasing nationwide. Comparing the Canadian 2013 and 2016 National College Health Assessment (NCHA) reports provided by the American College Health Association (ACHA) shows that the percentage of students responding "yes" to "Have you ever received psychological or mental health services from your current college/university's Counselling or Health Services?" increased from 16% to 19% (American College Health Association [ACHA], 2013a/2016a). Although it appears more students may be seeking on-campus support, there continue to be students who will not seek support when they experience distress, despite support being available. When asked "If in the future you were having a personal problem that was really bothering you, would you consider seeking help from a mental health professional?" 26% of respondents in 2013 and 23% of respondents in 2016 indicated they would not seek support (ACHA, 2013a/2016a). A number of factors may contribute to a student avoiding seeking support. Decisions about whether or not to seek support for mental health challenges are often affected by awareness of on-campus supports, long wait-

lists, scheduling problems, and stigma (Garcia-Williams, Moffitt, & Kaslow, 2014; Hyun et al., 2006; McCarthy, Bruno, & Sherman, 2010; Stecker, 2004). High stress or distress combined with not accessing support when needed can have a number of negative consequences. Students may experience academic challenges such as difficulty taking notes and taking written exams, getting assignments done, and participating in class discussions, for example (Collins & Mowbray, 2005; Megivern, Pellerito, & Mowbray, 2003; Rickerson, Souma, & Burgstahler, 2004). These challenges may lead to lower grades and/or non-completion of the credential (Breslau, Lane, Sampson, & Kessler, 2008; Kessler, Foster, Saunders, & Stang, 1995; Megivern et al., 2003).

Discussion of postsecondary student mental health often overlooks graduate students and focuses on the undergraduate student population instead. Yet, there is evidence suggesting that challenges related to mental health are also an issue within the graduate student population. For example, in their sample of about 2,300 graduate students (including 26 countries and 234 institutions), Evans, Bira, Gastelum, Weiss, and Vanderford (2018) found graduate students were more than six times as likely to experience depression and anxiety compared to the general population. In the United States, findings from the spring 2016 NCHA suggested that, of approximately 13,000 graduate student participants, 60% rated their overall level of stress in the past 12 months as “more than average” or “tremendous” (ACHA, 2016b)¹. Another study conducted at one institution in the United States found that 46% of a sample of 3,121 graduate

¹ Participants were asked “In the past 12 months, how would you rate your level of stress you experienced? ‘Level of stress’ was not defined.

students had experienced a stress-related issue within the past year that seriously impacted their emotional well-being and/or academic performance (Hyun et al., 2006)².

Not only is the literature focusing on graduate students specifically quite sparse, but the existing studies have limitations. For example, some focus on students in professional programs such as medicine (Dahlin, Nilsson, Stotzer, & Runeson., 2005; Drybye, Thomas, & Shanafelt, 2006) and psychology (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012; Rouse, Nowakowski, Burley, & Wilkins, 2014). The experiences of students from non-professional programs are often overlooked. Additionally, many studies in this area do not differentiate between master's and doctoral students (e.g., Eisenberg, Golberstein, & Gollust, 2007; Oswald & Riddock, 2007). A thorough understanding of the experiences of doctoral students specifically is lacking.

Postsecondary Students with Disabilities

While it appears that a large number of students in the general student population experience distress and mental health challenges, there has also been some attention towards specific populations of students, such as students with disabilities. Several government initiatives have pressured postsecondary institutions to meet the unique needs of this underrepresented population. For example, in Ontario legislation such as the Accessibility for Ontarians with Disabilities Act [AODA] (Government of Canada, 2001) has led postsecondary institutions to develop accessibility policies that outline how the institution meets the requirements of the Act. Federally, institutions are guided by the Canadian Charter of Rights and Freedoms (1982) and the Canadian Human Rights Act (1985). However, in June 2018 the Government of Canada introduced new accessibility legislation, 'Bill C-81: An Act,' to ensure a barrier-free Canada.

² Participants were asked whether or not they had experienced an emotional or stress-related problem in the previous year that significantly impacted well-being or academic performance. 'Stress-related problem' was not defined.

Known as the Accessible Canada Act, the Act is similar to the AODA and in general is aimed at identifying, removing, and preventing accessibility barriers in the following areas: employment; the built environment; information and communication technologies; the procurement of goods and services; the delivery of programs and services; and transportation.

Prevalence

Several sources of data contribute to our understanding of the prevalence of disability in Canada and within specific populations such as postsecondary students. First, the Canadian Survey on Disability [CSD] provides national prevalence data on disability, disability types, and the severity of disabilities, and also examines topics such as supports available to those with disabilities, employment experiences, income, education, and workplace/educational accommodations (Cloutier, Grondin, & Lévesque, 2018). Screening questions are used to determine which participants have a disability, the type of disability they have, and the level of severity (Cloutier et al., 2018). Based on the 2017 data collection, 22% of Canadians 15 years and older had at least one disability. For postsecondary-aged categories, 13% of the total population of those aged 15–24 years old and 15% of those aged 25–44 years old were identified as having a disability (Morris, Fawcett, Brisebois, & Hughes, 2018). These figures cannot be compared to the 2012 data because of differences in how the data were collected.

Next, the Canadian University Survey Consortium [CUSC] is a series of undergraduate student surveys examining student satisfaction and student experience. Data collection focuses on first year, middle year, and graduating students in a three-year cycle, and there are typically about 15,000 respondents. According to data from the 2016 first year students data collection, 22% of first year students self-identified as having a disability (Prairie Research Associates, 2016). This was an increase of 13% since 2013 when only 9% of first year students self-

identified as having a disability (Prairie Research Associates, 2013). The most recent data collected was the 2018 graduating student survey. For this data collection, 22% self-identified as having a disability (Prairie Research Associates, 2018). This was a slight increase from the 17% of graduating students in 2015 (Prairie Research Associates, 2015).

Lastly, in terms of graduate students, data indicating the prevalence of disabilities is emerging. In 2016, the National Education Association of Disabled Students (NEADS) conducted the largest study of its kind exploring accessibility in graduate education for students with disabilities in Canada. They obtained 330 responses from graduate students with disabilities across Canada (National Graduate Student Experience Taskforce [NGSET], 2016a). Due to the lack of information regarding prevalence, NEADS provided the following recommendation:

Recognizing that demographic data on students with disabilities in graduate education across Canada remains sparse, we recommend that coordinated efforts be undertaken at the national and institutional levels to gather relevant demographic information about this population on an ongoing basis. (NGSET, 2016b, p. 13)

One step that those involved in the NEADS project took to ensure the collection of additional data regarding graduate students with disabilities was to advocate for disability-related questions to be included in the 2016 Canadian Graduate and Professional Student Survey (CGPSS), which is a comprehensive survey of graduate student satisfaction and experience. There were about 50,000 participants during this data collection and 2,324 self-identified as having a disability, representing 5% of the total population of respondents (Clarke, 2018). This is the most recent indication of the overall prevalence of disability in the graduate student population.

Type of Disability

McCloy and DeClou (2013) reported data from Ontario's Ministry of Training, Colleges and Universities that included a profile of college and university students registered in disability services offices. They showed that in the 2010-2011 academic year, learning disability was the most prevalent disability type for students registered in the accessibility offices in colleges and universities in Ontario, followed by psychiatric disabilities. This differs from the 2017 CSD finding that the most common types of disabilities for Canadians aged 15-24 years are mental-health related disabilities (8%), followed by learning disability (6%) (Morris et al., 2018). For the undergraduate population, the most common disability reported by first year students in the 2016 CUSC data collection was mental-health (12%) (Prairie Research Associates, 2016). In the most recent CUSC data, the 2018 Graduating Student Survey, showed that the most common disability types reported by students were mental health (14%), attention deficit disorder (3%), and learning disability (2%). For the graduate student population, Clarke (2019) found that, of the 2,324 students who self-identified as having a disability, the most common disability was mental health (46%) followed by learning disability (32%).

Unfortunately, the CSD, CUSC, and CGPSS surveys do not inquire about the specific types of mental health disabilities. Because of this, the prevalence of specific types of mental health disabilities remains unclear.

Subgroup Differences

The prevalence and types of disabilities differ based on variables such as age and gender. The 2017 CSD data showed that the prevalence of disability increased with age and ranged from 13% among those aged 15-24 years to 47% among those 75 years and older (Morris et al., 2018). Morris et al. (2018) also reported that across all age groupings, women were also more likely to

have a disability in comparison to men and these differences were at most around 4 percentage points. Looking at the sample of students with disabilities in the CGPSS data also showed gender differences, with an overrepresentation of females (67%) reporting a disability in comparison to males (33%). Concerning disability type, there was also a higher prevalence of most disability types among women in the CSD data. For example, 37% of females and 27% of males aged 15 years and older reporting a mental health-related disability (Statistics Canada, 2019c). Existing surveys often only provide binary gender identity response options (male and female) or the reported findings do not discuss students with disabilities who identified in ways other than male or female. I acknowledge that such students do exist and the data are limited on their experiences in the Canadian context, despite recent international work suggesting transgender and/or gender-nonconforming graduate students are at an increased risk of depression and anxiety (Evans, Bira, Gastelum, Weiss, Vanderford, 2018).

Educational Implications

Given calls for improved access to postsecondary education programs for people with disabilities, it is perhaps unsurprising that the number of postsecondary students with disabilities continues to increase. Yet, the proportion of students with disabilities enrolling in and graduating from postsecondary education continues to lag behind the proportion of their non-disabled peers. Analysis of the 2017 CSD data found that about 14% of those with disabilities aged 25-44 years old had not completed a certificate, diploma, or degree, much higher than the 7.3% of respondents without disabilities (Statistics Canada, 2019a). Furthermore, while 37.1% of participants aged 25-44 without a disability had completed a certificate, diploma, or degree at the bachelor's level or above, only 24.6% of those with disabilities had achieved this same level of education. For mental health-related disabilities, Bizier, Marshall, and Fawcett (2014) found that,

of the respondents in the 2012 CSD, those with mental health-related disabilities typically had lower levels of educational attainment than those who did not have a disability. For example, those aged 15-64 with a mental health disability were less likely to have completed high school (77%) in comparison to those without a disability (87%) (Bizier, Marshall, & Fawcett, 2014). Those with a mental health disability were also less likely to have completed post-secondary education: 46% of respondents with a mental health disability and 62% of those without a mental health disability (Bizier et al., 2014). The 2017 CSD data also showed that among those aged 15-24 who were neither in school nor employed, 87% had a mental health-related disability, a learning disability, or both (Statistics Canada, 2018).

Research suggests that postsecondary students with disabilities may experience a number of challenges in the postsecondary environment. According to the 2012 CSD, the three main ways that individuals who were currently or recently in postsecondary education reported their educational experiences were impacted by their mental health-related disability were: 1) choice of courses/career was influenced by their disability (60%); 2) took fewer courses than they otherwise would have due to their disability (58%); and (3) took longer to achieve current level due to disability (58%) (Bizier et al., 2014). Furrie (2017), analyzing the 2017 CSD data, found that half of all post-secondary students with disabilities reported their choice of courses or careers was influenced by the presence of their long-term health condition or health problem. Another way that disability shapes students' educational experiences is through the use of accommodations. The 2018 CUSC data on graduating students showed that, of the 14,760 students who self-identified as having a disability, 36% said their disability required accommodation from their university (Prairie Research Associates, 2018).

Recent work from NEADS provides some insight into what differences might exist at the graduate level when comparing students with and without disabilities. NEADS analyzed the 2016 CGPSS data for differences between graduate students with and without disabilities. The purpose of the CGPSS survey is to measure graduate student satisfaction and the student experience. The analysis showed many differences between graduate students with and without disabilities. For example, students without disabilities were typically more satisfied with their program, the quality of interactions, and the coursework (Clarke, 2018). These students also felt more positively about the opportunities available for professional development and research in comparison to students with disabilities (Clarke, 2018). While this research provides a starting point for understanding the experiences of Canadian graduate students with disabilities, many questions remain unanswered.

Developmental Considerations

Most doctoral students are in their 20s for part or all of their studies. Arnett's (2000) theory of emerging adulthood refers to a distinct development period (typically around 18 to 29 years old) that takes place after late adolescence and before full adulthood. With the rise in average ages of marriage and having children, and the trend of staying in school for a longer period of time, a gap had developed between late adolescence and full adulthood. Emerging adulthood is described as a period of exploration:

Emerging adulthood is distinguished by relative independence from social roles and from normative expectations. Having left the dependency of childhood and adolescence, and having not yet entered the enduring responsibilities that are normative in adulthood, emerging adults often explore a variety of possible life directions in love, work, and worldviews. (Arnett, 2000, p. 469)

Arnett (2000) proposed five features distinct to emerging adulthood: identity explorations, instability, self-focus, feeling in-between, and possibilities or optimism. Identity explorations during emerging adulthood involve “thinking seriously about the commitments that will define the structure of their adult lives in love and relationships, and work” (Arnett, Žukauskienė, & Sugimura, 2014, p. 570). Instability of personal relationships and work is also a characteristic of this period and is linked to the identity explorations. Self-focus is another defining feature of emerging adulthood as those in this period are typically not accountable to their parents the way children are nor are they accountable to long-term partners or employers the way adults are. Emerging adults might feel as though they are in-between childhood and adulthood. The final feature, possibilities and optimism, means emerging adults typically feel optimistic about their future.

Arnett, Žukauskienė, and Sugimura (2014) explain how these defining features of emerging adulthood have implications for mental health. For example, identity explorations can be exciting, daunting, and confusing, and these mixed emotions may contribute to feelings of anxiety. Another feature, feeling in-between, may contribute to feelings of depression or anxiety, especially for “those who believe they should feel more adult at their current age than they actually are” (Arnett et al., 2014, p. 572).

Emerging Adulthood and Postsecondary Students

Most postsecondary students are in the emerging adult developmental period. Arnett (2016) identifies this group as distinct from other emerging adults because they are typically from higher socioeconomic status backgrounds, more likely to be female, and more likely to be White. While Arnett argues there is a need to compare this group to non-postsecondary student emerging adults, I posit that examining differences within this distinct group of emerging adults

is also important. In general, student development theories have focused on the undergraduate student population. Gardner (2009) argues “Graduate students and their specific developmental issues and needs are noticeably absent in contemporary discussions of student development in higher education today” (p. 4).

Gardner (2009) notes that there may be an assumption that graduate students are in the full adulthood phase when they enter graduate school and that this could be a contributing factor to why graduate student development is often overlooked in the literature. However, if we consider the features of emerging adulthood, many graduate students are still in the distinct developmental period. Regarding identity explorations, graduate students are often developing professional identities as they sometimes work at the same time as completing their studies. There may be instability with employment, as the work of teaching assistants, research assistants, or sessional instructors is often contractual and precarious. Feeling in-between is particularly relevant to graduate students as they may delay certain life milestones such as getting married or having children until they have completed their studies.

A Graduate Student Development Framework

Gardner’s (2009) graduate student development framework is comprised of three phases: Entry, Integration, and Candidacy. Each phase has challenges the students might face as well as sources of support that might be used. Also, Gardner notes that there is overarching identity development that takes place throughout the phases. This identity development involves forming a student identity, student-scholar identity, and also beginning to form a professional identity.

Phase 1, Entry, is the time leading up to the beginning of the graduate program, and can last until the end of the first year of the program (Gardner, 2009). During this phase of the program, Gardner asserts, students may experience challenges with the initial transition, which

could involve getting familiar with the new environment, roles, relationships, and routines. Another challenge can be the transition from undergraduate to graduate expectations, where doctoral students in particular are more independent and it can be difficult for students to adapt to an academic program that is more loosely structured. Some students might experience difficulty with coursework and changes in their thinking. While students may experience challenges in this phase, there are also a number of supports that affect graduate student development. For example, Gardner notes the importance of orientation programs that are developmentally appropriate. This may be one of the initial ways the student can become socialized to the department and develop relationships with faculty in their department as well as with peers (Gardner, 2009). Despite the supports that may be available, there is still the possibility that a student may decide to leave their program. Gardner explains that research has suggested that approximately 30-40% of attrition that occurs in doctoral education happens during this first year. This demonstrates the importance of this initial transition phase, as this phase lays the foundation for success.

Phase 2 generally involves the time spent in coursework and through to the candidacy examinations process. Second phase challenges may include coursework and examinations. In terms of coursework, students begin to become immersed in the language and culture of their disciplines, which can be a big step towards developing a student identity (Gardner, 2009). Gardner notes that during this phase students begin to transition from being consumers of knowledge to knowledge producers, particularly as they begin to develop as researchers. Another challenge that students experience is candidacy examinations. Gardner suggests “More than any other topic discussed with students, candidacy examinations are by far the most stressful and anxiety-producing issue for students in this phase” (p. 70). Another challenge involves the

changing role of the student, who now begins to become a student-scholar through socialization (Gardner, 2009). Peer relationships and relationships with faculty members become more important in this phase, with the student also seeking or beginning to work with an advisor.

Transitioning into the third phase of development usually indicates the student is beginning their dissertation work. Students become more independent researchers and may also begin seeking professional positions (Gardner, 2009). Dissertation work, the job search, and transitioning to a professional role can be challenges experienced by those in the third phase (Gardner, 2009). Writing groups, a faculty advisor, and mentors may become critical as a student moves into the third phase of development (Gardner, 2009).

This graduate student development framework is important for understanding the challenges students experiences and the supports they use throughout their programs. In the quantitative phase of this study, I organize the questions according to challenges and supports and, in the qualitative phase, the focus is on challenges and supports throughout participants' educational experiences. Furthermore, I examine the challenges experienced at the different points of participants' experiences, recognizing differences between the initial coursework, comprehensive exam, proposal, and dissertation stages.

Purpose of the Study

The overall purpose of this mixed-methods study is to explore the experiences of graduate students with a specific focus on the challenges they experience and the supports they use.

Research Questions

Phase 1: Quantitative

1. How do the experiences of graduate/professional students with a mental health condition compare to the experiences of their peers without a mental health condition in terms of challenges and supports?

Phase 2: Qualitative

2. How do doctoral students with a mental health challenge or mental health disability describe their experiences of doctoral studies?
3. What challenges have students experienced and what supports have they used?

Significance of the Study

In recent years, the number of postsecondary students in Canada identifying as having mental health challenges has increased. At the same time, graduate enrolment continues to increase (CAGS, 2018). Though data are limited and thus no evidence exists to suggest that the number of graduate students with mental health challenges is increasing, it is possible that a number of undergraduate students with mental health challenges are continuing into graduate school and in turn, the population of graduate students with mental health challenges may increase. In addition, some graduate students may also experience a mental health challenge for the first time during their graduate program.

This study differs from the existing research in several ways. First, it considers the role of stress, mental health, and help-seeking in graduate student success, where existing work typically does not look at this relationship. Additionally, while some of the literature in the area of postsecondary student mental health focuses on graduate students, this work narrows the focus to doctoral students. Next, a growing literature investigates stress and mental health of students in

professional programs. In contrast, this study focuses on the under-researched population of students in non-professional programs. Lastly, this study contributes to the literature related to graduate students with mental health disabilities, who are largely missing from existing work.

A study that broadly examines the experiences of graduate students and then investigated more closely the experiences of doctoral students with mental health challenges is important for several reasons. First, it may suggest how institutions can support the needs of this specific population. Next, it adds to the literature at the intersection of mental health and graduate student success, which is valuable because mental health has the potential to negatively affect the academic performance of students. Finally, knowledge related to doctoral students with mental health disabilities can help offices for students with disabilities to better support this specific population.

Outline of the Thesis

In this chapter I described the context of the study and the significance of doing this work. In addition, I identified the development considerations as well as the purpose and research questions that guided the investigation. In Chapter 2, I provide a review of the literatures pertaining to undergraduate and graduate students' mental health and to students with disabilities. I provide an overview of the literature concerning the prevalence of stress, depression and anxiety, and suicide, and subsequently summarize the common causes of graduate student stress and mental health challenges. The support services students use and students' help-seeking behaviours are then discussed. The final sections of Chapter 2 focus on mental health and educational implications, and mental health in the academic context. In Chapter 3 I first present the methodology used in this study followed by an in-depth explanation of the quantitative and qualitative components. Chapter 4 details the quantitative findings from

this study and presents results from comparisons that were made between graduate students with and without mental health conditions. The qualitative findings are presented in Chapter 5. Lastly, a discussion of the findings is presented in Chapter 6 alongside recommendations, implications, and limitations.

CHAPTER TWO: LITERATURE REVIEW

The purpose of Chapter 2 is to review several literatures that inform this study. After first specifying how mental health is defined, I review the mental health literature that compares graduate and professional students as well as master's and doctoral students. Next, I examine the prevalence of distress, depression, and anxiety in the graduate student population. The literature concerning stressors in the graduate education context is then summarized, followed by a discussion of support and help-seeking in graduate students. The educational implications of mental health disabilities are discussed, and literature examining the relationship between mental health and academic performance is summarized. The final section of the literature review provides context for mental health and illness in the academic environment.

Defining Mental Health

The Mental Health Commission of Canada's (MHCC, 2009) *Toward Well-Being and Recovery: A Framework Towards a Mental Health Strategy for Canada* laid the foundation for the national strategy in terms of "understanding mental health, mental illness, recovery, and well-being" (MHCC, 2012, p. 14). Because mental health is a multi-faceted concept, the following subsections will define mental health, mental illness, and mental health disability.

From Health, to Well-being, to Mental Health

The World Health Organization's (WHO) definitions for mental health are perhaps the most frequently cited. The WHO (2013) broadly defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p. 7). Mental health is a component of this larger concept, and as the WHO (2001) notes, "There is no health without mental health" (para. 1). The WHO's (2013) oft-cited definition of mental health posits that "Mental health is a state of well-being in which an individual realizes his or her own

abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community” (p. 6), and both the MHCC’s (2009) *Toward Well-Being and Recovery* document and Canada’s mental health strategy, *Changing Directions, Changing Lives: The Mental Health Strategy for Canada* (MHCC, 2012), use this definition. Another definition of mental health cited in the report *Post-Secondary Student Mental Health: Guide to a Systemic Approach* (CACUSS & CMHA, 2013) as well as by MacKean (2011) includes the following criteria from the Government of Canada’s (2006) report on *The Human Face of Mental Health and Mental Illness in Canada*:

The capacity of each and all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual well-being that respects the importance of culture, equity, social justice, interconnections, and personal dignity. (p. i)

Though slightly different, the WHO and the Government of Canada definitions of mental health are similar in that they both refer to being able to deal/cope with stressors or challenges. Also, there is a similar mention of well-being, with the WHO indicating mental health is “a state of well-being” and the Government of Canada highlighting that mental health is “a positive sense of emotional and spiritual well-being.” There is a link between these definitions and that provided by the WHO, in that mental health is evidently a component of the broader notion of well-being. It is perhaps not surprising then that Canada’s initial framework for the national mental health strategy was titled *Toward Recovery and Well-Being*.

This idea of mental health being a component of well-being is noticeable in national and provincial policies. Ontario’s mental health strategy, *Open Minds, Healthy Minds*, links mental health and well-being in a discussion of the province’s vision: “We will create an Ontario where

all people have the opportunity to thrive, enjoying good mental health and well-being throughout their lifetime” (OMHLTC, 2011, p. 4). CACUSS and CMHA (2013) similarly highlight the connection between mental health and well-being: “While the focus of this framework is on student mental health, this in no way minimizes the need to address the broader scope of health, recovery and well-being on campuses” (p. 5).

From Mental Health to Mental Health Problem/Illness/Disorder/Disability

Recognizing that mental health is part of the broader concept of well-being lays the foundation for subsequent discussion of mental health problems/illnesses/disorders/disabilities and the question of how good mental health differs from these. The MHCC’s (2012) *Changing Directions, Changing Lives* suggests that “Good mental health buffers us from the stresses and hardships that are part of life for us all, and can help to reduce the risk of developing mental health problems and illnesses” (p. 14). The same report adds that “Being mentally healthy involves having both a sense of coherence that helps people to function well despite the challenges they confront, and the resiliency to bounce back from setbacks” (p. 11).

If viewed as being at the positive end of a continuum, good mental health has a variety of benefits, such as protecting individuals against life stressors. At the other end of the continuum, however, are mental health challenges/illnesses/disorders/disabilities. According to the WHO (2013),

the term “mental disorders” is used to denote a range of mental and behavioural disorders that fall within the International Statistical Classification of Diseases and Related Health Problems, Tenth revision (ICD-10). These include disorders that cause a high burden of disease such as depression, bipolar affective disorder, schizophrenia, anxiety disorders, dementia, substance use disorders, intellectual disabilities, and developmental and

behavioural disorders with onset usually occurring in childhood and adolescence, including autism. (p. 6)

Though this definition gives us a glimpse of some of the disorders that are often formally diagnosed, other definitions provide different perspectives in terms of what is defined as a mental health problem/illness/disorder/disability. For example, references to “mental health problems and illnesses” in Canada’s national mental health strategy encompass “the full range of patterns of behaviour, thinking or emotions that bring some level of distress, suffering or impairment in areas such as school, work, social and family interactions or the ability to live independently” (MHCC, 2012, p. 14). Unlike the WHO’s definition, the MHCC’s definition does not specify that these disorders are often diagnosed according to the *International Statistical Classification of Diseases and Related Health Problems, Tenth revision (ICD-10)*, or the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*.

Interestingly, the definition used in *Toward Recovery and Well-Being*, which is the foundation for Canada’s national mental health strategy, does note the clinical component in suggesting that mental health problems and illnesses are “clinically significant patterns of behaviour or emotions that are associated with some level of distress, suffering, or impairment in one or more areas such as school, work, social and family interactions, or the ability to live independently” (MHCC, 2009, p. 11).

While the abovementioned definitions use terminology such as mental health problems, illnesses, and disorders, they also use terminology on disability. The WHO (2011) notes that “Disability is an umbrella term for impairments, activity limitations and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors)” (p.

303). Though this definition is seemingly straightforward, when it comes to defining mental health disability specifically, it becomes much less clear. For example, Mental Health Disability Services at York University states that mental health disabilities may include but are not limited to depression, bipolar disorders, anxiety disorders, schizophrenia, and eating disorders (York University, n.d.), which include several of the same mental health disorders that were highlighted previously. MacKean (2011) also provides a definition for this area in suggesting that the term psychosocial disability is used to refer to “students who have a mental illness that at times interferes with their ability to function, and who may require some accommodations to succeed in a post-secondary institution setting” (p. 12). Here again while the definition seems straightforward, we are left with questions: Is there a difference between a mental health problem/disorder and a mental health disability? And if so, what is the difference?

MacKean (2011) conducted a literature review and environmental scan for CACUSS and in her report she touches on some of the difficulties with language and explains that she uses ‘students living with mental illness’ interchangeably with ‘psychosocial disability.’ Her rationale for doing this is that the language used in a manual that was developed by the World Network of Users and Survivors of Psychiatry for the United Nations Convention on the Rights of Persons with Disabilities. In this manual, the authors explain that they prefer the term psychosocial disability to other more widely used terms such as mental disorder or impairment. They explain:

The word psychosocial refers to the interaction between psychological and social/cultural components of our disability. The psychological component refers to ways of thinking and processing our experiences and our perception of the world around us. The social/cultural component refers to societal and cultural limits for behaviour that interact with those psychological differences/madness as well as the stigma that the society

attaches to labelling us as disabled. (World Network of Users and Survivors of Psychiatry, 2008, p. 9)

Persons with psychosocial disabilities would be:

...users and survivors of psychiatry who experience or have experienced madness and/or mental health problems and/or are using or surviving, or have used or survived psychiatry/mental health services, as well as those of us who are perceived by others as having a mental disability/impairment. (World Network of Users and Survivors of Psychiatry, 2008, p. 9)

These quotations show the complexity of mental health terminology, which is similarly acknowledged in Canada's mental health policy:

This *Strategy* does not attempt to draw a firm line between “problems” and “illnesses,” or to resolve all of the controversies surrounding the choice of terminology. Rather, the term “mental health problems and illnesses” has intentionally been chosen to be respectful of a wide range of views. (MHCC, 2012, p. 14)

The complexity of this terminology is captured by the suggestions that “Even when someone develops a mental health problem or illness, they can nevertheless experience good mental health and this can contribute to their journey of recovery” (MHCC, 2012, p. 14), and that “People can have varying degrees of mental health, regardless of whether or not they have a mental illness” (MHCC, 2009, p. 10). The CACUSS and CMHA (2013) adopted a perspective that appropriately synthesizes all of this complexity in *Post-Secondary Student Mental Health: Guide to a Systemic Approach*, which also acknowledges the work of Keyes. In this framework, it is suggested that the terminology “mental health problems” is used to indicate “less than optimal health” (CACUSS & CMHA, 2013, p. 6), which means that students who are experiencing such health

problems are, as Keyes (2002) puts it, *languishing*. Keyes “conceptualizes health and illness as separate continuums wherein a student with mental illness may flourish and conversely, someone without mental illness may languish with less than optimal health” (CACUSS & CMHA, 2013, p. 6).

This Study

For the purposes of this study, the terms ‘mental health condition’, ‘mental health challenge’ and ‘mental health disability’ are used. For the quantitative data, ‘mental health condition’ is used to refer to those in the sample who responded that a) they had a psychiatric disability; b) they had been diagnosed with or treated by a professional for a mental health condition within the past year; or c) they had been diagnosed with depression at some point in their life. The terminology used in the qualitative phase is ‘mental health challenge’ and ‘mental health disability.’ Participants are asked to self-identify as having a ‘challenge’ or ‘disability.’ Therefore, while those with mental health challenges and disabilities are viewed as one group in the quantitative phase, in the qualitative phase these are viewed as distinct ways to self-identify.

Defining Stressors, Stress, and Distress

Similar to the uncertainty regarding terminology for mental health problem/illness/disorder/disability, there is also ambiguity when defining terms such as stressors, stress, and distress. Wheaton and Montazer (2010) define stressors as “conditions of threat, challenge, demands, or structural constraints that, by the very fact of their occurrence or existence, call into question the operating integrity of the organism” (Wheaton & Montazer, 2010, p. 173). Stress is then broadly referred to as “the organism’s physiological response to stressors, as in a state of activation, alarm, and defense” (Wheaton & Montazer, 2010, p. 171). It

is then this stress, or biological response, that can turn into distress, depending on coping, support, and other factors.

Studies have also attempted to differentiate between types of stressors. Wheaton and Montazer (2010) situate some of these types of stressors on a stress continuum. They present traumatic events, life change events, daily hassles, nonevents, chronic stressors, and chronic traumatic stress, on a continuum from discrete to continuous. Stressors related to academics would likely be considered chronic stressors. Chronic stressors develop slowly and are continuing, problematic conditions that have a longer course than life events, which have clear points at which the stressor ends (Wheaton & Montazer, 2010). Based on three of their previous studies, Wheaton and Montazer posit that chronic stressors seem to have the greatest importance as a predictor of distress.

Some authors have argued stress can be positive or negative and that both types of stress can affect performance (Selye, 1976; Yerkes & Dodson, 1908). The term arousal is sometimes used in place of the word stress, but the meaning of the terms is consistent: a biological response. The suggestion is that stress and performance work in an inverted U-shape, where if someone experiences too little stress their performance can be negatively affected. There is then an optimal level of stress (which is different for everyone) where performance is at its best (Selye, 1976). However, if stress turns to distress, performance can begin to suffer and with continued stress, a person can become burned out. This speaks to the close link between stress and mental health and illness.

This Study

In this study, the term stressors is used to refer to survey items, experiences, or events that could cause some sort of positive or negative response in an individual. It is not possible to

determine whether these stressors have in fact caused a biological response in the survey respondents or interview participants, so use of the term stress is problematic. Wheaton and Montazer (2010) suggest “There is substantial confusion about what stress is and is not, and yet the overuse of this term – as a vague catch-all explanation of all that ails us – continues without any sign of letting up” (p. 171). In the quantitative instrument used in this study, the following question is posed: “In the last 12 months, how would you rate the overall level of stress you have experienced?” I acknowledge the ambiguity when referring to ‘level of stress’ and suggest that in this use the term stress is referring to the inverted U-shape curve referred to previously. A higher rating for level of stress means the individual is not at optimal performance and could be experiencing distress.

I also acknowledge the role of the individual in determining whether something is considered a stressor, whether stress is experienced, and whether the stress that is experienced turns into distress. As Wheaton and Montazer (2010) point out “A stressor may not be as threatening to one person as to another because he or she has experienced it before” (Wheaton & Montazer, 2010, p. 172). Additionally, characteristics of the response that is experienced may differ. And, whether the stress that is experienced turns into distress is largely determined by the individual’s coping skills and support, so this too varies. This study uses a non-clinical, self-report survey instrument as well as semi-structured interviews and as a result, responses to questions are based on participants’ interpretation of the questions.

The Clinical Diagnosis Process

The American Psychiatric Association (APA) publishes practice guidelines that are used for psychiatric evaluation of adults. These guidelines are used by psychiatrists and clinical

psychologists. In their 2016 report, the APA defined an initial psychiatric evaluation as a comprehensive assessment that has several aims:

Identify the reason that the patient is presenting for evaluation; establish rapport with the patient; understand the patient's background, relationships, current life circumstances, and strengths and vulnerabilities; establish whether the patient has a psychiatric condition; collect information needed to develop a differential diagnosis and clinical formulation; identify immediate concerns for patient safety; and develop an initial treatment plan or revise an existing plan in collaboration with the patient. (p. 149)

An assessment can involve a combination of the following: an interview, review of medical records, a physical exam, diagnostic testing, or history-taking from others who are familiar with the individual being assessed. The APA notes that an evaluation could take several meetings and that the amount of time it takes depends on the complexity of the case and external factors, such as the patient's home environment and the symptoms and situational contexts causing distress.

This Study

Because of the exploratory purpose of this study, I did not ensure that the participants had a clinical diagnosis. Rather, I focused on how the participants wished to identify in the same way that I had students identify as having a mental health challenge or disability. Throughout the study, my intention was to focus on participants' self-identification. The rationale for this was that the way students self-identify is what shapes their experience.

Comparing Mental Health between Specific Populations

Some research concerns specific populations of students and the stressors they experience, the distress they experience, and their help-seeking behaviours. Research has explored the differences with regards to gender, for example. Dahlin, Joneborg, and Runeson (2005) found female students in both medical and business programs were more distressed³ and

³ Two instruments were used to assess participants' distress. Study stress was evaluated using the Higher Education Stress Inventory. Burnout, exhaustion, and disengagement were assessed using

depressed than their male counterparts. Helmers, Danoff, Steinert, Leyton, and Young (1997) similarly found that depressive symptoms among women medical students were higher than among male medical students. These findings are also consistent with those of Eisenberg, Golberstein, and Hunt (2009), who found female students were more likely to experience symptoms of depression, anxiety, and eating disorders. In Hyun et al. (2006), only 39% of male respondents reported having an emotional or stress-related problem, compared with 52% of female students. There is some evidence, therefore, to suggest women may experience higher levels of stress and experience more distress than males, but it is unclear whether the differences observed in these studies may be due to their self-reporting: Women may be more likely to self-report their challenges. There is also some evidence suggesting women use more coping strategies than men (Oswalt & Riddock, 2007), and that they may be more likely than men to consider seeking mental health care (Hyun et al., 2006). Though most studies have been quantitative, a few studies have used qualitative approaches to investigate female graduate students' experiences (Haynes et al., 2012).

In addition to differences based on gender, other differences outlined in the literature include: 1) international versus domestic students; 2) undergraduate versus graduate students; 3) graduate versus professional students, and; 4) master's versus doctoral students. The research that makes comparisons between these subgroups will be presented next.

International and Domestic Students

Literature on the international student experience reveals that international students differ from domestic students in several ways. For example, in comparison to domestic students,

an adapted version of the Oldenburg Burnout Inventory. For both instruments, higher scores denoted more distress.

international students have been shown to perceive higher levels of stigma (Golberstein et al., 2008) and greater discomfort and shame in relation to counselling (Yoon & Jepsen, 2008). Because of this increased stigma, international students may not discuss topics related to mental health with their peers as frequently as domestic students. Hyun et al. (2007) found that only 48% of international students, compared to 61% of domestic students, knew of another student with a significant emotional or stress-related problem over the past year. Yoon and Jepsen's (2008) findings reveal a much more pronounced distinction: only 15% of international students compared to 80% of domestic students knew of someone who had received formal counselling services.

Another way that the experiences of international and domestic students differ is in the types of stressors that students report experiencing. For example, Hyun et al.'s (2007) study comparing 551 international graduate students to domestic students found the former were significantly more likely to report having financial problems, and less likely to report having emotional or relationship challenges in comparison to their domestic peers. Mitchell et al. (2007), on the other hand, found that, in comparison to domestic students, international students were more likely to present to counselling services with academic problems. Misra and Castillo (2004) in turn identified differences in the types of stressors international and domestic students experience according to five categories: change, conflicts, frustrations, pressures, and self-imposed stress. In comparison to international students, domestic students perceived higher levels of stress on four of the categories. What these studies show is that the stressors and the level of stress students perceive may vary between international and domestic students.

Use of mental health services. Studies have typically shown that international students underutilize counselling services (Nilsson, Berkel, Flores, & Lucas, 2004). Compared to

domestic students, international students are often less likely to use mental health services both on-campus (Golberstein, Eisenberg, & Gollust, 2008; Hyun et al., 2007) as well as off-campus (Yoon & Jepsen, 2008). International students may less frequently consider accessing support compared to domestic students; Hyun et al. (2007) found that while 56% of domestic students had considered seeking support, only 33% of international students had considered doing so. Furthermore, only 17% of the international student sample reported using counselling on or off campus. Even though rates of mental health diagnoses might be similar, international students do not consider seeking support or actually access mental health support at similar rates to domestic students.

There are several reasons for international students' underutilization of mental health services. In a comparison of 189 international and 186 domestic students, Yoon and Jepsen (2008) found that international students had lower perceptions of the need for counselling and were also concerned about language challenges and the sensitivity or expertise of prospective counsellors. There has also been discussion of how international students may have different expectations for what counselling should involve. For example, some researchers have found that international students from Asia are more likely than domestic students to expect a counselling style that is more directive (Mau & Jepsen, 1988; Yoon & Jepsen, 2008). Yoon and Jepsen also found that Asian international students had a greater preference for counselling formats that were flexible, in terms of counselling sessions' location and duration. In addition to these reasons, other factors affecting the use of services include awareness and understanding of services, and concern about stigma. Hyun et al. (2007) found 39% of international students were unaware of the university's counselling services, which was much higher than the 21% of domestic students who were unaware. Part of the reason for this difference might be that students learn about

mental health programs and services in different ways. Hyun et al. (2007) found that, in comparison to domestic students, international students were significantly less likely to report getting information about mental health services from the institution's website and from their peers.

In addition to being aware of services, it is also important for students to have a good understanding of mental health services. One study found that half of the international student respondents felt the university counselling center might only be available to students who were domestic (Yoon & Jepsen, 2008). Students' awareness of mental health services as well as their understanding of these services may be crucial components of why they do not seek support. If students are not aware of available supports and do not know how to access them, it is not surprising that they may delay seeking support even when they are in a crisis (Mitchell et al., 2007).

Undergraduate versus Graduate Students

Wyatt and Oswald (2013) suggest it is important to understand how mental health and stress may affect undergraduate and graduate students differently. There is some suggestion that the levels of stress graduate students experience may be higher or more complex in comparison to their undergraduate counterparts. Baird (1990) suggests that, in comparison to undergraduate education, "graduate study is much less structured, much more individualized, and consequently often much more unclear and ambiguous in its demands on students. These demands call for unusual coping strategies and are met at an emotional cost" (p. 371). Research that compares graduate students' to undergraduate students' mental health is scarce. This section will summarize and compare four foundational studies in this area.

Wyatt and Oswalt (2013) investigated differences in mental health challenges, diagnoses, services, and academic performance. This work used the ACHA's NCHA data from 2009 and the sample therefore consisted of approximately 27,000 students from across the United States. Though most of the sample was undergraduate students (89%), the findings still provide some indication of how the two subgroups may compare.

Participants were first asked about feelings and behaviours that are often associated with being in a poor state of mental health. There was a statistically significant difference between undergraduate and graduate students' responses to seven out of the eleven items, and on five of these seven items undergraduate students reported higher rates of negative feelings and behaviours in the past 12 months. However, on those same items, graduate students reported higher incidence before the previous 12 months.

In terms of situations that had been traumatic or very difficult to handle within the last 12 months, participants were asked whether each of the following items was traumatic or difficult to handle: academics, career-related issues, death of a family member or friend, family problems, intimate relationships, other social relationships, finances, health problems of family member or partner, personal appearance, personal health issue, and sleep difficulties. There were significant differences between undergraduate and graduate students on all items except personal health issues. On nine of the ten items in which there were significant differences, a higher percentage of undergraduate students than graduate students reported that the issue had been traumatic or difficult to handle in the past 12 months. The exception was the career-related issues item.

Students were then asked to rate their overall level of stress in the past 12 months. Similar percentages of undergraduate and graduate students reported no stress (3% and 2%). However, a significantly higher percentage of graduate students reported having tremendous

stress (10% vs. 9%) or more than average stress (44% vs. 39%). This finding is striking considering the graduate students reported lower rates of mental health challenges in the past 12 months.

Analyses of the diagnosis of mental health challenges and related treatment issues in the past 12 months showed no statistically significant differences between the groups. For having ever been diagnosed with depression, 17% of undergraduates and 17% of graduates said they had. However, graduate students (74%) were more likely to predict that they would seek mental health care in the future in comparison to undergraduates (65%).

In summary, there were several findings of importance. Undergraduates reported higher rates of feelings and behaviours that would be considered indicators of poor mental health, and also experienced more traumatic situations within the past 12 months, in comparison to graduate students. However, graduate students reported higher levels of stress in the past 12 months than did undergraduate students. This speaks to the importance of recognizing the connection between stress and mental illness, as some stress is good and even optimal for performance, but a long period of high stress could result in distress. At the same time, one positive finding was that a higher proportion of graduate students predicted they would seek mental health care in the future.

Wyatt and Oswald's (2013) work was based on possibly the biggest postsecondary student health dataset, but two other studies have looked at similar topics, albeit on a much smaller scale and usually at one institution. Eisenberg, Gollust, Golberstein, and Hefner (2007) investigated the prevalence of depression and anxiety in a student population at one university in the United States. A total of 1,181 undergraduate students and 1,662 graduate students participated in the study.

Using clinically validated instruments, 16% of undergraduates and 13% of graduate students screened positive for depression or anxiety (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Oswald and Riddock (2013), in contrast, relied on self-reported diagnosis for a wide range of mental health challenges. Despite these differences, rates of mental health disorders in Eisenberg, Gollust, Golberstein, and Hefner's (2007) study (16% undergraduate and 13% graduate students), are fairly similar to the 17% undergraduate and 17% graduate rates found in the Oswald and Riddock (2013) study. In the study by Wyatt and Oswald (2013) the rates for undergraduate and graduate students were similar, whereas the rates in the Eisenberg, Gollust, Golberstein, and Hefner study somewhat differ. Eisenberg, Gollust, Golberstein, and Hefner (2007) included suicidal thoughts, which was not addressed in Wyatt and Oswald (2013); they found that 3% of undergraduates and 1.6% of graduate students reported they had had suicidal thoughts in the past 4 weeks.

Though not as large as Wyatt and Oswald's (2013) and Eisenberg, Gollust, Golberstein, and Hefner's (2007) studies, Soet and Sevig (2006) also investigated the mental health challenges facing a student population at one university in the United States. Of 939 participants, 66% were undergraduates (20% freshman, 15% sophomores, 13% juniors, 19% seniors), 26% were graduate students, and 7% were professional students (which the authors characterize as medicine, law, business, and dentistry). Two main findings emerged. First, graduate and professional students were significantly more likely to report having attended counselling, with 38% of graduate students and 34% of professional students indicating they had been to counselling or therapy at some point in their lives, and with a range of 15% (freshmen) to 20% (seniors) of undergraduate students indicating they had been to counselling or therapy. Considering the Wyatt and Oswald's (2013) finding where 74% of graduate students and 65% of

undergraduate students indicated they would seek mental health care in the future, this difference between undergraduate and graduate students in terms of previous use of counselling is not all that surprising.

The second finding was that graduate and professional students were almost twice as likely to self-report a history of depression in comparison to undergraduate students, with 22% of graduate students and 18% of professional students self-reporting a history of depression, compared to undergraduate student rates ranging from 9% (sophomores) to 13% (seniors). This, again, is difficult to compare to other findings, with Eisenberg, Gollust, et al. (2007) grouping depression and anxiety together and reporting that 16% of undergraduates and 13% of graduates screened positive. The findings are difficult to compare not only because one study groups anxiety and depression, but also because in one study students self-report whether they have a history of depression, and in the other the participants are clinically screened for depression.

While the other studies sought to explore stress and mental health more broadly, the work of Drum, Brownson, Burton Denmark, and Smith (2009) looked specifically at suicidal thought, intent, and action among postsecondary students. The total sample of 26,451 participants was comprised of 15,010 undergraduate students and 11,441 graduate students from 70 colleges and universities in the United States. Analyses found that over half of the students reported some form of suicidal thinking at some point in their lives, and when asked whether they had “ever seriously considered attempting suicide” 18% of undergraduates and 15% of graduate students indicated they had (Drum, Brownson, Burton Denmark, & Smith, 2009). Furthermore, when students were asked whether they had seriously considered attempting suicide in the past 12 months, 6% of undergraduates and 4% of graduate students reported they had. Though a comparison of these findings to other studies is difficult, the findings still speak to the

importance of addressing this issue. Though undergraduate students were slightly more likely to report that they had considered attempting suicide in the past 12 months, the 4% of graduate student who did consider suicide warrants attention.

In terms of seeking counselling, 44% of undergraduates and 49% of graduate students indicated they had sought mental health services at some point in their lives (Drum et al., 2009). When asked about whether they had received help from their campus counselling center at any point during their postsecondary education, 19% of undergraduates and 21% of graduate students reported having received help. Though graduate students were only slightly more likely to report having received help on campus, this is, perhaps, aligned with the Wyatt and Oswald (2013) finding where graduate students (74%) were more likely to predict that they would seek mental health care in the future, in comparison to undergraduates (65%).

Perhaps the most noteworthy finding from Drum et al.'s (2009) work was that, of those who had seriously considered attempting suicide in the past 12 months, 46% of undergraduate students and 47% of graduate student chose not to tell anyone about their suicidal thoughts. In addition, of those who disclosed their suicidal ideation to others, only 58% of undergraduates and 50% of graduate students were advised to seek professional help by the first person they spoke to (Drum et al., 2009). This difference between undergraduate and graduate students perhaps indicates the need to further investigate who the first point of contact is for graduate students and whether these contacts are equipped to provide referrals to appropriate mental health services.

Though there is not an abundance of literature in this area, the studies discussed in this section provide a starting point for future studies. It seems that undergraduate and graduate students are quite similar in most respects, such as rates of clinical diagnoses of depression and

anxiety, history of suicidal thoughts, effects of mental health or emotional difficulties on academic success, previous use of counselling services, and telling others about suicidal thoughts. In general, undergraduates may be more likely to self-report current patterns of emotions and behaviour that are consistent with mental illness. Yet, graduate students may perceive higher levels of stress, be more likely to report a history of depression and anxiety, and be more likely to report they would seek mental health care in the future. Though this work only begins to address these topics, it indicates the importance of investigating the specific needs of graduate students as they can differ from undergraduate students in some respects.

Graduate versus Professional Students

In this section, I first discuss how the labels *graduate students* and *professional students* are used. I then provide a brief review of the literature on professional students' mental health.

Graduate students and professional students. According to the Council of Graduate Schools (2010), the Integrated Postsecondary Education Data System (IPEDS) originally reported post-baccalaureate data using three categories: master's degrees, doctorates, and first-professional degrees. The first-professional degrees were awarded in 10 fields: chiropractic, dentistry, law, medicine, optometry, osteopathic medicine, pharmacy, podiatry, theology, and veterinary medicine. These degrees were not considered doctorate degrees. However, since the 2009/2010 data collection of the IPEDS, changes were made to the classification system due to growth in certain programs such as the Doctor of Physical Therapy, the Doctor of Nursing Practice, the Doctor of Audiology, and the Doctor of Psychology (Council of Graduate Schools, 2010). Because of the growth of such programs, the first-professional degree category was eliminated, and a new classification system was created that had three categories of doctoral

degrees: 1) research/scholarship; 2) professional practice; and 3) other. The research/scholarship doctoral degree is defined as:

A Ph.D. or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. (NCES, 2010)

The professional practice doctoral degree was defined as:

A doctor's degree that is conferred upon completion of a program providing the knowledge and skills for the recognition, credential, or license required for professional practice. The degree is awarded after a period of study such that the total time to the degree, including both pre-professional and professional preparation, equals at least six full-time equivalent academic years. (NCES, 2010)

In Canada, the terms "professional degree needed to practice in a licensed profession," "first professional degree," and "entry-to-practice professional degree" are used synonymously and typically comprise the same fields as those noted in the United States, with the exception of osteopathic medicine and theology (Statistics Canada, 2016).

Review of the literature. In some studies, the authors note that participants were undergraduate, graduate, and/or professional students. For example, participants in Eisenberg, Golberstein, and Gollust's (2007) study of mental health service use were undergraduate and graduate/professional students. In this case, Eisenberg, Golberstein, et al. did not separate graduate students from professional students, nor did they provide any further indication of the proportions of graduate and professional student participants. Eisenberg, Gollust, Golberstein, and Hefner (2007) also do not distinguish between graduate and professional students.

In their research exploring factors that affect postsecondary students' mental health, Soet and Sevig (2006) note that their sample consisted of freshmen, sophomores, juniors, seniors, graduate students, and professional students. They add that by professional students, they are referring to students in medicine, law, business, and dentistry. In reporting their findings, Soet and Sevig illustrate some differences between these groups; however, due to the low percentage of professional students (only 7% of the sample of 939), this group often is combined with the graduate student group (27%) in the analyses, and overall comparisons and conclusions are drawn between undergraduate students and graduate/professional students. Neither Eisenberg, Golberstein, et al. (2007) and Eisenberg, Gollust, et al. (2007), nor Soet and Sevig provide any information regarding the graduate students' fields of study.

In her exploration of well-being in an academic environment, Stecker (2004) sought to assess graduate and professional students' psychiatric needs. Stecker reported that the 461 student participants were in schools of Pharmacy (19%), Physical Therapy (5%), Dentistry (5%), Medicine (25%), Nursing (27%), and Graduate studies (15%), but did not describe the areas of study of the students in the school of Graduate Studies. However, the fact that there is some distinction between professional and graduate students in that study is noteworthy. Toews et al. (1997) addressed the distinction in a similar manner in assessing stress in "medical students, residents, and graduate science students" (p. 997).

While several studies made a distinction between graduate and professional students, some further distinguished among graduate students' programs of study. For example, Oswalt and Riddock (2007) note that the majority of graduate student participants in their study were in arts and science, education, social work, and journalism and mass communication programs—fields that likely would not be considered *professional* according to the definitions presented

earlier. McCarthy et al.'s (2010) study similarly addresses a graduate student population where participants are enrolled in programs such as counselling, criminology, and education.

Some studies have investigated stress and mental health of students in specific fields rather than the graduate student population as a whole. For example, there is some suggestion that medical students may experience higher levels of stress and mental health challenges in comparison to the general population and to students in other fields. The research of Dahlin et al. (2005) found that the rate of depression in a sample of 342 Swedish medical students was higher than in the general population. In a systematic review of 40 articles that considered medical students in the United States and Canada, Dyrbye et al. (2006) argued there was enough evidence in the literature to suggest there is a high prevalence of depression and anxiety among medical students. Additionally, Dyrbye et al. noted that there was some evidence that the overall level of psychological distress⁴ medical students experience may be higher than in the general population or age-matched peers, particularly once students reach the later years of their programs.

At the same time, some studies have compared mental health in medical students to students in other fields. For example, Dahlin et al. (2011) compared study stress⁵, burnout levels, mental health indicators, and help-seeking behavior in samples of 342 medical and 408 business students in Sweden. In this study, business students perceived more study stress than the medical students, but the prevalence of mental health problems that required treatment and/or help-seeking did not significantly differ between the two groups. In another study, Helmers et al.

⁴ The authors state that they use the term distress to “cover depression, anxiety, burnout, and related mental health problems” (p. 355).

⁵ The Higher Education Stress Inventory (HESI), which is comprised of 33 items, was used. The HESI produces seven sub scores, which were used in the study: negative psychosocial climate; worries about future endurance/capacity; insufficient feedback; low commitment; academic workload; role conflict; financial concern.

(1997) investigated stress⁶ in medical, law, and graduate students. Findings suggested the medical students had subjective feelings of stress that were slightly above the population standards, but that their total stress scores were below the general population as well as the law and graduate students' scores. Other research has focused on clinical psychology students (El-Ghoroury et al., 2012; Myers et al., 2012; Rouse et al., 2014) and social work students (Olvera, 2011). In sum, it is important to acknowledge how the existing research in this area addresses graduate versus professional students.

Master's versus Doctoral Students

Several of the reviewed studies did not indicate whether their graduate student populations comprised master's and/or doctoral students. The purpose of Eisenberg, Golberstein, et al.'s (2007) work was to compare the prevalence of depression, anxiety, and suicidality in undergraduate students with that in graduate students. Given this purpose, it may be that information about whether graduate students were in master's or doctoral programs was not collected. Although Oswalt and Riddock (2007) focused solely on graduate students, they also do not identify graduate students' program level.

While there may be a dearth of literature comparing undergraduate and master's and/or doctoral level students, a fairly substantial body of work addresses only the graduate student population. Many of these studies report the proportions of master's versus doctoral students taking part in the study (e.g., El-Ghoroury et al., 2012; Grady, La Touche, Oslwaski-Lopez, Powers, & Simacek, 2014; Hyun et al., 2006; Johnson, Batia, & Haun, 2008; Mazzola, Walker, Shockley, & Spector, 2011; Myers et al., 2012; Nogueira-Martins, Fagnani Neto, Macedo,

⁶ The Derogatis Stress Profile (DSP) was used. The 77-item instrument measures 11 dimensions in 3 domains: environment, personality mediators, and emotional responses. The instrument also provides a total stress score and a subjective stress score.

Citero, & Mari, 2004; Pallos, Yamada, & Okawa, 2005). However, the analyses in many of these studies do not include comparisons between master's and doctoral. Fortunately, some studies have looked at these specific subgroups separately. For example, Olvera (2011) explored stress and self-care in a population of second year master's students, while Lawson and Fuehrer (2001) investigated social support and stress in 20 first year master's students. Additionally, El-Ghoroury, Galper, Sawaqdeh, and Bufka's (2012) study of stressors, coping strategies, and barriers to use of various wellness activities involved a sample of 387 psychology graduate students (28% were Doctor of Psychology students, 54% were other doctoral students, and 16% were working toward a terminal master's degree). El-Ghoroury et al. conducted analyses on the overall sample but then also explored differences among the subgroups. They describe their rationale for this approach:

We were interested in the reported use and helpfulness of psychotherapy for different groups of psychology graduate students; for instance, due to their clinical training and knowledge about the benefits of psychotherapy, we wondered if [Health Service Providers] students would be more likely to use and value psychotherapy more than students in other psychology fields. (p. 129)

Other studies have investigated specifically doctoral students' experiences with mental health challenges (e.g., Dickerson et al., 2014; Haynes et al., 2012; Hodgson & Simoni, 1995; Holahan, 1979; Offstein, Larson, McNeill, & Mjoni Mwale, 2004; Pyhältö, Toom, Stubb, & Lonka, 2012; Stubb, Pyhältö, & Lonka, 2011), and a summary of this literature will be provided in a subsequent section.

This Study

The literature concerning international students revealed that the experiences of this subgroup differ from those of domestic students. Differences on topics related to mental health supported the need to focus on one group in depth. The focus of both phases of this study is on domestic graduate students. This is not to say that the international students are not worth examining, but rather, to capture the diversity that occurs within the international student population this group warrants its own investigation.

In the quantitative phase of this study no distinction is made between research/scholarship students and professional students. An existing dataset is used and the survey instrument did not differentiate between these categories of students. However, given the noted differences between the categories of students within the literature, the qualitative phase of this study does narrow the focus to those in non-professional programs, as I was particularly interested in the experience of completing the steps involved in the thesis route.

The NCHA also does not allow for comparison between master's and doctoral students. While doctoral students are part of the graduate/professional student subgroup of the quantitative dataset, there is no way to know how many doctoral students there are. In the qualitative phase I focus on doctoral students because of the lack of literature on this group and the overall purpose of understanding the doctoral student experience.

Prevalence of Graduate Students' Mental Health Challenges

This section summarizes the literature on the prevalence of graduate students' mental health challenges. The prevalence of different levels of stress is examined, followed by the prevalence of depression, anxiety, and suicide.

Stress

Literature pertaining to stress within the context of higher education and graduate students specifically, commonly aims to identify the prevalence of high levels of stress (also referred to as distress) and emotional difficulties. In a study that compared psychological distress across specific populations in Belgium, Levecque, Anseel, De Beuckelaer, Van der Heyden, and Gisle (2017) found that the prevalence of psychological distress was about twice as high in Ph.D. students in comparison to those in a sample of highly educated general population participants and another sample of highly educated employees. In this study, psychological distress was identified using a version of the General Health Questionnaire and participants' responses to whether they experienced a range of 12 symptoms. When exploring the instruments used in the quantitative work in this area, it was striking to see that many of the tools focused on stress more broadly. Instruments used in studies that explore graduate student stress were: The Higher Education Stress Inventory; Perceived Medical School Stress; Graduate Student Stress Survey; Stress Indicant Record; Perceived Stress Scale; Stress in Graduate Students Survey; Graduate Stress Inventory; Graduate Life Events Scale; the Derogatis Stress Profile; and the University of Calgary Stress Questionnaire. These instruments are often used in addition to other instruments aimed at identifying depression, anxiety, or burnout. Although some studies developed an instrument, most research in this area uses a combination of one of the stress instruments and one or more of the other instruments designed to screen for emotional problems. Much of the literature addressing graduate students' mental health therefore uses terminology related to stress or distress, rather than mental health and illness.

Perhaps the largest dataset related to college⁷ student health is the ACHA data. In spring 2016, about 13,000 graduate and professional students from 100 schools in the United States participated. Approximately 60% of participants rated their overall level of stress in the past 12 months as “more than average” or “tremendous” (ACHA, 2016b). Additionally, 45% indicated that at some point in the past two weeks they felt overwhelmed by everything they had to do. In another study that explored the use of mental health services by about 3,000 graduate students at one institution in the United States, Hyun et al. (2006) found 50% of participants had experienced a stress-related issue that seriously impacted their emotional well-being and/or academic performance within the past year. Furthermore, 46% of respondents reported feeling overwhelmed (Hyun et al., 2006).

The ACHA data and the Hyun et al. (2006) study are arguably the biggest sources of data on the level of stress and prevalence of distress. Other smaller studies further substantiate the suggestion that about half of graduate students are experiencing a high level of stress, or distress. For example, Oswald and Riddock (2007) had asked 223 participants from one institution to rate their level of stress on a 5-point scale, with 5 being very stressed. They found that 25% of participants rated themselves as very stressed, and another 49% rated themselves at 4 on the 5-point scale. In another study, Pallos, Yamada, and Okawa (2005) used a modified version of the 30-item General Health Questionnaire to assess emotional distress. Of the 219 graduate student participants, 53% were identified as being emotionally disturbed based on four factors: anxiety and insomnia; social dysfunction; depression; and feelings of incompetence.

⁷ “college” as used here is equivalent to either college or university in Ontario.

Depression and Anxiety

Levecque et al. (2017) examined the prevalence of mental health problems in a sample of almost 3,700 doctoral students in Belgium. They found that 32% of the Ph.D. students were at risk of having or developing a psychiatric disorder. While Levecque et al. (2017) looked at emotional problems and psychiatric disorders broadly, other studies have focused on the prevalence of depression and anxiety specifically. In their study of about 2,300 graduate students (90% Ph.D. students and 10% master's students) worldwide, Evans et al. (2018) found that 39% of respondents scored in the moderate to severe depression range, compared to 6% in the general population. This is likely the largest international study that has been conducted on this topic.

In the United States, the National College Health Assessment could be used as an indicator of prevalence of depression in graduate/professional students. Of the 13,125 participants in the spring data collection in 2016, 2% reported they had been diagnosed (but not treated) for depression and 11% reported that they had been treated for depression in the past 12 months (ACHA, 2016b). In response to another question about whether they had ever been diagnosed with depression, 22% reported that they had been (ACHA, 2016b). Another survey conducted by the Graduate Assembly (2014) at the University of California, Berkeley found that, of the 790 participants, 47% of Ph.D. students and 37% of master's students scored high enough on the assessment to be considered depressed. This is much higher than in the 2016 NCHA data or the Evans et al. (2018) study.

Anxiety is another emotional difficulty that many students experience. Compared to the 6% of the general population, Evans et al. (2018) found that out of 2,300 participants 41% scored as having moderate to severe anxiety. In the spring 2016 data collection of the NCHA, 20% of the approximately 13,000 graduate/professional participants reported that they felt overwhelming

anxiety in the past 2 weeks, with an additional 12% feeling overwhelming anxiety in the past 30 days (ACHA, 2016b). Responses to survey questions on diagnosis and treatment showed that 3% of the overall sample reported they had been diagnosed (but not treated) and 14% had been treated for depression in the past 12 months. The findings of Roberts et al. (2001) were fairly similar with 21% of medical students indicating they struggled with anxiety. Though the study took place almost 40 years ago, in an investigation of stress during the first year of graduate school, Goplerud (1980) found that, of the 22 participants, just over half indicated they had intense feelings of anxiety in the past 4 weeks. And, in looking at the participants' adjustment through the first year of a graduate program, periods of intense anxiety was the most frequently reported emotional problem, with 82% of participants indicating they had this experience (Goplerud, 1980).

Mazzola, Walker, Shockley, and Spector (2011) also found anxiety was one of the most frequently reported psychological strains.⁸ Moore (2013) provides some insight into what this experience of anxiety may involve, with seven participants out of a sample of 20 graduate students noting their response to stress was feeling worried or nervous, and one participant suggesting their "thoughts circled endlessly" (p. 70) when they experienced a stressor.

There is also some discussion of the physical symptoms of distress in the literature. Mazzola et al. (2011) provide a glimpse of some of the somatic symptoms graduate students might experience, such as fatigue, headaches, and an upset stomach. Moore (2013) also found

⁸ The authors provide the following description: "Components of the environment that generate stress are called stressors, which, depending on the way that an individual appraises and copes with them, can result in strain reactions. Strains can be behavioural (e.g., alcohol use), emotional (e.g., frustration), or physiological (e.g., headaches)" (p. 1). The emotional strains are sometimes referred to as psychological strains. Examples of these psychological strains are: frustration, anger, anxiety/worry, sadness, depression, overwhelmed, disappointed, acceptance, scared, and withdrawn.

that students discussed similar physical responses. One participant said the stress response they experienced could be described as “a physiological reaction to mounting psychological anxiety” (p. 77). Other participants noted the impact stress had on sleeping and eating patterns, concentration, and susceptibility to colds and other contagious illnesses. These symptoms could, in turn, affect academic performance.

Suicide

Silverman, Meyer, Sloane, Raffel, and Pratt (1997) conducted one of the first studies to investigate rates of suicide at 10 university campuses in the United States. Findings of the Silverman et al. study suggested the highest suicide rates between 1980 and 1990 were found among students enrolled in graduate school and those over the age of 25. Of the 261 student suicides that were investigated, the largest number of suicides was in graduate students who were between 20-24 years old. However, although the number of those over 25 was smaller, because the population of students over 25 was smaller, those who were above the age of 25 years old were generally at a higher risk for suicide (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). In terms of prevalence, about 5% of the 13,000 participants from the spring 2016 United States data collection reported that they had seriously considered suicide at some point in the past 12 months and just under 1% reported they had attempted suicide in the past year (ACHA, 2016b). In another study, of the 301 graduate students in the sample, 7% of respondents reported thoughts of suicide, and a subset of 2% had plans for suicide (Garcia-Williams et al., 2014). In another sample of 11,441 graduate students, 4% of graduate students acknowledged they had seriously considered suicide in the prior 12 months (Drum et al., 2009). Also, among those graduate students with serious suicidal ideation, 8%—about 0.3% of all graduate students—reported making a suicide attempt, with over a quarter of these requiring medical care (Drum et al., 2009).

Garcia-Williams et al. (2014) note “Graduate students experience a significant amount of stress and anxiety, and their suicidal behavior is strongly characterized by depression, hopelessness, desperation, lack of control, and eating problems” (p. 545).

Challenges in Graduate Education

In addition to investigating the levels of stress, as well as the prevalence of distress, depression, anxiety, and suicide/suicidal ideation, research has also explored the causes of stress or stressors students experience. Nyquist et al. (1999) suggest some graduate students “experience the academy as amoral or even vicious; the hapless graduate student in a perceived struggle for survival can experience terrifying and disabling tensions” (p. 20). Participants in Nyquist et al.’s study were asked to visually depict their graduate student experience. Several of the participants’ stories about their drawings showed depression, anxiety, and fear. One student said: “I, as well as some of my friends, have entered counselling due to depression and a feeling of isolation from ‘normal life’” (Nyquist et al., 1999, p. 21). Another student, in describing their drawing, pointed out: “there are little things lurking in the trees—fears, anxiety, imaginary things, some real. Fear that I’m not good enough, that I don’t have the talent to succeed” (Nyquist et al., 1999, p. 21). Though the stressors graduate students experience may often be similar to those that undergraduate students experience, the intensity may differ. Graduate students may also be faced with additional challenges that undergraduate students do not face. While there is some evidence that the stressors graduate students face may be different in type and intensity in comparison to undergraduate students, the research is still inconclusive. Yet, one mental health report from the University of California’s Student Mental Health Committee (UCSMHC, 2006) suggests:

Graduate students as a group have been identified as a population at higher risk for mental health concerns. The level of stress for graduate students is magnified by their relative isolation from the broader components of campus life, the intense academic pressures of their advanced studies, and the increased presence of family and financial obligations. (p. 4)

Quaye and Harper (2015) similarly point out that graduate students may experience a host of issues in their graduate education: “budgeting the financial costs of their education, balancing work, family, and school, managing stress, and dealing with day-to-day experiences” (p. 351). Several of the issues that Quaye and Harper highlight are echoed in the literature, with isolation (Grady et al. 2013; UCSMHC, 2006), academic pressure (Oswalt & Riddock, 2007; UCSMHC, 2006), family obligations (The Graduate Assembly, 2014; Offstein et al., 2004; Oswalt & Riddock, 2007; UCSMHC, 2006), and financial concerns and funding (Grady et al., 2013; Hyun et al., 2006; Oswalt & Riddock, 2007; UCSMHC, 2006) often cited as stressors that graduate students experience. Yet, in addition to these common stressors, several other issues are also investigated, such as general working conditions (Pyhältö et al., 2012) and difficulties with supervision (The Graduate Assembly, 2014; Hyun et al., 2006; Pyhältö et al., 2012). Heins, Fahey, and Leiden (1984) also refer to time restrictions as contributing to high stress scores while Mazzola et al. (2011) found that work overload, interpersonal conflict, and organizational constraints were the most frequently reported stressors. Offstein et al. (2004) suggest stress is at the centre of the graduate student experience and that it is exacerbated by competing demands and internal conflict. Grady et al. (2013) also report that a major source of stress for graduate students, particularly those in non-professional programs, is role strain. Graduate students are in

unique positions where they may be instructors and research assistants in addition to being a student, and the different roles that students hold can cause stress.

The NCHA data is perhaps the largest study of the issues that are most challenging for students. Participants are asked “In the past 12 months, has any of the following been traumatic or very difficult to handle?” ACHA’s (2016b) spring United States data collection report revealed that, of the 13,000 participants, 40% reported academics had been traumatic or very difficult to handle. Academics were identified as traumatic or difficult to handle at a higher rate than all other items. For comparison, the other items were career-related issues (34%), finances (31%), intimate relationships (27%), sleep difficulties (24%), family problems (22%), personal appearance (19%), personal health issue (18%), and death of a family member or friend (13%).

Though a variety of stressors are identified in the literature, it is difficult to say which stressors have the most impact on student well-being, especially because students perceive stressors in different ways. Additionally, other than the ACHA-NCHA data, there is a lack of information regarding the pervasiveness of these stressors. The existing research has given us a glimpse of which stressors exist, but there is little indication of how these stressors affect students and how students experience them. Perhaps most importantly, there is no indication of how these stressors and their effects affect academic performance.

Graduate Students’ Help-Seeking

Though students will undoubtedly experience some stress, if they are equipped with appropriate coping skills and an appropriate support network, the stress may not reach levels of distress. Hyun et al. (2006) suggest a high level of administrative, social, and financial support, in addition to use of counselling services, may be associated with students’ well-being. Given the importance of social support and help-seeking for student mental health and well-being, this

section will first briefly discuss the research on informal sources of support that graduate students use and then will focus on formal sources.

Informal Support

Students receive different types of support from different people, and for different reasons. Sometimes, these sources of support are most influential when a student is experiencing distress. Participants in a qualitative study exploring the experiences of doctoral students suggested they found support and encouragement from family, friends, and other doctoral students to be the most beneficial strategies for coping with distress (Dickerson et al., 2014). In a quantitative investigation, Toews et al. (1997) found friends and partners/spouses were the sources of help that were reported most frequently by participants. Oswalt and Riddock (2007) similarly found the most commonly reported strategy for managing stress was talking to friends. Of the 223 graduate student respondents in their study, 69.5% reported they used this coping strategy. Participants in Moore's (2013) qualitative study similarly described seeking support from friends and classmates, followed by family and significant others. These were categorized as informal supports, which students described going to when there was a moderate level of stress. Informal supports such as these could be quite important, as there is some evidence to suggest that perceived social support may moderate the stress graduate students experience (Lawson & Fuehrer, 2001).

Formal Mental Health Help-Seeking

While students may seek support from informal sources, such as family and peers, particularly when they are experiencing a moderate level of stress, when stress approaches a level of distress, students may seek help from formal sources. One participant in Moore's (2013) study stated, "I have only sought help as a desperate last resort," while another participant

indicated “Sadly enough I did seek help before. It was my last resolution” (p. 98). Students only seeking support in desperation has been reported in several studies. Hyun et al. (2006) found that the number of graduate students who reported using available mental health services was lower than those reporting mental health needs. While 46% percent of the overall sample of about 3,000 graduate students reported significant emotional distress and 50% of the sample reported they had considered seeking counselling, only 31% accessed some form of counselling services while in graduate school. There seems to be, therefore, a significant gap between those who need counselling/have considered counselling and those who actually seek it.

ACHA’s (2016b) NCHA data suggested that a large number of graduate/professional students in the United States had received mental health services. According to data from the spring 2016 data collection, when asked if they had ever received psychological or mental health services from a variety of different sources, 44% of the 13,000 participants reported they had received help from a counselor/therapist/psychologist at some point. At the same time, only 18% said they had received mental health services from their current college/university counselling/health service. Hyun et al. (2006), in contrast, found that, of the 3,121 respondents, 26% reported using on-campus counselling services. This could mean that graduate students are using off-campus mental health supports rather than on-campus care.

Factors Affecting Use of Mental Health Services

In terms of participants’ awareness of counselling services, Hyun et al. (2006) found that, of the 3,121 respondents, almost 75% reported they were aware of counselling services on campus. However, there were significant differences in awareness based on gender: 82% of women knew on-campus counselling services were available to them as students, but only 67% of men were aware of those services. Though lack of awareness could certainly be one reason

why students may not use services, a number of other factors may also influence this. Stecker (2004), for example, found that, in addition to lack of awareness, the most common reasons given for not seeking counselling services on campus were limitations (long waiting lists, access issues, scheduling problems), services found outside university, time constraints, stigma, and improved circumstances. Garcia-Williams et al. (2014) similarly found that lack of awareness was a contributing factor, but also found that cost, time, confidentiality, fear of impact on academic career, inadequate number of sessions, stigma, long wait times, improving symptoms, and access problems, were also issues. McCarthy et al. (2010) found that insurance coverage and affordability were also key issues, with 40% of the 217 participants reporting these concerns. Other barriers were: stigma from family and friends (21%); stigma from other students (17%) and from professors (16%); and lack of time (60%) (McCarthy et al., 2010). In terms of access, McCarthy et al. investigated whether services were located on a main campus, branch campus, or both. They found that an overwhelming majority (just over 80%) of graduate students would not travel to the main campus for counselling services.

Concerning disciplinary differences, Hyun et al. (2006) offer only a small glimpse of what could be occurring. For example, they found that students in the humanities were 11% more likely to report mental health needs than students in professional schools (Hyun et al., 2006). Analyses suggested those who were in doctoral programs were 8% less likely than non-doctoral students to report need. Hyun et al. also asked how graduate students become aware of mental health-related information and available supports. Participants reported they were less likely to receive information about mental health services through face-to-face methods than through other methods. Hyun et al. suggest:

Graduate students are not likely to congregate in places like residence halls or student centers and may not regularly visit their administrative program office. Therefore, an effective information dispersal strategy for graduate students would rely on multiple dispersal sources around campus and at satellite campuses, emphasizing electronic and web communications, and satellite counselling sites. (p. 261)

A question on the NCHA asks “If in the future you were having a personal problem that was really bothering you, would you consider seeking help from a mental health professional?” According to ACHA’s (2016b) data from the spring 2016 data collection in the United States, of the 13,000 participants, 83% reported that they would consider seeking help. Similarly, Wyatt and Oswald (2013) found that 74% of graduate students (in comparison to 65% of undergraduates) reported that they would consider seeking mental health care in the future. This paints a positive picture in terms of willingness to seek support. But we must further investigate the barriers to using those services. This was captured by some of the participants in Nyquist et al.’s (1999) study who were asked to visually depict their graduate student experience. Nyquist et al. note that: “The majority of students see themselves as alone, facing down the odds and slaying the dragons along their path by themselves” (p. 23). Although support services could be helpful to students during their graduate education, the services must be accessed to be effective.

Mental Illness and Educational Implications

One area of literature focuses on the educational attainment of those with mental health disabilities. Research suggests that students with mental health disabilities experience a number of challenges, such as difficulty taking notes and taking written exams, getting assignments done/multi-tasking, participating in class discussions and interacting with others, and attending classes (Collins & Mowbray, 2005; Megivern, 2001; Megivern et al., 2003; Rickerson et al.,

2004; Weiner & Weiner, 1996). These challenges may in turn affect students' academic performance. Findings suggest students with psychiatric disorders may be twice as likely as other students to drop out without completing the postsecondary credential (Hartley, 2001; Kessler et al. 1995). Breslau et al. (2008) similarly found that mental disorders significantly predicted non-completion of postsecondary programs. In a qualitative study of 35 people with psychiatric disabilities, Megivern et al. (2003) found the most frequently reported reason for leaving postsecondary programs was psychiatric symptoms, followed by a lack of academic integration.

Another area of literature focuses on mental health challenges in the general postsecondary student population and the relationship between these challenges and academic performance. One study by Eisenberg, Gollust et al. (2007) found that, of the 1,181 undergraduate and 1,662 graduate students, 18% of undergraduate and 14% of graduate students reported they had missed academic obligations in the past 4 weeks because of mental health difficulties, and 44% of undergraduates and 41% of graduate students reported that mental or emotional difficulties had affected their performance in the past 4 weeks. Following this initial work by Eisenberg, Gollust, et al., a follow-up study was conducted to longitudinally investigate how mental health affected grade-point average and dropping out, in the same sample of students as the initial study. Of the 2,843 students who participated in the initial 2005 data collection, 747 participated in the follow-up survey in 2007. Eisenberg, Golberstein and Hunt (2009) concluded that mental health problems are associated with lower academic success, and that this is true for both undergraduates and graduates. However, at the same time, they noted that "the general negative relationship between mental health and academic outcomes is more robust for undergraduates than graduate students" (p. 24).

Another study used the ACHA-NCHA data to investigate health-related barriers to learning for graduate students studying in programs related to health sciences. Of the 1,355 graduate students who participated, 44% reported they experienced negative academic effects due to depression/anxiety/seasonal affective disorders, while 29% reported negative academic effects due to relationship difficulties, and 27% due to stress (Kernan, Bogart, & Wheat, 2011). These findings are similar to those of Hyun et al. (2006), discussed previously, where 46% of a sample of 3,121 graduate students at one institution in the United States indicated they had experienced a stress-related issue that seriously impacted their emotional well-being and/or academic performance within the last year.

While the abovementioned studies (Eisenberg et al., 2009; Eisenberg, Gollust et al., 2007; Hyun et al., 2006; Kernan et al., 2011) focus on the general graduate student population, other studies combine undergraduate and graduate students in their sample. Unfortunately, a limitation of these studies is that they do not consider whether there are differences between the two groups. Leach (2009), for example, investigated the relationship between self-reported depression symptoms and academic performance. Participants were 164 students, of whom 49% were undergraduate and 33% were graduate students. Though findings from the study showed a significant negative relationship between depression and academic performance, the authors did not investigate differences according to student status and, as a result, it is unclear whether this relationship is consistent across both the undergraduate and graduate populations. Another study that includes both graduate and undergraduate students was done by Keyes et al. (2012), who investigated the relationship between level of positive mental health, presence of mental illness, and impaired academic performance. Of 5,689 participants, 74% were undergraduate and 23% were graduate students. The data analysis found that students who screened positive for an

existing mental health disorder were more likely to report an academic impairment than students who did not screen positive (Keyes et al., 2012). Keyes et al. suggest positive mental health is a protective factor against both suicidal behavior and academic impairment for students who have an existing mental health disorder as well as for those who do not. Similar to the study done by Leach, despite having a large number of graduate students in the sample, the authors did not investigate whether differences exist according to student status.

There may also be differences in academic performance according to the type of mental illness that is experienced. Hunt, Eisenberg, and Kilbourne (2010) substantiate this: “several disorders, including major depression, panic disorder with agoraphobia, social anxiety, and generalized anxiety, had weak, insignificant associations in our model with failure to graduate” (p. 402). Other research has found that students with depression can experience absences from class, short-term memory difficulties, and interpersonal problems, while anxiety, on the other hand, may affect concentration ability (Holmes & Silvestri, 2015). For depression, Buchanan (2012) synthesizes 16 clinical trial studies completed between 1987 and 2011. These studies focused on students with depression and a main finding of Buchanan’s work was that students with depression tended to have lower grade point average scores, lower academic productivity, and higher rates of withdrawal from postsecondary programs. Hysenbegasi, Hass, and Rowland (2005) found that undergraduate students diagnosed with depression reported grade point averages that were lower by approximately half of a letter grade compared to those who did not have depression. Additionally, Hysenbegasi and colleagues found students with depression missed significantly more classes, exams, and assignments and also reported dropping more courses.

Comorbidity

Eisenberg et al. (2009) argue that the academic performance challenges experienced by those with comorbid mental illness diagnoses are of greater severity than those experienced by individuals with a single mental illness diagnosis. This notion is based on their findings that students with a comorbid diagnosis of depression and anxiety had a lower grade point average than students who had solely depression and no diagnosis for anxiety (Eisenberg, Golberstein, & Hunt, 2009). Even more concerning is Breslau et al.'s (2008) finding that students with 3 or more disorders were at an elevated risk of termination prior to completing four years of college⁹ compared to those with no disorder.

Though it is difficult to know how many students with mental illness have a co-occurring disorder, one study found that, of the 1,195 students who access counselling/disability services, one quarter of them reported having a comorbid diagnosis (Holmes & Silvestri, 2015). Of these, half had both anxiety and mood disorders (Holmes & Silvestri, 2015).

Contradictory Findings

While there is some suggestion that those with mental health challenges and mental health disabilities are expected to have lower achievement than their peers without these challenges, there is some evidence that mental health difficulties may not always be related to lower academic performance. Brockelman (2009), for example, in a study of 375 undergraduate students at one university in the United States, found that there were no significant differences in grade point averages between students who self-identified as having a mental illness and peers without mental illness. Lester (2013) and Nyer et al. (2013) focused on suicidal ideation specifically and found no relationship between suicidal ideation and grade point average.

⁹ “college” as used here is equivalent to either college or university in Ontario

However, differences in the way that academic performance is defined may contribute to these contradictory findings. For example, in the studies by Brockelman (2009), Lester (2013), and Nyer et al. (2013), academic performance was operationally defined as grade point average. While Eisenberg et al. (2009) similarly use grade point average, Hyun et al. (2006) do not provide an operational definition of what is meant by academic performance.

Kernan et al. (2011) use the NCHA indicators to measure academic performance. ACHA-NCHA (2014) uses the following scale to examine impediments to academic performance: 1) This did not happen to me/not applicable; 2) I have experienced this issue but my academics have not been affected; 3) Received a lower grade on an exam or important project; 4) Received a lower grade in the course; 5) Received an incomplete or dropped the course; and 6) Significant disruption in thesis, dissertation, research, or practicum work. Within this instrument, only the final indicator, “disruption in thesis, dissertation, research, or practicum work,” extends beyond grades and coursework. Grades and coursework are typical stepping stones to completion of the credential particularly in undergraduate education. However, at the graduate level, and the doctoral level specifically, there is an additional focus on the completion of independent research in the form of the dissertation. The first phase of this study uses the indicators of academic performance outlined by the NCHA while a broader concept of academic performance is used in the second phase. Specifically, Gardner’s (2009) graduate student development framework is used. Three phases of development are presented: Entry, Integration, and Candidacy. Each phase has challenges students might face and sources of support that might be used. Phase one is the time leading up to the beginning of the program and can last until the end of the first year of the program, typically encompassing the coursework stage of the program (Gardner, 2009). The second phase, Integration, involves the time from the completion of coursework through the

comprehensive exam process. Phase three is the beginning of dissertation work and students becoming more independent researchers (Gardner, 2009).

Only one recent study has examined mental health in relation to specific stages of the doctoral program. Sverdlik and Hall (2019) examined whether phase of doctoral program had an effect on the levels of well-being and motivation for 3004 doctoral students from 54 countries. The phases of doctoral education were defined as coursework, comprehensive examination, and dissertation phase, which included the proposal. The researchers examined stress, depression, program satisfaction, and illness symptoms as indicators of overall well-being. Overall, Sverdlik and Hall found that the largest difference in well-being was between the coursework and comprehensive examination phases. No significant differences were found between the comprehensive examination and dissertation phases. Lastly, Sverdlik and Hall found that stress was highest in the comprehensive examination stage and lowest in the coursework stage.

While it is evident that there is a connection between mental illness, educational attainment, and academic performance, research investigating this relationship has largely focused on the undergraduate population. Only a few studies have investigated how mental health challenges or disorders affect the academic performance of graduate students, and only one has examined well-being in relation to specific phases of doctoral studies.

Mental Health and Illness in Academia

At the same time as graduate students' mental health has received increasing attention, so too has faculty members' mental health, as well as disability and ableism in academia. Based on her personal experience, Saks (2009), one of the most prominent writers about mental illness in academia, notes possible pitfalls of telling work colleagues about mental illness:

There is a tremendous stigma, still, around mental illness. People may believe, consciously or not, that you are unreliable or even dangerous, and they may fear you. They may think you can't do the work or your scholarship isn't good, even if it is very good. That may not be intentional on their part but can nonetheless have a big impact on your work life and your prospects for tenure. (para. 18)

Jago (2002) echoes Saks' concerns around sharing her experience of what she calls an "academic depression":

Committing these details to paper; putting my self on display; sharing my pain with family, friends, and colleagues; risking personal and professional humiliation, I wonder how you will read these stories. ... Am I undermining my credibility (as an author, teacher, human being) by the very act of testimony? (p. 738)

In 2014, an anonymous post on the Guardian Higher Education Network blog sparked a lot of conversation about a "culture of acceptance" of mental illness in academia (Anonymous Academic, 2014). Though studies on the topic of mental health in academia were conducted prior to this, it was this post that spurred significant discussion about prevalence, work conditions, and the pressures of academic life. Media outlets such as The Chronicle of Higher Education (See Brown, 2016; Pettit, 2016/2019), Times Higher Education (See Krause, 2018, Jump, 2018), Inside Higher Education (See Anonymous, 2018; Flaherty, 2017), and University Affairs (Smith, 2014), have increasingly covered mental health and illness in academia.

A growing research literature also focuses on faculty members' mental health. One study with 2,561 participants mostly from the United Kingdom looked at experiences of working or studying in higher education (Thomas, 2014). Participants held different roles: doctoral students (33%), researchers (16%), lecturers (16%), senior lecturers (13%), professors (7%), head of

department (3%), and other (12%). When asked if they had experienced a range of conditions during their time working or studying in higher education, Thomas (2014) found the most commonly reported conditions were anxiety (83%), depression, (75%), and panic attacks (42%). And, these were commonly experienced across all of the examined roles. Thomas also found that 66% of participants agreed or strongly agreed that their mental health problems were directly related to their work at the university, and this was fairly consistent across the various roles. Overall, the top five principal factors related to work that had an impact on participants' mental health were: heavy workload (51%); lack of support (44%); isolation (43%); culture of long working hours (34%); and pressure to publish (31%).

It is very likely that some of those who obtain faculty positions experienced mental health challenges when they were completing their graduate program. But we do not know what happens to those graduate students who had mental health challenges, completed their programs, and obtained faculty positions. Do they experience the same challenges when they become faculty members? How do the challenges as a faculty member with mental illness compare to the challenges of a graduate student with mental illness? How are the coping strategies or support systems similar or different? While exploring this using a longitudinal approach would be ideal, exploring mental health in graduate students is a first step towards connecting the issues surrounding graduate student mental health and mental illness in academia.

Summary

In this chapter, I first defined terms related to mental health and stress and then discussed research findings concerning specific populations of students. Following a summary of literature that focused on the prevalence of mental health challenges in graduate students, I reviewed the topics of support and help-seeking. I then summarized the literature concerning the educational

implications of mental health disabilities and the relationship between mental health and academic performance. Lastly, I discussed mental health in academia more broadly.

CHAPTER THREE: METHODS

The purpose of this chapter is to explain the methods that were used in the study. I begin this chapter with a description of the mixed-methods approach, followed by descriptions of each phase of the study. I detail the first, quantitative phase of the study: a description of the NCHA, the dataset used for the analyses, the variables, and the data analysis steps. I then explain the second phase of the study and the qualitative procedures that were used: the sampling and recruitment strategies, the interview methods, and steps taken to analyze the interview transcripts. In the final section of this chapter I outline some of the ethical considerations.

Research Design

A quantitative research design is typically used when the researcher focuses on numerical data. Leedy and Ormrod (2001) noted that a quantitative research design typically includes “looking at amounts, or *quantities*, of one or more variables of interest” (p. 95). Conversely, “qualitative research involves looking at characteristics, or *qualities*, that cannot be entirely reduced to numerical values” (Leedy & Ormrod, 2001, p. 95), such as textual data and images. Not only do the procedures used in each approach differ, but the rationale for choosing each approach differs as well. Creswell (2012) explained “the problems best suited for quantitative research are those in which trends or explanations need to be made” (p. 19) while “a qualitative researcher typically aims to examine the many nuances and complexities of a particular phenomenon” (Leedy & Ormrod, 2001, p. 95). An evolving area of literature has focused on mixed-methods research, particularly since the *Journal of Mixed Methods Research* was established in 2007. In the journal’s first issue, editors Tashakkori and Creswell (2007) defined mixed methods research as “research in which the investigator collects and analyzes data,

integrates the findings, and draws inferences using qualitative and quantitative approaches or methods in a single study or program of inquiry” (p. 4).

Greene, Caracelli, and Graham (1989) provided an initial list of five rationales for combining quantitative and qualitative research: Triangulation, Complementarity, Development, Initiation, and Expansion. Bryman’s (2006) content analysis of 232 mixed-methods social science articles built on Green et al.’s scheme, creating a classification system of 18 rationales. The rationale for using a mixed methods research design for this study is threefold. First, *completeness*, which Bryman describes as “the notion that the researcher can bring together a more comprehensive account of the area of enquiry in which he or she is interested if both quantitative and qualitative research are employed” (p. 106). Second, *enhancement*, which Bryman describes as “a reference to making more of or augmenting either quantitative or qualitative findings by gathering data using a qualitative or quantitative research approach” (p. 106). Lastly, *explanation*, that is, “one [method] is used to help explain the findings generated by the other” (p. 106). The primary rationales for this study are completeness and enhancement, while explanation is a secondary rationale resulting from the sequential approach to the study. The rationales for this study are consistent with the belief that using solely a quantitative or qualitative method may not be sufficient to reveal the trends and details of a complex situation. When used in combination, quantitative and qualitative methods complement each other and can “contribute more to understanding a research problem than one form of data collection (quantitative or qualitative) could on its own” (Creswell, 2015, p. 3).

A sequential quantitative-qualitative design is one in which “researchers implement quantitative and qualitative strands in sequence with the purpose of using follow-up data to elaborate, explain, or confirm the initial quantitative results” (Plano Clark & Ivankova, 2016, p.

122). In this study, a sequential mixed methods design is used, where one phase is conducted and then a second. Sequential research studies are typically considered explanatory (quantitative followed by qualitative) or exploratory (qualitative followed by quantitative). In this study, Phase 1 involves analysis of a quantitative dataset and the second phase uses qualitative data. Recall, however, that the primary rationales for using a mixed-methods design were for *completeness* and *enhancement*, not explanation. Therefore, while the qualitative phase does explain some of the quantitative findings, explaining all of the quantitative data was not the primary purpose of conducting the qualitative phase. Figure 1 illustrates the study's design.

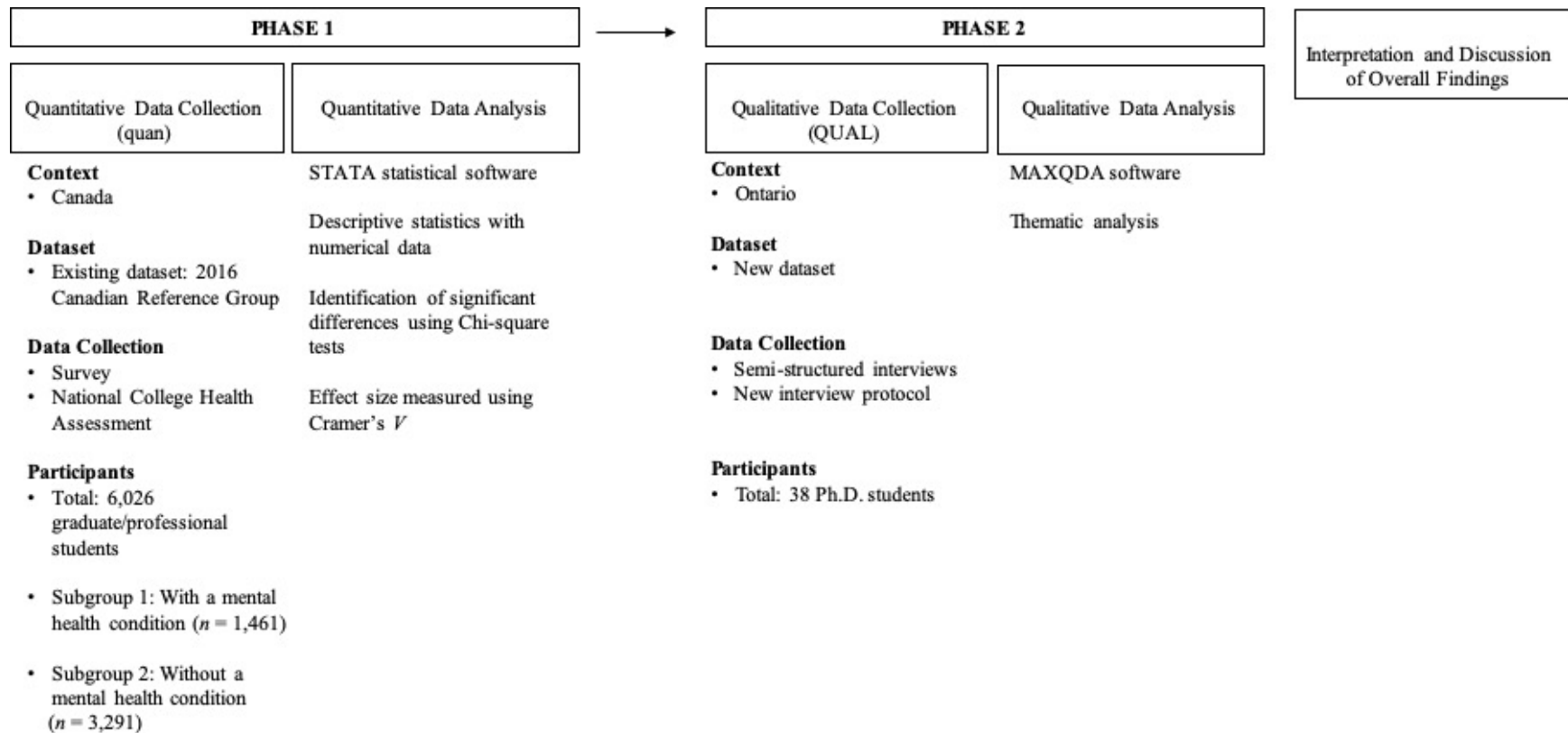


Figure 1. Diagram of procedures for the sequential explanatory mixed methods design study.

In Phase 1 of this study, an existing quantitative dataset is used; it is the largest dataset of its kind for Canada. The goal of Phase 1 was to provide an overall picture of stress, mental health, help-seeking, and impediments to academic performance in a sample of Canadian postsecondary students. The second phase of the study is qualitative. In Phase 2, semi-structured interviews are used not only to explore some key results from Phase 1 in more detail, but to supplement the initial findings and obtain a more complete understanding of the issues. In mixed-methods research studies, priority is sometimes given to one form of data collection (Creswell, 2012). In this sequential explanatory design, the qualitative phase of the study is given priority.

Phase 1: Quantitative Data

In this section, I begin with an overview of the National College Health Assessment and its background. I discuss how the survey is administered and then I review characteristics of the overall 2016 Canadian Reference Group dataset – the dataset used in this study. Specific variables are then explained and an outline of the quantitative data analyses is provided.

The National College Health Assessment

The NCHA was developed by an interdisciplinary team of postsecondary health professionals and now provides the largest known dataset on college¹⁰ student health. Since being pilot tested in 1998-99, the instrument has also undergone reliability and validity testing (ACHA-NCHA, 2014). The survey is administered through the American College Health Association for a fee. Since 2000, 728 unique institutions have used the NCHA and the average response rate is 19-20% (ACHA-NCHA, 2014). The instrument consists of 70 questions and covers these college student health topics: (a) alcohol, tobacco, and other drug use; (b) sexual

¹⁰ “college” as used here is equivalent to either college or university in Ontario.

health; (c) weight, nutrition, and exercise; (d) mental health; and (e) personal safety and violence (ACHA-NCHA, 2014). Though typically administered in the United States, the survey was adapted for Canadian institutions and was first administered to institutions across Canada in the spring of 2013. The main changes that were made to the survey in adapting it for the Canadian population were removing a question about health insurance, adapting the racial/ethnic categories to be applicable to Canada, and adding a question about the Canadian Armed Forces (ACHA-NCHA, 2014).

Reliability and Validity

The ACHA (2013b) reported that they used data from the 2009 and 2010 administrations of the NCHA survey to determine the internal consistency of the survey. They used sets of items based on Principal Components Analyses (e.g., 6 items about feelings and behaviours, 3 items related to suicidality and intentional self-harm, 6 items about diagnoses). The coefficient alpha for most sets in the survey and within the mental health sets specifically were above .7, which is usually considered acceptable. This suggests students are responding consistently within the survey and supported the use of this instrument for this study.

To determine measurement validity, the ACHA (2013b) reported that they used the spring 1999, fall 1999, and 2000 administrations of the survey to compare results to the Wechsler, Lee, Kuo, & Lee (2000) College Alcohol Study. The ACHA reported that “The results showed strong replication of results in direction and magnitude across the 2 studies and four measurement periods” (p. 6). The ACHA later examined the validity of the instrument after it had been revised, comparing results from the 2009 and 2010 administrations of the survey to the results of a similar survey. Specifically, they looked at alcohol consumption and drug use and found that the NCHA results were similar to those of another national survey. Although these

comparisons provide evidence for the validity and interpretation of the results, they did not focus on the mental health aspects of the survey.

Survey Administration

Participating institutions send a letter of invitation to students, followed by reminder emails (ACHA-NCHA, 2014). Institutions are able to distribute the survey to all students or to a random sample. Participants give consent to participate by clicking on the survey link that is provided in the letter of invitation they receive via email. Participants also provide consent by clicking on “Begin Survey” on the landing page of the survey. The survey takes approximately 30 minutes to complete and is voluntary (ACHA-NCHA, 2014). Participants are able to complete the survey on personal computers, mobile devices, and tablets. The survey data are considered confidential.

Students who do not respond to the survey are sent 1-3 reminder emails. Participating institutions are able to customize the duration of the data collection but the ACHA recommends data collection take place over 2-3 weeks. This data collection can occur in the fall or spring of the academic year, depending on the preference of the institution. Following completion of the data collection, each institution receives: 1) the raw institutional data file with personally identifying information removed; 2) an institution report consisting of frequencies and bar charts; 3) an institutional executive summary; and 4) an aggregate reference group report and reference group executive summary for the survey period (ACHA-NCHA, 2014).

The 2016 Canadian Reference Group

In 2016, the data collection in Canada occurred in the spring. Forty-one institutions self-selected to participate in this data collection. The aggregate dataset is known as the Canadian Reference Group and includes 43,780 surveys and a mean response rate of 19%. The

graduate/professional students were 6,026 of these participants and they represented 13.9% of the total sample (ACHA, 2016a). The characteristics of the participating institutions for this data collection are summarized in Table 1.

Table 1

Characteristics of Participating Institutions

Characteristic	<i>n</i>
Type of institution	
Public	41
Private	0
2-year	4
4-year or above	27
Other	10
Campus size	
<2,500 students	3
2,500 – 4,999 students	3
5,000 – 9,999 students	9
10,000 – 19,999 students	8
20,000 students or more	18
Campus setting	
Small town (population 2,500 – 9,999)	1
Small city (population 50,000 – 249,999)	17
Large city (population 250,000 – 499,999)	5
Very large city (population over 500,000)	18

I completed a Data Use Request Form and submitted it to the ACHA to obtain access to specific sections of the spring 2016 dataset. Approval was granted and I was provided with a Data Use Permission Agreement (Appendix A). Data for the quantitative component of this study include students' responses to the survey questions related to stress, mental health, and academic performance, as well as demographics from the Canadian Reference Group.

Variables in the Quantitative Analyses

In this section, I briefly describe the NCHA variables that were used in this study.

Variables were divided into three groups: 1) prevalence and demographics; 2) challenges; and 3) supports.

Prevalence and Demographics. Demographic variables used in this study are:

- age (18-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55+);
- gender (woman; man; another identity);
- sexual orientation (asexual; bisexual; straight/heterosexual; another identity);
- enrollment status (full-time; part-time; other);
- relationship status (not in a relationship; in a relationship but not living together; in a relationship and living together);
- marital status (single; married/partnered; separated; divorced; other);
- number of employed hours per week; and
- number of volunteer hour per week.

For employed hours, the response options were combined to create five categories: (a) 0 hours; (b) 1-19 hours; (c) 20-39 hours; (d) 40 hours; and (e) more than 40 hours. The response options for volunteer hours were also combined to represent: (a) 0 hours; (b) 1-19 hours; and (c) 20 or more hours.

Several questions were used to distinguish which participants identify as having a disorder, disability, or chronic illness. Question 64 of the survey asked if participants had attention deficit hyperactivity disorder; chronic illness; deafness/hearing loss; learning disability; mobility/dexterity disability; partial sightedness/blindness; psychiatric condition; speech or language disorder; or other disability. Question 31A asked “Within the last 12 months, have you

been diagnosed or treated by a professional for any of the following?” The question listed anorexia; anxiety; attention deficit hyperactivity disorder; bipolar disorder; bulimia; depression; insomnia; other sleep disorder; obsessive compulsive disorder; and panic attacks. The response options for each item in the list were:

- 1) No.
- 2) Yes, diagnosed but not treated.
- 3) Yes, treated with medication.
- 4) Yes, treated with psychotherapy.
- 5) Yes, treated with medication and psychotherapy.
- 6) Yes, other treatment.

A new variable was created from these response options so that there were three options:

- 1) No.
- 2) Yes, diagnosed but not treated.
- 3) Yes, treated.

Question 32 asked whether participants had been diagnosed with depression. To identify all those who have a mental health diagnosis, a new variable was created by including those who responded *yes* to having a psychiatric condition (Question 64), those who responded with the *yes, diagnosed but not treated* and *yes, treated* responses in the new variable that was created using Question 31, and those who answered *yes* to having been diagnosed with depression.

Challenges. Question 30 of the NCHA asked students if they have ever felt things were hopeless; felt overwhelmed by all you had to do; felt exhausted (not from physical activity); felt very lonely; felt very sad; felt so depressed that it was difficult to function; felt overwhelming anxiety; felt overwhelming anger; intentionally cut, burned, bruised, or otherwise injured

yourself; seriously considered suicide; and attempted suicide. The five response options for this question were:

- 1) No, never.
- 2) No, not in the last 12 months.
- 3) Yes, in the last 2 weeks.
- 4) Yes, in the last 30 days.
- 5) Yes, in the last 12 months.

For analyses, this variable was re-coded into three categories:

- 1) No, never.
- 2) No, not in the past 12 months.
- 3) Yes, within the last 12 months.

Question 33 asked: “Within the last 12 months, have any of the following been traumatic or very difficult for you to handle?” The question asks about: academics; career-related issues; death of a family member or friend; family problems; intimate relationships; other social relationships; finances; health problem of a family member or partner; personal appearance; personal health issue; sleep difficulties; and other. The response options were *yes* or *no*. These items are considered to be possible stressors for this study.

Question 37 inquired about respondents’ stress level. Specifically, the survey asks: “Within the last 12 months, how would you rate the overall level of stress you have experienced?” The response options were: (a) no stress; (b) less than average stress; (c) average stress; (d) more than average stress; and (e) tremendous stress. Definitions of stress and level of stress are not provided and how this question is interpreted could vary across participants.

Another section of the NCHA inquired about impediments to academic performance. Specifically, the question asks: “Within the last 12 months, have any of the following affected your academic performance?” The question asks about 31 possible impediments such as: anxiety; chronic health problem or serious illness; depression; eating disorder/problem; finances; learning disability; relationship difficulties; and stress. The response options for each of these possible impediments were:

- 1) This did not happen to me/not applicable;
- 2) I have experienced this issue but my academics have not been affected;
- 3) Received a lower grade on an exam or important project;
- 4) Received a lower grade in the course; received an incomplete or dropped the course;
- 5) Significant disruption in thesis, dissertation, research, or practicum work.

For the purposes of data analysis, a new variable was also created so that there were two categories:

- 1) Those whose academics have not been affected (i.e., this did not happen to me/not applicable; and I have experienced this issue but my academics have not been affected).
- 2) Those whose academics have been affected (i.e., received a lower grade on an exam or important project; received an incomplete or dropped the course; or significant disruption in thesis, dissertation, research, or practicum work).

Support. Several questions asked about use of psychological or mental health services. Question 34 asks: “Have you ever received psychological or mental health services from any of the following?” The list is: (a) a counselor/therapist/psychologist; (b) a psychiatrist; (c) other medical provider (e.g., physician); and (d) a minister/priest/rabbi/other clergy. Participants are

asked to respond either *yes* or *no*. Question 35 further inquired about use of campus services: “Have you ever received psychological or mental health services from your current college/university’s Counselling or Health Service?” The response options for this question were *yes* and *no*. In addition, while the responses for Question 31 (“Within the last 12 months, have you been diagnosed or treated by a professional for any of the following?”) mentioned earlier can be used to identify students with a mental health diagnosis, they can also be used to identify the types of mental health treatments or services students are using.

Question 36 asks about future use: “If in the future you were having a personal problem that was really bothering you, would you consider seeking help from a mental health professional?” Response options were *yes* and *no*.

The final questions related to support concerned health education. Specifically, the questions asked: “Have you received information on the following topics from your college or university?” Following these, the survey asked whether participants were interested in receiving information on those topics. Of interest to this study, therefore, were participants’ responses to the topics related to mental health (depression/anxiety, eating disorders, how to help others in distress).

Quantitative Data Analysis

The purpose of the first phase was to provide an overall picture of stress, mental health, help-seeking, and impediments to academic performance in a national sample of graduate/professional students. The quantitative data analysis was therefore limited to mostly descriptive statistics with some simple inferential statistics. StataCorp’s (2013) *STATA* statistical software was used to complete these analyses. Chi-square tests were used determine whether there were significant differences between graduate students with and without a mental health

condition. Because of the large sample size and the numerous statistical significance tests, a somewhat conservative requirement of $p < .001$ was used. Cramer's V was used to determine the effect size of the differences. Following Cohen's (1988) recommendation, the effect sizes were interpreted as follows: $V < .1$ is negligible, $.10 \leq V < .30$ is small, $.30 \leq V < .50$ is medium, and $.50 \leq V$ is large.

The purpose of the comparisons between students with and without a mental health condition was not necessarily to see if more of those with a mental health condition reported symptoms of mental illness, stressors, and impediments to academic performance. Rather, the purpose was to see if those in the subgroup of students without a mental health condition reported similar symptoms, stressors, impediments.

Phase 2: Qualitative Data

This section begins with a brief overview of the purpose for including a qualitative component in this study. Subsequent discussion details the sampling procedures and inclusion criteria, followed by a description of the recruitment strategy. I then describe how the interviews were conducted and the protocol that was used. Finally, an account of the qualitative data analysis approach is provided.

Rationale

The qualitative phase of this study extends the understanding of mental health, challenges experienced, help-seeking, and academic performance, while narrowing the focus to doctoral students who are not in professional programs. The quantitative dataset did not allow for this because question 51 in the survey, "What is your year in school?" had only one response option for students in graduate and professional programs. Furthermore, the focus of the qualitative phase will be narrowed to doctoral students specifically in non-professional programs. The

reason for this is that there is a significant amount of literature focusing on professional students and the literature surrounding graduate students in non-professional programs is small. Oswalt and Riddock (2007) similarly provide a rationale for not including professional students in their study: “Because professional students (law, veterinary, pharmacy, medical and dental schools) may have different experiences (no graduate or research assistantships, more structured programs) than graduate students, professional students were not included in this study” (p. 27). In addition, given that academic performance at the doctoral level arguably encompasses more than course grades, the qualitative component will further explore academic performance by examining coursework, comprehensive examinations, the dissertation proposal, and the dissertation. This study also includes discussion of time-to-completion.

While the quantitative phase provides an overarching view of the issues, the purpose of the qualitative phase is to deepen this understanding by obtaining student perspectives via semi-structured interviews. Plano Clark and Creswell (2015) argue that the defining characteristics of qualitative research designs are (a) the central phenomenon of interest; (b) the intent; and (c) the procedures. In this study, the central phenomenon of interest is the experience of doctoral students with a specific focus on the challenges they experience and the supports they use.

Sampling and Inclusion Criteria

The qualitative component of this study used a purposeful sampling strategy. When using this approach, Creswell (2012) suggests the researcher must “intentionally select individuals and sites to learn about or understand the central phenomenon” (p. 206). There are several purposeful sampling techniques; this study used homogenous sampling. With homogenous sampling, the researcher “purposefully samples individuals or sites based on membership in a subgroup that

has defining characteristics” (p. 208). The defining characteristics of the subgroup will now be described.

First, participants had to be *currently* enrolled in a doctoral program. Second, participants had to be enrolled in a doctoral program located in Ontario. Though the quantitative phase used a national, Canadian dataset, the scope of the qualitative phase was narrowed to Ontario specifically. This was done for two reasons. First, Ontario has almost 40% of Canada’s population (Statistics Canada, 2019b). Second, Ontario is also home to the largest number of full-time graduate enrollment at both the master’s and doctoral levels (CAGS, 2018). I was able to provide participants with the option of doing face-to-face interviews because of my focus on Ontario.

Third, students had to self-identify as being in one of two subpopulations: 1) those who self-identify as having a mental health challenge; or 2) those who self-identify as having a mental health disability. One goal was to obtain a reasonable number of participants from each of these subpopulations so as to have the opportunity to compare these perspectives.

Fourth, similar to the quantitative phase, the scope of the interviews was narrowed to the domestic student perspective. Previously, I reviewed the literature on differences between the international and domestic student experiences. As the focus of the interviews was students in Ontario, focusing on domestic students was warranted given the percent of international students in this location. CAGS (2018) reported that even though Ontario had the largest enrollment numbers for master’s and doctoral students in 2015, they had the lowest numbers of international students at both these levels. About 24% of both master’s level and doctoral level enrollment in Ontario were international students (CAGS, 2018). This is much lower than the percentage of international students in Newfoundland and Labrador, where 45% of master's and 54% of

doctoral level students were international (CAGS, 2018). This was therefore a contributing factor in deciding to focus on domestic students.

Lastly, as previously noted, one of the limitations of the quantitative instrument was that it did not allow for differentiation between participants enrolled in professional and non-professional programs. For the qualitative phase, the scope was narrowed to doctoral students in non-professional programs¹¹.

Participants could be at any stage of the doctoral process; however, the aim was to include participants at each stage. Given the exploratory nature of this study, participants could vary in demographics such as age, gender, sexual orientation, enrollment status (full-time or part-time), relationship status, and marital status. Comparing the experiences of students based on these different socio-demographic variables was outside the scope of this research, however. This study sought to explore the overarching issues rather than examining specific demographic groups or comparing groups.

Recruitment Strategy and Response

Recruitment was initiated by posting a study advertisement (Appendix C) on Twitter using my personal Twitter account. I used online communities such as #PhDchat as well as professional connections to help promote the call for participants. Specifically, I reached out to two prominent researchers in higher education (one with about 315,000 Twitter followers and

¹¹ A professional-stream graduate program was defined for potential participants as: a master's or doctoral program that does not require the creation or defense of a thesis. While these programs may contain significant research components (e.g., major research projects, capstone projects), there is less requirement for independent research. These programs may be more course-based, may include practicum or placement learning opportunities, and may be more restricted in terms of time to completion. These professional degrees are typically needed to practice in a profession that requires licensure. Examples of professional programs are: chiropractic, dentistry, law, medicine, optometry, chiropractic medicine, pharmacy, theology, veterinary medicine, and clinical psychology programs.

another with almost 43,000) and they posted the study information. I also asked various on-campus groups at universities in Ontario to share my call for participants.

My initial tweet directed people to a screening questionnaire (Appendix D) hosted on Survey Gizmo. The screening questionnaire first provided an overview of the study and what participants would be asked to do. Four screening questions based on the inclusion criteria were then asked to determine eligibility for the study. If responses determined the potential participant was eligible then they were asked to provide their name and institutional email address so that I could contact them to arrange an interview.

Within 24 hours of sending the initial tweet about the research study, 27 eligible participants from 10 different universities in Ontario had confirmed their eligibility by completing the screening questionnaire. On the second day of recruitment, I posted information about the study in various Facebook groups, such as groups for Graduate Student Unions and associations, mental health and wellness groups, and student society groups.

After two days of recruitment, 243 people had completed the online screening questionnaire. Of the 243 completed responses, 102 people provided contact information. Based on the institutional email addresses that were provided, I determined that 30 of these respondents were not eligible to participate because they were located outside of Ontario (16 from Australia/New Zealand; 8 from the United States; 3 from the United Kingdom; and 3 from within Canada but outside of Ontario). The remaining 72 eligible participants were emailed to schedule a date and time for the interview.

Number of Completed Interviews

For this study, I aimed to conduct semi-structured interviews with approximately 30 participants. This projected sample size was based on guidelines provided by several

methodologists who describe approximate sample sizes for specific qualitative methodologies. For example, Creswell and Poth (2017) recommend 20 to 30 interviews for grounded theory studies and Morse (2000) recommends 6 to 10 interviews for phenomenological studies.

However, Patton (2002) explains:

There are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources. (p. 242)

I aimed to conduct interviews with 12-15 participants from each target population (those with a mental health disability and those with a mental health challenge) because I believed that in light of other researchers' approximations, this number would be sufficient for capturing the experiences of students with a mental health condition.

Of the 72 eligible participants who were contacted, 50 initially selected an interview time. Interviews were scheduled to take place over the course of 5 weeks, between February 26 and March 30, 2018. Several of the 50 participants cancelled their interview time. Additionally, after four weeks of data collection, I reviewed the screening responses of the participants yet to be interviewed. I cancelled some of the remaining interviews for three reasons. First, most of the remaining interviewees identified as having a mental health challenge and I had already exceeded the number of interviews I had hoped to complete for this subgroup. Second, during the data collection I had been completing researcher memos where I recorded aspects of the interviews that I found particularly interesting or significant. In these memos I began identifying and organizing initial findings, and as I neared the end of the data collection period I felt that I was not obtaining any new information or perspectives from the interviews. Morse (1995) refers to this as saturation, which is operationalized as "collecting data until no new information is

obtained” (p. 147). Third, because of the sensitive nature of some of the topics that were discussed in the interviews, the data collection period was emotionally challenging; this aspect of qualitative research has started to gain some attention. After asking a community of qualitative researchers about their views and experiences around mental health and qualitative work, Clark and Sousa (2018) summarize:

Most reported that qualitative work brought distinctive challenges to mental health – but that the range of these varied widely – for example, from feeling intense fatigue and emotional [*sic*] upset following particular interviews to chronic isolation from supervisors when completing whole studies. (p. 1)

Given that I already had a considerable amount of data and that I was feeling emotionally drained because of the sensitive nature of the topic, I cancelled the remaining interviews.

In total, I completed 41 interviews. Three of these interviews were not included in the analyses: one participant had not yet begun their coursework; one resided in Ontario but was enrolled in an institution in another province; and the last was in a professional program. Thirty-eight interviews were therefore included in the qualitative analyses. Only nine of these interviews were with participants who identified as having a mental health disability. Though the number of participants with a mental health disability is smaller than the number with a mental health challenge, the inclusion of the additional participants who identified as having a mental health disability provides important perspectives about identity and accommodations.

Conducting Interviews

The letter of consent indicated that the duration of the interviews would be approximately 90 minutes. The average length of the interviews used in the analyses was 70 minutes. The shortest interview was 30 minutes and the longest was 95 minutes. The shortest interviews were

short primarily because these participants did not become aware of or acquire their mental health challenge or disability until after they started their doctoral program and therefore were not able to discuss their experiences in other levels of postsecondary education.

Interviews could take place in person (depending on where the participant was located), on the phone, or over Skype (with or without video). Five interviews were conducted in-person, six were completed on Skype with video, and the remaining 28 interviews were completed over the phone. All interviews were audio recorded and then transcribed.

Interview protocol. An interview protocol (Appendix F) was developed and pilot tested with two peers. The purpose of Section I was to provide an overview of the study, to answer any questions the participant might have about the study and the informed consent document, and to establish the current location of the participant. Section II was focused on student information and background and consisted of one question about gender identity and several questions about participants' educational pathways.

The third section had questions about identity. The primary purpose of this section was to understand why participants identified as having either a mental health disability or mental health challenge and how they defined terms such as 'disability' and 'challenge.' In this section, I also aimed to obtain information about participants' diagnoses and the source of the diagnoses.

Subsequent sections followed a chronological structure. Section IV focused on previous educational experiences and asked about challenges that were experienced and supports that were used at the undergraduate and master's levels. These questions were relevant for those who indicated they experienced their mental health disability or challenge prior to their doctoral program. The final question in this section asked participants to compare the challenges and supports from their undergraduate degree to those from their master's degree.

Following discussion of undergraduate and master's levels (if applicable), Section V began the discussion of the doctoral level. This section addressed the participants' timeline for the various components of their program and also addressed time-to-completion. The primary focus was on the challenges students experienced throughout their program that particularly impacted their academic performance and progress. Section VI also focused on the doctoral level but shifted the focus to help-seeking and support.

Qualitative Data Analysis

Qualitative data analysis was conducted using *MAXQDA* software (VERBI Software, 2018). After transcribing and reading through the transcripts for accuracy, I created folders for most of the interview sections (student information and background, identity, undergraduate degree, master's degree, doctoral program). I also made a folder for in-vivo codes. Saldaña (2013) notes that In Vivo coding may also be known as "literal coding, verbatim coding, [and] inductive coding" (p. 91). During this process, the researcher pays particular attention to words or phrases that warrant bolding, underlining, italicizing, or highlighting, and as they note these words or phrases, they place them in quotation marks, thereby denoting them as In Vivo codes (Saldaña, 2013).

Within each of the folders for the interview sections, I created additional folders that captured most the individual interview questions. Overall, the data analysis was done by examining one section at a time, and then each question sequentially. The analysis approach for each interview section and question varied. Subfolders in the identity section were: 1) awareness of mental health challenge, 2) diagnosis, and 3) defining challenge/disability. I developed codes within each of these sections, depending on the data. For awareness of mental health challenge, the codes were: whole life, elementary school, high school, undergraduate, masters, doctoral. For

diagnosis, I examined whether participants reported they had a diagnosis, whether it was official or unofficial, and what kind of service provider gave the diagnosis. The first round of data analysis involved coding transcripts for these and then the second cycle went into more detail. For example, the second cycle of coding for the question about whether participants had a diagnosis focused on language and students' perceptions of what a diagnosis consisted of. For defining challenge/disability, in the first round of data analysis I developed initial codes for mental health challenge and then separate codes for mental health disability. In the second cycle of coding, I revised these codes and established the codes that are presented in the findings section. Though there was some thematic analysis for the questions in the identity section, the data analysis approach in other sections differed and was not as focused on developing themes.

For each of the levels of education I made a subfolder for challenges and another for support. In the findings I report here, I focused on experiences at the doctoral level. For challenges, I analyzed the data with particular attention to each stage of the typical doctoral program. Additionally, the NCHA does not capture the challenges within each of these stages, so I collected and analyzed data with these stages in mind to complement the quantitative findings. I created additional folders for the stages (coursework, comprehensive exam, proposal, dissertation), but I also added other folders for stages as they arose (fieldwork, leave of absence, minimal impact on success, overall delayed productivity). After an initial round of coding each transcript with these headings in mind, I completed a second round of coding within each of these stages and identified what the key challenges were for each.

For the questions focused on support at the doctoral level, I examined where the support came from (on- or off-campus) and who it came from (informal and formal sources). The NCHA does not investigate whether students used off-campus support, so I analyzed the data with

particular attention to whether the support was on- or off-campus. Furthermore, though the NCHA captures a variety of medical practitioners, it does not investigate use of support from non-medical practitioners. For this reason, I analyzed the data more holistically looking for the range of sources. My analysis in this section therefore differed from the previous section (challenges) where I provided some description of those experiences. With the support section, I was concerned with what types of support they were using and not their experiences when they used them.

The data analysis and reporting differ from traditional qualitative studies where there is typically rich, thick description of the participants experiences. Because of the number of interviews that were completed, I determined that analyzing the data with the goal of providing detailed narratives for each participant was not feasible. Instead, I focused on providing frequencies where appropriate to give the reader a sense of the overall sample. I then went into some detail by providing illustrative quotations.

Ethical Considerations

The first phase of this work involved an existing dataset. The data are considered confidential and no identifying personal identifying information was provided in the dataset. To obtain access to the data, I submitted a Data Use Request form to the American College Health Association. This form detailed which variables were needed for the study and also outlined the types of analyses that would be done. Appendix A is the email communication that was received granting permission from ACHA to use the Canadian dataset for this study.

For the qualitative component of the work, Research Ethics Board (REB) approval was granted by the University of Toronto. Appendix B is the letter of approval from the ethics board.

In the subsequent sections, I summarize some of the key ethical considerations for the interview part of this study.

Each participant was sent an informed consent form to review prior to their interview (Appendix E). Participants were asked to sign and return the form. The form includes information about the study and details about the recording and transcription of the interviews, storage of the data, confidentiality of the data, withdrawal procedures, potential risks, and dissemination.

All interviews were audio recorded with the participants' permission. Following the interview, the audio files were sent to a transcriber for verbatim transcription. The audio files were deleted once they were transcribed. Any files were encrypted and stored on a password protected computer. Participants were sent a \$30 gift-card to Amazon by email.

The interview data are considered confidential. Each interview was randomly assigned a number between 1 and 38, and when reporting the findings participants are referred to using these numbers (e.g., P1). Pseudonyms were not used because of the large number of interviews that were conducted. The newly assigned numbers led to a de-linking procedure where participants' real names were no longer associated with the transcripts. Any information that could be used to identify participants was deleted so that nothing could be used to link participants' names to the randomly assigned number.

The main ethical concerns for the qualitative component of the study was that the interview questions could lead to feelings of shame or embarrassment, or that participants would disclose current risk of serious harm to themselves or others. Participants (and potential participants) were all provided with a resource list (Appendix G) that listed sources of mental health information and options for mental health support in Ontario. To address the concern

regarding disclosure of serious harm to self or others, participants were asked where they were currently located so that appropriate action could be taken if there were any concerns regarding their safety.

Summary

In this chapter, I first provided a description of the sequential explanatory mixed-methods research design used in this study followed by a diagram of procedures. Subsequent discussion addressed the quantitative phase, including a description of the NCHA, administration of the survey, the 2016 Canadian dataset, the variables that were used in this study, and the data analysis approach. I then described the qualitative phase of the study, including the sampling and recruitment strategies, how the interviews were conducted, and the data analysis steps. The final section of this chapter addressed ethical considerations. I now turn to the quantitative findings of the investigation.

CHAPTER FOUR: QUANTITATIVE FINDINGS

In this chapter, I present the findings from the quantitative analyses of this study.

Findings are divided into three sections: (a) prevalence and demographics; (b) challenges; and (c) supports.

Prevalence and Demographics

In this section, I first discuss the prevalence of various types of disabilities and mental health conditions in the general graduate student population (in this chapter, I will use “graduate” to mean master’s, doctoral, and professional programs, because it is not possible to distinguish among these programs in the NCHA dataset). I note how many respondents identified as having more than one disability, and the numbers for specific mental health conditions. Following this discussion, I compare graduate students with mental health conditions based on their disability diagnoses, types of mental health conditions, and various demographic variables.

Disability Diagnoses

Of the 4,752 graduate student respondents, 1,037 (21.82%) identified as having one or more disabilities. Table 2 shows that chronic illness and psychiatric conditions were the most frequently reported disability types (almost 8% each), with Attention Deficit Hyperactivity Disorder (ADHD) (4.21%) as the third most frequently reported condition.

Table 2

Prevalence of Disability Types in the Overall Graduate Student Sample

Disability type	Responses			
	Yes		No	
	<i>n</i>	%	<i>n</i>	%
ADHD	200	4.21	4,524	95.20
Chronic illness	378	7.95	4,348	91.50
Deaf/hard of hearing	94	1.98	4,627	97.37
Learning disability	158	3.32	4,554	95.83
Mobility/dexterity disability	59	1.24	4,642	97.69
Partially sighted/blind	74	1.56	4,644	97.73
Psychiatric condition	370	7.79	4,348	91.50
Speech or language disorder	23	0.48	4,697	98.84
Other disability	107	2.25	4,581	96.40

Note. $n = 4,752$. Total of percentages by row is not 100 because of nonresponse.

This table does not convey how many participants selected more than one disability. Of the 1,037 participants who identified as having a disability, approximately one third indicated they had two or more disabilities.

Table 3

Number of Disabilities per Student in the Overall Graduate Student Sample

No. of disabilities	<i>n</i>	%
1	746	71.94
2	207	19.96
3	53	5.11
4 or more	31	2.99

Note. $n = 1,037$.

As shown in Table 3, about 72% of graduate students with a disability identified as having one disability. To describe this subset of students further, Table 4, shows the disability types for the 746 participants who identified as having only one disability.

Table 4

Disability Type for Graduate Students with One Disability

Disability type	<i>n</i>	%
Attention Deficit and Hyperactivity Disorder (ADHD)	83	11.13
Chronic illness	226	30.29
Deaf/hard of hearing	54	7.24
Learning disability	56	7.51
Mobility/dexterity disability	15	2.01
Partially sighted/blind	46	6.17
Psychiatric condition	207	27.75
Speech or language disorder	11	1.47
Other disability	48	6.43

Note. $n = 746$.

The most commonly reported disability type for those with one disability was chronic illness (30.29%), followed by psychiatric condition (27.75%). Table 5 details the most common combinations of disabilities for those with two disabilities.

Table 5

Most Common Combinations of Disability Types for Graduate Students With Two Disabilities

Combination of disabilities	<i>n</i>	%
Chronic illness and Psychiatric condition	49	23.67
Psychiatric condition and ADHD	24	11.59
ADHD and Learning disability	20	9.66
Chronic illness and ADHD	20	9.66
Psychiatric condition and Learning disability	15	7.25

Note. *n* = 207.

The most common combinations of disabilities for those with two disabilities was chronic illness and psychiatric condition (23.67%) followed by psychiatric condition and ADHD (11.59%).

Focusing on Mental Health Conditions

Participants were asked: “In the last 12 months, have you been diagnosed or treated by a professional for any of the following?” They were instructed to mark the appropriate response option for each of the listed mental health conditions¹². The results are presented in Table 6.

The table shows that, for all conditions, more participants reported they had been treated within the past year than had been diagnosed and not treated. However, it is possible that a portion of the Yes, treated percentages include participants who were both diagnosed and treated in the past year. Due to the wording of the response options, it is unclear whether the treatment response options also meant the participant had been diagnosed within the past year.

¹² Response options were: *No*; *Yes, diagnosed not treated*; *Yes, treated with medication*; *Yes, treated with psychotherapy*; *Yes, treated with medication and psychotherapy*; and *Yes, other treatment*. The latter 4 responses were collapsed into one option called *Yes, treated*.

The table also reveals how frequently anxiety and depression were reported in comparison to the other conditions. Almost 4% of the sample had been diagnosed with anxiety within the past year and 2.10% had been diagnosed with depression. Panic attacks was the third most commonly reported condition, with almost 2% of the sample reporting they had been diagnosed within the past year and 4.85% reporting they had been treated for the condition in the past year. Less than 5% of the sample had been diagnosed with or treated for the remaining conditions.

Table 6

Mental Health Diagnoses in the Overall Graduate Student Sample

Mental health diagnosis	% of participants		
	Yes, treated	Yes, diagnosed but not treated	No
Anorexia	0.34	0.28	99.38
Anxiety	13.74	3.58	82.67
ADHD	2.31	0.74	96.95
Bipolar disorder	0.83	0.15	99.02
Bulimia	0.47	0.40	99.13
Depression	10.86	2.10	87.04
Insomnia	3.48	1.34	95.18
Other sleep disorder	2.06	1.04	96.90
Obsessive Compulsive Disorder (OCD)	0.99	0.61	98.39
Panic attacks	4.85	1.97	93.18
Phobia	0.66	0.34	99.00
Schizophrenia	0.13	0.06	99.81
Substance abuse or addiction (alcohol or other drugs)	0.45	0.38	99.17
Other addiction (e.g., gambling, internet, sexual)	0.15	0.13	99.72
Other mental health condition	3.01	0.66	96.33

Note. $n = 4,752$.

Similar to the question concerning disability diagnoses, the prevalence of these mental health conditions does not account for respondents' ability to select more than one. For this reason,

there was a need to examine how many conditions respondents indicated they had been diagnosed with or treated for within the past 12 months.

Of the 4,752 graduate/professional student respondents, 1,209 reported that they had been diagnosed with or treated for one or more mental health conditions in the past 12 months. Table 7 displays the number of conditions that were reported.

Table 7

Co-Morbidity in the Overall Graduate Student Sample

No. of conditions	<i>n</i>	%
1	485	40.12
2	323	26.72
3	187	15.47
4	133	11.00
5 or more	81	6.70

Note. $n = 1,209$.

Of the 1,209 participants who reported they had been diagnosed with or treated for one or more mental health conditions within the past year, 40.12% had been diagnosed with or treated for one. The most common conditions among those who had been diagnosed with or treated for one condition are presented in Table 8.

Table 8

Most Common Mental Health Conditions for Graduate Students With One Condition

Mental health condition	<i>n</i>	%
Anxiety	180	55.73
Depression	99	30.65
ADHD	55	17.03
Other sleep disorder	45	13.93
Insomnia	40	12.38

Note. *n* = 323.

Anxiety and depression account for 279 (86.38%) of the 323 participants who had been diagnosed or treated for one condition within the last year.

About 22% of the total sample of 4,752 participants had been diagnosed with or treated for two or more mental health conditions in the last 12 months. Table 9 details the most common combinations of mental health conditions for the 323 participants with two conditions.

Table 9

Most Common Combinations of Mental Health Conditions for Graduate Students With Two Conditions

Combination of mental health conditions	<i>n</i>	%
Anxiety and Depression	135	41.80
Anxiety and Panic Attacks	65	20.12
Anxiety and Other mental health condition	13	4.02
Anxiety and OCD	11	3.41
Depression and Insomnia	10	3.10
Anxiety and Other sleep disorder	10	3.10

Note. $n = 323$.

Only six of the possible 105 combinations of two disorders had 10 or more participants and 67 combinations had no participants. Of the 323 participants who had been diagnosed with or treated for two mental health conditions in the past year, almost 42% had a combination of anxiety and depression.

Depression Diagnoses in the Past Year versus Lifetime Occurrence

While the previous section summarized data concerning a survey question that focused on diagnoses within the past year, another survey question simply asked participants “Have you ever been diagnosed with depression?” While Table 6 showed that, of the 4,752 total respondents, 10.86% of them reported they had been treated for depression in the past year and 2.10% reported they had been diagnosed and treated, when asked if they had *ever* been diagnosed, 20.66% of respondents responded they had been. A cross-tabulation was conducted to further investigate these variables. Figure 2 displays these data, excluding the nonresponses.

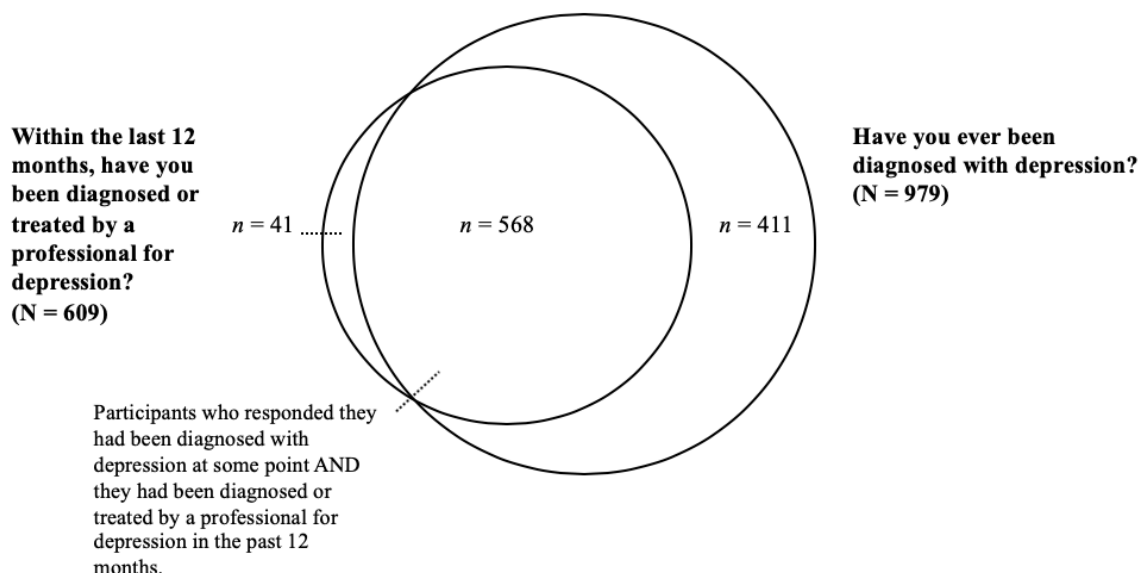


Figure 2. Diagram of responses from the overall graduate student sample to the two questions concerning depression for only those who responded to both questions.

The figure shows that most (55.69%) of the participants who said they had been diagnosed with depression at some point also said they had been diagnosed or treated by a professional for depression in the past 12 months.

Developing a Within-Group Graduate Student Subgroup

For the findings presented in the remainder of this chapter, I compare two subgroups of graduate students: those with and without mental health conditions. The sample of students with a mental health condition comes from the creation of a new variable that identified participants who answered a certain way to one or more of three questions.

The first question concerns disability diagnoses, which was first presented in Table 2. To this question, 7.79% of respondents in the sample of 4,752 responded that they had a psychiatric condition and these students were included in the subgroup labelled ‘with a condition.’

The second question pertained to whether participants had been diagnosed or treated with a number of mental health conditions in the past 12 months, which were discussed in relation to Table 6. It is important to note, however, that ADHD is part of this list of mental health conditions, while in Table 2 it was separate from psychiatric condition. For consistency and clarity, those who indicated that in the past 12 months they had *only* been diagnosed with or treated for with ADHD were excluded from the subgroup of students with mental health conditions. This resulted in 55 respondents being excluded. With this exclusion, 1,154 participants were identified as having been diagnosed with or treated for one or more mental health conditions in the past year, and these participants were therefore included in the subgroup of students with mental health conditions.

The final question contributing to the subgroup of students with mental health conditions addressed whether participants had ever been diagnosed with depression. As previously stated, of the 4,752 respondents, 20.66% indicated they had been diagnosed at some point, and these participants were therefore included in the subgroup.

To be included in the subgroup of students with mental health conditions, therefore, participants had to: (a) respond that they had a psychiatric condition; (b) respond that they had been diagnosed with or treated for one or more mental health conditions in the past 12 months; or (c) respond that they had been diagnosed with depression at some point in their life. With these conditions, a subgroup of 1,461 graduate students was identified as those with a mental health condition. This total represented 30.74% of the total graduate student sample of 4,752 respondents.

Disability Diagnoses of Graduate Students With and Without a Mental Health Condition

Earlier, I presented the prevalence of disabilities, disability types, and mental health conditions in the overall graduate student sample. Here, I will first discuss how the disability diagnoses compare between the graduate students with and without mental health conditions to begin establishing an understanding of how these subgroups compare. The purpose here is to understand how many students without mental health conditions also reported having disabilities.

Table 10 provides the prevalence of specific disability types for the two subgroups. No significant differences were found on three disability types: deaf/hard of hearing ($\chi^2(1) = 6.393$, $p = .011$, $V = 0.037$), partially sighted/blind ($\chi^2(1) = 0.189$, $p = .664$, $V = 0.006$), and speech/language disabilities ($\chi^2(1) = 0.764$, $p = .382$, $V = 0.013$). The table also shows, however, that graduate students with mental health conditions differ on prevalence of several disability types, in comparison to those who do not have a mental health condition. Significant differences were found on prevalence of ADHD ($\chi^2(1) = 89.844$, $p < .001$, $V = 0.138$), chronic illness ($\chi^2(1) = 67.665$, $p < .001$, $V = 0.120$), learning disability ($\chi^2(1) = 78.157$, $p < .001$, $V = 0.129$), mobility/dexterity ($\chi^2(1) = 25.915$, $p < .001$, $V = 0.074$), and other disability ($\chi^2(1) = 69.682$, $p < .001$, $V = 0.122$). However, the effect sizes for these significant differences ranged from $V = 0.074$ (mobility/dexterity) which is considered negligible, to 0.138 (ADHD) which is considered small.

Table 10

*Prevalence of Disability Types for Graduate Students With and Without a Mental Health**Condition*

Disability type	% of participants				$\chi^2(1)$	<i>p</i>	<i>V</i>
	Without a MHC (<i>n</i> = 3,291)		With a MHC (<i>n</i> = 1,461)				
	Yes	No	Yes	No			
ADHD	2.37	97.05	8.35	91.03	89.844	.001	0.138
Chronic illness	5.80	93.65	12.80	86.65	67.665	.001	0.120
Deaf/hard of hearing	1.64	97.84	2.74	96.30	6.393	.011	0.037
Learning disability	1.79	97.36	6.78	92.40	78.157	.001	0.129
Mobility/dexterity disability	0.70	98.36	2.46	96.17	25.915	.001	0.074
Partially sighted/blind	1.61	97.75	1.44	97.67	0.189	.664	0.006
Speech or language disorder	0.43	98.91	0.62	98.70	0.764	.382	0.013
Other disability	1.06	97.87	4.93	93.09	69.682	.001	0.122

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

A higher proportion of graduate students with mental health conditions reported having each of the disability types where significant differences were found. Chronic illness was the most prevalent condition among students with mental health conditions (12.80%), while 5.80% of students without mental health conditions indicated they had this type of condition. The effect size for chronic illness was small, with $V = 0.120$. Similarly, while 8.35% of those with mental health conditions indicated they had ADHD, only 2.37% of those without a mental health

condition indicated they had it, but this was also a small effect size ($V = .120$). Similar findings can be seen with learning disabilities, for 6.78% of those with mental health conditions indicated they had a learning disability and only 1.79% of those without mental health conditions said they did. However, similar to the other disability types, this effect size was also small ($V = .120$). The significant differences between the two subgroups may point to the comorbidity amongst these conditions.

Comparing responses across questions about mental health diagnoses and treatment. The NCHA has three questions concerning psychiatric/mental health diagnoses and treatment and these questions were used to develop the subgroup of students with a mental health challenge. To investigate participants' responses across these questions, a Venn diagram was developed and is presented as Figure 3. The number of participants in the figure is 1,447 rather than the 1,461 of the total subgroup of students with a mental health condition because 14 participants did not respond to all three questions.

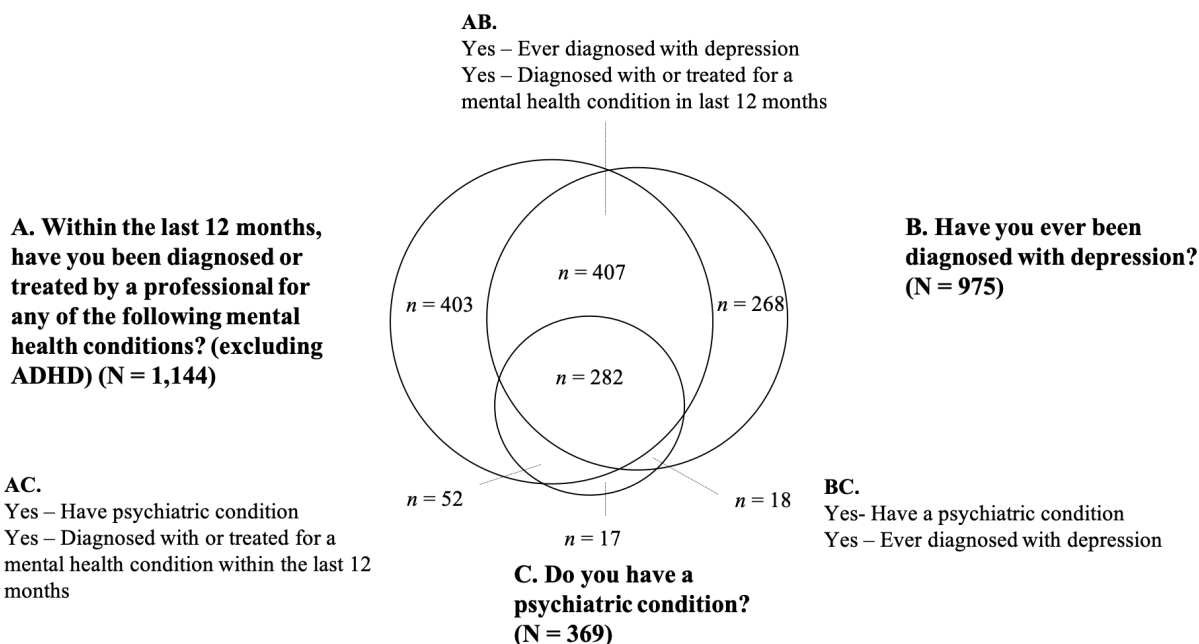


Figure 3. Responses across the three questions used to develop the sample of graduate students with a mental health condition.

The figure reveals several key findings. First, 19.49% of the 1,447 participants in the subgroup of students with a mental health condition who were included in the diagram responded affirmatively to all three questions. Second, a large number of respondents who responded affirmatively to “Have you ever been diagnosed with depression?” and/or “Within the last 12 months, have you been diagnosed or treated by a professional for any of the following mental health conditions?” did not identify as having a psychiatric condition. A total of 69.23% of the 975 participants who had been diagnosed with depression at some point *did not* identify as having a psychiatric condition. Similarly, of the 1,144 participants who identified as being diagnosed with or treated for a mental health condition in the past year, 70.80% did not report having a psychiatric condition. Lastly, only 17 participants identified as having a psychiatric

condition but did not report they had been diagnosed with depression at some point or that they had been diagnosed with or treated for a mental health condition in the past 12 months. These could be participants who have a history of mental health conditions outside of the past 12 months.

Demographics of Graduate Students With and Without a Mental Health Condition

In this section, I provide an overview of the graduate student sample based on demographics. Respondents were divided into two subgroups: the 1,461 respondents with a mental health condition and the 3,291 respondents without a mental health condition.

Table 11 outlines how the samples compare on age, gender identity, sexual orientation, enrollment status, relationship and marital status, place of residence, and hours of weekly volunteer and paid employment hours. The table shows similar proportions of respondents from each group for several characteristics. The chi-square tests showed these similarities, where there were no significant differences for enrolment status ($\chi^2(2) = 0.031, p = .101, V = 4.579$), place of residence ($\chi^2(5) = 14.347, p = .014, V = 0.055$), weekly hours of paid employment ($\chi^2(4) = 5.673, p = .225, V = 0.035$), weekly hours of volunteer work ($\chi^2(2) = 2.474, p = .290, V = 0.023$), and grade point average ($\chi^2(4) = 10.617, p = .031, V = 0.047$).

Table 11

*Demographic Characteristics of Graduate Students With and Without a Mental Health**Condition*

Characteristic	% of participants		χ^2	<i>p</i>	<i>V</i>
	Without a MHC (<i>n</i> = 3,291)	With a MHC (<i>n</i> = 1,461)			
Age					
18-24	37.01	28.61	72.068	.001	0.123
25-29	35.19	34.02			
30-34	13.98	15.40			
35-39	5.07	8.56			
40-44	3.34	4.38			
45-49	2.25	4.38			
50-54	1.46	2.26			
55+	1.12	2.12			
Gender identity					
Woman	65.39	72.83	78.000	.001	0.118
Man	33.82	23.82			
Another identity ^a	0.70	2.94			
Sexual orientation					
Asexual	4.71	4.04	97.466	.001	0.144
Bisexual	3.59	7.19			
Straight/heterosexual	85.84	76.63			
Another identity ^b	5.20	11.64			
Enrolment status					
Full-time	88.09	86.24	4.579	.101	0.031
Part-time	9.85	10.61			
Other	2.04	2.94			
Relationship status					
Not in a relationship	30.36	33.26	15.060	.001	0.056
In a relationship but not living together	30.48	24.98			
In a relationship and living together	38.95	41.55			

Characteristic	% of participants		χ^2	<i>p</i>	<i>V</i>
	Without a MHC (<i>n</i> = 3,291)	With a MHC (<i>n</i> = 1,461)			
Marital status					
Single	63.90	57.84	52.518	.001	0.105
Married/partnered	31.72	34.02			
Separated	0.61	1.44			
Divorced	0.94	3.42			
Other	2.55	2.81			
Place of residence					
Campus residence hall	2.01	1.71	14.347	.014	0.055
Fraternity or sorority house	0.06	0.07			
Other college/university housing	2.64	3.29			
Parent/guardian's home	17.87	13.89			
Other off-campus housing	62.72	64.48			
Other	14.43	16.29			
Weekly hours of paid employment					
0	29.96	29.91	5.673	.225	0.035
1-19	35.49	37.92			
20-39	14.83	15.54			
40	10.42	8.76			
More than 40	8.39	7.53			
Weekly hours of volunteer work					
0	55.82	53.59	2.474	.290	0.023
1-19	41.75	43.67			
20 or more	1.64	1.98			

Characteristic	% of participants		χ^2	<i>p</i>	<i>V</i>
	Without a MHC (<i>n</i> = 3,291)	With a MHC (<i>n</i> = 1,461)			
Grade point average					
A	74.05	74.74	10.617	.031	0.047
B	20.97	18.96			
C	1.03	1.71			
D/F	0.03	0.21			
n/a	3.40	4.04			

Note. MHC = mental health condition; n/a = not applicable. Total of percentages by row is not 100 because of nonresponse.

^a This category had respondents who identified as: trans woman, trans man, genderqueer, and other.

^b This category had respondents who identified as: gay, lesbian, pansexual, queer, questioning, same gender loving, or other.

For enrollment status, 88.09% of those without a condition and 86.24% of those with a condition responded that they were enrolled full-time. The place of residence for most respondents (62.72% of students without a condition and 64.48% with a condition) was some form of off-campus housing that was not institutional or parent/guardian housing. About 30% of participants from each group indicated they did not work any paid hours of employment. Similar proportions of respondents (35.49% of those without a condition and 37.92% of those with a condition) work 1-19 hours each week of paid employment. In comparison paid employment, higher proportions of respondents responded that they did not complete any hours of volunteer work: 55.82% of those without a condition and 53.59% of those with a condition. While just over half of respondents from both groups did no volunteer work, just under half of participants complete between 1-19 hours each week of volunteer work: 41.75% of those without a condition and 43.67% of those with a condition. Most respondents in both groups (74.05% of students without a mental health condition and 74.74% of students with a condition) indicated they had an A grade point average.

Significant differences were found for age ($\chi^2(7) = 72.068, p < .001, V = 0.123$), gender identity ($\chi^2(2) = 78.000, p < .001, V = 0.118$), sexual orientation ($\chi^2(3) = 97.466, p < .001, V = .144$), relationship status ($\chi^2(2) = 15.060, p < .001, V = 0.056$), and marital status ($\chi^2(4) = 52.518, p < .001, V = 0.105$). The effect sizes for these significant differences ranged from negligible ($V < .10$) to small ($.10 \leq V < .30$).

For sexual orientation, more graduate students without a mental health condition identified as straight/heterosexual (86.84%) in comparison to students with a mental health condition (76.63%). However, with a Cramer's V value of 0.144, this is considered small. For age, respondents with a mental health condition typically indicated they were older. While 28.61% of respondents with a condition indicated they were between the ages of 18 and 24, a 37.01% of respondents without a condition responded in the same way. With a Cramer's V value of 0.123, however, this difference is also considered small. For gender identity, a higher proportion of graduate students with a mental health condition indicated they identified as a woman (72.83%), while only 65.39% of those without a mental health condition responded in this way. This significant difference is negligible, however, with a Cramer's V value of 0.118. Concerning relationship status, more graduate students with a mental health condition indicated they were in a relationship and living with a partner (41.55%) in comparison to those without a mental health condition (38.95%), but this difference had a negligible effect size ($V = 0.056$). For marital status, a lower proportion of graduate students with a mental health condition responded that they were single (57.84%) in comparison to the 63.90% of students without a mental health condition. This difference is considered small with a Cramer's V of 0.105. In addition to the abovementioned demographics, race/ethnicity was also examined. Data detailing this variable are shown in Table 12.

Table 12

Race/Ethnicity of Graduate Students With and Without a Mental Health Condition

Race/ethnicity	Graduate students without a MHC ^a		Graduate students with a MHC ^b		χ^2	<i>p</i>	<i>V</i>
	<i>n</i>	% who identified in this way	<i>n</i>	% who identified in this way			
Aboriginal	83	2.52	56	3.83	6.124	.013	0.040
Arab	80	2.43	16	1.10	9.120	.003	0.044
Black	67	2.04	21	1.44	1.994	.158	0.021
Chinese	274	8.33	69	4.72	19.613	.001	0.064
Filipino	42	1.28	16	1.10	0.275	.600	0.008
Japanese	16	0.49	4	0.27	1.090	.297	0.015
Korean	54	1.64	14	0.96	3.342	.068	0.027
Latin American	50	1.52	21	1.44	0.046	.830	0.003
South Asian	218	6.62	75	5.13	3.886	.049	0.029
Southeast Asian	52	1.58	13	0.89	3.573	.059	0.027
West Asian	57	1.73	31	2.12	0.846	.358	0.013
White	2,344	71.22	1,146	78.44	27.004	.001	0.075
Multiracial	79	2.40	69	4.72	18.084	.001	0.062
Other	88	2.67	34	2.33	0.486	.486	0.010

Note. MHC = mental health condition. Respondents were asked to select all that apply.

^a *n* = 3,291.

^b *n* = 1,461.

For race/ethnicity, recall that the international students were excluded from these analyses, so the data presented here only reflect the race/ethnicity of respondents who did not identify as international students. The chi-square tests found no significant differences between

students with and without a mental condition on most of the races/ethnicities: Aboriginal, Arab, Black, Filipino, Japanese, Korean, Latin American, South Asian, Southeast Asian, West Asian, and Other.

Significant differences were found for Chinese ($\chi^2(1) = 19.613, p < .001, V = 0.064$), White ($\chi^2(1) = 27.004, p < .001, V = 0.075$), and Multiracial categories ($\chi^2(1) = 18.084, p < .001, V = 0.062$). For participants who identified as Chinese, 8.33% of those without a mental health condition and 4.72% of those with a condition identified as such. With a Cramer's V value of 0.064, the effect size is negligible. For multiracial participants, although a higher proportion of students with a mental health condition (4.72%) identified in this way in comparison to the 2.40% of students without a condition, the effect size was also negligible ($V = 0.062$). Most participants indicated their race/ethnicity was White: 71.22% of students without a condition and 78.44% of those with a condition. Though this difference was significant, the association was negligible, with $V = 0.075$.

Summary

In this section about prevalence and demographics, I first discussed the disability diagnoses and prevalence of specific mental health conditions amongst the entire graduate student sample. Concerning disability diagnoses, the most common disability types were chronic illness and psychiatric disabilities. For specific mental health challenges, depression and anxiety were the most common. Results also showed that about 25% of the overall sample had been diagnosed with/treated for a mental health condition in the past 12 months. The comorbidity of disabilities and mental health challenges were also addressed for the overall sample. Results showed one-third of participants who identified as having a disability indicated they had two or more. For mental health challenges, about 60% had been diagnosed with more than one

condition. Looking specifically at questions concerning depression, I compared responses across several questions concerning occurrence of depression. I found that most of the participants who said they had been diagnosed with depression at some point had been diagnosed with/treated for depression in the past 12 months.

After examining the prevalence of disabilities and mental health conditions in the overall sample, I detailed how the subgroups were created for further analyses. The analyses found that more graduate students with mental health conditions had ADHD, chronic illness, learning disability, mobility/dexterity, and other disability, but that the effect sizes were negligible or small.

I then compared responses for the three questions that were used to identify the students with a mental health condition. I found that almost 70% of respondents who said they had been diagnosed with depression at some point did not identify as having a psychiatric condition. And, a similar finding was seen for the question concerning diagnoses/treatments in the past 12 months.

Turning to demographics across the two samples, several significant differences between graduate students with and without mental health conditions were found, but the effect sizes for these demographics were either negligible or small. Graduate students with a mental health condition may be older, identify as female or another identity, identify as bisexual or a sexual orientation other than straight/heterosexual, be married/separated/divorced, and identify as White. There were no differences for enrolment status, place of residence, hours of paid employment, hours of volunteer work, and grade point average.

Challenges

I now present findings for questions on the NCHA that identified potential challenges for students. Four main questions of the survey addressed: (a) feelings and behaviours linked to poor mental health; (b) stress level; (c) potential stressors that are traumatic or difficult to handle; and (d) impediments to academic performance. For each of these areas, comparisons are made between graduate students with and without a mental health condition, and where appropriate, additional data concerning those with mental health conditions is presented.

Feelings and Behaviours Linked to Poor Mental Health

The feelings and behaviours that are examined in the survey are symptoms of mental illness. You would therefore expect more of those in the subgroup of students with a mental health condition to report these. However, the comparisons were not completed to investigate whether this was accurate, but rather, whether those in the subgroup of students without a mental health condition also reported symptoms. This was done in light of the findings concerning identity, where I found that students were not identifying as having a psychiatric condition but were reporting being diagnosed with or treated for a mental health condition in the past year. I wondered how many students without a mental health condition would report experiencing the symptoms of mental illness. As such, Table 13 presents these data.

There were significant differences between the two groups on all eleven items. The smallest Cramer's V for the feelings and behaviours linked to poor mental health was 0.113 (felt overwhelmed by all you had to do) which is considered a small effect, and the largest was 0.384 (felt so depressed that it was difficult to function), which is considered a medium effect. In addition to felt so depressed it was difficult to function, two other items had medium effect sizes:

felt overwhelming anxiety ($V = .304$) and seriously considered suicide ($V = 0.344$). The other remaining items had small effect sizes with a Cramer's V value of less than .10.

Higher proportions of participants without a mental health condition responded *No, never* for all items, in comparison to those with mental health conditions. The gaps between the two samples were often quite wide and ranged from a 5% difference (felt overwhelmed by all you had to do) to 37% (felt so depressed that it was difficult to function). Only two items (felt overwhelmed by all you had to do and felt exhausted) had a difference of less than 10%.

Table 13

Feelings and Behaviours of Graduate Students With and Without a Mental Health Condition

Feeling/behaviour	Yes, within the last 12 months		No, not in the last 12 months		No, never		$\chi^2(2)$	<i>p</i>	<i>V</i>
	W/O ^a	W ^b	W/O	W	W/O	W			
Felt things were hopeless	40.20	64.48	24.95	25.60	34.09	9.65	352.018	.001	0.273
Felt overwhelmed by all you had to do	86.20	92.40	5.83	5.41	7.32	1.78	60.014	.001	0.113
Felt exhausted (not from physical activity)	85.35	93.63	5.80	4.18	8.20	1.98	75.007	.001	0.126
Felt very lonely	51.05	72.48	26.25	20.26	21.73	6.64	229.997	.001	0.221
Felt very sad	61.32	81.72	21.63	13.69	16.32	3.83	222.008	.001	0.217
Felt so depressed that it was difficult to function	25.46	59.48	24.92	27.99	48.89	12.05	694.620	.001	0.384
Felt overwhelming anxiety	49.92	78.10	16.56	15.61	32.73	5.82	436.701	.001	0.304
Felt overwhelming anger	31.15	52.29	25.74	28.61	42.33	18.34	289.804	.001	0.248
Intentionally cut, burned, bruised, or otherwise injured yourself	1.91	8.35	9.39	23.00	87.91	68.10	293.927	.001	0.250
Seriously considered suicide	3.40	15.88	10.76	29.43	84.99	54.21	557.566	.001	0.344
Attempted suicide	0.18	1.51	3.25	16.50	95.62	81.38	294.544	.001	0.250

Note. W/O = without mental health condition; W = with mental health condition. Values represent percentage of respondents. Total of percentages by row is not 100 because of nonresponse. ^a *n* = 3,291. ^b *n* = 1,461.

While higher proportions of students without mental health conditions reported that they did not experience the examined feelings and behaviours, the reverse is true for the *Yes, at some*

point in the past year category. Higher proportions of respondents with mental health conditions responded this way for all items, in comparison to those without a mental health condition. The differences between groups ranged from 2% (attempted suicide) to 34% (felt so depressed that it was difficult to function).

For the *No, not in the last 12 months* category, the gaps between those with and without a mental health condition were quite small on most items. Only three items had a gap of greater than 10% and these items were: intentionally injured yourself (14% difference); seriously considered suicide (18% difference); and attempted suicide (14% difference). With such small differences on three-quarters of the items, it appears similar proportions of those with and without a mental health condition had a lifetime experience with certain feelings and behaviours outside of the last 12 months.

To see which feelings and behaviours were most frequently reported by the two groups, Figure 4 looks at only the *Yes, within the last 12 months* category. Further, the graph displays the data from most-to-least reported by those with a mental health condition.

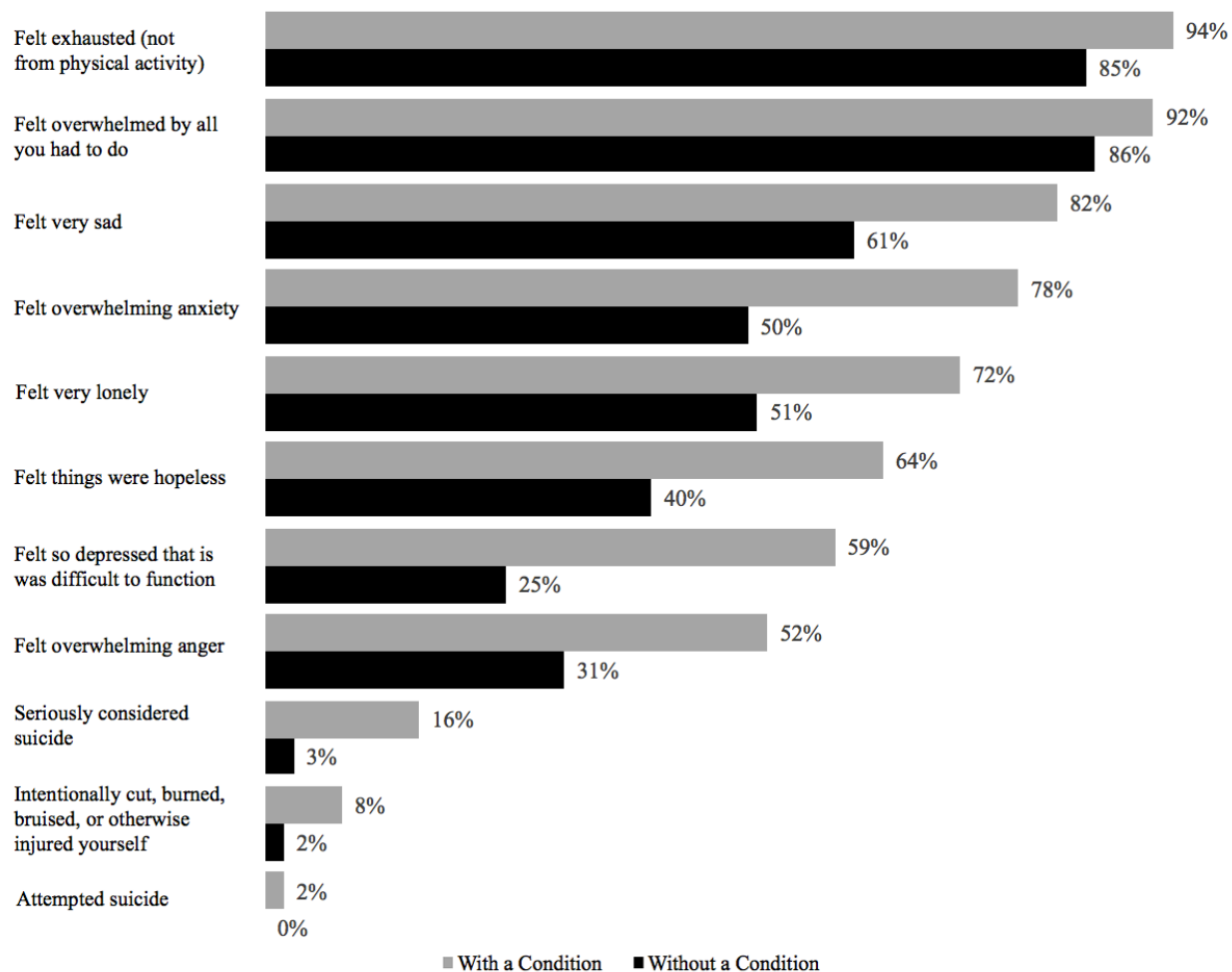


Figure 4. Most-to-least reported feelings/behaviours for graduate students with and without a mental health condition.

Eight out of eleven feelings or behaviours were experienced in the last year by more than 50% of those with a condition. Self-injury, suicidal thoughts, and suicide attempts were the only items with less than 50%. Over three quarters of graduate students with a mental health condition indicated they had experienced the feeling or behaviour in the past year for four items: (a) felt exhausted (93.68%); (b) felt overwhelmed (92.40%); (c) felt very sad (81.72%); and (d) felt overwhelming anxiety (78.10%).

For participants without a mental health condition, only five items had 50% respondents reporting they had experienced the feeling or behaviour. This is fewer than the eight items on which the subgroup with a mental health condition had 50% or more. Additionally, only two items (felt exhausted and felt overwhelmed) had over three quarters of participants without a condition indicating they had experienced it within the past year.

While Table 13 and Figure 4 show which feelings and behaviours were most frequently experienced in the past year, Table 14 narrows the focus to how recently those feelings and behaviours took place.

Table 14

Timing of Feelings and Behaviours Linked to Poor Mental Health for Graduate Students With and Without a Mental Health Condition

Feeling/behaviour	Yes, in the last 2 weeks		Yes, in the last 30 days		Yes, within the last 12 months	
	W/O ^a	W ^b	W/O	W	W/O	W
Felt things were hopeless	12.91	23.61	7.84	13.14	19.45	27.72
Felt overwhelmed by all you had to do	46.22	54.00	16.86	16.22	23.12	22.18
Felt exhausted (not from physical activity)	48.40	59.00	16.68	15.74	20.27	18.89
Felt very lonely	16.38	30.46	11.18	14.92	23.49	27.10
Felt very sad	20.36	36.28	12.76	17.18	28.20	28.27
Felt so depressed that it was difficult to function	7.20	20.81	4.65	11.29	13.61	27.38
Felt overwhelming anxiety	15.01	33.13	11.03	15.81	23.88	29.16
Felt overwhelming anger	8.14	16.36	6.11	11.70	16.89	24.23
Intentionally cut, burned, bruised, or otherwise injured yourself	0.46	1.98	0.24	1.37	1.22	5.00
Seriously considered suicide	0.58	2.74	0.40	2.12	2.43	11.02
Attempted suicide	0.12	0.07	0.00	0.14	0.06	1.30

Notes. W/O = without mental health condition; W = with mental health condition. Values represent percentage of respondents. Total of percentages by row is not 100 because of nonresponse. Response options of *No, never* and *No, not in the last 12 months* were excluded.

^a *n* = 3,291.

^b *n* = 1,461.

Table 14 shows that for those with and without mental health conditions who experienced these feelings/behaviours in the past 12 months, the largest number of respondents indicated the feeling/behaviour had taken place outside of the past 30 days. For example, of those with a

mental health condition who responded that they had intentionally injured themselves (8.35%), most (5.00%) had done so outside of the past 30 days. Similarly, of the 15.88% of respondents with a mental health condition who had seriously considered suicide in the past year, 11% of them had done so outside of the past 30 days.

However, for five out of eight items (excluding felt things were hopeless, felt so depressed it was difficult to function, and felt overwhelming anger), the frequencies were higher for the *Yes, in the last 2 weeks* response option than in the *Yes, within the last 12 months* option. The reverse is seen for the group of respondents without a mental health condition, where frequencies for five out of eight items were higher for the *Yes, within the last 12 months* response options than the *Yes, in the last 2 weeks* option.

The data also show which feelings/behaviours may be most concerning, defined as those that took place most recently. For respondents with a mental health condition, felt hopeless, felt so depressed it was difficult to function, and felt overwhelming anger, may not be as concerning as other items that were more frequently reported as being experienced in the past 2 weeks. For example, while 93.63% of those with a mental health condition reported feeling exhausted in the past year, almost 60% said they experienced this within the last 2 weeks.

Stress Levels

One survey question inquired about participants' stress levels and the data for this question are presented in Table 15. Based on the chi-square test, there was a significant difference between those with and without mental health conditions. The effect size for this difference was 0.251 and this is considered a small effect. More respondents without a mental health condition indicated they had *no stress*, *less than average stress*, and *average stress*, in comparison to respondents with a mental health condition. Although a higher proportion of

respondents with a condition indicated they experienced *more than average stress* in the last 12 months, there was only a difference of almost 4% between those without (49.04%) and with (52.70%) a mental health condition. A large difference exists for *tremendous stress*, where 26.15% of respondents with a condition interpreted their stress as such, in comparison to the much lower 9.88% of respondents without a condition.

Table 15

Responses to “How Would You Rate the Overall Level of Stress That You Have Experienced Within the Last 12 Months?” for Graduate Students With and Without a Mental Health Condition

Response	% of participants		$\chi^2(4)$	<i>p</i>	<i>V</i>
	Without MHC (<i>n</i> = 3,291)	With MHC (<i>n</i> = 1,461)			
No stress	1.31	0.41	297.358	.001	0.251
Less than average stress	6.32	2.19			
Average stress	32.91	18.55			
More than average stress	49.04	52.70			
Tremendous stress	9.88	26.15			

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

The other area where there is a large difference between the two groups is participants' responses for *average stress*. While 18.55% of those with a mental health condition rated their stress as average, this is much higher for those without a condition at 32.91%. Based on this major difference, combined with the difference in *tremendous stress*, there is evidently differentiation amongst the groups concerning how stress is experienced.

Stressors

Other survey questions from the NCHA asked participants whether a variety of potential stressors had been traumatic or very difficult to handle in the past 12 months. The percentages for each group of respondents are presented in Table 16. The chi-square tests found significant differences on all items. However, Cramer's V values ranged from 0.149 (health problem of a family member or partner) to 0.256 (personal health issue), indicating small effect sizes for all items.

Table 16

Responses to “Within the Last 12 Months, Have Any of the Following Been Traumatic or Very Difficult for You to Handle?” for Graduate Students With and Without a Mental Health Condition

Potential Stressor	% of participants				$\chi^2(1)$	<i>p</i>	<i>V</i>
	Without a MHC (<i>n</i> = 3,291)		With a MHC (<i>n</i> = 1,461)				
	Yes	No	Yes	No			
Academics	41.75	57.58	62.22	37.65	166.014	.001	0.187
Career-related issue	31.57	67.64	48.05	51.75	115.425	.001	0.156
Death of a family member or friend	12.18	86.81	18.28	81.38	30.081	.001	0.080
Family problems	21.18	78.00	39.29	60.37	167.062	.001	0.188
Intimate relationships	23.61	75.60	42.98	56.95	178.296	.001	0.194
Other social relationships	14.43	84.66	32.51	67.35	202.940	.001	0.207
Finances	27.83	71.22	44.28	55.58	120.113	.001	0.160
Health problem of a family member or partner	18.38	80.61	31.96	67.76	104.179	.001	0.149
Personal appearance	15.77	83.50	33.74	65.98	192.879	.001	0.202
Personal health issue	14.10	85.02	36.76	62.97	308.675	.001	0.256
Sleep difficulties	21.45	77.61	45.04	54.89	269.002	.001	0.239
Other	5.17	92.86	16.02	82.07	153.253	.001	0.181

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

To examine the data further, Figure 5 displays each item in order from most-to-least reported based on the students with a mental health condition. Higher percentages of respondents with a mental health condition reported items were traumatic or difficult to handle for all twelve

examined items. Academics was the most commonly reported stressor for graduate students without (41.75%) and with (62.22%) a mental health condition. It was also the only stressor that was reported to be traumatic or difficult to handle by over half of respondents with a mental health condition. For those without mental health conditions, no items had over 50% of respondents.

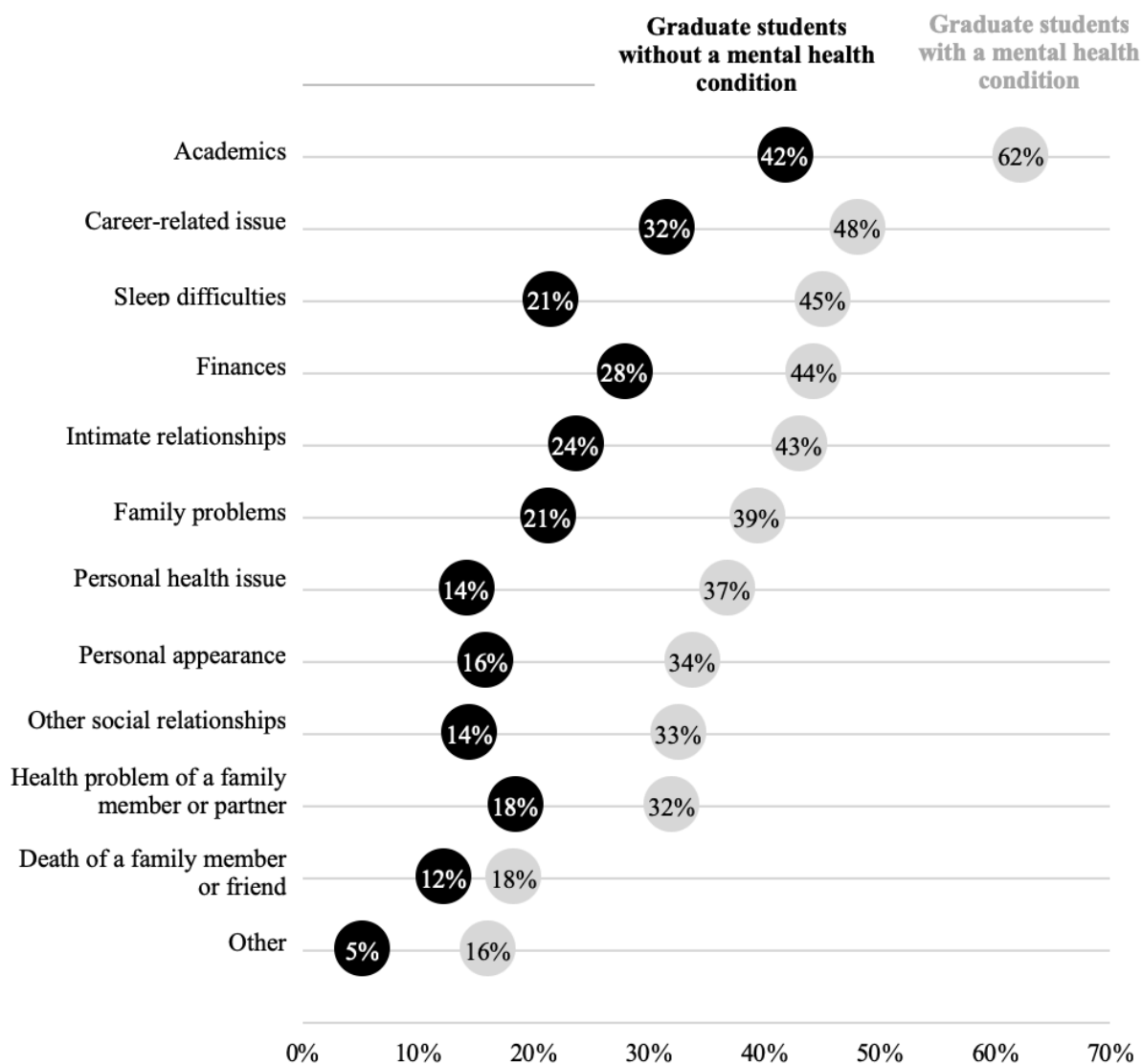


Figure 5. Frequency of stressors for graduate students with and without a mental health condition.

Figure 5 illustrates where there are wide differences between those with and without mental health conditions. The greatest difference was for sleep difficulties, where 21.45% of respondents without a mental health condition and 45.04% of those with a mental health condition reported this had been traumatic or difficult to handle in the past year: A difference of 23.59%. Another large discrepancy can be observed for personal health issue. While 14.10% of respondents without a mental health condition said personal health issues had been traumatic or difficult to handle, 36.76% of those with a mental health condition responded in the same way. Again, this is a large difference of 22.66%, but may be expected given those with mental health conditions by default have a personal health issue. With 11 out of 12 items having a difference of 10% or more, the two samples of respondents experience these items at very different rates, and potentially, in very different ways.

Impediments to Academic Performance

The final questions that were identified as possible challenges for students pertained to whether 31 items affected academic performance. Table 17 details the percentages of respondents from both subgroups who did/did not experience each item, and also whether these impeded students' academic performance. Significant differences were found on 26 out of 31 items. Of the items where significant differences were found, two had a medium effect: anxiety ($\chi^2(2) = 599.102, p < .001, V = .357$); and depression ($\chi^2(2) = 868.292, p < .001, V = 0.430$). For both items, more graduate student respondents with a mental health condition reported experiencing them and more of them also reported that their academics had been affected. A Cramer's V that is equal to or greater than .10 and that is smaller than .30 is considered small. Thirteen items had a small effect size: allergies ($\chi^2(2) = 47.016, p < .001, V = 0.100$); assault (sexual) ($\chi^2(2) = 59.736, p < .001, V = 0.113$); ADHD ($\chi^2(2) = 60.423, p < .001, V = 0.113$);

chronic health problem/illness ($\chi^2(2) = 111.224, p < .001, V = 0.154$); chronic pain ($\chi^2(2) = 108.493, p < .001, V = 0.152$); discrimination ($\chi^2(2) = 62.745, p < .001, V = 0.116$); eating disorder/problem ($\chi^2(2) = 97.133, p < .001, V = 0.144$); finances ($\chi^2(2) = 127.586, p < .001, V = 0.165$); learning disability ($\chi^2(2) = 108.177, p < .001, V = 0.152$); relationship difficulties ($\chi^2(2) = 122.373, p < .001, V = 0.161$); sleep difficulties ($\chi^2(2) = 229.762, p < .001, V = 0.221$); and stress ($\chi^2(2) = 245.290, p < .001, V = 0.228$).

For all items except stress, more graduate students with a mental health condition reported that they had experienced them and that their academics had been affected, in comparison to students without a mental health condition. However, given the small effect sizes, such differences should be interpreted with caution.

Table 17

Responses to “Within the Last 12 Months, Have Any of the Following Affected Your Academic Performance?” for Graduate Students With and Without a Mental Health Condition

Item	I have experienced this and my academics were affected		I have experienced this but my academics have not been affected		This did not happen to me/ not applicable		$\chi^2(2)$	p	V
	W/O ^a	W ^b	W/O	W	W/O	W			
Alcohol use	1.49	2.67	23.85	24.50	73.81	72.01	8.240	.016	0.042
Allergies	0.64	2.53	12.76	16.91	85.66	79.33	47.016	.001	0.100
Anxiety	14.01	39.84	26.59	36.07	58.22	23.20	599.102	.001	0.357
Assault (physical)	0.24	0.68	1.31	2.33	97.27	95.76	11.948	.003	0.050
Assault (sexual)	0.15	1.71	1.31	3.22	97.39	93.91	59.736	.001	0.113
ADHD	2.16	6.09	1.85	3.42	94.86	89.39	60.423	.001	0.113
Cold/Flu/Sore throat	9.45	15.74	40.26	38.54	49.23	44.90	39.858	.001	0.092

Item	I have experienced this and my academics were affected		I have experienced this but my academics have not been affected		This did not happen to me/ not applicable		$\chi^2(2)$	<i>p</i>	<i>V</i>
	W/O ^a	W ^b	W/O	W	W/O	W			
Concern for troubled friend/ family member	8.05	18.28	27.04	29.16	63.90	51.75	120.850	.001	0.160
Chronic health problem/ illness	2.67	8.76	6.44	10.13	90.00	80.42	111.224	.001	0.154
Chronic pain	2.70	7.32	7.02	13.21	89.30	78.85	108.493	.001	0.152
Death of a friend/family member	4.01	8.08	11.64	12.05	83.38	78.92	34.388	.001	0.086
Depression	6.56	31.96	8.75	24.37	83.41	42.92	868.292	.001	0.430
Discrimination	1.00	3.15	4.22	8.28	93.83	87.61	62.745	.001	0.116
Drug use	0.46	1.64	3.31	6.09	95.11	91.44	37.523	.001	0.089
Eating disorder/problem	0.33	1.85	2.01	6.71	96.57	90.83	97.133	.001	0.144
Finances	5.32	12.18	23.70	32.24	70.04	54.89	127.586	.001	0.165
Gambling	0.09	0.21	0.97	0.62	97.93	98.49	2.553	.279	0.023
Homesickness	2.25	4.86	14.40	16.02	82.29	78.37	26.247	.001	0.075
Injury (fracture, sprain, strain, cut)	1.61	3.15	8.66	11.84	88.61	84.26	24.257	.001	0.072
Internet use/computer games	8.42	9.58	22.58	17.73	68.06	71.80	14.887	.001	0.056
Learning disability	1.12	4.79	1.25	4.31	96.29	89.87	108.177	.001	0.152
Participation in extracurriculars	4.47	4.93	26.01	23.48	68.70	70.91	3.748	.154	0.028
Pregnancy	1.25	1.37	2.22	1.37	95.75	96.44	3.900	.142	0.029
Relationship difficulties	6.47	14.31	19.33	26.08	73.23	58.73	122.373	.001	0.161

Item	I have experienced this and my academics were affected		I have experienced this but my academics have not been affected		This did not happen to me/ not applicable		$\chi^2(2)$	<i>p</i>	<i>V</i>
	W/O ^a	W ^b	W/O	W	W/O	W			
Roommate difficulties	2.13	3.90	12.58	13.62	84.41	81.86	13.536	.001	0.054
STD/I	0.09	0.48	1.46	2.46	97.51	96.37	13.139	.001	0.053
Sinus infection/Ear infection/Bronchitis/Strep throat	2.67	5.20	10.60	15.67	85.87	78.58	46.488	.001	0.099
Sleep difficulties	11.18	25.46	33.88	39.97	54.00	33.74	229.762	.001	0.221
Stress	20.72	41.07	50.20	44.35	28.02	14.03	245.290	.001	0.228
Work	11.18	17.11	30.36	30.53	57.58	51.47	34.146	.001	0.085
Other	1.94	4.45	0.82	1.03	61.96	57.02	27.541	.001	0.095

Note. W/O = without mental health condition; W = with mental health condition. Values represent percentage of respondents. Total of percentages by row is not 100 because of nonresponse.

^a *n* = 3,291.

^b *n* = 1,461.

When examining the data concerning stress, though, there is a noticeable difference from the other items with small effect sizes. More students without a mental health condition reported experiencing stress that did not affect their academics (50.20%), in comparison to those with a mental health condition (44.35%). However, more than double the number of students with a mental health condition reported they experienced stress that affected their academics (41.07%), in comparison to those without a mental health condition (20.72%). The opposite is seen with those who did not experience stress in the past 12 months. While 14.03% of those with a mental health condition reported they either did not experience stress in the past 12 months or that it was not applicable to them, twice as many students without a mental health condition (28.02%) responded in the same way.

Cramer's V tests found negligible effects sizes on the remaining 16 items that had significant differences. V values ranged from 0.028 (participation in extracurriculars) to 0.099 (sinus infection/ear infection/Bronchitis/strep throat). Therefore, even though more graduate students with a mental health condition reported that they had experienced many of these items and that they impeded their academic performance, with negligible effect sizes the subgroups may report these impediments in similar ways.

Figures 6 and 7 illustrate these data in a way that allows conclusions to be drawn about which potential have a small incidence and a large impact (on academic performance), and which have a large incidence but small impact.

Figure 6 includes data for only the participants with a mental health condition. For clarity, labels were not included for 13 (out of 31) items where fewer than 20% of the 1,461 participants with a mental health condition reported it. These items were: allergies (19.44%); roommate difficulties (17.52%); injury (14.99%); discrimination (11.43%); ADHD (9.51%); learning disability (9.10%); eating disorder/problem (8.56%); drug use (7.73%); sexual assault (4.93%); pregnancy (2.74%); STD/I (2.94%); physical assault (3.01%); and gambling (0.83%). As can be seen from the figure, the items with the highest rates of incidence, including those where over 50% of respondents experienced it, were: stress (85.42%); anxiety (75.91%); depression (56.33%); sleep difficulties (65.43%); and cold/flu/sore throat (54.28%). These are also the items for which more participants reported they impeded their academic performance.

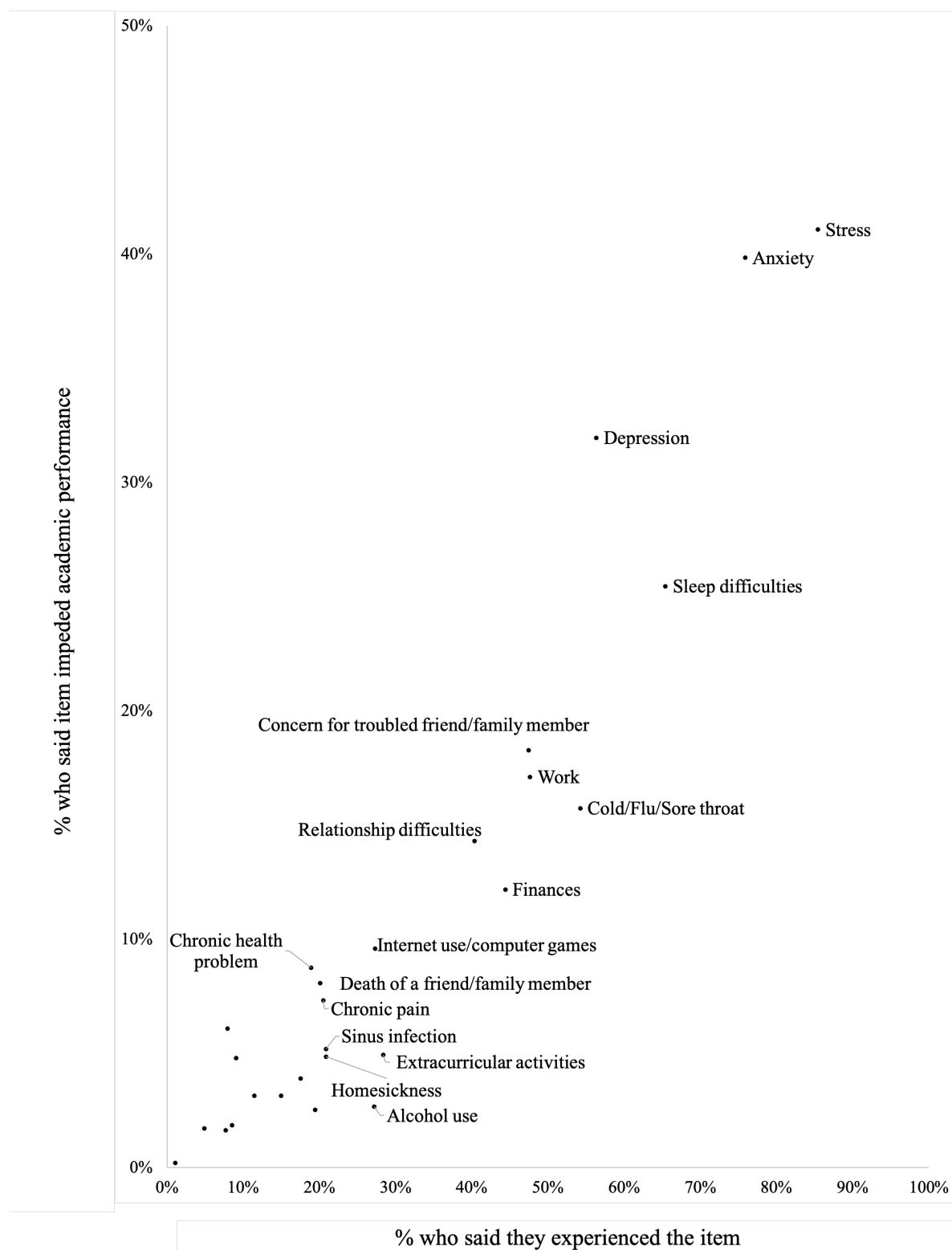


Figure 6. Incidence and impact of impediments for graduate students with a mental health condition.

The figure also shows that although sleep difficulties have a higher incidence in comparison to depression, depression has more impact. While 56.33% of those in the subgroup of students with a mental health condition reported they experienced depression, 31.96% of students in that subgroup said it impacted their academics (24.37% said it had not impacted their academics). In contrast, 65.43% of those in the subgroup of students with a mental health condition reported they experienced sleep difficulties but only 25.46% of those in the subgroup said it impacted their academics (39.97% said it had not impacted their academics).

A similar pattern is shown for cold/flu/sore throat, concern for troubled friend/family member, and work. Though there is a higher incidence rate for cold/flu/sore throat in comparison to concern for troubled friend/family member and work, fewer participants reported cold/flu/sore throat impeded their academics.

Next, Figure 7 provides an analogous plot for participants who were in the subgroup of students without a mental health condition. For clarity, labels were not included for items where fewer than 20% of the sample indicated they had experienced it, with the exception of depression. While in the discussion of Figure 6 the items with the highest rates of incidence were based on those above 50%, with this subgroup, only stress (70.92%) was at this level. Items with rates between 40-50% were: cold/flu/sore throat (49.71%); sleep difficulties (45.06%); work (41.54%); and anxiety (40.60%). Even though only 15.31% of students without a mental health condition reported that they had experienced depression, it is included in the figure because of its relevance to mental health.

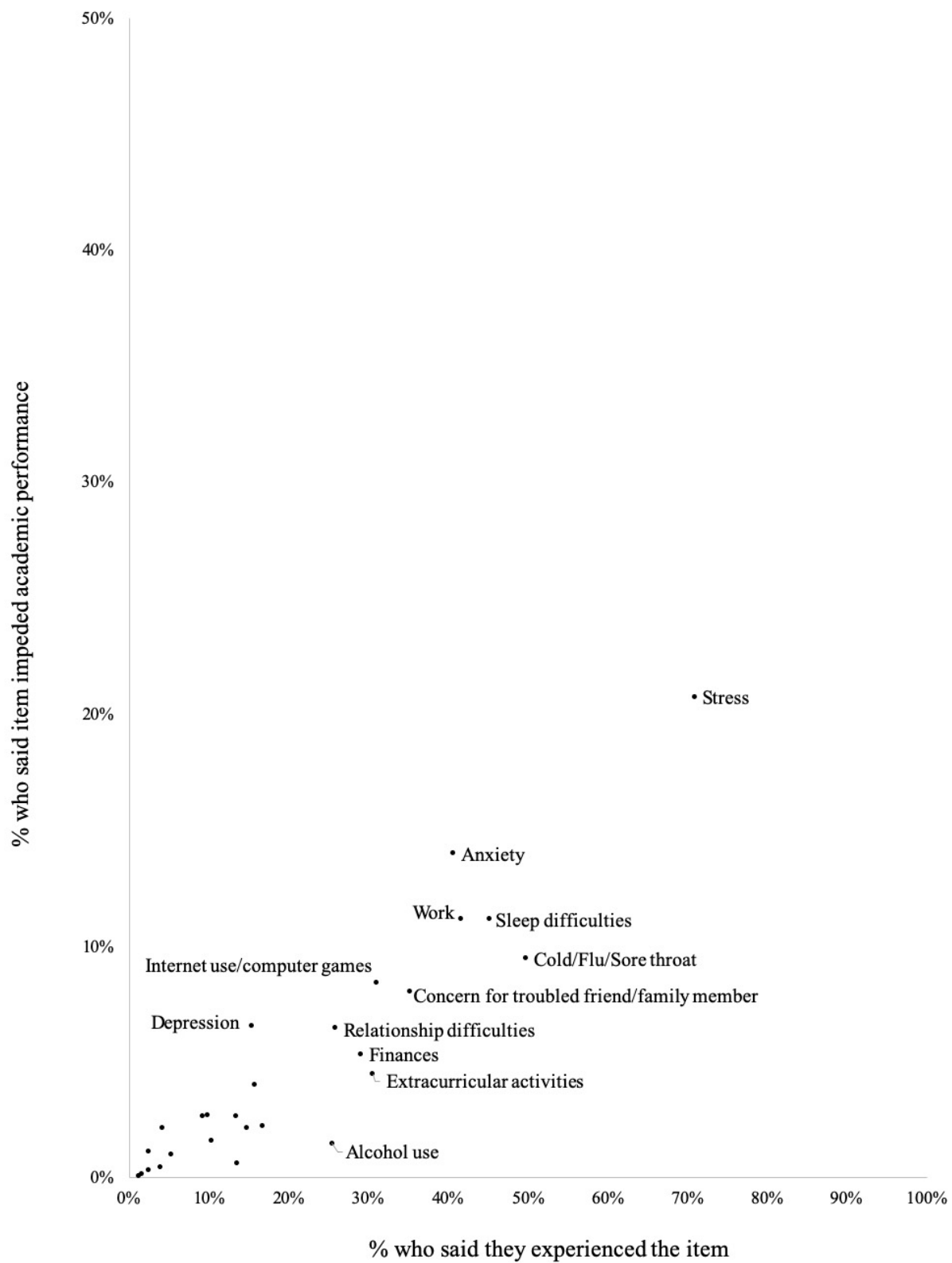


Figure 7. Incidence and impact of impediments for graduate students without a mental health condition.

Similar to the discussion of Figure 6, there are also examples with this sample of participants without a mental health condition where the rate of incidence would be considered low but which have high impact. For example, work, sleep difficulties, and cold/flu/sore throat all have higher rates of incidence in comparison to anxiety, which 40.60% of respondents reported they had experienced. However, only 14.01% of those without a mental health condition said it impeded their academic performance. This is higher than the number of participants who reported that work, sleep difficulties, and cold/flu/sore throat impeded their academic performance. After stress, which had 20.72% of participants reporting it affected their academic performance, anxiety is the next most commonly reported item for impediment to academic performance (14.01%) and may therefore warrant additional attention in comparison to work, sleep difficulties, and cold/flu/sore throat.

Comparing the two figures highlights several differences. First, in Figure 6 the items are more dispersed than in Figure 7. This indicates that, in general, fewer participants without a mental health condition typically reported experiencing them and fewer reported their academic performance was affected, in comparison to participants with a mental health condition. Second, for both subgroups, stress and anxiety were the most commonly reported impediments to academic performance. Third, while anxiety was the second most frequently experienced item by students with a mental health condition, it was ranked 5th for those without a mental health condition. It was still, therefore, one of the most commonly experienced items. However, when looking at depression, a different story emerges. While depression was commonly experienced by students with a mental health condition (56.33%) and was in the five most frequently reported conditions, for those without a mental health condition depression was only reported by 15.31% of the sample.

To further examine the impact of these items on academics, Table 18 presents the data for the specific ways academics could be affected. Here, the focus is only on the 10 items that had the highest numbers of respondents with a mental health condition indicating it impacted their academics.

Table 18

Specific Ways that Graduate Students With and Without a Mental Health Condition Reported their Academics were Impeded

Item	Received a lower grade on an exam or important project		Received a lower grade in the course		Received an incomplete or dropped the course		Significant disruption in thesis, dissertation, research, or practicum work	
	W/O ^a	W ^b	W/O	W	W/O	W	W/O	W
Anxiety	7.44	14.03	2.10	6.43	0.36	1.92	4.10	17.45
Cold/Flu/Sore throat	6.75	9.58	0.73	1.78	0.03	0.21	1.94	4.18
Concern for a troubled friend/family member	4.47	7.87	0.82	3.01	0.27	0.68	2.49	6.71
Depression	2.55	9.31	1.25	6.16	0.24	1.78	2.52	14.72
Finances	1.91	3.22	0.88	2.12	0.12	0.34	2.40	6.50
Internet use/computer games	5.04	4.52	1.73	1.37	0.09	0.21	1.55	3.49
Relationship difficulties	3.62	6.16	0.91	2.33	0.09	0.41	1.85	5.41
Sleep difficulties	6.81	10.54	1.64	5.00	0.18	0.21	2.55	9.72
Stress	11.46	15.54	3.32	7.46	0.58	1.16	5.47	16.91
Work	5.71	6.50	2.16	3.08	0.30	0.41	3.01	7.12

Note. W/O = without mental health condition; W = with mental health condition. Values represent percentage of respondents. Total of percentages by row is not 100 because of nonresponse. For clarity, *This did not happen to me/not applicable* and *I have experienced this issue but my academics have not been affected* are not included in this table.

^a $n = 3,291$.

^b $n = 1,461$.

To illustrate these data in another way, Figure 8 presents only the responses of the students with a mental health condition. Because less than 2% reported *received an incomplete or dropped the course* on any of the items, this was not included in the figure.

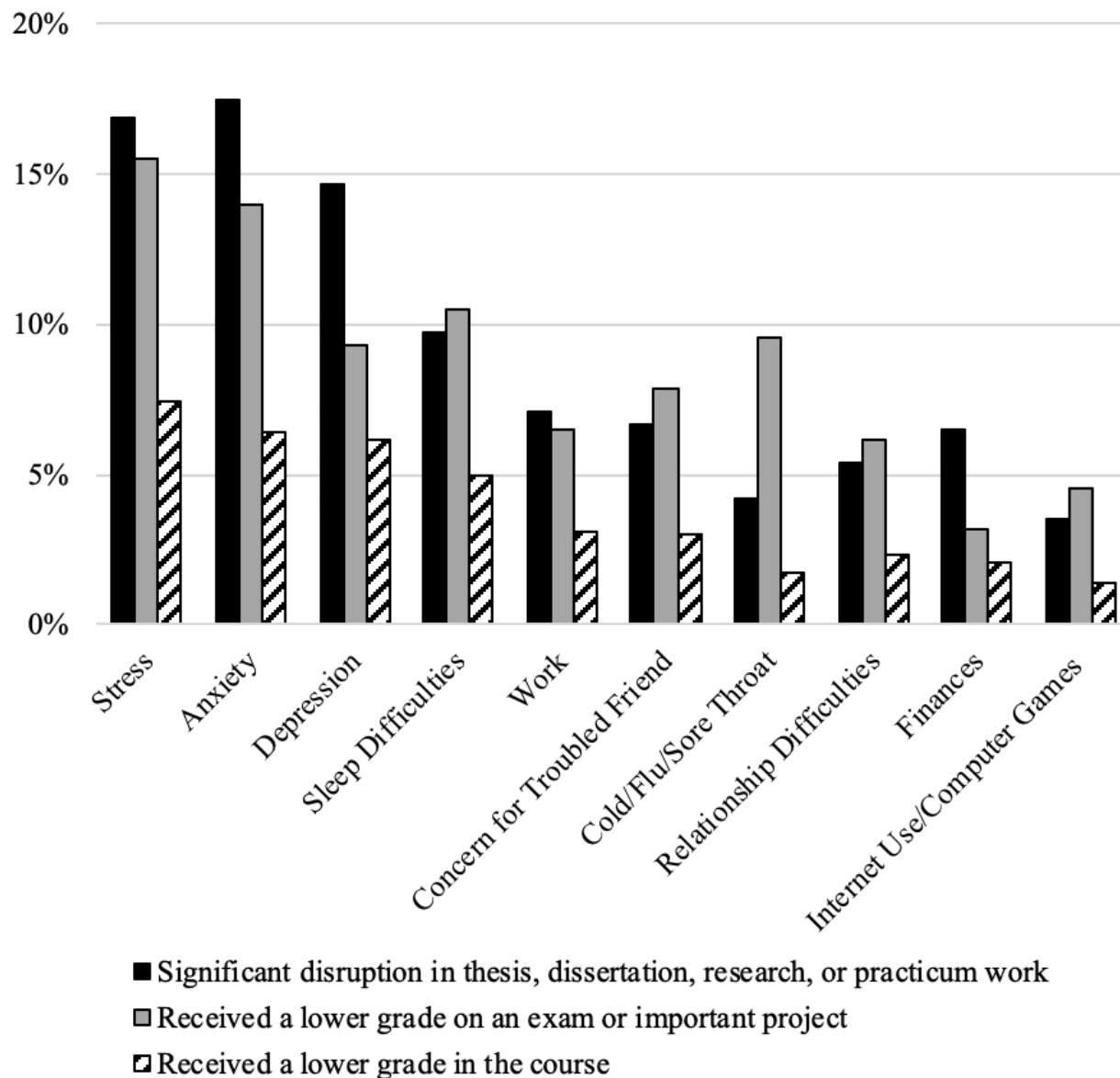


Figure 8. The ways that graduate students with a mental health condition reported items impact their academics.

Figure 8 shows that for half of the items (stress, anxiety, depression, work, and finances) the most common way that academics were affected was with *significant disruption in thesis, dissertation, research, or practicum work*. For the remaining items, *received a lower grade on an*

exam or important project was the most common way academics were impacted. *Received a lower grade in the course* was therefore the least frequent response option. Next, Figure 9 allows us to compare these findings to the ways students without mental health condition(s) feel their academics are impacted.

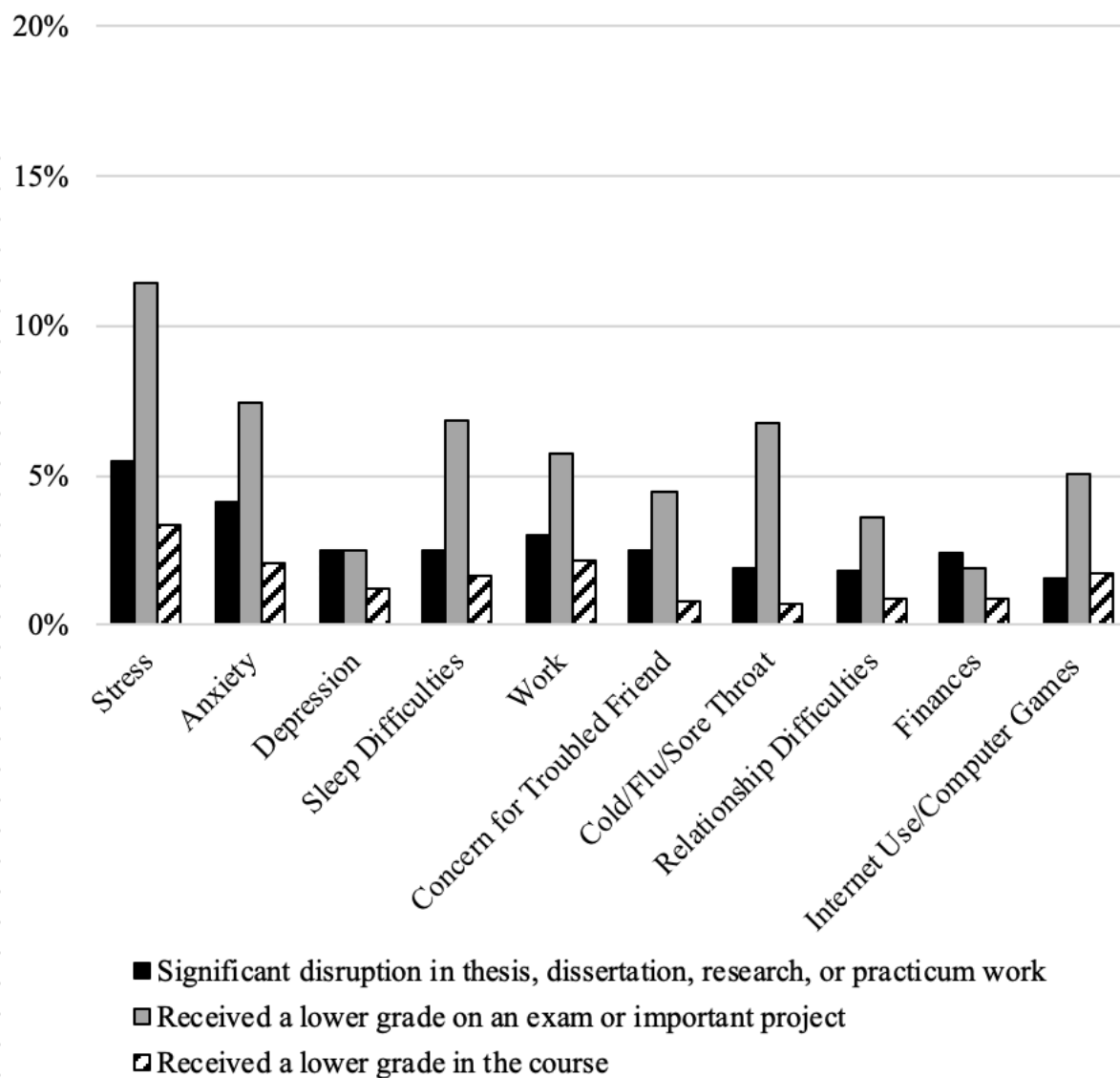


Figure 9. The ways that graduate students without a mental health condition reported the items impact their academics.

For the students without a mental health condition, *received a lower grade on an exam or important project* was the most common way academics were affected for nine out of ten items; Finances was the only item where more participants responded there was a *Significant disruption in thesis, dissertation, research, or practicum work*. This means that stress, anxiety, depression, and work impacted the academics of the two subgroups in different ways.

Summary

To summarize the key findings from this section, more graduate students with a mental health condition reported experiencing each feeling or behaviour linked to poor mental health in the past 12 months, in comparison to those without a mental health condition. However, the effect sizes for the significant differences were either small or medium, indicating that the subgroups may not be as dissimilar as one might expect. Outside of the past 12 months, similar proportions of participants in each subgroup reported experiencing many of the feelings and behaviours. Additionally, there was a medium effect size on the difference between the subgroups' level of stress ratings. Overall, more graduate students with a mental health condition rated their stress as more than average or tremendous in comparison to students without a mental health condition. Significant differences were found on all examined stressors, but effect sizes between the two subgroups were considered small. It would appear that slightly more graduate students with a mental health condition reported that each item had been traumatic or very difficult to handle in the past 12 months in comparison to students without a mental health condition, but with small effect sizes these results should be viewed with caution. Furthermore, academics was the item reported by the highest proportion of participants in both subgroups as being traumatic or difficult to handle within the past year. In terms of impediments to academic performance, significant differences were found between the groups on most items and more

graduate students with a mental health condition typically reported that they experienced the various impediments and that they impeded their academic performance. However, the effect sizes for the significant differences ranged from negligible to medium. Stress was the impediment reported by the most participants in both samples.

Supports

In the final section of this chapter, I present the data from NCHA questions belonging to the theme of support. Specifically, I address: (a) the topics about which participants have received information from their institution and what types of information they are interested in receiving; (b) lifetime use of specific on-and-off campus sources of mental health support; and (d) forms of treatment participants reported using for diagnosed conditions.

Information Received from the Institution

Table 19 displays the percentages of respondents from both subgroups who received information about specific topics and whether there were significant differences between the two subgroups. No significant differences were found for 14 out of 19 topics. Significant differences between those with and without a mental health condition were found on: 1) depression/anxiety ($\chi^2(1) = 14.634, p < .001, V = 0.056$); 2) injury and violence prevention ($\chi^2(1) = 16.060, p < .001, V = 0.058$); 3) physical activity ($\chi^2(1) = 14.696, p < .001, V = .056$); 4) sexual assault/relationship violence prevention ($\chi^2(1) = 10.803, p < .001, V = 0.048$); and 5) violence prevention ($\chi^2(1) = 11.518, p < .001, V = 0.049$). For all significant differences, the V values were smaller than 0.100, indicating that they all had negligible effect sizes.

Table 19

Responses to “Have You Received Information on the Following Topics from Your College or University?” for Graduate Students With and Without a Mental Health Condition

Topic	% of participants				$\chi^2(1)$	<i>p</i>	<i>V</i>
	Without a MHC ^a		With a MHC ^b				
	Yes	No	Yes	No			
Alcohol and other drug use	32.30	66.97	29.57	70.09	3.827	.050	0.029
Cold/Flu/Sore throat	33.79	65.36	31.07	68.38	3.639	.056	0.028
Depression/Anxiety	54.24	45.24	60.37	39.43	14.634	.001	0.056
Eating disorders	18.29	81.04	16.43	82.89	2.411	.121	0.023
Grief and loss	19.75	79.43	18.34	81.04	1.361	.243	0.017
How to help others in distress	28.87	70.34	26.83	72.90	2.379	.123	0.022
Injury and violence prevention	25.40	73.78	20.12	79.40	16.060	.001	0.058
Nutrition	35.40	63.84	31.90	67.76	5.983	.014	0.036
Physical activity	48.95	50.29	43.05	56.40	14.696	.001	0.056
Pregnancy prevention	24.25	74.51	22.86	76.52	1.321	.250	0.017
Problem use of Internet/ computer games	8.08	91.25	5.68	93.70	8.607	.003	0.043
Relationship difficulties	15.92	83.32	15.88	83.44	0.002	.962	0.001
Sexual assault/Relationship violence prevention	45.97	53.39	40.86	58.52	10.803	.001	0.048
STD/I prevention	36.49	62.75	34.09	65.30	2.673	.102	0.024
Sleep difficulties	16.65	82.47	19.23	79.95	4.653	.031	0.031
Stress reduction	60.10	39.17	60.03	39.49	0.022	.882	0.002
Suicide prevention	30.17	68.98	28.75	70.57	1.057	.304	0.015
Tobacco use	19.69	79.40	17.59	81.52	2.910	.088	0.025
Violence prevention	22.82	76.18	18.41	80.42	11.518	.001	0.049

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

^a *n* = 3,291.

^b $n = 1,461$.

The most frequently reported topics for both subgroups were depression/anxiety and stress reduction. Of the five significant differences, depression/anxiety was the only topic for which students with a mental health condition reported receiving more information in comparison to those without a mental health condition (60.37% versus 54.24%). For all other significant differences, higher proportions of students without a mental health condition reported receiving the information: injury and violence prevention (25.40% versus 20.12%); physical activity (48.95% versus 43.05%); sexual assault/relationship violence prevention (45.97% versus 40.86%); and violence prevention (22.82% versus 18.41%). Recall, however, that the Cramer's V values were all smaller than 0.10, which means the effect sizes were all small. This suggests that the subgroups may be quite similar in terms of the types of information that they report they have received.

Interest in Receiving Information

While Table 19 details the information that participants reported receiving from their institution, Table 20 shifts the focus to participants' responses about whether they wished to receive information on the topics. Similar to the previous discussion, no significant differences were found on 14 of the 19 topics. Significant differences were found on: 1) depression/anxiety ($\chi^2(1) = 70.683, p < .001, V = 0.123$); 2) grief and loss ($\chi^2(1) = 10.122, p < .001, V = 0.046$); 3) sleep difficulties ($\chi^2(1) = 35.634, p < .001, V = 0.087$); 4) stress reduction ($\chi^2(1) = 17.638, p < .001, V = 0.061$); and 5) suicide prevention ($\chi^2(1) = 21.854, p < .001, V = 0.068$).

Depression/anxiety had a Cramer's V value of 0.123 which is a small effect size. The Cramer's V value for the remaining significant differences were all smaller than 0.10, meaning the differences between the subgroups was negligible.

Table 20

Responses to “Are You Interested in Receiving Information on the Following Topics From Your College or University?” for Graduate Students With and Without a Mental Health Condition

Topic	% of participants				$\chi^2(1)$	<i>p</i>	<i>V</i>
	Without a MHC ^a		With a MHC ^b				
	Yes	No	Yes	No			
Alcohol and other drug use	25.62	73.02	26.01	72.90	0.056	.814	0.003
Cold/Flu/Sore throat	36.62	62.20	32.03	66.74	9.308	.002	0.045
Depression/Anxiety	59.31	39.81	72.14	27.24	70.683	.001	0.123
Eating disorders	32.48	66.27	34.91	63.72	2.794	.095	0.024
Grief and loss	43.21	55.48	48.25	50.65	10.122	.001	0.046
How to help others in distress	66.00	33.21	68.04	31.28	1.786	.181	0.020
Injury prevention	42.02	56.70	39.70	59.00	2.257	.133	0.022
Nutrition	62.02	36.98	61.67	37.51	0.093	.761	0.004
Physical activity	59.89	38.95	59.62	39.56	0.097	.756	0.005
Pregnancy prevention	30.90	67.40	29.71	68.65	0.710	.400	0.012
Problem use of Internet/ computer games	25.13	73.90	25.46	73.85	0.036	.849	0.003
Relationship difficulties	40.60	58.34	45.24	54.21	8.183	.004	0.042
Sexual assault/Relationship violence prevention	46.25	52.63	50.51	48.67	6.945	.008	0.038
STD/I prevention	41.72	57.13	45.17	53.94	4.644	.031	0.031
Sleep difficulties	58.22	40.81	67.49	31.83	35.634	.001	0.087
Stress reduction	71.95	27.50	77.82	21.77	17.638	.001	0.061
Suicide prevention	45.40	53.36	52.84	46.20	21.854	.001	0.068
Tobacco use	22.82	75.90	23.07	75.91	0.021	.886	0.002
Violence prevention	41.29	57.46	45.31	53.87	6.128	.013	0.036

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

^a*n* = 3,291.

^b $n = 1,461$.

For four out of five of the topics where there were significant differences between the subgroups on information received, the proportion of participants without a mental health condition was higher in comparison to those with a mental health condition. In contrast, higher proportions of students with a mental health condition indicated they wanted information on all topics where there were significant differences: depression/anxiety (72.14% versus 59.31%); grief and loss (48.25% versus 43.21%); sleep difficulties (67.49% versus 58.22%); stress reduction (77.82% versus 71.95%); and suicide prevention (52.84% versus 45.40%). However, the effect sizes for these significant differences were either negligible or small, which means that the subgroups may not be that dissimilar in terms of topics for which they would like to receive more information.

Comparing Information Received and Information Wanted

Figure 10 illustrates the data concerning information received and information wanted in another way and allows conclusions to be drawn regarding which topics offices for health promotion may provide for students. Because there were few differences in information received and information wanted between the subgroups, only the subgroup of students with a mental health condition is discussed here.

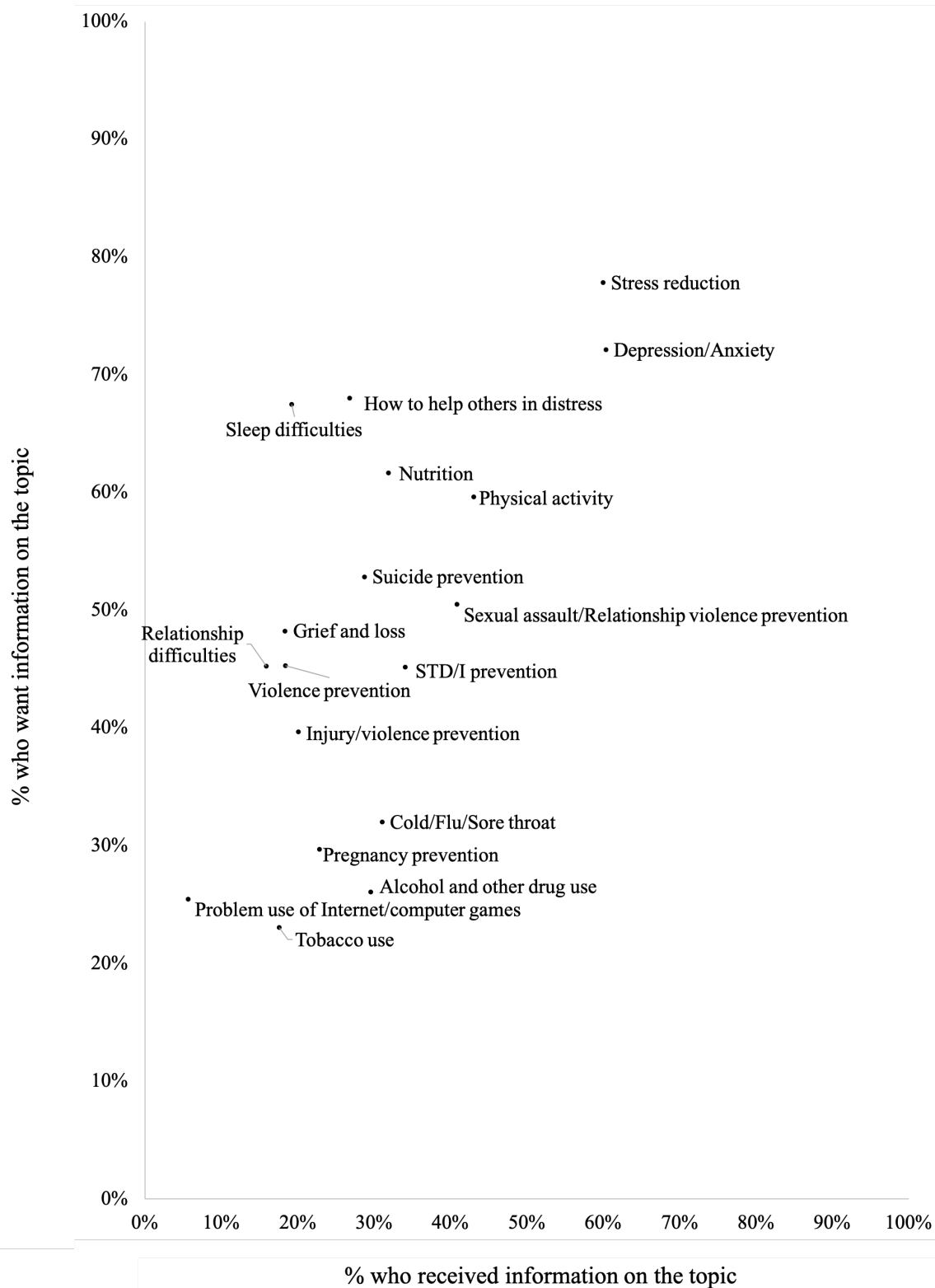


Figure 10. Information received and information wanted by graduate students with a mental health condition.

As previously mentioned, the information most commonly received by graduate students with a mental health condition were related to depression/anxiety and stress reduction. Figure 10 shows that these are also the topics for which students wish to receive more information. The figure also shows for which topics fewer students reported receiving information and reported being interested in receiving more. For example, only 19.23% of graduate students with a mental health condition reported receiving information about sleep difficulties, but 67.49% indicated they wanted to receive more information. How to help others in distress was similar, where only 26.83% reported receiving information on this topic but 68.04% wanted more information. These topics are in stark contrast to others where even though few reported receiving information on them, few also reported wanting more information. For example, even though only 16.43% reported receiving information about eating disorders, only 34.91% indicated they wished to receive more information on this topic. Even though this is still a difference of 18.48%, it is much lower than the 48.26% difference for sleep difficulties and the 41.21% difference for how to help others in distress.

Use of Mental Health Services

Participants were asked if they had ever received support from specific service providers and they responded with *yes* or *no* for each of them. Frequencies for these questions are presented in Table 21.

Table 21

Responses to “Have You Ever Received Psychological or Mental Health Services from Any of the Following?” for Graduate Students With and Without a Mental Health Condition

Service provider	% of participants				$\chi^2(1)$	<i>p</i>	<i>V</i>
	Without a MHC ^a		With a MHC ^b				
	Yes	No	Yes	No			
Counselor/Therapist/ Psychologist	27.77	71.41	81.52	18.07	1181.215	.001	0.500
Psychiatrist	3.04	95.81	36.69	62.56	985.089	.001	0.458
Other medical provider (e.g. physician, nurse practitioner)	8.60	90.31	53.73	45.59	1179.421	.001	0.501
Minister/Priest/Rabbi/ Other clergy	3.31	95.59	7.32	91.65	37.482	.001	0.089

Note. MHC = mental health condition. Total of percentages by row is not 100 because of nonresponse.

^a *n* = 3,291.

^b *n* = 1,461.

Significant differences were found for each of the service providers. For each question, more graduate students with a mental health condition reported receiving psychological or mental health services from that source, in comparison to students without a mental health condition. The most common source of support for both subgroups of students was counselor/therapist/psychologist, with 27.77% of students without a mental health condition and 81.52% of students with a mental health condition reporting they received support from this type of service provider. With the exception of minister/priest/rabbi/other, the differences between the proportion of students without a mental health condition and with a mental health condition were all greater than 30%. This is also supported by the effect sizes. Two items had a Cramer’s *V*

value of greater than 0.50, which means they had large effect sizes (counselor/therapist/psychologist and other medical provider). One item (psychiatrist) had a medium effect size ($V = 0.458$). The remaining item (minister/priest/rabbi/other clergy) had a negligible effect size ($V = 0.089$).

Participants were also asked if they had received mental health support from offices at their current college or university. The chi-square test found a significant difference between students with a mental health condition and without a mental health condition ($\chi^2(1) = 647.353$, $p < .001$, $V = 0.371$), and this significant difference has a medium effect size. While 44.56% of students with a mental health condition indicated they had received psychological support from services at their current institution, only 11.55% of students without a mental health condition responded in the same way.

For the question concerning future use of mental health services, there was a significant difference between graduate students with and without a mental health condition ($\chi^2(1) = 140.622$, $p < .001$, $V = 0.173$), and this significant difference had a small effect size. While 94.39% of graduate students with a mental health condition indicated they would seek mental health support in the future if needed, 80.86% of those without a mental health condition responded in the same way.

Treatment

Survey questions asked participants if they had been diagnosed or treated by a professional for specific mental health conditions within the last 12 months. Because ADHD was not considered a mental health condition for this study, it is omitted from this discussion. Additionally, this section only includes the subgroup of students with a mental health condition

because these questions were used as a criterion for inclusion. Data concerning whether participants had been diagnosed or treated within the past 12 months are presented in Table 21.

Table 22

Rates of Treatment for Mental Health Conditions for Graduate Students with a Mental Health Condition

Condition	Yes, treated ^a		Yes, diagnosed but not treated		No	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Anorexia	16	1.10	13	0.89	1,421	97.26
Anxiety	648	44.35	169	11.57	639	43.74
Bipolar disorder	39	2.67	7	0.48	1,405	96.17
Bulimia	22	1.51	19	1.30	1,406	96.24
Depression	512	35.04	99	6.78	843	57.70
Insomnia	164	11.23	63	4.31	1,226	83.92
Other sleep disorder	97	6.64	49	3.35	1,301	89.05
OCD	47	3.22	29	1.98	1,380	94.46
Panic attacks	229	15.67	93	6.37	1,133	77.55
Phobia	31	2.12	16	1.10	1,399	95.76
Schizophrenia	6	0.41	3	0.21	1,439	98.49
Substance abuse or addiction	21	1.44	18	1.23	1,415	96.85
Other addiction	7	0.48	6	0.41	1,441	98.63
Other mental health condition	142	9.72	31	2.12	1,283	87.82

Note. *n* = 1,461. Total of percentages by row is not 100 because of nonresponse.

^a Response options were: *No*; *Yes, diagnosed not treated*; *Yes, treated with medication*; *Yes, treated with psychotherapy*; *Yes, treated with medication and psychotherapy*; *Yes, other treatment*. For analysis, the latter four responses were interpreted as meaning the participant had been diagnosed *and* treated in the past 12 months and not solely treated. These responses were collapsed to create the *Yes, treated* category shown here.

Anxiety was the most prevalent condition for which participants had been treated in the past 12 months. Of the 1,461 participants in the subgroup of students with a mental health condition, 44.35% reported they had been treated for the condition. The percentages of participants who responded that they had been diagnosed and treated were consistently higher than those who reported they had been diagnosed and not treated. However, many participants did report that they had not received treatment for conditions they had been diagnosed with in the past 12 months. For example, in addition to the 44.35% of respondents who reported they had been treated for anxiety in the past 12 months, 11.57% reported they had been diagnosed but that this was untreated.

Figure 11 presents the ways participants received treatment for the most commonly reported mental health conditions.

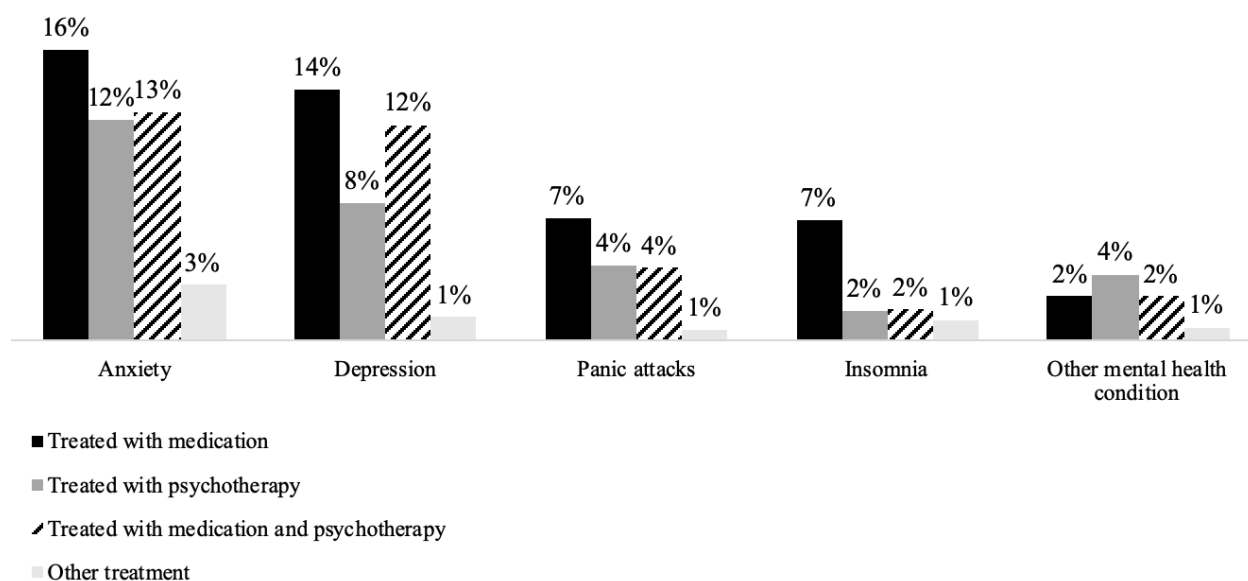


Figure 11. Types of treatment participants reported using for most common mental health conditions ($n = 1,461$).

This figure reveals that for four out of five of these conditions, the most common type of treatment was medication. The exception for this was other mental health condition, where 3.70% received psychotherapy and 2.46% received medication. For panic attacks and insomnia, the same percentage of participants reported doing psychotherapy as those that treated their condition with both medication and psychotherapy. For panic attacks, about 4% of respondents reported each of these treatment approaches, and for insomnia about 2% responded in this way. Depression, on the other hand, has a difference of 4.38% between these response options, with 7.67% being treated with psychotherapy and 12.05% with medication and psychotherapy. Anxiety, in contrast, had only a small difference of 0.41% between these, with 12.32% only receiving psychotherapy and 12.73% receiving both medication and psychotherapy.

Summary

In this section, findings from questions focusing on support were presented. For the questions about topics of information received from the institution, there were few differences between students with and without a mental health condition. Additionally, for those items where there were significant differences, the effect sizes were negligible. However, the most commonly identified topics for all students were depression/anxiety and stress reduction. For the question asking whether students want additional information on various topics, more students with a mental health condition reported wanting information about depression/anxiety, grief and loss, sleep difficulties, stress reduction, and suicide prevention – all topics related to mental health and wellness. However, the effect sizes for most of these items were negligible and as such, the groups may not be that dissimilar in the types of information they would like to receive. Though no significant difference was found, both students with and without a mental health condition wanted more information about how to help others in distress, as only a third of each subgroup

reported receiving information on this topic. For sources of mental health support, more students with a mental health condition reported seeking support from each of the examined sources. Effect sizes for counselor/therapist/psychologist and psychiatrist were the largest, with Cramer's V values equal to or greater than 0.50. However, about one third of those without a mental health condition did report seeking support from a counselor/therapist/psychologist at some point. Concerning use of on-campus psychological support, there was a medium effect for the significant difference between the subgroups, with more of those with a mental health condition reporting that they accessed this support. A significant difference was also found when comparing responses about whether participants would seek support in the future if they were having a problem, with more of those with a mental health condition responding that they would. However, this difference had a small effect size, meaning the subgroups may not be very different. For types of treatment, the findings show that some students with a mental health condition had not sought treatment for their condition in the past 12 months. But, where treatment was sought, medication was the most frequently reported type of treatment followed by psychotherapy and medication.

Chapter Summary

In chapter four, results for the NCHA graduate student sample were presented. Findings were organized into three sections: (a) prevalence and demographics; (b) challenges; and (c) supports. In the first section, I identified the prevalence of various disabilities and mental health conditions in the overall sample, and then identified how a subgroup of students with a mental health condition was developed. I then moved into the second section of the findings, where questions related to challenges students experience were examined. I compared the feelings and behaviours linked to poor mental health across the subgroups and then assessed how students

rated their level of stress. Subsequent discussion then focused on the specific stressors students experienced in the last 12 months, and comparisons were made between students with and without a mental health condition. The last component of this section addressed impediments to academic performance, and the main challenges graduate students faced were identified. In the final section, findings concerning mental health supports were presented, beginning with the information students had received from their institution and what types of information they wanted to receive. Sources of mental health support were then discussed, followed by future willingness to seek support. Lastly, common types of treatment for mental health conditions were identified.

CHAPTER FIVE: QUALITATIVE FINDINGS

In this chapter, I begin by providing a description of the participants by discussing: demographic characteristics; when they became aware of their mental health condition; the type of mental health condition(s) they identified with; whether their conditions were diagnosed; and who provided the diagnosis. I then detail the themes that emerged in participants' definitions of the term *disability*. The next section focuses on academic status and progress and I subsequently detail the challenges participants experienced and the impact of these challenges on their academics. The final section of this chapter pertains to support and, after briefly describing participants' coping skills, I describe the informal and formal sources of support participants reported.

About the Participants

Summary demographics for the participants are presented in Table 23. These will be discussed further in subsequent sections.

Table 23

Summary Demographics for Interview Participants

Category	<i>n</i>	%
Institution type		
Comprehensive	13	34.2
Medical/doctoral	22	57.9
Primarily undergraduate	3	7.9
Subject area grouping		
Arts and Humanities	10	26.3
Health Sciences	7	18.4
Sciences	5	13.2
Social Sciences	11	29.0
Other	5	13.2
Enrolment status		
Full-time	35	92.1
Part-time	3	7.9
Gender		
Female	27	71.1
Male	10	26.3
Non-binary	1	2.6

Institutional Type

Participants were from 15 Ontario universities; six of these had only one participant. The most frequently reported institution had seven participants and the second most frequently reported had six. Although participants were from a range of institutions, this is not to say that the participants' experiences should be generalized as the experiences of all students at institutions of those types. In order to protect participants' identities, the specific institutions they attended will not be reported. Instead, the Maclean's (2018) categories are used to convey types of institutions the participants attended: Primarily Undergraduate; Comprehensive; and Medical/Doctoral. The three categories are based on several variables: level of research funding;

diversity of offerings; and breadth of graduate/professional programs (Macleans, 2018). Four Ontario universities are not categorized and ranked. Unranked institutions are “those with fewer than 1,000 full-time students, those that are restrictive due to a religious or specialized mission, newly designated universities or those that are not members of the national association Universities Canada” (Macleans, 2018).

Institutions categorized as Primarily Undergraduate universities are typically smaller and do not have as many graduate and professional programs in comparison to the other categories. These institutions focus on the student experience at the undergraduate level. In Ontario, Primarily Undergraduate universities are Lakehead, Laurentian, Nipissing, Trent, and University of Ontario Institute of Technology. Only three participants were from Primarily Undergraduate institutions, and they came from three of the five universities in this category.

The Comprehensive university category are institutions that have a substantial amount of research activities and also have a diverse range of undergraduate and graduate/professional degrees. Universities in Ontario that are considered Comprehensive are: Brock; Carleton; Guelph; Waterloo; Ryerson; Wilfrid Laurier; Windsor; and York. Seven of these eight institutions had one or more participants in the study. About one third of participants attended an institution in this category.

Lastly, Medical/Doctoral institutions have a wide variety of Ph.D. programs and research activities, in addition to medical schools. In Ontario, these institutions are: McMaster; Ottawa; Queen’s; Toronto; and Western. This study had one or more participants from each of these institutions, and this category had the largest number of participants. Twenty-two participants (58.0%) attended an institution of this type.

Educational Pathways

Four participants (P7, P19, P28, P30) were in direct-entry programs and went from their undergraduate directly into a doctoral program. None of these direct-entry participants took a break in between their programs. Three of the four direct-entry participants switched institutions in between their undergraduate and doctoral programs and the remaining participant stayed at the same institution.

Of the remaining 34 participants who were in non-direct entry programs, 22 reported that they took a break at some point in their studies, either between the undergraduate and master's level or between the master's and doctoral level. Of these 22 participants, four took a break at both points. For example, one participant took a one-year break in between their undergraduate and master's programs, and then subsequently took a five-year break in between their master's and doctoral degrees. Between the undergraduate and master's degrees, 14 out of 34 non-direct entry participants took a break. While the length of the breaks for two of these participants was five years or more, the remaining 12 participants took breaks that were shorter than five years. While some participants indicated they worked to gain experience in their fields, others explained they were saving money for graduate school. For the master's and doctoral levels, 12 out of 34 non-direct entry participants took a break between these programs. The length of the break for two of these participants was five years or more, while the remaining participants were out of school for less than five years.

Only four of the 34 non-direct entry participants stayed at the same institution throughout all of their postsecondary education. A total of 23 out of the 34 non-direct entry participants switched institutions between the undergraduate and master's levels, and 20 out of 34 switched

between their master's and doctoral programs. Overall, 12 participants in the sample switched at both points in time.

Of the 34 participants who completed a master's degree, 24 reported the length of their program was two years and nine reported it was one year. One participant said they were in a program that was 18-months long. Most of the participants who completed a two-year master's degree specified that their program had a thesis component. Because of the semi-structured nature of the interviews, not all participants were asked about whether they completed their master's degree on time. However, five participants said they did not complete on time and each of these participants were in two-year programs that had a thesis component. It is possible that additional participants did not complete the master's degree on time but this was not addressed in all of the interviews.

Overall, the traditional pathway for most participants was the completion of an undergraduate degree, followed by a master's degree, and then subsequently enrolling in a doctoral program. However, several participants described features of their educational pathways that differed from this route. For example, six participants described switching programs and/or institutions before completing the credential they were enrolled in. Four of these participants reported starting an undergraduate degree in one program and then either switching programs or institutions. The other two participants noted they began graduate programs and then switched to programs at different institutions before completion.

Subject Areas

Participants were asked to identify the subject area of their undergraduate, master's, and doctoral programs. For the current analyses, only the doctoral level subject areas are summarized. Recall that one of the criteria for participation in the study was being in a doctoral

program that was not considered a professional program. To protect the identities of the participants, each participant's specific subjects areas are not reported. Rather, subject area groupings were developed as shown in Table 23.

Ten participants were in Arts and Humanities and an additional 11 were in Social Science programs. Combined, these two areas accounted for 55.3% of the participants. Subject areas that were grouped under the heading of Arts and Humanities were: Canadian Studies; English; History; Humanities; and Religious Studies. The Social Sciences category had subjects such as: Child and Youth Studies; Geography; Psychology; Social Work; and Sociology. The Health Sciences category was the next most common grouping, with seven participants. The general subject areas of the participants in this group were Rehabilitation Sciences and Neuroscience. Sciences and Other then each had five participants. Those in the Sciences were studying specialty areas related to Biology and Environmental Science. Lastly, the remaining subjects, under Other, had programs generally related to Business and Education.

Enrollment Status

As summarized in Table 23, most participants (35 of 38) reported that they were enrolled full-time. The three participants (P11, P16, P33) enrolled part-time all reported they had started their program full-time and then switched to part-time. P11, who started in September 2010 and was in eighth year, said "I was full-time up until year five and then I switched to part-time just because the tuition was cut in half and you're still using the same resources." For this participant, the rationale for switching to part-time was a reduction in tuition. P16, who started in September 2011 and was in seventh year, expanded on the resources that part-time students use: "You're year x, the only thing you're really using is the library, you don't really talk to your supervisor that much, but you're paying thousands of dollars in tuition fees." This participant further

discussed how it was because of her connections and the work that she had done in the department and institution more broadly that she was granted part-time status. The last part-time participant (P33) started in September 2013 and was in fifth year, and she talked about how she recently switched to part-time: “We’re technically not allowed to [switch to part-time]. I just did it last term because I’m teaching . . . , so I went the working full-time angle, and they took it.”

While the three participants switched to part-time status once their institutions’ four-year funding commitment ended, it is worth noting that funding periods may vary between institutions and programs. Some students may obtain additional funding from other sources so that it is not necessary for them to switch to part-time. What is more, some institutions do not allow students to switch to part-time. This is all to say that there are a variety of reasons why a student may be beyond the typical four-year funding period of their program but not enrolled part-time.

Gender

Of the 38 participants, 27 identified as female, 10 identified as male, and one identified as non-binary. Though comparing the experiences across gender identity was outside the scope of this study, several participants did mention the relationship between gender and mental health. Specifically, a few participants touched on topics of masculinity and the experience of being a male who experiences a mental health challenge or disability. For example, P35, who identified as male, suggested he had an initial reticence to discussing mental health or accessing mental health support: “There is an awareness that I have been socialized by, whatever, society, peer group, and to a lesser extent, my father, who, despite being a very progressive man, still has certain issues and traces of this kind of toxic masculinity that we’ve all been socialized into.” On the topics of masculinity and what males are socialized into, several participants offered some insight. First, several male participants made comments suggesting there is a perception that men

are supposed to feel and act certain ways. This is addressed by P35, who stated: “It’s like, protect the wounds, and don’t let people see you bleed. And likewise, don’t let people see you cry, right?”

However, two anecdotes address how the participants’ relationship to the feelings and behaviours they are socialized into changed as they got older. In reference to why he shares his experience with his students, P24 (who identifies as male) similarly added: “I started to see these notions of resilience and masculinity and men don’t face challenges. I started to see those all as severely flawed and not in line with my own experience.” For P24, coming to recognize the difficulties with perceptions of what it means to be male meant he could begin to address them by talking about his own experiences. He continued:

So, I started to say, you know, recognizing what I have been lucky to live with, I can talk about what I’m unlucky to live with, and it doesn’t make me any worse. . . . I’m in a unique position where I’m a physically abled white male who’s always been involved in exercise, sports, and martial arts. I think that it gave me the confidence to say I don’t feel weaker than anyone else, even though I intellectually, or mental health wise, have my limitations. I leaned on the physical privilege I had to just talk about my mental health . . . , I just realized there are so many ways where people will see me as successful or see me as respectable. That – this stigma of being depressed, he’s not reliable, or we shouldn’t hire him or whatever – didn’t speak to me, so I wanted to do away with it.

P26 (who identified as male) described his experience of sharing his perspective with peers: “I think that opening up has freed a couple of people that I know of to share more. One of my best male friends who’s also in the program, my talking about it made him comfortable enough to go seek help.” He added:

One of my best male friends from high school [also] reached out to me and shared where he was at, in terms of that. I’ve actually found that giving people permission to be open has invited people to be more open with me. I’ve slowly been building a community of people who are willing to share their experiences. It’s been really great. It’s been really cool to tear that down, because I do think that there was hesitancy, I think a particularly gender-inflicted hesitancy, to share.

However, even though some male participants described feeling comfortable with sharing their experiences, this is not to say that all male participants, or all males more broadly, would be comfortable. P31, for example, noted his hesitancy: “Saying, ‘Oh, I talked to a therapist.’ Or, ‘I talked to a social worker about a recent challenge that I have.’ I wouldn’t feel, at this time, comfortable, even saying that to one of my best friends.” A similar hesitancy to discuss mental health, particularly with male friends, is described by P29:

I think I feel much less comfortable talking about this sort of stuff to other guys. . . . In my department, it’s not necessarily as much of a thing, because I think it’s a widely-experienced issue, regardless of one’s gender, but talking about it in my social circles, outside of academia, I think only two of my male friends know that I’m depressed. Whereas, I think most of my friends are female and so, I’m much more open to talk about stuff with them. But I think with a lot of people that I’m friends with, it would just be too much of a weakness to talk about.

Another participant described how this comfort, or lack there-of, may connect to the academic environment:

There’s definitely a gender component to this, of what men feel comfortable talking about but also just a sense that amongst other men you should feel/express confidence in what you’re doing, your research, and how things are going, and this all manifests in not talking about these things. (P37, male)

This participant added an anecdote concerning how this may affect his relationships within the department: “My professor is a man as well so perhaps that affects that type of relationship, just the sense that, unless you’re dealing with major, major crisis then everything is assumed to be okay and it’s not something you talk about.” There may therefore be several ways in which gender affects the academic experiences of students with mental health challenges or disabilities, with this participant suggesting one might be relationships with faculty.

Other Demographic Information

Other participants detailed additional credentials they have completed. For example, one participant completed a second master’s degree and another did a post-graduate certificate

following the completion of a master's degree. Though few participants indicated they had completed additional credentials, these types of variations highlight additional variables that could contribute to diverse participant experiences.

Several other variables that could be used to describe the participants were discussed in the interviews. Because this information was not collected from every participant, it is not recorded in the demographic table. However, these discussions provide some suggestion of where future research could be taken. For example, some participants discussed their children, relationship status, or place of residence, but these were not explicitly examined in the qualitative phase of this study.

Awareness of Mental Health Condition(s)

One of the interview questions was: "When did you become aware of your mental health condition?" The purpose of this question was to identify a starting point for the conditions. During the analysis, it became clear that participants interpreted this question in different ways. As one participant pointed out: "Being aware of it and experiencing it are a little different" (P24). Most participants responded with when they first began experiencing mental health challenges. Responses were therefore coded into elementary school, high school, undergraduate level, master's level, doctoral level, and lifetime history. Table 24 details how many participants were coded into each of these categories.

Table 24

When Participants Became Aware of Their Mental Health Condition

Time period	<i>n</i>	%
Elementary school	6	15.8
High school	10	26.3
Undergraduate degree	7	18.4
Master's degree	2	5.3
Doctoral program	5	13.2
Lifetime history	8	21.1

Of the 38 participants, six (15.8%) pointed to elementary school when responding to this question (P5, P6, P14, P22, P26, P32). Some participants identified a specific age at which they began experiencing mental health challenges. For example, P6 described her experience:

I would say when I was 12. . . . It started because I was actually having panic attacks and I didn't know what they were. And I was crying all the time so my mum was a little bit worried. And then I was dizzy as well so we thought I had low iron. So, we would go to my family doctor but then we got a referral to psychiatrist of kids. And so, I got in really quick, which was surprising but good. I did outpatient therapy sessions there for about a month with the resident psychiatrist.

Another participant (P14) described her experience of having anxiety in elementary school but added that she did not recognize what it was at the time. She started her response by saying: "I was in grade one. . . . I obviously didn't identify with it in grade one. But now I do." She continued:

I started having a lot of anxiety, and I would have stomach pains before I went to school. They were so bad that I wouldn't eat. I would throw up every morning before I went to school, probably from grade one until grade two. My mother took me to a psychologist, or psychiatrist. I can't remember, I was six. They gave me some exercises to do, but they did not help. And I just suffered for pretty much, till first year university, and that was when I started taking medication.

The responses of 10 participants (26.3%) were coded as high school (P1, P8, P10, P12, P18, P29, P30, P33, P36, P38). Though responses by participants point to high school as a starting point of their mental health challenges, some participants added that their challenges may have changed since then:

I probably had anxiety in high school, but it was never anything that really did anything that affected my life that badly. (P1)

I would say I had experiences in high school, and then I was grieving in undergrad, but I didn't come into contact with formalized mental health services until the summer before my master's program, so I would consider my master's program the experience of becoming quite unwell and needing to figure things out about that. (P10)

I had experienced issues with anxiety and depression probably since high school, but I never sought help for it. . . . It would have started in high school, but it got a lot worse during the Ph.D. (P18)

Other participants described their postsecondary experiences as when they either became aware of their mental health condition or when they first started experiencing it. As Table 24 details, seven of the 38 participants (18.4%) were coded as undergraduate level (P2, P11, P20, P21, P24, P25, P31). For the graduate level, two participants (5.3%) were coded as master's (P34, P35) and five (13.2%) were coded as doctoral level (P3, P7, P15, P16, P19).

While many participants identified a specific period of their education, the remaining eight participants (21.1%) described a lifetime history of mental health challenges (P4, P9, P13, P17, P23, P27, P28, P37). "I've had it my whole life," said P4. Another participant suggested they became aware of their mental health challenges when they considered suicide at the age of 6 (P6). The language participants used also suggested a long history of mental health challenges. These participants described *always having* or *always being* a certain way.

I think I've always had some degree of anxiety before, in various ways, but the Ph.D. sort of amplified it in some ways. (P37)

I've always been a really anxious child growing up, but it got really bad when I was an undergrad. (P23)

I guess, well, I've always been particularly, not anxious, but particular is the word I use. And then in grade 12 I was sexually assaulted, and it exacerbated itself after that. (P28)

As previously mentioned, participants often interpreted the interview question as inquiring about when they first experienced their mental health challenge. However, comments by three participants did address awareness specifically. P13, for example, described his experience: "I think I've always known that I've had a mental illness. I've always had mental health issues ever since I was a kid" (P13). The wording that this participant used in terms of how he had "always" known that he experienced a mental illness was similarly used by P17: "I always knew that I had some underlying depression that was just chronic. Whether it was treated or not, it was just always going to be there." A distinction is also made between first experiencing a condition and first becoming aware of what it is. P13, who said he had always experienced mental health issues, described the context when he became aware of what it was that he was experiencing:

I think it was a university – actually it was a psychology class I took in grade 12 – where I started to realize that there was an actual name; it was something real that I was experiencing. In the house that I grew up in people typically don't talk about mental health issues in that community so it wasn't until a school experience where I kinda realized it and it kinda lined things up. So, I guess I've always been aware, but like knowing that it was a real thing not until my late teens.

P24 similarly described this process of becoming aware of what he was experiencing: "It was something throughout my whole life that I experienced, but I never had a name for it, and it was very periodic."

Types of Mental Health Condition(s) and Diagnoses

Specific Types of Mental Health Conditions

Participants were asked what mental health challenge or disability they identified with. Because this was an open-ended question, there was a wide variety of responses. To protect participants' identities, the specific details regarding the mental health challenges or disabilities experienced by each participant will not be reported. Instead, the conditions were analyzed and

coded into categories. Table 25 provides the aggregated data concerning the mental health conditions reported by participants. The most frequently reported conditions were anxiety and depression.

Table 25

Interview Participants' Mental Health Conditions

Condition	<i>n</i>	%
Anxiety	31	81.6
Borderline Personality Disorder	1	2.6
Depression	24	63.2
Dissociative Identity Disorder	1	2.6
Dysthymia	1	2.6
Eating Disorder	3	7.9
Grief	1	2.6
Obsessive Compulsive Disorder	2	5.3
Panic Disorder / Panic Attacks	2	5.3
Premenstrual Dysphoric Disorder	1	2.6
Psychosis	1	2.6
PTSD or PTSD Symptoms	3	7.9
Trauma	2	5.3

Note. Frequencies do not sum to 38 because participants sometimes identified more than one condition.

Anxiety. Thirty-one out of 38 participants identified anxiety as a mental health challenge or disability they experienced. Whenever a participant used the word “anxiety” for their

condition(s), they were included in this number. Of these 31 participants, 20 used only the word “anxiety” to identify their mental health challenge/disability. Eight used the term “generalized anxiety” for their response. Other terminology was also used, including one participant who referred to severity (“mild - to - moderate anxiety”) and two others who used language indicating what the anxiety concerned (“anxiety towards graduate degree”; “work-related anxiety”). Only one participant identified two ‘anxiety’ conditions, specifically generalized anxiety and social anxiety.

Depression. Twenty-four out of the sample of 38 participants identified as having depression. This number includes only those who used the word depression. Of these 24 participants, 17 used “depression” to identify their condition. The remaining participants added additional descriptors to describe their condition. Other terminology that was used addressed the severity of the condition: mild depression; low grade depression; major depressive disorder; clinical depression; and chronic depression. Others identified situations in which the depression affected them: “situational depression”; or “depression (only related to graduate work)”.

Other conditions. Though anxiety and depression were the most frequently reported conditions, participants used a range of terminology to describe their conditions. Table 25 shows that other reported conditions could be categorized as anxiety or depression, based on the Diagnostic and Statistical Manual for Mental Disorders or the International Classification of Diseases. For example, eating disorders and panic disorders/panic attacks could be categorized as anxiety disorders. For coding, however, it was intentional to stay grounded in the words of the participants and how they identified.

Multiple conditions. Only 10 of the 38 participants (26.3%) identified with one condition. Another 22 participants (57.9%) indicated they had two, and of these, 15 identified as

having depression and anxiety. Finally, six participants (15.8%) identified three or more mental health conditions.

Some participants also reported experiencing other disabilities or health conditions. For example, five participants said they experienced ADHD in addition to a mental health condition. Additionally, multiple sclerosis was identified by two participants, one participant had a learning disability, and two others reported they were currently experiencing concussion-related symptoms.

Diagnosis

Participants were asked if they had received a diagnosis for their mental health condition. Table 26 shows that 23 participants (60.5%) reported they had received a diagnosis. Another six participants (15.8%), all of whom had multiple conditions, reported they had received a diagnosis for one or more of their conditions. For example, if a participant identified as having anxiety and depression, they may have received a diagnosis for only one of these conditions but identified as having the other condition. These participants were coded as ‘partial’ diagnoses. Lastly, while seven participants (18.4%) did not identify as having a diagnosis, the remaining two participants were coded as ‘unclear’ because the presence of a diagnosis was not clear based on their responses.

Table 26

Participants' Identification as "Diagnosed"

Identification	<i>n</i>	%
Yes	23	60.5
Partial	6	15.8
No	7	18.4
Unclear	2	5.3

Participants were also asked what type of service provider gave them their diagnosis and whether the provider was located on- or off-campus. For this section, only the 29 participants who were coded as having a diagnosis or partial diagnosis were included. Of these 29 participants, 20 (69.0%) indicated the service provider or providers were located off-campus and the remaining nine reported they were on-campus. Table 27 presents the types of service providers who gave the diagnoses.

Table 27

Type of Service Provider

Service provider	<i>n</i>	%
Family doctor	8	27.6
Psychiatrist	4	13.8
Psychologist	2	6.9
Multiple professionals	11	37.9
Other	4	13.8

The most common response was that the diagnosis came from multiple professionals, with 11 (37.9%) participants of the 29 participants reporting this. Of these 11 participants, four reported the diagnosis was from a family doctor and psychologist, and another five participants reported a family doctor and psychiatrist. One of the 11 participants coded into this category responded that their diagnosis came from a psychotherapist and psychologist and the remaining participant said their diagnosis was from a family doctor and psychiatrist resident.

Of the 29 participants with a diagnosis or partial diagnosis, another 8 (27.6%) reported a diagnosis had come from a (family) doctor. Four of these eight participants responded that it was a 'family doctor' and the other half responded with 'doctor.'

Two of the remaining participants from the sample of 29 who had received a diagnosis or partial diagnosis reported their diagnosis was from a psychologist and another four that it was from a psychiatrist. It was not clear whether these participants were referred to the psychologist or psychiatrist from their family doctor or whether they arranged these services on their own. It is therefore possible that the number of participants diagnosed from multiple professionals could be higher.

Four out of the sample of 29 responses were coded as 'other.' One of these participants reported they received their diagnosis from on-campus health services and another reported they received their diagnosis from counselling services at their institution. However, there can be a variety of types of practitioners in these environments and it was therefore unclear what type of professional the participant received the diagnosis from. The two other responses for this category were 'psychotherapist' and 'counsellor'.

Linking Diagnosis and Service Provider to Awareness

Table 28 shows, for participants who were diagnosed on-campus, when they became aware of their condition. Four out of nine became aware of their condition in high school, two had been aware of their condition their whole lives, and the remaining three became aware once they entered graduate school. There does not appear to be a link between when the participant became aware of their condition and whether they received their diagnosis from an on-campus provider.

Table 28

Participants Diagnosed On-Campus

Participant	Awareness	Received diagnosis	Type of service provider
1	High school	Yes	Doctor
18	High school	Yes	Doctor
19	Ph.D.	Yes	Doctor
28	Lifetime	Yes	Family doctor and Psychologist
33	High school	Yes	Doctor and Psychiatrist
34	Master's	Yes	Doctor
7	Ph.D.	Partial	Health services
13	Lifetime	Partial	Counseling services
30	High school	Partial	Doctor and Psychiatrist resident

Another way of looking at the data in terms of awareness is by examining only the participants who became aware of their condition during their postsecondary experience. Of the 38 participants in the sample, 14 became aware of their condition once they entered

postsecondary. Table 29 presents data on diagnosis of mental health condition(s) and the type of service provider for these 14 participants.

Table 29

Participants Who Became Aware of Their Mental Health Condition During Postsecondary

Awareness	Received diagnosis for mental health condition(s)	Type of service provider	On/off campus
Undergraduate			
2	Yes	Family doctor	Off campus
25	Yes	Family doctor	Off campus
31	Yes	Family doctor	Off campus
20	Yes	Family doctor and Psychologist	Off campus
11	Yes	Psychotherapist and Psychologist	Off campus
21	No		
24	Unclear		
Master's			
34	Yes	Doctor	On campus
35	Yes	Family doctor	Off campus
Ph.D.			
3	Yes	Family doctor and Psychologist	Off campus
19	Yes	Doctor	On campus
7	Partial	Health services	On campus
15	No		
16	No		

Ten of these 14 participants (71.4%) reported they had been diagnosed. Of these, most had received a diagnosis from an off-campus provider: only three said that they received a diagnosis from an on-campus professional.

Defining Disability

As part of the screening questionnaire, potential participants were asked to identify whether they had a mental health challenge or disability. A total of 29 out of 38 participants

identified as having a mental health challenge; only nine identified as having a mental health disability. Listing mental health challenge independent from mental health disability on the screening questionnaire was intentional. Based on the findings from Phase 1 that showed participants may not report having a disability despite being diagnosed with or treated for a mental health condition, I anticipated that many of those responding to the screening questionnaire would identify as having a challenge, rather than a disability. The interviews were then used to examine participants' understanding of 'mental health challenge' and 'mental health disability' and why they identified with one response option over another. The interview protocol included a question about participants' understanding of the difference between a mental health challenge and a mental health disability. Participants were asked to define these terms or compare them and follow-up prompts explored why they identified with one over the other.

Six main themes were developed based on coding of participants' definitions of mental health disability. Table 30 presents the frequencies for these themes.

Table 30

Number of Participants Who Identified Themes when Defining Disability

Theme of defining disability	<i>n</i>	%
Functioning	22	57.9
Severity	13	34.2
Support	13	34.2
Diagnosis	9	23.7
Permanence	9	23.7
Environment	6	15.8

In the subsequent sections, the themes are discussed further.

Functioning

The first theme, which was the most commonly discussed, focuses on a person's ability to function with their mental health condition. Of the 38 participants, 22 mentioned that a disability has some effect on functioning. P32 summarizes: "I think mental health disability reflects when the mental health issue is sort of disabling in terms of your ability to go through life and sort of meet the challenges or tasks or responsibilities that face you." Responses within this theme showed three subtopics: (a) normalcy; (b) context; (c) terminology.

Normalcy. Some participants suggested a mental health disability is something that is different than the everyday challenges people experience. P4 explained:

I think everybody has a little anxiety. I think it's just kind of expected that people are a little bit anxious but I would define it as a disability when it starts to become an impairment in your everyday life where it starts inhibiting you from being able to do things in your life.

There was a distinction between what is considered typical anxiety and what is more of an impairment. As P24 explained, there is *normal* mental health on one hand and disability on the other:

For me, it's always been the distinction between *normal mental health* [emphasis added], which still includes bad days and things like that, versus a disability. I think of how much disruption takes place, because even I know what it's like to be somewhat down, still able to work, still able to function. Versus having my life severely disrupted, incapable of eating, sleeping, obviously not capable of working. So, to me, that's the distinction. *I think we all deal with it to an extent* [emphasis added], but the level of disruption is what matters.

While P24 referred to a concept of normal mental health, P27 referred to this in another way: "I think of mental health disability as something that significantly interferes with you living a *regular life* [emphasis added], where you need accommodations to function at the level that everyone else does." In this example, "living a regular life" was in reference to not needing

accommodations. In both of these examples, there is a division between what is common/usual and what is considered different.

Context. In the example provided previously by P24, they described how one would “obviously not [be] capable of working” if there was severe disruption due to a mental health disability. Other participants also referred to contexts within which a disability might affect functioning. For example, P17 referred to the workplace: “I think if it negatively inhibits your functioning to complete your whatever, your activities of daily living, your role in whatever career you have, then I consider that a disability.” Others pointed to how disability can impact your work, education, and relationships:

It would be considered a disability if it gets in the way of your well-being or your life in some aspect. If it gets in the way of *school or family or socially* [emphasis added], I would consider it a disability. (P23)

[Disability] interferes with daily functioning or productivity at *work or at school* [emphasis added] and would require you to basically struggle with everyday tasks for your livelihood. (P6)

When it starts to affect a lot of other parts of *your relationships with family and friends* [emphasis added]. Basically, your ability to function. (P18)

I would say that a mental health disability would be something that kind of impedes one’s day to day *personal life, social life, academic life* [emphasis added]. (P29)

It would be any kind of mental health challenge that interferes with a person’s ability to conduct day-to-day functions. Be it work, parenting, school. It interferes with sort of typical peer and social relationships. (P22)

Terminology. The terminology participants used when discussing functioning adds another dimension to the theme of functioning. Of the 22 participants who discussed functioning, about one third used language referring to day-to-day abilities. One example of this is provided by P28, who described a mental health disability:

It would be someone with physical disability, but with your mental state. . . , kind of causing you difficulties in day-to-day interactions. So, whether that be severely anxious

or severely depressed or just down. It just kind of influences how you both think and act on a day-to-day basis.

This terminology of day-to-day is used to refer to the routine activities that a person might complete on a daily basis. Examples of the ways in which other participants used this language include: “everyday life” (P4, P18, P22); daily functioning (P6, P30, P34); “everyday tasks” (P6); and “activities of daily living” (P17). Another participant used similar terminology in his description of mental health disability: “A feeling of being unable to complete what was previously sort of routine, or tasks that seem to be simple or fairly straightforward” (P37). While this response addressed this day-to-day aspect of functionality, it also used language related to being *unable* to do something. Other participants used similar terminology:

I would probably break it down into its components, the world disabled means you are not able so I would consider it some kind of mental health issue that is handicapping or preventative or causes regular barriers to full participation in whatever you’re up to. (P36)

I would define it as a disability when it starts to become an *impairment* [emphasis added] in your everyday life where it starts inhibiting you from being able to do things in your life. It stops you from enjoying your life. It prohibits you from doing things. (P4)

The word *impairment* is used by other participants as well:

It is an impairment to a certain extent. (P8)

It impairs your function. (P17)

It directly impacts or impairs your ability to carry out specific tasks. (P14)

And, others described how a disability *interferes* or *interrupts* aspects of one’s life:

It interrupts your life. (P2)

It interferes with daily functioning. (P6)

It interferes with a person’s ability to conduct day-to-day functions. (P22)

It interferes with you living a regular life. (P27)

These examples reveal the specific words that are typically used to describe disability and additional aspects of the theme of functioning.

Connecting functioning to identity. In addition to being asked to define disability, participants were also prompted to consider why they identified as having a mental health challenge or disability. Next, I provide examples of participants who identified as having a mental health challenge and who speak to functionality when describing why they identified in this way:

I mean, depression has interrupted my life, but it has never made me so low-functioning that I can't kind of get up and make a cup of tea, right, in the morning, that kind of thing. (P2)

I guess the reason I would call mine a challenge and not a disability, is because I do manage to function fairly well. In terms of looking after myself and meeting deadlines and being able to go to work and that kind of thing. I suppose that's really how I might define it. Which is why I would maybe describe myself as having a challenge, rather than a disability. (P38)

The following participant also described functionality, but explained that at one point it was different:

I would describe it more so as a mental health challenge, because it is difficult for me to cope with it at times, but I am, all things considered, quite good at coping with it. There was a time where I was not good at coping with it, and I would've identified with it as being more of a disability because it prevented me from going to class, it prevented me from spending time with people, [and] from taking care of myself. (P32)

While these examples are from participants who identified as having a mental health challenge, the following is an example of a response from a participant who identified as having a mental health disability. When asked to define mental health disability, P27 explained: "I think of mental health disability as something that significantly interferes with you living a regular life, where you need accommodations to function at the level that everyone else does." She was subsequently asked why she identified as having a disability and not a mental health challenge. She responded:

It's actually because of school and how [much] harder it has been to get through it. I would have called it a challenge for the first couple years because I thought it was just a me problem and not an anyone else problem. When things got really bad and I thought I didn't have legs and I wanted to die and all that stuff, I had to sit down and be like 'I can't do this like a regular student.' I don't have the capacity. I was really ashamed.

So, for me that was a difference. I have always had some level of anxiety and depression but it was manageable and all of a sudden it was like. . ., I had to ask for accommodations from people. I ended up going to my doctor actually to ask if I could go on disability and so that I could call myself disabled because I was really worried about progressing in the program and paying for tuition.

She continued:

It felt different than before. It felt like I was acting like a regular student and I was just struggling and then it felt like I hit a wall where I'm like, I can't do this.

Severity

Severity of the mental health condition was another theme that emerged from participants' definitions of disability. Responses coded into this theme used terminology describing how one type of condition (a disability) was more severe, worse than, or had more of an impact than another. A total of 13 out of 38 participants provided responses that were coded into this theme. Though this theme is discussed separately from functioning, the two themes can be viewed as interconnected. Responses that addressed severity typically describe how a mental health disability has more of an impact on functioning in comparison to a mental health challenge. For example, P30 suggested: "I would put mental health disability above a mental health challenge in terms of severity and impact that it has on your day-to-day functioning." Other participants similarly described the difference between a mental health challenge and disability:

I would think that a mental health disability is just a more severe version of a mental health challenge. (P13)

A disability may be something that hinders me in a worse way than the challenge. (P15)

I feel the extent of it. A mental health challenge, it's something that doesn't necessarily, well, it affects you day to day, but I feel the extent of that effect is greater or lesser, depending on the severity of it. (P28)

Though participants described severity as a defining characteristic distinguishing a mental health challenge from a mental health disability, what is unclear based on the responses is what determines the severity of a specific condition or experience. Participants described a scale or continuum of severity. For example, P6 mentioned: "I think there's a larger spectrum there and it doesn't have to be so extreme that you can't do anything." A comment from P22 may reflect the continuum when she discussed the term psychiatric condition and how these might be viewed:

From my experience in the disability community, my friends and colleagues, when they refer to mental health issues, I think they tend more to be referring to depression and anxiety. Psychiatric disabilities might go more into heavier, like bipolar or psychosis, schizophrenia, things like that.

Severity, therefore, might refer not only to the extent of the impact the condition has on functioning, but some might imply there are differences in severity based on what type of mental health condition it is. P8 also referred to such differences: "To me, for some reason, I think mental health disability, that's like schizophrenia or like something very classically neurologically defined. Whereas anxiety is like, oh, it's just 'cause you're stressed out."

Connecting severity to identity. In addition to providing definitions of mental health disability that addressed severity, some participants also referred to severity when describing why they identified with having a mental health challenge or disability. P6, who identified as having a mental health challenge, was asked if she had ever thought about whether she had a mental health disability. She responded:

Yes, because there have been times where I've struggled more because of my mental health. It can get exacerbated by certain different challenging experiences. And there have been times when I've had more trouble functioning in work or school because of that. But I don't think I would qualify as being at that point, at least not right now where it has been disabling. But I did think about it, yeah.

The consensus amongst the participants was that a mental health disability impacted daily functioning, which this participant described. However, she added that she does not think it would qualify as being “at that point.” This again, refers to a certain level of severity as a key characteristic of mental health disability.

In the next three examples, the participants referred to severity in their responses but compared their condition to others with mental health challenges. First, P7, who identified as having a mental health challenge, said “I think a disability would be a lot more severe, in my opinion.” Following up on this definition, I asked: “Does that mean that you don’t think yours is severe?” She responded: “I mean, it could be a lot worse, and I think there’s people who have a lot harder time than I do. That’s why I wouldn’t identify as a disability.”

As a second example, P11 was asked if it was a conscious decision to select mental health challenge on the screening questionnaire. She responded:

It was. I guess I still have a really awkward relationship with that word, because I don’t feel from the outside. . . , like, I’m a Ph.D. student who’s working three other jobs, that are fairly high level and I don’t feel like I’m being held back, necessarily more than other people. I feel awkward using the term disability, still. A label that is in reserve for people who have challenges that are worse than mine.

In both examples, participants suggested the conditions of others are worse than theirs and because of this, they did not identify as having a disability.

The final example addresses several of the topics that have been discussed for this theme, particularly concerning a scale of severity and comparing oneself to others. When asked if she had ever given thought to whether her mental health challenge could be considered or viewed as a disability, P22 responded:

Yeah, I have given thought to that. And it was one of the things that I was really considering, prior to your call today. How I would frame that in my own understanding of my mental illness. One of the things that I have found is that, because of my relationship to the disability community, and my Ph.D. supervisor in particular, he has a psychiatric disability, I have found it harder, ironically, to advocate for myself. Because I

work with, live with, socialize with people who I perceive their disabilities to have a greater and more significant impact on their lives. I've witnessed them experience greater stigma, lack of access to resources and accommodations - to help them, again, whether in job, work, school, life - than I have.

So, I've been reluctant to categorize myself and my mental health struggles as a disability, only because I feel self-conscious about being a squeaky wheel, when I see the challenges of those around me. This is all just personal. This wouldn't be my personal doctrine or philosophy. If a student or a colleague or a coworker came up to me and said, "I'm having these mental health struggles, what would you suggest? 'What's your perspective of it?'" I would never kind of put it on a gradient and say, 'Well that's not as severe a struggle as this person, therefore you aren't entitled the help.' But it's an interesting fact that I think is all part and parcel of my mental health struggles, and how hard I am on myself, that I tend to feel like I don't deserve or I'm not entitled to the same supports as other people.

And so, although, I do see a psychologist for counseling on a regular basis, and I do take medication for my anxiety, I otherwise don't tend to take advantage of mental health or disability services that are offered at work or school. And it is kind of a fascinating conundrum, I guess, that I find myself in. So, I really appreciate the questions you asked. Because I have often thought, how is it that I can so clearly and comfortably, and respectfully, accept other people and their mental health disabilities, or mental health challenges as disabilities, that I would support them in describing their mental health challenges as a disability, but that I can't seem to embrace that label for myself. It's something that I think about often.

Support

Responses from 13 out of 38 participants referred to mental health support in their definitions of mental health disability. One participant identified the connection between support and functioning: "I think someone with a disability would need to have some other supports in place or assistance in place in order to be optimizing their functional levels versus someone who has a challenge" (P30). Other participants who discussed support referred to support as accommodations or mental health treatment.

Accommodations. One way that support can be provided to those with disabilities is in the form of accommodations. P14 suggested mental health disabilities impair your ability to complete tasks in formal contexts such as the workplace or at school. She then provided an example of how a student might get an accommodation at school:

So, the student wants to go to university and they need an accommodation in terms of having anxiety surrounding exams and they need to write in another room. I see that with a lot of my students. That would be more of a mental health disability. (P14)

These accommodations are provided by the school and their purpose, according to another participant, is to enable a student to “function at the level that everyone else does” (P27).

Treatment. Several participants also referred to the use of mental health treatment as a determining factor for whether someone has a mental health disability opposed to a mental health challenge. P2 described a mental health disability as: “A prolonged kind of issue of getting treatment, or seeking help, or having frequent suicidal thoughts or something like that. I would consider that more of a disability.” The participant used the word *treatment* in their definition, suggesting that a mental health disability is something that can or should be treated. Another participant similarly described a general need for some form of support: “If it’s at the level of a disability, then it would be a fairly significant challenge to living the life that you want to live and would require professional assistance to manage” (P5). In this second example, the participant referred to the need for *professional* assistance if it were to be considered a disability. Two participants described the different ways that this might occur. The first participant suggested that someone with a mental health disability is: “someone who has been formally diagnosed and is regularly seeking treatment in the form of therapy or medication” (P16). In this example, treatment is again used to identify that a mental health disability is something that can or should be addressed. Additionally, the participant described professional assistance that could be in the form of therapy or the provision of medication.

Connecting support to identity. Few participants referred to support or treatment in their discussion of why they identified as having a mental health disability or challenge. However, there were two examples: one from a participant who identified as having a mental health challenge, and another from a participant who identified as having a mental health

disability. In the first example, P25 referred to support in her definition of disability and then links this to why she identified a certain way:

As far as I understand mental health disability, it is something that may require more immediate care, whether that's seeing a psychiatrist, or a therapist, or medication on a daily basis, or hospitalization to the extreme. A challenge, what I understand, is being something more of management. I practice mindfulness, and that's how I have maintained my mental health since coming off medication. That's sort of the distinction I make between the two.

Similar to a previous quotation, this participant described seeing a psychiatrist or a therapist as a defining characteristic of a mental health disability, and also added that the person may use medication. However, she indicated that she is able to maintain her mental health by practicing mindfulness, and perhaps this is why she identified as having a mental health challenge rather than a disability.

The second example comes from a participant who identified as having a disability. P10 was asked if they had always identified as having a mental health disability. They responded:

Not until I registered with disability services, I don't think, because it was only at that point, where I needed medical documentation that said I had a disability, and up until that point, people had just been calling it a mental illness, or a mental health diagnosis, so I hadn't realized that it was considered a disability, until I was prompted to access accommodations, like, my legal rights, under disability.

This example refers to the use of accommodations, which were discussed at the beginning of this section. For this participant, it was not until they needed accommodations in the academic environment that they obtained documentation indicating they had a disability. This need for accommodations may therefore be a determining factor in whether someone identifies as having a disability.

Diagnosis

Nine out of 38 participants referred to diagnosis in their definition of mental health disability. "So, obviously it's diagnosed," said P14. P19 similarly stated: "I would say like you'd

probably have a diagnosis to define it as a disability.” At the same time, other responses indicated a mental health challenge perhaps does not require a diagnosis. P36 explained that a mental health challenge would be: “This ongoing lack of well-being and presence of various symptoms of mental illnesses without a formal diagnosis.” Two participants similarly described this distinction:

I would say that if you sought out some sort of counseling or professional help, then that diagnosis would sort of classify you as having that form of a disability. Whereas, a challenge is just stuff you deal with sort of on a day to day basis as you work through these problems. (P37)

A disability would probably be something that would have been diagnosed, whereas a challenge is something that I’m experiencing but have never been diagnosed for. (P15)

While these examples simply refer to diagnosis in general terms, some participants referred to the need for a formal diagnosis for a condition to be considered a disability. P16 provided their definition of a mental health disability: “I think at that point someone who has been formally diagnosed” (P16). Another definition similarly referred to the formal nature of the diagnosis: “The disability would be if you have a formal diagnosis, an actual disorder or illness” (P36). Though the interview protocol did not explore what a formal diagnosis would be, some participants were prompted to discuss who could diagnose a mental health disability: “That’s how I would separate disability from a challenge is that if a professional actually diagnosed it” (P21). This participant referred to the need for a professional to diagnose a mental health disability, but again, this does not shed light on who might be qualified to do this. In response to a follow-up question about whether the mental health disability diagnosis would have to come from a specific person, participants responded:

Like a certified health professional, I would say. (P19)

I imagine a medical doctor or a psychiatrist or a psychologist, I presume, could diagnose. (P15)

Well hopefully the trained counselors and/or psychologists/psychiatrists that work for health services at my school. I assume that they are capable of doing that. So, if I went to one. . . , no, I assume I probably wouldn't get a complete formal one, maybe not clinical depression, but probably. . . , I have no idea. I honestly don't know. But yeah, like a trained professional would be qualified to do that. (P16)

The response provided by P16 in the last example shows the thought process to try to make sense of who can provide a diagnosis in general and what is considered a *formal* diagnosis. In the final example for this section, the participant goes into significant detail about who can provide a mental health disability diagnosis:

I think that it should be a psychologist or a psychiatrist, or any mental health professional. I don't think having a medical degree defines your ability to diagnose. I know that we associate it with that, and there is that expectation. But I often think, especially when I was in my undergrad, the doctors are very hesitant to diagnose, right? And they don't always have the knowledge about specific mental health, or the DSM-IV to provide that input. So, I do think it has to be a professional. I do not think it has to be a doctor. It can be a psychiatrist, it can be a psychologist, even really be a youth worker who points it out, but it does need to be corroborated with one of those individuals. (P14)

The participant was then prompted to consider the common practice at postsecondary institutions of having patients complete a short questionnaire to screen for anxiety and/or depression and whether this would be considered a diagnosis.

I think that that's a difficult question. I think it's a start. . . . I don't think it's the same though. I do think that there needs to be some sort of formal, even if it's a brief assessment, or some questioning.

Another participant was also asked this question and responded:

I'm not sure. And again, this is very much biased by my background. But I feel like it would be more of a 'I have symptoms suggesting that I might have this.' But without receiving a formal diagnosis from a clinician that has a background in the ability to diagnose, I don't know that I would consider it necessarily an official diagnosis, if you will. (P36)

Some participants therefore did make some distinctions in terms of who is able to provide a diagnosis that is considered a 'formal' or 'official.' However, this topic is complex and participants were not always able to make these distinctions.

Connecting diagnosis to identity. In the previous section, participant responses revealed their criteria for distinguishing a disability: A diagnosis may need to be formal/official and come from a specific type of professional. Even though participants did not always have a clear understanding of what constitutes a diagnosis and who is able to provide one, when it came to identity this may not be important. Rather, how the participant perceived these things is important. In this section I present examples that illustrate how a participant's understanding of diagnosis is linked to their response regarding whether they had a diagnosis.

In the first example, the participant identified as having a mental health challenge and no diagnosis. When asked which conditions she identified with, she responded:

I never stay in counseling or any sort of services long enough to get an official diagnosis, but they have said that when you fill out those quizzes when you're at the office, 'Oh, yeah, you're moderately to severely depressed'. (P9)

The participant was prompted to discuss the terminology of *official* diagnosis and whether the quizzes she had filled out would be considered official:

Not really. It's self-reported too, right? What if I was having a bad day that day? Then it's like, 'Oh, yes, I'm definitely depressed.' I don't want to confine myself like that. . . , 'cause as soon as you put an official diagnosis on something, it changes the way you look at it, right? So, the act of naming something changes how you look at it and changes how other people perceive it as well. (P9)

The comment regarding how applying a label changes how it is perceived was also addressed by another participant who identified as having a disability. In response to whether she had received a diagnosis, she responded:

I don't have a diagnosis. My doctor told me I have it but she didn't want to put it down because she thought it might be a barrier for me later in life. She said we will make it official if I need it for disability or something like that, but right now it's not officially on my file because she was worried about stigma and stuff. (P27)

The participant therefore identified that she has a condition but it was not official, and there is some concern around making it official. Like P9 suggested, applying a label changes how it is

perceived by the person experiencing it and by others. This quotation speaks to the complexity of what is perceived as an official diagnosis. P27 perceived that she did not have an official diagnosis, yet still identified as having a disability. In another example, the participant indicated she did not identify as having a disability because she did not have a diagnosis:

The reason why I didn't check that off is because I never went to the doctor to get it diagnosed. That's why I think of it as more of a challenge. If my doctor had said, 'Yes, you have signs of depression,' or if I was under medication, I think I would've said disability. . . . I don't think it's fair for me, for other people who do have a disability, for me to think that I have one. I might, I don't know.

When prompted to discuss her comment regarding fairness, she responded: "I think that until it's been looked at by a professional, I don't think I should be the one putting a label on it" (P21).

This participant referred to the need for a professional to diagnose the condition and it was clear that this was tied to her non-disabled identity. This opinion of who is able to diagnose is also related to identity. In another example, P36 (who identified as having a mental health challenge) disclosed: "I mean, to be completely honest, I've never actually. . . , and this is terrible, especially coming from a mental health researcher. But I've never actually seen a psychologist, so I've not been diagnosed with anything." For this participant, seeing a psychologist specifically was the key reason why she said she did not have a diagnosis and, also, why she did not identify as having a disability.

In the last illustrative example, the participant's response to whether he had a diagnosis for this condition was coded as *other*. He responded:

Yes and no. I don't actually know what's written down on the file. . . , just some of the terms I've been told by the physicians. Yeah. It's hard to say what constitutes a diagnosis, I guess. . . . I don't really know. I mean I've been told this is what this is, or this is what you probably have. But like an official stamp or anything, never really seen that. (P24)

This quotation encapsulates the reasoning that participants may use in determining not only whether they have a mental health challenge or disability, but also, whether their condition is diagnosed or not.

In summary, participants discussed how a mental health disability would require a (formal) diagnosis from some sort of health professional. Though the question of what type of service provider can provide a formal diagnosis remains unanswered, several responses indicated that diagnosis may be a key part of why someone might identify as having a mental health challenge rather than a mental health disability.

Time-based Considerations

Nine participants referred to time when they were either defining mental health disability or discussing why they did/did not identify as having a mental health disability. These responses typically had two viewpoints: 1) disability is a prolonged issue; or 2) disability can come and go.

The following three quotations address the prolonged nature of disability:

I think, for me, a mental health disability compared to a mental health challenge would be the prolonged nature of the mental health condition. I think more students will go through a mental health challenge than through a mental health disability just in terms of the length of the mental health issue, I guess. (P26)

Obviously, people have emotional ups and downs, and that's part of life. But when you're consistently not feeling well and just not happy overall, I would consider that to be sort of my definition of a disability. (P36)

Challenge maybe seems to be more sporadic than a disability. . . ,disability seems more permanent or ongoing than a challenge. (P34)

While the first example does refer to the prolonged nature of disability, it also adds that more students may go through a mental health challenge rather than a disability because a mental health challenge perhaps does not last as long. However, this notion of a disability being a prolonged or consistent issue is somewhat contradictory to responses from some participants that

suggest mental health disabilities may come and go. Next, I turn to descriptions of disability and disability identity that are illustrative of this point.

Connecting time to identity. The participant in the first example below identified as having a mental health challenge. She was asked if she had ever considered whether her mental health condition could be considered a disability. She responded:

There was a time where when I was in a different program, I ended up taking a leave. It wasn't described as a mental health leave but it was right before I was about to actually leave the program for various reasons. And I was struggling with my mental health at that time but I wouldn't say that that was the main reason that I was on that leave. So, if it were then, that I think would help qualify me more for being or describing a disability.
(P7)

Another participant who identified as having a mental health challenge also reflected on a previous experience:

I did have an MS relapse about halfway through my degree, which kind of threw back into my anxiety, and of course that affected my grades because just like at that point I was disabled. Then I had the anxiety that came with that and trying to focus was not easy.

Recognizing that she had stated that at one point she was disabled, she was prompted to discuss whether disability was something that could come and go. She responded:

Yeah. For me to say disabled, I think it means to be pretty drastic change in my functional abilities. At that point, I definitely had a severe change in my functional abilities. I could no longer write; I could barely walk. Then I felt, of course, because of that, I thought like with all of the anxiety that came with that, the anxiety became uncontrollable and like I couldn't leave my house. That in itself is extremely disabling as well. I think that when it gets to a certain point, I do think that it is disabling or disability-ish.

In the last example, P32 described how he also may have considered identifying as having a disability at one point in time: "There was a time where I was not good at coping with it, and I would've identified with it as being more of a disability." He was prompted to describe this idea that disability can come and go:

It's interesting, because with this definition I would have to say, the definition I just quoted you, I'd have to say, yes, [disability can come and go]. I don't normally think of

disability as something that comes and goes. . . . Well, I haven't thought of it that way before, but I think that in some cases it can come and go, like a person with a disability broadly across spectrums, but I would hesitate before I said that, just made a *carte blanche* statement that disability is transient in nature.

In each of these examples, participants described a time when they may have identified as having a disability due to the severe impact that their conditions had on functionality, thereby speaking to the relationship between these themes. These examples, combined with other responses in this section, reveal that the episodic nature of some mental health conditions provides a complexity to not only determining what a mental health disability is, but also whether what someone experiences is considered one.

Environment

Another theme that emerged when examining the definitions of mental health disability was how disability could be viewed as a product of the environment. Though only six participants referred to the environment within their definitions, I refer to four examples that illustrate this perspective. Two examples are provided by participants who identified as having a mental health challenge and the other two are from participants who identified as having a mental health disability.

In the first example, the participant (P12) was asked to define mental health disability and in their response, they referred to not only their definition but also to why they identified as having a disability:

I thought this question would come. I keep thinking about it ever since I checked that box, because I do have some coursework in critical disability studies, and so I do see that my experience in the education system, the environment, has been mismatched to what I need often. So, I see this academic environment as disabling in some ways. So, that's why I felt comfortable saying disabled as opposed to challenged. I think the idea of challenged means that it's. . . , I think it's impairment-focused, as opposed to focused on the environment and the systems that are there. That's how I see it.

Interestingly, this participant suggested that a mental health challenge may be more focused on the impairment, while the term disability is connected to the environment. Because she viewed the academic environment as disabling, she was comfortable identifying as having a disability. The next example similarly referred to the context and the role it plays in contemplating the presence of disability.

I guess I see a lot of my struggles are very internal, and when I think about disability, I think about disability as sort of coming about in interactions with the world. Whether that's like the adult world, or the way that people think. And, in a really philosophical way, sometimes I can describe myself as experiencing some kind of disablement, but I typically don't. (P33)

This participant identified as having a mental health challenge for the purpose of the study. However, when describing her understanding of disability, she indicated that in some ways she did experience disablement. So, one can perhaps identify as experiencing a disability in some contexts and not in others. In the third example, P11 discussed the context of the university and why they have had to identify as having a disability:

I found I've had to, in the university, identify as having a disability to get access to certain protections from the faculty for things like time constraints. I guess I would define disability. . . , partly as environmental. . . , so, the structure of an institution doesn't allow for certain kinds of, I guess, psychological challenges and physical challenges, often. I actually feel bad for that. I guess partly environmental and partly. . . , like, the individual, I guess.

In this example and the ones prior, participants discussed why they may identify as having a disability in certain contexts because the environment has certain embedded barriers. Though few participants referred to the role of the environment, the examples provided in this section reveal another perspective that is also important to consider.

The “Disability” Label

Another topic that was addressed by a few participants concerned the label ‘disability’ and the complexities of the terminology concerning disability. While in previous sections

examples of participants' definitions provided evidence for the theme, for this topic the participants' discussions of their identities referred to the terminology. One participant even suggested they preferred not to identify with a mental health condition at all. When discussing this, she explained:

I think that when you call something a disability, then it becomes very medicalized. For me, I wouldn't see my own mental health issues as something that needed to be medicalized, because it's more about how I'm experiencing things, and existing in the world, not confined to a definition of depression by the letter. (P9)

For others, they were comfortable identifying as having a mental health challenge, but not as having a disability. Two participants described how they did not want to identify with the label of disability. In the first example, their reasoning is related to perceptions of functioning:

I don't want to just see it as a disability, because then it just makes me feel like, okay, so what, if I have a disability, that means I can't function? Like, no. Screw that. Okay, yeah, I have something, but it doesn't mean that I still can't function in life. I'm still able to do what I gotta do. No matter how bad it gets, I'm still not going to say, yeah, so I'm disabled. There's something about the word 'disabled.' It's not going to define who I am. (P3)

In the second example, the participant similarly described difficulty with the label:

I do feel I'm okay saying that, yes, I have a mental health condition, but same thing with my MS. . ., I feel like it's a very loaded word, disability.... I think, to be honest, especially, in terms of my mental health and my MS, I think the word to me is still scary. I'm in [program title], so we have disability studies. I've heard every which way of defining disability. I feel like any way you put it, it's in my mind, it makes you less than. It means that there's something functionally wrong with you. That kind of freaks me out, and so I just tend to not use the word. I understand what my condition is but, I don't know, I just don't like disability in particular.

She continued:

I think that when it gets to a certain point, I do think that it is disabling or disability-ish. I think I try just for my own mental health to not use those words, or to not think about that because that just causes more mental distress.

While these participants described challenges with personally identifying with the label of disability, other responses addressed whether mental health conditions in general could be

considered disabilities. One participant was asked if they had ever considered whether their condition was a disability:

I've never really seen myself as having a disability. And not for lack of exposure to the disability community, for example. So, I have worked in the disability community in a non-profit organization, but it never really struck me as what I'm going through as having any kind of disability signifier to it. . . . I guess I never really thought of mental health in terms of a disability. It just never really occurred to me. Maybe that was just an issue of how I had always understood mental health and how it had been framed in my own mind. It just never struck me as such, but I guess it could be a useful term for that. I don't think, again, it would describe my experience, but I could definitely see it describing other people's experiences in a broad sense, and also of people who are in my life who have significant mental health challenges. I could see the disability term applying there. (P5)

Two other participants, who both identified as having a mental health challenge, similarly described their uncertainty around certain mental health conditions being considered a disability:

You know, the way you frame it now, thinking about disability in relation to my depression, I think it is disabling. I think it's absolutely disabling. I've never really heard depression talked about too much as a disability, at least in my social circles and my department and our department culture. (P29)

I was thinking, 'Well, maybe what I have is a disability and I don't even know it,' because in terms of mental health conditions, like anxiety and depression, they don't really get labeled as that. Whereas it seems to me, things like dyslexia or test anxiety, things like that, pose more so of a disability or a challenge when it comes to the academic world with respect to test-taking or things like that. (P34)

While these examples are from participants with mental health challenges, two other excerpts from participants who identified as having a mental health disability also addressed linking mental health and disability. In the first example, the participant was asked whether they had always identified as having a disability:

Not until I registered with disability services, I don't think, because it was only at that point, where I needed medical documentation that said I had a disability, and up until that point, people had just been calling it a mental illness, or a mental health diagnosis, so, I hadn't realized that it was considered a disability, until I was prompted to access accommodations, like, my legal rights, under disability. (P10)

In the second example, the participant described their hesitancy to use the label disability, even though they identified as having a mental health disability for this study. He explained:

I think I'm just not really familiar with whether or not that's acceptable or okay for people with physical disabilities or differently abled. You just don't know what the correct terminology is, so I know for myself I'm comfortable saying I live with depression and anxiety. To me, that should kind of. . . , well, it doesn't have to. . . , but it might explain to others or imply to others what I live with. Of course, there's degrees of it, but yeah. I usually just am pretty specific. Depression and anxiety are now mostly just depression. I live with depression, and then that's kind of where I leave it. Just so as not to kind of step into other people's realms of disability or differently abled. Because I don't know that world very well, and I also don't want to provide any false impressions. I still think it's not the worst thing in the world, although it can be quite horrible. Yeah, I try and stay away from the term disability. (P24)

Doctoral Program: Academic Status and Progress

In this section, I provide some additional information about when the participants started their program and their current year of their program. In addition, I address whether they are considered on-track to finish their degree within the timelines set out by their department.

Year of Study

One section of the interview protocol asked about the participants' current experiences and opens with a discussion of when they started their program. The purpose of this question was to understand what year participants were currently in, which was the second part of this question. These data are presented in Table 31.

Table 31

Year of Study

Year	<i>n</i>	%
1st	4	10.5
2nd	7	18.4
3rd	8 ^a	21.1
4th	6	15.8
5th	8 ^b	21.1
6th	3	7.9
7th	1	2.6
8th	1	2.6
Total	38	100

^a Includes P13, who started in January 2016.

^b Includes two participants who started in September 2012 but took leaves of absences during their programs.

The table shows six participants (15.8%) were in the final year of a four-year program, and it also reveals there were 13 participants (34.2%) in their fifth year or later. To examine the current status of the sample in another way, I recorded which stage of the program each participant was in. For this, I used the typical requirements of a doctoral program where the student completes coursework, a comprehensive exam, a proposal, and a dissertation. The aggregate data for this is presented in Table 32.

Table 32

Stage of Program

Stage	<i>n</i>	%
Coursework	6	15.8
Comprehensive exam	2	5.3
Proposal	5	13.2
Dissertation	25	65.8

Most of the study participants (65.8%) were currently at the dissertation stage, where they were completing ethics proposals, collecting data, analyzing data, or in the final writing stage. Of the 19 participants who were in fourth year or beyond, only one was not currently at the dissertation stage. This participant was at the proposal stage and had taken a medical leave during their program. While these 18 participants account for the majority of the total 25 who were at the dissertation stage, this means that another seven participants were working on their dissertation. Six participants were in third year and working on their dissertation, and one participant was in second year and working on their dissertation.

There are several complexities that must be discussed concerning the interpretation of these data. First, program requirements may not always include each of these stages. Two participants discussed how their program did not include a comprehensive exam. One participant commented:

Our program is intentionally structured so that we don't have to do comprehensive exams. Instead, we have to do more coursework than a typical research-intensive Ph.D. program, but the thinking is, because we are expected to publish so much, that we develop our expertise through our exposure to the literature and writing up our publications. (P32)

Additionally, completion of the dissertation proposal may be viewed differently depending on the program. In some programs it may not be a formal requirement and in others it may even be part of the comprehensive exam. One participant described the structure of their comprehensive exam:

So, the comps process starts usually in the second year. I initiated the first phase of the comprehensive exams in October. So, the way it works for us is we have two parts to our comps, so first part is we get two questions. We have four weeks to write a 5,000-word answer for each, and then two to four weeks later we have to defend them orally in front of the panel. Then after that is phase two. Once we pass phase one you would go on to your thesis proposal. So, within four months of phase one we need to defend our thesis proposal in front of the same committee. (P36)

For others, the comprehensive exam may be the completion of their proposal: “We’re the first guinea pigs to go through this new process that just started in the fall. Our comps are now defending your research proposal and your literature review that leads to that proposal.” Lastly, these stages are not necessarily completed in the order I have presented them here (coursework, comprehensive exam, proposal, dissertation). An example of this was one participant who completed their data collection prior to the comprehensive exam. The participant was working on a project with their supervisor and using those data for their dissertation, so the data were collected early in their program before completing their comprehensive exam (which was a formal thesis proposal). This participant was at the end of the second year with their courses and had data collection completed and was preparing for their comprehensive exam. Following the exam, they would complete the final write-up of their thesis. This is all to say that the program requirements and the order in which they are completed can greatly vary from program to program, but the purpose here was to provide a general overview of the participants in terms of the year they were in and which components they had completed.

Length of Program

In the *Academic Progress and Success* section of the interview, participants were asked the following question: “According to your department, what is the expected time-to-completion for your program?” I anticipated the majority of the responses would indicate the program should be completed in four years. Twenty-five participants responded that their programs were technically considered four-year programs. After responding that their program was considered a four-year program, several participants commented on how students did not always complete the requirements within this timeframe:

No one in my program follows the timeline. My program has very bad rates of people actually graduating. So, they say it takes four years, and yet, it takes everyone seven or eight. (P10)

Yeah, it’s really absurd because they say four but nobody’s ever done it in four. The average for our faculty is actually seven years. (P11)

Only one person in the last 10 years in my department has finished in four years. (P16)

While the majority of the participants were in programs where the expected time to completion was four years, the programs of several others differed from this. One participant was in a three-year program and three participants who were direct-entry programs indicated their program length was five years. The remaining nine participants indicated the message from the institution or department was that the program would take longer than four years. Examples of such statements include:

They always say four years but I actually don’t think they’re very stringent about that from the people that I had talked to. . . . I thought I’ve read from an email they sent out, I think they can see it going smoothly in four or five years. (P6)

We were told most people take four and a half to five years. . . . I don’t really know the official [Institution Name] stance on very much, but I definitely know what the messaging is from my program. (P5)

The program expectations are to finish within five to six but on average, we actually have the program that takes the longest to finish, social sciences at [Institution Name] because

it takes about seven years. In that seven years I know a number of people who are in years nine and 10. (P18)

Participants sometimes tied their discussion of expectations for completion to the amount of funding they received. Twenty-one participants commented on how they received funding for four years. However, as was previously discussed, programs often take longer than that. P37 commented on the time-to-completion in their program: “I believe that it’s five to six years here. That being said, there’s only four years of funding”. P34 similarly said: “They say it’s a six-year program with five years of funding.”

Pathway to Completion

The questions about participants’ current year in their program and program length were asked to begin a conversation about whether participants were considered on-track to finish within the expected time frame. However, these timeframes sometimes varied and, as such, whether one was considered on-track depended on what the expectations were. For analysis purposes, participants’ responses to whether they felt they were considered on-track were used to determine if they were. Overall, 20 out of 38 participants were identified as on-track to finish the degree on-time, based on their interpretation of what ‘on-time’ meant. Another variable to consider, however, was what stage of the program participants were currently in. Table 33 presents the first two stages of the doctoral program and identifies which participants were in each of these stages.

Table 33

Year of Study for Participants in the Coursework and Comprehensive Exam Stages

Stage	Year
Coursework	
P4	1st
P9	1st
P12	1st
P23	2nd
P31	2nd
P32	2nd
Comprehensive exam	
P30	2nd
P35	2nd

Of the six participants at the coursework stage, four were in first year and two were in second. All participants could be considered on-track to finish their degree on time. In response to whether they were on-track to finish, P12 commented: “It’s hard not to be at this point. Because literally all I’ve had to do is coursework.” While it may in fact be difficult to not be on-track while at the coursework stage, it may also be the case that one can foresee that the degree will take longer than originally anticipated. P32 explained how he was expecting to finish within five years (which was considered on-time) until recently:

I could still finish my Ph.D. in five years if I wanted to. That is more so if I wanted to do a traditional, just quantitative-based Ph.D., because I’ve done the majority of my research for the quantitative element of my Ph.D., but I am a big advocate of mixed methods, and it’s really sort of how I’m branding myself. . . . So, this September is when I will start working on the qualitative aspect of my Ph.D. I’m electing, now, to take a sixth year, to just give myself more time to sort of bumble my way through a new way of doing research. I have sort of changed my Ph.D. program to be a little more suited to my particular needs.

While some students may be able to anticipate early-on that their program will take longer than expected, others may be able to envision the program taking a shorter amount of time. The two participants who were at the comprehensive exam stage both responded that they were on-track, but P35 added that she believed she would finish in three and a half years, earlier than expected.

Table 34 presents the latter stages of the doctoral process: proposal and dissertation. Contrary to the previous stages where the listed participants could all be considered on-track, it is at these points where some participants are not on-track.

Table 34

Year of Study for Participants in the Proposal and Dissertation Stages

Stage	Year
Proposal	
Not on-track	
P15	2nd
P26	3rd
P3	6th
On-track	
P36	2nd
P13	3rd
Dissertation	
Not on-track	
P8	3rd
P2	4th
P7	4th
P14	4th
P29	4th
P10	5th
P21	5th
P27	5th
P33	5th
P34	5th
P18	6th
P24	6th
P16	7th
P11	8th
On-track	
P17	2nd
P6	3rd
P19	3rd
P25	3rd
P28	3rd
P1	4th
P20	4th
P5	5th
P22	5th
P38	3rd
P37	5th

Three out of five participants at the proposal stage were not on-track and 14 out of 25 (56%) participants at the dissertation stage were not considered on-track to finish on time.

Getting Off-Track

The participants in the proposal stage got off-track at different points during their program. P26, who was in third year, began to fall off-track during the coursework stage. He subsequently faced additional challenges that resulted in him being about a year behind where he was supposed to be. P3 completed both her coursework and comprehensive exam on-time, and then faced difficulties with her proposal. P15 was completing her coursework on-time but ran into issues with her proposal, which was the next step after completing coursework. Now nearing the end of the second year of a four year program, she recognized she was behind in her program: “I am behind right now, and I’m supposed to do my research proposal and qualifying exam this month, but it’s not looking like that will be likely, so I’m a few months behind at this point.”

Of the 14 participants at the dissertation stage, responses from two (P10 and P24) suggested they got off-track at the coursework stage of their program. P10 took an unofficial leave of absence during their second term while P24 felt that because he was delayed finishing his master’s he fell behind in coursework. An additional seven participants (P2, P8, P14, P29, P27, P33, P18) identified the comprehensive exam stage as the point at which their progress became delayed. This was the most commonly reported stage for the beginning of delayed progress. Two participants (P16 and P34) were coded as the dissertation stage. These participants completed all other aspects of their programs within the timeline expectations of their program and then fell off-track at the dissertation stage. Only one participant identified the proposal stage as the point at which they fell behind. When describing her trajectory, P11 said that the proposal

took her a little bit longer than it should have and therefore was not completed until the end of her third year. As such, she did not start writing her dissertation until fourth year. For the remaining two out of 14 participants (P7 and P21) at the dissertation stage who were off-track, the point at which they became delayed was unclear. P7, a direct-entry participant, followed a trajectory that differed from the other participants as she completed her data collection in the first two years of her program and then moved into her comprehensive exam, and also did not have to do a formal dissertation proposal. She reported she was going to take one extra semester to finish writing her dissertation. The other participant, P21, began her program in January and felt that she was off-track from the start of her program because she did not start her degree with a proposal and had to complete fieldwork in the first summer of her program.

Doctoral Program: Challenges

Some participants felt that the mental health-related challenges they experienced did not impact their academic performance and even some participants who were off-track reported feeling this way. As one participant explained, it was perhaps the academic environment that exacerbated the mental health challenges rather than the challenges impacting the academics:

I don't think, overall, that it really is my mental health that's impacted progress. I think the program is really poorly structured, there's no support for grad students, they don't tell you what you're supposed to be doing, like, you don't get supervised. So, I found that the neglect of grad students, that all students struggle with. . . , I found that aggravated mental health stuff. Like, it made me super anxious. It became hard to trust people in the department. It wasn't clear to me what I was supposed to be working on, so then I just got some jobs. Because if I didn't know what I was supposed to be doing for my Ph.D., then I might as well do something else. . . . Yeah, so I would say those things have impacted it . . . , and it being really isolating, as a grad student, in the department, or, like, there's a culture around not really talking about your emotions, in the academy, and especially not talking about distress. (P10)

P24, a participant who was off-track and in his sixth year, also explained: "I would say a lot of the extra time or the longer than four years has been the run in between mental health and the kind of, I guess, unguided component of grad school." It was often hard to differentiate whether

the difficulties participants experienced were because of the mental health challenges or because of program-related issues. One participant referred to the “chicken and egg question” (P11) and explained that she was unsure of whether difficulties with the program caused her mental health challenges or the mental health challenges caused the difficulties with the program.

In some instances, it was evident that the mental health-related challenges had impacted the academics. Though not a significant point of discussion across the sample, a few participants described how seeking mental health support impacted their academic activities. Specifically, participants commented on not only the time it took to focus on the mental health support they were using, but the emotional toll of engaging in such intensive therapy. In his interview, P26 described being hospitalized for three days as a result of being suicidal and then completing a 12-week therapy program at the hospital after being discharged. Following completion of this program he went to on-campus services. He explained:

At that point, I was pretty actively suicidal. I was set as high priority, to the point where, when I was first seeing them, I was going to two people, once a week. In the first month I was there, I had almost 10 appointments and that slowly dwindled, to the point where I'm seeing the therapist once a month, now. But, it was pretty intensive when I started. . . , that was part of the argument that I made to maybe like, push [comprehensive exams] back, was that I was being asked to do so much emotional labor, in such a short amount of time, that I didn't have time or mental space to do the work that I needed to do.

While P26 completed comprehensive exams later than expected because of mental health-related challenges and the support he was accessing at the time, P27 described taking time off school to focus on seeking mental health support. She reported that the time off was unofficial as it did not stop her time-to-completion clock or affect her funding, but rather, was an informal agreement that her and her supervisor came to after she disclosed she was in crisis. Now in her seventh year, P27 described her experience of seeking support during her third year, the semester after she had completed her comprehensive exam:

I ended up, actually, writing out four. . . , I got these cue cards, and I wrote every priority I had on it, and then I laid them on the floor, I'm like 'How am I gonna prioritize my life?' And therapy was the absolute number one. It came before even my partner, or my school, or anything. It was like, everything has to come behind therapy, 'cause I am such a mess right now and I don't know if I will survive this. . . . So I took a month off of school without, it wasn't official, it was just between me and [my supervisor], to try to get calmed down and I spent most of that time seeing doctors and therapists to try to figure out what was with me and get on some medication. . . . And so, when I started with the psychotherapist she said, 'Okay, we're starting with four sessions a week.' So, I did four sessions a week, and then we went to two sessions, and then just this year I switched to one session a week. But, at the start, that was how intense it was, because I was doing four sessions a week. And so, it was very, very, very difficult to do schoolwork because psychotherapy kind of brings up a lot, and she told me, she's like, 'This is long-term healing, and you should probably take some time to focus on this.'

Similar to P26 and P27, P11 also referred to how the use of mental health supports slowed progress. Now in her eighth year, P11 described her experiences in the fourth year of her program when she began working on her thesis and accessed mental health support:

Yeah, it was actually around that time that I actually got real mental health help as well. I was diagnosed shortly after my proposal. I think part of what actually slowed me down was just the time that I had to take to actually take care of my mental health. I started working a lot more slowly, because I was, there was just a lot more information to sift through in my personal life, as well as the research. . . . It was like doing another course on top of starting the dissertation.

P11 added that she sought formal accommodations from her institution because she knew her graduate program was restructuring and she was therefore concerned about her time-to-completion. She explained her rationale for getting these accommodations:

Partly because I knew it was going to take me longer if I was actually going to put effort into changing my life. There was no way I was going to finish on time, because just those two things aren't compatible, taking care of your mental health, and rushing through a thesis, so I wanted to make sure that I could do both.

Another way that some participants reported that their mental health challenges impacted their academics was by having to take a leave of absence (unofficial or official) because of mental health-related difficulties. Taking time to focus on seeking mental health care and taking a leave

of absence are two examples of ways that some participants' academics were impacted by mental health difficulties. But this relationship was not always clear.

There was an overall sense that their mental health-related challenges delayed progress. Some participants did not refer to specific aspects of their program, but rather, how their mental health-related challenges slowed productivity more broadly. P24, who was off-track and in sixth year, described this delay:

There's always what I call lost days and lost weeks. I can't focus. I can't listen. I'm not eating, which then limits my energy and things like that. Those things happen. I'm getting better at managing them. You know there is still a component for me of will power. At least at the early stages of depression/anxiety, where I can actually will my way through it. But I would say, just as a whole, I guess, in graduate school experience I would always just add about 30% in terms of time. So, if it should have taken me a year, I would sort of just add three months to that or three and a half months. So, any process for the most part.

These "lost days and lost weeks" were reported by other participants as well, and as P33 said, "these things add up over time." While some participants spoke more generally about their delayed progress, others referred to challenges they experienced at specific stages of their programs. In this section, I present the difficulties participants experienced at each stage of the typical doctoral program: coursework, comprehensive exam, proposal, dissertation. When possible, I have included participants' descriptions of how they perceived that their mental health challenges impacted the different stages. However, this was not always possible as participants sometimes described typical programmatic difficulties that all students might report, as the quotation from P10 at the beginning of this section suggested.

Coursework

Few participants were identified as falling off-track at the coursework stage. Of those who did, the explanations varied. P26 was delayed completing coursework because he wanted to take a course that was related to his area but it was only offered at specific times of the year. P10 took an unofficial leave of absence in the second term of their program and this therefore delayed

completion of the course requirements. And, P24 reported that he was delayed in completing his master's degree and this therefore impacted completion of his doctoral coursework.

Although only a few participants seemed to fall off-track at the coursework stage, this is not to say that participants did not experience challenges during coursework. When asked how mental health challenges impacted her coursework, a participant who was in fourth year responded: "I was able to push through [mental health-related challenges] for most of the semester. I don't think it slowed me down too much, but then when I got blindsided again in December, I needed to take some extensions for papers" (P29). In addition to extensions, comments from two participants reveal students' productivity during coursework may be impacted by mental health-related challenges. The first example is from a participant in fifth year who was off-track:

On one side, I tend to really overdo things, and to spend way too much time doing tasks. On the other side, to get really almost. . . , I don't really like to use the term paralyzed as a metaphor. But like, I'll get really caught up and unable to do things because I'm really anxious about them. It's extreme procrastinating. But not even procrastinating because I'll be trying to do it, and I just can't, and I get really worked up. Then, I just have emotional crises because I can't figure out how I'm going to write a paper. . . . So [during coursework] I really struggled to organize my time, to figure out how to use my time, and to figure out how to approach tasks. Because I was really in a cycle of not knowing what to do, getting really, extremely anxious about what I should do, and then just spiraling into these kinds of emotionally chaotic states and not getting anything done. . . . Doing courses was really stressful. I really enjoyed coursework. I find it all very fascinating, but that production part is really, really difficult for me. I struggled so much. (P33)

Another participant who was considered on-track and currently completing coursework described an overall struggle with productivity during courses because of mental health-related challenges. The participant described how anxiety impacted their ability to concentrate and because of this, they experienced difficulties reading and processing information. Furthermore, obsessive compulsive tendencies resulted in meticulous note-taking and writing strategies that were time-consuming. They described:

I'm literally OCD with how I do my work and how I'm organizing my work, because I need to do things in a certain way in order for me to be able to get my work done. And I was re-arranging things and organizing things and having to write things out. And I have to physically write things out. So, for example, if I was taking notes and I made a mistake while I was writing it out, I would have to rip out my paper and then restart writing my notes out again until they're perfect. So that took a phenomenally long time. Or when I was organizing my papers that I had to write, again, I have to do things in a specific way, so if I'm reading articles, I get a notepad and then I write out in APA format at the top whose article it is and then I take notes from the article so that when I'm writing I can just refer to it. And if I was making a mistake or I wasn't highlighting it right or I messed up my color-coding, then I would have to start all over again and rip out everything I did. So, as you can see, that can be quite a bit of an interference in getting work done.

At the same time, however, this participant noted that they did well in their courses, and this was a common statement from participants. When asked about how their mental health-related challenges impacted their academics at the coursework stage, many stated that they did not feel it affected them. A fifth-year student reported: "I did really well. I got all A+ and A's. I loved it, I thought it was awesome. I love classes. I didn't get anything in late, I did really well on my assignments. I loved it" (P27). Comments from two participants revealed advocacy and support were contributing factors to successfully proceeding through coursework. A first-year student who was currently completing her coursework commented on how her courses had gone: "Really well. Again, I've been advocating for myself if I need an extension, and that's been going really well. But, I do feel confident in my ability to complete coursework" (P21). While students advocating for themselves and their needs may be a contributing factor to progressing through coursework, there also needs to be support. For P21, faculty members provided extensions and supported her through her coursework because of her advocacy. A participant in fourth year who was considered off-track also commented on the role of support at this stage:

So, for my coursework, I was okay. I was in a very good place mentally and emotionally. Everything was very positive, because I had support. And, I think that's the thing, is that, when you're doing your coursework, you're around your peers all the time. And, they all have the same experiences, or similar. . . , it's just easier when there's people around you, supporting you, that are going through the same thing. (P14)

Comprehensive Exam

The comprehensive exam stage was challenging for many participants and the language used to describe this stage was noticeably different than that of coursework. Comprehensive exams were described as “awful” (P36), “brutal” (P3), and “extremely hard and taxing” (P8). P21, who was now working on her dissertation, reported that her exam was “the most stressful part of [her] degree” and P24, who was also working on his dissertation, described how the exam was “a year and a half of anguish, for the most part.” One excerpt from P8 illustrates the toll that the comprehensive exams could have:

To be honest, when I handed those in, defended, and finished part A, I literally had to take three weeks off to recoup, because my body was exhausted, my mind was exhausted. I was just completely worn down. So, I took some time, and then I fully came back, and I started working on part B.

Participants reported this stage was particularly challenging for several reasons. First, some commented on the pressure they experienced to pass the comprehensive. P24 said:

There’s also the component attached to, what if you fail? There is a huge stigma around failing your comprehensives. And two, if you fail it twice, you’re kicked out of the program. So, you’re adding this other layer of stress and anxiety to people, even though I would argue someone could fail and still be an effective candidate.

When discussing her comprehensive exam, P18 described having to forfeit her first attempt at the exam and mentions the pressure she felt:

They told me I’d have one other chance within that year, one other chance to rewrite that comp and if you fail the second time you have to leave the program. So, there was a lot riding on that. I did as much as I could with prep and I think the knowledge of, ‘I’m going to get kicked out if I don’t pass this time,’ didn’t really help my mental health.

Another difficulty reported by participants was that aspects of the comprehensive exam were sometimes unrelated to the dissertation work they wanted to do. P2 explained: “I think they’re changing the program a little bit now, but I think before it was a bit disorganized with the comps being completely unrelated for the most part to your actual dissertation.” Because of this

structure, participants reported having to do reading and writing for the comprehensive stage that was different than what they had to read and write about for the dissertation. This, at times, led to delays in completing stages and to the perception that work produced during the comprehensive exam stage could not be used for other aspects of their doctoral degree. P36, a participant in second year who had just completed comprehensive exams, described her experience:

Oh my goodness, it was awful. . . .So, the second part isn't as bad because it's directly thesis related, it's my proposal. It's a lot of work and it's stressful, but I can feel good about it because I know that I'm producing something that will help me in the end, and that's just sort of a learning process but in a good way. Whereas the first phase, the questions aren't related directly to my thesis. So, I get two questions that are program-related and one sort of related to my thesis area, but at the end of the day the papers that I wrote for those are completely useless.

While the writing from the comprehensive exams may not have been applicable to the dissertation research, participants also said that they felt they could not use the writing for a publication. One participant who explained that he was critical of the comprehensive exam process after he had completed it, explained that his department had since changed the format. P24 described one of the reasons it was changed:

The other thing was that people did all this work and then they got nothing out of it. Every supervisor was saying, 'Well, if we're going to put students through this year of reading and writing, they should write an article.' Whereas I just wrote a bunch of garbage on no sleep and now it just sits in a folder somewhere.

This participant's comment regarding the quality of the work and the lack of sleep relates to difficulties with the timelines of the comprehensive exam. The structure of the comprehensive exams varied across the participants and, while some were asked to read and write papers within several months, others were given days or weeks to complete a written component after they had spent months preparing. Very few participants noted the difficulties with having a longer timeline. P33, a fifth-year student who got off-track at the comprehensive exam stage, described an account of comprehensive exams that is illustrative of this perception:

Comps was just. . ., it's weird because I really clearly remember my supervisor telling me, 'Go enjoy. Explore literature. This is a fun time.' That's a really nice, romanticized version of what happened. I just went down rabbit hole, after rabbit hole, after rabbit hole, after rabbit hole, and I was, like, deeply concerned about finding the right methodology. I spent so much time. I read so much. And what I produced in the end does not even begin to reflect what I went through. But with comps, I had the freedom to keep going, so I kept going when maybe if I had tighter reins on me to say, 'Okay, you've got to stop now,' it would have been a bit different.

More participants were critical of the shorter time restrictions, which perhaps led to more demands on the students. In the first example, a participant who got off-track at the comprehensive exam stage explained what he went through for his comprehensive exam and its connection to anxiety:

Yeah, [my anxiety] probably came back more towards the end of comps. The scramble of the way our system is doing everything in five days. My supervisor wanted me to. . ., I did it in October before Thanksgiving and she wanted me to orally defend it as well before Thanksgiving so they didn't have to read it over the Thanksgiving break, which meant that I submitted my comps on a Tuesday and had to defend it 48 hours later. . .I hadn't slept in like a day, and so that was just. . ., again, that was just a heightened period of, 'Am I going to fail?' I think if those timelines were a bit more reasonable then that wouldn't have amplified my anxiety as much as it did. (P29)

Another example from P24 also referred to a short timeline for completion:

So, our comprehensive exams, which is the next step after coursework, is typically you get a list of about 100 articles or book chapters to read and then you get a list of written questions that you have 48 hours to answer. Then you get a day off and then you get another list of written questions, that you get 48 hours to answer. And then you do an oral defense of your written answers.

He continued by describing why this structure is problematic:

It was essentially a stress test in that it didn't actually work well to produce knowledge or to ensure that the student has knowledge. . . . And it's this huge structural barrier for people with illness or life balance issues. Like, if you have a family and kids, I have no idea how you're expected to do comprehensive exams the way they were. Or if you have depression or anxiety, same thing. Things change. . ., and it tested people's mental resilience, which to me was completely unfair.

This participant questioned what the purpose of the comprehensive was: to produce knowledge? to ensure that the student had knowledge? Uncertainty around the purpose of the exam was also

reported by other participants. Participants said the expectations were unclear and they often did not know what they were being asked to do. P14, for example, completed one comprehensive exam but then had to complete another exam as the program requirements had changed.

Participants explained that they required guidance on aspects of the comprehensive exam and that this sometimes did not occur. This lack of guidance in turn led to uneasiness. For example, P37 felt that his mental health-related challenges started around the time he began preparing for his comprehensive exam. He described his experience:

The comps were challenging. I mean, I think that's perhaps where some of this began manifesting, because there was limited guidance around how long your comp should be, what should be in them, exactly what the expectations were, how much you should know, all those sorts of things. So, there wasn't really a clear sense about the comps process in some ways. . . . So, I enjoyed parts of it, but I sort of remember going into it feeling a little uneasy about what the actual expectations were, so that was tough.

In another example, the participant got off-track at the comprehensive stage and attributed this to the lack of support. P29 explained:

At the beginning of my second year, my supervisor was like, 'Just go make some list with hundreds of things on it and we'll figure it out,' and whatever. I really had no idea what to read. I didn't really have much direction. . . . Then after that, I think just feeling lost and unsupported pretty much through from my committee and the department, I think I kind of just. . . , I just didn't feel like I had the fire and the motivation. . . . I think just wading through the mess of comps on my own without support didn't give me the energy, the motivation to kind of push aside the depression and work through it. It fed into it.

Dissertation Proposal

Moving beyond the comprehensive exam stage, only three participants got off-track at the proposal (P15, P3, P11). Comments from these participants are illustrative of what P10 noted earlier, that it may be the structure of the program that impedes mental health and that all students regardless of mental health may experience certain difficulties. For example, P15 commented:

I guess, for me, my written research proposal has been a bit of a challenge, because my idea of my research is apparently different from the idea that my supervisor has, so I've met a lot of conflict, I guess, with her about where my research is going and the objectives surrounding that. . . , it's been a lot of give and very little take on my part, so I've just adapted to the ideas that she had, because in the end she decides my fate, so I thought it was probably better to just give in a little bit, and still try and fight for a few small things that I wanted to do.

In this example, the participant described challenges with her supervisor and the need to negotiate what her dissertation research would entail. This type of challenge was similarly described by P21, a fifth-year student who was off-track:

I was not getting the guidance that I needed and he didn't communicate what he wanted from me very well. And so, I would send him proposals, he would hate it. Send him another draft, he would hate it. And I have two collaborators beyond my supervisor whose data I'm using. And they have very different ideas of what they want me to do with the data compared to what my supervisor wants and what a PhD really needs to be.

Additional difficulties with the proposal might also be related to uncertainty about how to develop a research study, such as P11 described:

The research was really fun, but it's sort of like being dropped into the middle of the ocean. There's just so much that you could read, or there's so many things you could decide to do, and I had a project in mind when I entered the PhD program, but changed it because of comps. . . . The proposal took a little bit longer than it should have, which is actually fairly normal. So, I was a bit average finishing that in a year, and then I just felt so burnt out after the proposal that it took me a while to just start the thesis.

In these examples, participants do not identify how mental health-related challenges impacted completion of their proposal, but rather, refer to common challenges that all doctoral students might experience. Only a few participants referred to their mental health at the proposal stage.

Two participants described the anxiety they experienced as they completed their proposals:

The proposal was a nightmare just because it took so much of my cognitive and mental energy to get everything out onto the page. Anything that, not as much anymore, but anything that required a lot of cognitive effort was very anxiety provoking for me. So, the proposal was really difficult for that reason. And then my first draft of it, I basically had to throw 90% of it out with my advisor part. Second draft, little bit better but not that much. Third draft, finally it was okay, but it took months and months of revision, and going back and forth, and it was just excessively difficult for me, because I think I was already struggling with, oh my gosh, I'm having all these issues, I can't do this stuff that I

have to do. And my work output, when I actually get it done, is not good. Looking back, yeah, my first draft of my proposal was really not good, but I was super sensitive to that feedback at that stage, because it was so challenging to get it done, that it just made the whole process a nightmare and I just wanted to avoid it completely. (P20, fourth year, on-track)

The anxiety, however, that has been triggered several times, but especially for the proposal, the thesis proposal. I did the same thing I normally do, which is, I wrote something, it was not met with universal approval, it triggered my anxiety, I couldn't bear to look at it, I delayed it. It's supposed to be due January of last year, and I ended up handing it in April, because I just couldn't deal with it. (P25, third year, on-track)

Dissertation

The typical pattern for participants who were off-track was that they had been delayed at one point and then in all subsequent steps they became even further delayed. Therefore, only two participants reported that they got off-track at the dissertation stage. In the same way that participants described uncertainty with other stages, another participant who fell off-track at the dissertation stage also described this uncertainty. P16, a seventh-year student, explained:

No one ever tells you what it means to write a dissertation. . . . In our, at least our department, no one sits down and explains to you what a dissertation is. And you could look, you could read other people's dissertations, but until you sit down and start to write one, very different. In fact, one faculty member said that, on average, in [Specific Subject Name], it takes about eight months to write the first chapter for most people, which is a pretty long time considering most people have four to five chapters in a dissertation and it takes you eight months to write a single one. So that's kind of. . . , I think it's more of like an existential crisis thing, which I definitely have because I'm still working on my first chapter and that's how crazy things are.

And I guess it didn't really help that, again, my program is not structured in third and fourth year, everything just drops off. So, unless you have the kind of faculty member who sits down with you and explains. . . , who actually understands your project and says, 'Okay, here is the plan for the next two years and we are gonna set some dates and even if you don't make those dates that's okay. We're gonna set some targets,' it can be really hard.

Meanwhile, for P34, a fifth-year student who was currently working on her dissertation, coming to the end of the funding period and having to find employment to pay for her education was a contributing factor. She explained:

Things were on-track, like, until I finished my general exams and things like that. It's just after, when there's sort of no checkpoints in place, you're sort of less accountable, and you find other things to do. And also, because of how not extensive the funding is, looking for other work to have money to supplement the income that's provided by the funding package.

Apart from these two participants, most did not report significant challenges with the dissertation but rather, were focused on discussing the comprehensive exam stage instead.

Other

Participants described difficulties they experienced at the coursework, comprehensive exam, proposal, and dissertation stages and, at times, these were due to mental health-related challenges. In addition to these specific stages, other aspects of the educational experience were also discussed. For example, P15 described how her mental health impacted the completion of her fieldwork early in her program:

I realized that I was starting to spend a lot more time by myself when I was in the field. It's a very remote field camp, and there were only two of us in camp, but instead of hanging out with my colleague, I decided to seek shelter by myself. I ended up reading a lot of books by myself, I had a harder time getting out of my tent in the morning to go actually do the fieldwork I was supposed to do. Just in general, I started getting a bit. . . , I was unhappy with my situation, and it probably led to my work suffering a little bit while I was there.

When prompted to describe what it meant that her work had suffered as a result of these challenges, the participant reported she did not collect as much data as she would have collected otherwise. Another way participants reported that their mental health-related challenges impacted their educational experience was in the form of research productivity and publications. Some participants commented on how they felt that they had not published as much or at all. For example, P12, a participant in first year, already felt that she was behind her peers:

I believe that I'm really behind my peers in terms of research productivity. And again, I think it's partially because I devote so much time to coursework, but I guess I leave research to the point where, if I have energy at the end of the day, I'll do research, but I'm often just too tired. And so, for example, I don't have any publications, I have one

submitted, but I'm probably the only one of my peers that doesn't have any publications right now.

Doctoral Program: Support

In this section I begin with a brief discussion of the individual coping skills participants reported using to manage their mental health challenges. I then discuss peers and supervisors as sources of informal support. Formal sources of support are then described, including the use of on-campus and off-campus mental health services. Subsequent discussion addresses participants' willingness to seek mental health support and how this willingness has changed throughout their postsecondary education. Next, I describe the type of mental health related information and support participants' reported receiving that focused on graduate students. The final section describes the use of formal accommodations provided by accessibility services.

Individual Coping

Students described several strategies they used to manage their level of stress, their emotions, or their mental health in general. P23 commented on making time for things outside of work: "Making sure that I have some time to relax and see my friends and stuff, and my family, really helps me cope." P5 described "staying on top of the basics" to manage her emotional state. When asked what these basics were, she responded: "like making sure I get enough sleep and exercise and good food, because I know I need that foundation just to stay on top of my emotions." Others also commented on the usefulness of exercise. P9 suggested: "I seek out other methods of self-help that are more beneficial to me. Now that I'm physically active again, because I'm cleared from my concussion, I know that I need to work out Monday to Friday and then rest on Sunday, just do nothing on Sundays". Another participant explained:

I know based on my body when I'm under a lot of stress and I need to either go to the gym more or sort of take a few days to myself. . . . I know if I don't vent or if I don't take a few days and exercise it will manifest in my stomach issues. (P21)

This participant described a connection between her mental health challenge and physical symptoms that are linked to it. However, despite the benefits of exercising to manage stress, P23 remarked on how difficult it is to go to the gym when you are experiencing challenges:

I'll probably make sure I devote some time to go to the gym, because going to the gym, for me, has always been really helpful. But, when I fall into just some sort of slump, I stop going to the gym and that makes me feel even worse.

While using coping skills can help manage stress and maintain overall mental health, there may be times when the coping skills may be detrimental. Drinking alcohol was one of these coping mechanisms. P4 described a particularly stressful time during her doctoral coursework: "I'll admit that my drinking increased. I was literally self-medicating with alcohol at night, at home, just to calm myself down, because I was in constant panic attack mode." Informal strategies for coping with challenges might not be sufficient and outside support might therefore be needed.

One participant described her experience of realizing she could no longer cope with her challenges while having a difficult time during her comprehensive exam:

I think it was just an accumulation. I couldn't handle it. It was like when you shake a Coke bottle and it explodes. It was just the pressure of so much repression and it just exploded. I don't think anything really changed, it was just a matter of so much repression and so much of shoving stuff underneath a rug, of saying, "You're okay, you're okay, you're okay. It's not anxiety, it's not anxiety. You're just stressed. You're just being a baby. You're fine, you're fine, you're fine."

It was during this time of recognizing that she could not manage her anxiety on her own that this participant reached out for mental health support.

Informal Support

Participants described the support they received from various people and some of these points of contact were considered informal sources of support because they were not medical professionals. The main sources of informal support were peers and faculty supervisors. Though

not discussed as frequently as faculty supervisors and peers, other sources of support mentioned by participants were family members/spouses, course instructors, and committee members.

Peers. Peer relationships outside of and within the academic environment play important roles in students' lives. Within the academic environment, participants' peer relationships were formed in classes, in jobs (as a teaching or research assistant), in smaller lab or thesis-group settings, in the academic program, and in the department more broadly. Different types of peer relationships may serve different purposes and present certain challenges. Participant responses suggested peers outside of the academic environment may not always understand the student perspective. For example, one participant explained how his non-academic peers viewed him in a certain way: "Even with friends, my friends that I've grown up with, not friends in grad school, they'll look at me and they think, 'Okay, so you're fine, you've been in school for so long'" (P23). Being perceived in a certain way because of one's engagement in graduate school was echoed by another participant: "One of my best friends said, 'I don't understand how you can have [name of specific mental health condition] when you're doing a Ph.D.'" (P20). Likewise, students within the academic environment may be in a better position to understand the typical challenges doctoral students face: "I really feel like sometimes nobody understands what you're going through like somebody else who's in your program" (P38). Peer relationships within the academic environment therefore provide an important source of support for students – support that others such as family members and spouses may not be able to provide. Participants' descriptions of support from peers showed two themes: academic community; and mental health culture.

Academic community. One of the ways peers shaped the student experience of the participants was through the supportive community that was established. Three participants described the general supportive nature within their peer group:

We have those regular times where we are all together, we facilitate those kinds of conversations that are about our experiences and it's great to have somebody else who's in a very similar place to you. (P38)

There are a few students in my cohort who I have become really close with, so we kind of created a bit of a strong support group for each other, so we're always checking in. The three of us are quite open with what we're going through with certain things. I haven't personally disclosed much in terms of mental health challenges, but in general, chatting with them, knowing I can say, "Oh, I'm super stressed about this, I'm super nervous about this, oh my gosh the job market is ruining my life right now. . . , so it's been helpful. (P5)

For the peer group and the department, it's one of the things it's actually well known for, is it's communal, collaborative, friendly nature so it has a reputation for being like that. . . . I mean, it's another way in which I consider myself very lucky because I know that there are a lot of grad school programs where it's like a shark tank and nobody who's a grad student is your friend because everyone is trying to stab each other in the back to get ahead. (P32)

P32's acknowledgement that other programs are known to be competitive is noteworthy because it suggests those types of competitive environments may not be communal, collaborative, and friendly, the way his community is. P3 also appreciated that the peers in her lab group were not competitive:

We're a super close-knit group. What I love about us is that none of us competes with each other. None of us give a shit about if. . . , let's say someone gets a publication or something, no-one's going to be, 'Oh screw you.' Everyone is just so genuinely happy for one another and helps one another in our group and we all get along.

Comments from two other participants shed some light on such competitive communities and the effect this can have in peer relationships. In the first example, the participant explained that his biggest source of stress beyond the work of the doctorate is navigating friendships in graduate school, particularly once he won a major award:

My Ph.D. program, it is terrible. . . . I don't find it supportive. And I actually found out after I won SSHRC that people stopped talking to me... They won't like, ignore me, like if I talk to them. But like, talking has changed. And I get it, it's super competitive. When someone else has success. . . , like I've experienced it, I've been on the other side, I don't only excel and experience success. They're like oh damn, I'm not doing that. And then you can. . . , perhaps you personalize it and then make it a socially awkward kind of thing. . . . You wish that there's some solidarity or comradery appearance. I see them experience it with each other, I'm just not a part of that. (P13)

In this case, the participant felt that his peer relationships had been negatively shaped by his success and that this was linked to competitiveness. In the second example, the participant similarly experienced success with an award and felt that this also affected his relationship with his peers:

I find now a lot of times when I talk about the difficulties of my experiences in grad school, people, like other grad students here, will really sort of minimize it, because they're like, 'Yeah, but you have Vanier, so why does it matter? Like, it's obviously not that bad.' And, yeah, I guess it just sounds like humble bragging, where it sounds like the white man being like, 'I have a hard life, too.' You know? It's not. (P32)

This speaks to the perception that someone who experiences success cannot also have challenges, such as mental health challenges, and is similar to the perception that non-academic peers may have. These examples reveal unfavorable aspects of peer communities that also may be part of the doctoral experience. Without positive peer relationships, however, students might feel isolated or lonely, as one participant described:

The class that I [am a teaching assistant] for right now, there are three or four other TAs that I'm friends with and I find it's nice to be able to touch base with them on that one day that we're on campus together. But I don't really have a lot of close academic peers at the moment. I have friends outside of my program that I've had for a while, and I see them and it's nice to be able to talk them about either school or not. But I don't have a lot of colleagues because I teach one day a week and I'm not in courses right now. So, it's very isolating and I feel like I'm quite isolated. (P6)

The remark concerning courses presents a noteworthy challenge, as students may not physically be on-campus at different stages of their program. This could shape how connected they feel to

their peers and whether they feel part of a community. P4 felt similarly to P6, as she described a sense of community during coursework that shifts once completed:

During my coursework my mental health was okay. I was in a very good place mentally and emotionally. Everything was very positive because I had support. And, I think that's the thing that really kills you, is that, when you're doing your coursework, you're around your peers all the time. And, they all have the same experiences, or similar. . . . It's just easier when there's people around you, supporting you, that are going through the same thing. When everybody goes out to do their comprehensive exam and their dissertation, the only thing you see is the progress your peers are making. Because you're doing different things than your peers now, you're pretty isolated now.

Mental health culture. Comments showed that peers are also in a position where they too may experience mental health challenges. Through this, academic peers provide another level of understanding for students with mental health challenges and in doing so, a peer culture around mental health is developed, as P18 pointed out:

The culture in our department is shifting as well, because I've found that over the past few years, more of my colleagues are starting to talk, to be more open about mental health. . . . I didn't realize how many had been medicated or seeking assistance like therapy, for the past several years. And in my third year we started to talk about it a bit, and then some more people were coming forward. Students were talking amongst themselves, and so the culture in that sense, of not really avoiding that, or feeling like it's a weakness, started changing.

Participants described how beneficial it was to be able to talk to peers about their mental health challenges. "Knowing that I can talk to my cohort has helped a lot," said P25. The reason talking to others with mental health challenges seemed beneficial to students was because they knew that they would understand their experience: "One of the things I have to say is that it has been nice to know some of my other peers in my cohort have mental health issues, so they kind of understand" (P4). P7 similarly noted the benefit of being able to talk to someone who understands and adds how talking to peers has helped her to come to terms with her challenges:

I know a few people who've had mental health struggles. It's just nice to be able to talk to somebody who understands both the academic side of it and then the mental health struggles as well. . . . And you realize that it's not just me, and everybody has their own

struggles, and it's totally okay to feel this way. It's not that something's wrong with me necessarily, I'm not different.

Though there were cases where participants described not feeling comfortable disclosing their mental health challenges to peers, those who were comfortable sharing with peers typically expressed that this relationship was integral to their student experience. For example, P12 said:

I'll tell people once I trust them and am comfortable with them, which can take a while, but the peers that I do disclose to become sort of indispensable for helping me cope. They're the nice thing about going to school every day and they keep everything sort of optimistic and bright usually. I have other friends in my department who also have mental health challenges or disabilities depending on how they define it. And so, we're able to talk about it a lot too and so I do feel very supported by my peers in this program.

A link to professional mental health support. Peers may be the first point of contact for someone who is experiencing a mental health challenge and they are therefore in a position to suggest professional mental health services. One participant described how speaking with peers had a part in him going to a counselor for the first time:

I think one thing that was good about it was, because I heard about it through a friend, and I had spoken to other people at [institution name] and in my program, that had dealt with similar stuff and had recommended talking to a counselor, that helped a little bit too. (P37)

For this participant, knowing that others had experienced similar challenges and had sought support was helpful in making his decision to seek help. Talking to peers may normalize and reduce the stigma associated with getting professional help. This was the case for P15, who described talking to colleagues first when she became aware that she was experiencing anxiety and depression:

I first started by talking a lot with my colleagues and realizing that these issues I was experiencing were not isolated to just me, and some of my other colleagues were experiencing similar anxiety, depression issues around their graduate degrees. I started by talking to them a little bit, and then they informed me that counseling services on campus were free, so I decided to seek out the mental health nurse on campus and had a few regular meetings with her before I went into the field.

Peers were a key point of contact in directing this participant to the institutional services. In this particular example, the knowledge of the services being free was also a factor in the participant's willingness to explore the services. Another participant explained how she saw a specific mental health professional because of advice she received from a friend: "I got Dr. [name] because my best friend who is also in my cohort in my program, she was seeing her. She was like, 'Ask for Dr. [name].' Because apparently this counselor has more experience with graduate students" (P16). Having this insider-knowledge from a peer helped her navigate the process. She explained:

Because I had my best friend who was already in therapy. . . , having her explain how things work helped and she was with me when I was responding to the phone call, and then she went with me to health services that day, which was really nice of her. So that made it a lot easier for me.

Not only can it be beneficial to have a peer help with the process of seeking support but seeing the positive results for others can also shape decision-making. P18 explained the point at which she decided to seek support and what led to this choice:

I think it was partly to do with the encouragement of a friend of mine who is also in the program. Her mental health issues are very extreme...I've seen how she has improved throughout the years by getting the help she needs. I've seen that change in her and then she was always encouraging me to talk to someone. . . . I was like, 'Well, her issues were a lot more extreme so there is something I could try to do before just quitting or avoiding this'. That's why I finally contacted health and wellness and was able to get an appointment.

Though most of the examples provided thus far have shown that recommendations and insights from peers can encourage a student to seek help, this is not to say that students always receive positive feedback about mental health services. Negative experiences are also shared between students and can similarly have a critical role in students' help-seeking decision-making. The examples provided below are demonstrative:

There's no way now [that] I'm going to see a counselor at [institution name] I heard it's a terrible process. I've heard that it spits you out really quick, and I don't trust it. . . . I

don't want to tell my story to someone who just isn't going to be able to help me. So, I'm aware that counseling's free at the university, it's just not worth my time. (P13)

I've also heard the horror stories. I had to wait three months between appointments, or getting into the [Cognitive Behavioural Therapy] one on one. But I've heard of people just giving up and then having to just pay out of pocket. (P18)

For me it's been based on past experience and experiences that friends of mine have had. One friend in particular had a very negative experience with counseling services at [institution name] . . . , private very personal information was mishandled and given out to someone else, so I never want anything to do with [institution name]'s counseling services ever again. (P5)

Well, just based on what I've heard from my colleagues, I feel as though I'm one of the lucky ones, insofar I was actually able to get a chance to see a psychiatrist, whereas a lot of my colleagues who have been struggling with things such as anxiety have had awful experiences, either in terms of long waits, not being able to see anyone, or having someone terrible who doesn't listen to them and their needs. (P34)

The quotations presented in this section show the important roles that peers can have in students' lives. In particular, peers in the academic environment are central to the student experience. Peers can create a sense of community that is supportive and understanding of the broader student experience. At the same time, a culture around mental health can be developed when mental health challenges and help-seeking are discussed amongst peers. Findings showed this openness to discussing mental health can inform students' decision-making in whether and how to seek support for their own challenges.

Supervisors.

Student-to-supervisor disclosure. Disclosure was a key theme within the data concerning the student-supervisor relationship. Though one participant did not have a supervisor yet because he was still early in his program and it was unclear whether another participant had disclosed, it was evident that most participants disclosed their challenges to some extent. Out of the 36 remaining participants (excluding the two that were previously mentioned), I identified 22 participants who disclosed their mental health challenges specifically and used terminology

around mental health. However, during the analysis I found that identifying who did versus did not disclose was not straightforward. While most participants clearly indicated if they had or had not disclosed, comments from six participants (who were counted as not disclosing) showed that there is variation in what is disclosed, how that discussion is framed, and how much detail is provided. For example, one participant framed the discussion around having a general health issue rather than a mental health issue specifically. P5 explained:

My supervisor has been excellent. Very supportive, but in a way where she doesn't need to know details. For example, with having chronic health problems there was one point where I was really kind of falling a bit behind because I was having a lot of health issues. I just let her know, 'Hey, I had to take a bit of time off, because of ongoing health issues.' And she's like, 'Yep, okay, fine. Take whatever time you need.' It's nice that she doesn't need me to show my scars if you will. . . . So, I keep it as vague as I reasonably could. Talking about it maybe more as a health issue, as opposed to naming specifically what it is. (P5)

Others similarly did not frame the discussion around mental health specifically but did share that they were struggling. Comments from P23, P30, and P36 are illustrative of this approach:

I haven't disclosed. I was close to, but I think I mentioned somewhere I was not doing very well. I think she noticed, but I remember sitting down with her. I was close to mentioning it, but I just went with the excuse of having a lot of stuff going on with my family. (P30)

I ended up just telling him exactly what I was going through, how much I was struggling, and he was really, really good about it. . . . I framed the conversation more around the work, so I sort of. . . , it was more of a general feeling of being overwhelmed and I was able to tell him, 'Look, this is all that's going on with this. This is really tough and I'm struggling, but I'm getting through it.' But it was essentially work-related, so I told him at one point in one of my earlier drafts for my proposal that I wasn't feeling confident about it because I had been struggling and he was really good about it. So typically, it hasn't been a mental health conversation, more of a work-related, 'I'm struggling because. . .'. (P36)

No, I've never said it directly, or using those words really. But any time I've felt concerned about something, so, when I had my committee meeting, I said that I felt a little nervous, or was a little worried about it. Or, when I was having a hard time working on my paper, I let him know that I couldn't get it done and I couldn't focus on it. I've talked to him about things that have got in the way of my work, but I've never actually said it flat out. (P23)

Reasons for non-disclosure. Participants identified several reasons for not disclosing their mental health challenges to their supervisor. Comments sometimes showed that numerous factors were influencing the students' decision. When asked if there was a reason why he had not disclosed his mental health challenges, P37's spoke about multiple factors:

I think it's a sense of that you want your supervisor to have confidence in you and your work. Of course, recognizing that, you know, it doesn't take away from that but I mean honestly this is somebody that you're relying upon for reference letters and post docs and a whole range of things. In many ways I don't feel comfortable discussing some of that stuff with him. I don't sort of know what impact it will have on my career or the way he thinks of me. But, yeah, I mean it's I guess not really a relationship we've had in the past and I think that his sense of things is like 'Well it's going fine, keep doing the work' and I don't know, in some ways I don't want him to worry about how I'm doing personally. So, yeah, it's not a conversation that we've ever had that I've ever felt particularly comfortable about having with him, I guess.

This participant described several key reasons for non-disclosure that were echoed by others.

First, he commented on wanting the supervisor to have confidence in him and the work, suggesting that there is a perception that if you have a mental health challenge you may not be able to adequately complete your work. This concern was also expressed by P30:

I feel kind of silly, because she is a psychiatrist, so I feel like if I said anything, she would be cool with it, but I also worry about, not necessarily judging me, but I guess concerns about my ability to do the work because of what I am dealing with. I wouldn't want her to think I was incapable, I guess.

The concerns for many participants, including those who provided the comments about ability to complete work, are linked to unease about how the supervisor would view the student. In the first quotation, the participant mentioned he does not know the impact disclosure will have on what his supervisor thinks of him. Several other comments also addressed not wanting to negatively influence the supervisor's perception of the student. One participant who went through a particularly challenging time when he transitioned to a doctoral program said: "At the time, I didn't want to disappoint this new supervisor who'd just taken me on. . . . It's silly to say this, but I didn't want that to be my first impression" (P19). The unease around how the supervisor

will view the student is then tied to job prospects. In the first example that was provided, the participant expressed his concern about the supervisor's position as someone students would rely on for reference letters and post-doctoral opportunities. This apprehension was similarly described by P5 who said: "There's still lot of stigma around mental health issues and I don't want it to either directly or indirectly affect my career in any way."

Though on one hand participants expressed concern about how they would be viewed by their supervisors, some also voiced that they sometimes knew their supervisor would be supportive if they did disclose. Two participants explained:

Because realistically if I did disclose, I'm sure no one would react negatively and I think I know that. But I also am still worried about what people would think or whether or not they would think I'm any less capable than someone else who wasn't experiencing the same thing. (P30)

I don't feel like it would be inappropriate for me to talk to her about my mental health, but it hasn't really come up in a way that. . . , I don't know, I haven't really needed any accommodations, or advice, or anything like that, but I do feel like I could come to her if I did need something. . . . I feel like if I told my supervisor, that she would believe that I could succeed, regardless of the disclosure. And there's also a lot of personal trust. (P35)

In the second example, the participant shared that he does not think it would be inappropriate to discuss his mental health. The issue of whether it is appropriate was expressed by another participant who questioned whether it was professional:

It just doesn't feel professional, for me to be able to say that stuff to my supervisor. It's the kind of stuff that I sort of talk to my really close friends with, or my family with. . . . I think I would avoid disclosing to him, as much as possible. (P23)

I feel like it's. . . , I don't know, it's a bit strange because. . . , how do I say this? He's my supervisor, right? He's a psychologist, but at the end of the day, he's my supervisor. He's not my psychologist, and it would just be really weird and conflict of interest for me to discuss further, I guess. I'm not particularly comfortable with it because of that, because of the professional student-supervisor relationship. So, to feel that I can be open with him and just sort of, in general, be like, 'Hey, I'm struggling because I'm overwhelmed,' but I wouldn't actually go beyond that, probably. I mean, if I needed to speak to someone and I felt that I couldn't find adequate resources, then I could talk to him about it and I feel that I'd probably ask him if he had any suggestions of who I could speak to, but I haven't done that at this point. (P36)

A distinction is perhaps made between the type of support provided by a supervisor and other sources of support, such as friends and family.

Other support. In addition to faculty supervisors and peers, there were also brief discussions of other specific people who were in supportive roles. This support was not necessarily mental health support but support more broadly as well. One participant described a parent's response to disclosing her mental health challenges:

When I went home to explain to them where I was at with all of this, my mother was not necessarily understanding, but accepting of the fact that she's like, 'Okay, well like I don't know what else to say so get help. Get the help that you need and hopefully you finish your dissertation'. (P16)

A few participants also discussed the role of their partner. For mental health support specifically, P20 commented on the role of her partner: "He is supportive but he doesn't get this stuff at all. He doesn't know anything about mental health or anything related to it. So, I've had to explain to him what it actually is and how it's expressed." Other participants described their partner as having a more active role in handling mental health-related challenges. When describing her rationale for re-engaging in counselling, P15 described her partner's role: "I had a very serious discussion with my husband about some of the stuff I was experiencing, and we decided together that it would be very beneficial for me to go back to counselling." Another participant described the role of her partner during a particularly challenging time while she was completing her comprehensive exam: "I live with my partner. He was like in full-time care mode for me, which was really difficult for our relationship" (P27).

While I previously discussed the role of faculty members who serve as supervisors as integral to the doctoral process, course instructors were also discussed as parts of student support systems. P38 described one of her professors as "very understanding" when she needed to take time away from class during a challenging time. Similarly, P20 described one of her professors

as “approachable and supportive,” so it was not challenging for her to approach him when she was experiencing anxiety:

I have a lot of test anxiety. I did talk to my prof about it. I didn't get any accommodations for it, he just said, if you end up freaking out while you're writing, and you get a C on the midterm or whatever, we would just work something out, and you could rewrite it or whatever.

One reason for disclosing to faculty is the need for informal or formal accommodations, but faculty may also be in a position to identify students in distress. P14 described what happened when one of her professors noticed she had been quieter and more withdrawn than usual:

She was just concerned and she knew that a lot was going on and I had come to her for an extension on an assignment as well. . . . She asked me if I was experiencing distress or if I was upset. I said I did have an anxiety disorder and it has been quite bad lately. We talked a bit about it and then, that was the end of that and she asked me if I was seeking help or if I was on medication. I said yes and it's okay and that was that.

Faculty may play an integral role not only as supervisors and instructors, but as committee members as well. Committee members can provide general understanding and support concerning the doctoral process, or more specific support concerning mental health, similar to other sources of support that have been discussed. In terms of general support, two participants discussed their committees:

I will say that my committee as a whole has been really great. . . . I've been lucky with my committee that I've got a team who really supports me and believes in me and is willing to work to make my dreams come true. But if I had been in a situation with profs who I've encountered, who haven't been very supportive either in general with their grad students or with my work, then it would have been significantly harder to get to where I am today. (P5)

One of my committee members, every time we have a meeting, is always very enthusiastic, and very supportive, and smiling, which I really appreciate. He knows of my supervisor's reputation and he said if you ever need to talk, I'm here, which I appreciate. It's never gotten to the point where I feel like I need to seek that help. (P21)

Other participants described disclosing their mental health challenges to committee members.

One participant disclosed her mental health challenges to a committee member in an effort to get guidance on where she could obtain professional mental health support:

I ended up asking one of my committee members, who is a [professional designation] . . . , and I just said, ‘I’m trying to get assessed here. I’m desperate to find someone who can do an adult assessment, can you please help me get in somewhere?’ And she did. So, she put me in touch with a psychiatrist. So, she just booked me in directly in with her. So that’s when I had my assessment. (P20)

While in this case the committee member had expertise in mental health and could provide a referral for the participant, another participant described how he disclosed his mental health challenges to get guidance on whether to reveal these challenges in a grant application. He explained:

One of the latest challenges that I’m having is that I’m doing the OGS [Ontario Graduate Scholarship] application and there’s a section on the OGS that to disclose if you have any circumstances that have impeded your progress over the years. And I’ve never really outed myself as being depressed to the department before, and so this was a huge topic of conversation with my supervisor and my committee over the last week and a bit. . . . I feel like I have explaining to do for what’s taking me so long in between years two and three especially and so talking about this with my supervisor and my committee, they were all like ‘oh, I don’t really know how you should approach disclosing this, and if you should disclose it’. (P29)

Formal Support

Support at different levels of education. Participants’ use of on- and off-campus mental health-related support at different levels of education was analyzed and Figure 12 presents this coding. Participants are organized according to when they became aware of their mental health condition. During the analysis I found that, those who did not become aware of their condition until specific levels of education had not sought support prior to that time because they reported they had not experienced mental health-related challenges. For this reason, the cells at the bottom of the figure are labelled as not applicable. Similarly, for P28 and P30, the master’s level cells are labelled as not applicable because they did not complete a master’s degree. While the black

cells denote that the participant did seek that form of support, a white cell does not necessarily mean that the student did not. The interview protocol did have questions concerning the use of support but because of the semi-structured format of the interviews, I did not always confirm that students did not use a specific form of support. Therefore, a white cell could mean the student did not use that support or that they did not explicitly discuss it during the interview.

When Participant Became Aware of Mental Health Condition	Participant Number	Undergrad		Switched Schools	Masters		Switched Schools	PhD	
		On	Off		On	Off		On	Off
Before Postsecondary	1			Y			Y		
	4			N			N		
	5			Y			Y		
	6			Y			N		
	8			Y			N		
	9			N			Y		
	10			Y			N		
	12			Y			N		
	13			Y			Y		
	14			N			Y		
	17			N			N		
	18			N			Y		
	22			N			Y		
	23			Y			Y		
	26			Y			N		
	27			Y			Y		
	28			Y	N/A	N/A	N/A		
	29			N			Y		
	30			Y	N/A	N/A	N/A		
32			Y			N			
33			Y			N			
36			N			N			
37			Y			Y			
38			Y			N			
Undergraduate	2			N			Y		
	11			Y			Y		
	20			Y			Y		
	21			Y			Y		
	24			Y			N		
	25			N			Y		
31			Y			Y			
Master's	34	N/A	N/A	Y			Y		
	35	N/A	N/A	Y			N		
Doctoral	3	N/A	N/A	Y	N/A	N/A	Y		
	7	N/A	N/A	N	N/A	N/A	N/A		
	15	N/A	N/A	N	N/A	N/A	Y		
	16	N/A	N/A	Y	N/A	N/A	N		
	19	N/A	N/A	Y	N/A	N/A	N/A		

Figure 12. Coding for help-seeking at different levels of education (on = on-campus; off = off-campus; N/A = not applicable)

The figure shows that eight participants (P2, P3, P12, P17, P22, P29, P36, P37) (21.1%) did not report using on-campus support at any level. These participants did, however, report using off-campus support at one or more levels of their education. Participants identified several

reasons for not using on-campus support, such as unfamiliarity with existing on-campus services.

When asked if he had used on-campus services during his current program, P29 said:

No, no I haven't. I feel like I don't really know too much about what's offered. At [prior institution], I also didn't really have any idea of what was offered. It was never really talked about or widely advertised. I think I would have had to do research into it, to figure it out.

In other cases, participants indicated they used off-campus services because that was what they were familiar with. This was indicated by P3, who responded to a question about whether she used on-campus services: "I didn't look into it. I just went with what I already knew."

Participants also discussed how specific aspects of on-campus support were a factor in their decision to use off-campus support. For example, the wait-time for an appointment was a concern for P37:

In my experiences, the wait-times on campus are an issue. . . . I recently went down to health and wellness to try and see if I could make an appointment with a counselor, get on a wait-list, and it was just really, really long and they wanted referrals from my doctors, and something like that, but then there was a lot of wait-list so I just felt like it was going to take forever. . . . A two-week wait would be fine but it was sort of unclear to me how long the wait was at [institution name], so eventually I was just like, "Well, if I can pay for this and get an appointment quicker off campus, then I'm going to do that."

Another participant also commented on her concern regarding the frequency of counselling sessions that would be offered on-campus:

I think the services that are provided here are like, once every three weeks, or once a month, or something like that, and I was receiving weekly services. So, it wasn't comparable to what I was already receiving off-campus, so I didn't want to complicate things by seeing multiple people or things like that. (P12)

While these are examples from participants who never used on-campus services, it was much more common for participants to have had some experience with on-campus services.

Thirty out of 38 participants (78.95%) reported using on-campus support at some point in their postsecondary academic experience. Additionally, of these participants, 15 had switched institutions at one or more points in their postsecondary education and had therefore sought some

form of mental health support from several institutions. To examine trends concerning participants' use of on-campus support across education levels, a Venn diagram was created and is presented below as Figure 13. The figure excludes (a) those who did not use on-campus support; (b) those who did not complete a master's degree; and (c) those who were not aware of their mental health condition in their undergraduate education.

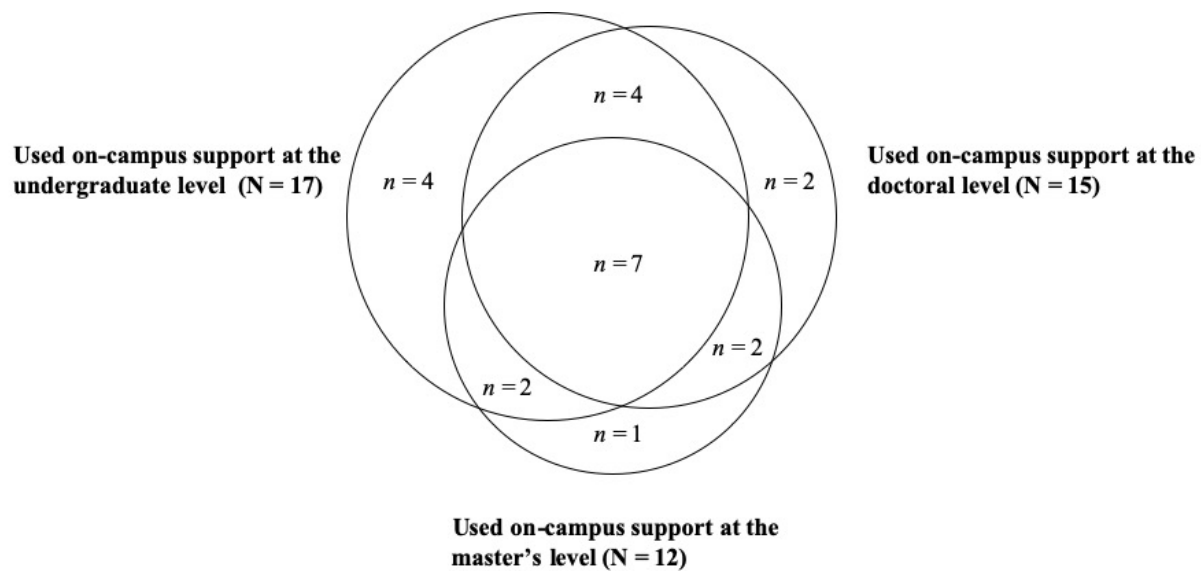


Figure 13. Number of participants who reported using on-campus supports at different levels of education.

With the exclusions, 22 participants are represented in Figure 13. The figure reveals that 15 of them used some type of on-campus service for mental health-related concerns at several levels of their education and seven of these had used it at all three levels. Of the 15 participants who used support at several levels of education, only three (P4, P8, P24) had not switched institutions. This means that most of the participants (12 out of 15) had sought on-campus support from multiple schools: seven (P13, P14, P20, P25, P32, P33, P38) had sought on-campus support from two institutions and five (P1, P5, P11, P23, P27) from three.

Off-Campus Support. Similar to the 79.0% of participants who used on-campus support, 30 out of 38 participants (79.0%) reported using off-campus support at some point in their postsecondary education. This suggests most participants had used a combination of on- and-off campus resources for mental-health related concerns. Figure 14 was created to examine trends for off-campus support. It excludes (a) those who did not use off-campus support; (b) those who did not complete a master's degree; and (c) those who did not become aware of their condition until the master's and doctoral levels.

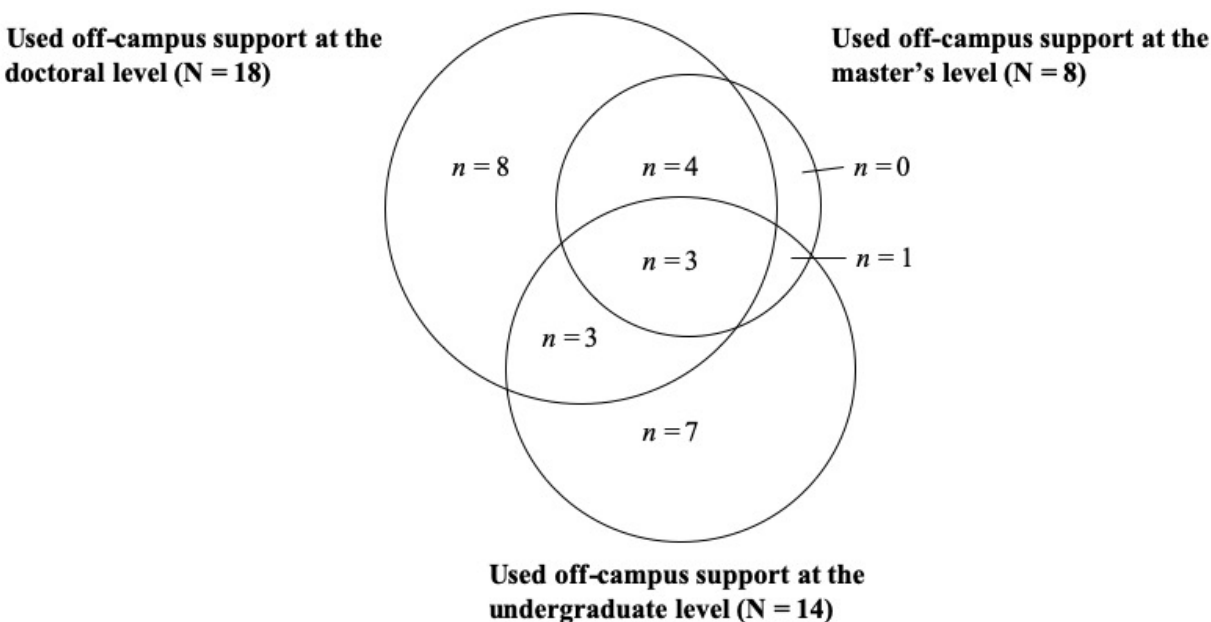


Figure 14. Number of participants who reported using off-campus supports at different levels of education.

With these exclusions, the number of participants represented in Figure 14 is 26. The figure shows that 11 out of 26 participants (42.3%) reported using an off-campus service for mental health-related concerns at several levels of their education. This is much lower than the

76.2% of participants in the discussion of on-campus support use who reported accessing support at several levels of their education. These data indicate that students' use of off-campus support may not be as recurring as use of on-campus support.

Focusing on mental health support at the doctoral level. The focus of the previous section was on use of on- and off- campus support across the undergraduate, master's, and doctoral levels of education. For support use at the doctoral level, 35 out of 38 participants reported accessing some form of mental health support during their doctoral studies: 13 used on-campus support, 14 used off-campus support, and 8 used both on- and off- campus support. For on-campus support, participants identified the following individuals who were involved in the provision of mental health support: general practitioners at health services units; and counsellors, psychologists, and psychiatrists/psychiatrist residents in either health services units or counselling/psychological services departments. During the analysis, it became clear that student services were organized in different ways at different universities and students sought mental health-related support from different student services units. For some, the general health practitioner in the health services unit was the first point of contact. This practitioner sometimes prescribed psychiatric medication for students, did medication management, and/or some counselling. Other times, the practitioner would refer students to other services, such as mental health and counselling units within the institution. A comment from P24 shows there can be a lack of clarity regarding where to go for services:

The second time when I had the combination of both anxiety and depression very bad, I went to our student development center and it's confusing because it's a writing center but it's also a crisis center. Which is problematic. And it's one of three different mental health resources on campus that aren't centralized.

Another participant similarly described needing to understand the system of support at the institution in order to access services. P34 said:

I guess I knowingly figured out the system. Because if you go to [counselling unit] without a referral, you're not going to get in to see anyone for who knows how long. Because I went through the physician, the physician made the referral to [counselling unit]. It was the [institution name] physician. I think I got lucky in that regard by getting an appointment, albeit two months later. What my friends have experienced is that they think that they can go to [counselling unit] and request an appointment just like that, which apparently isn't the case. . . . Why can't you just go and request an appointment and have one within a reasonable amount of time, say within a month or something like that? That to me speaks to a lack of resources and also too many barriers or red tape. If you do need to have a referral, I can understand why, but at the same time, they should be more transparent with that information because it seems that I sort of just, you know, by chance happened on that path.

Changes in Willingness to Seek Support between Undergraduate and Graduate Levels

Participants were asked if they felt their willingness to seek mental health support had changed over the years. Most participants indicated their willingness had changed and that they were more willing to seek support. Reasons for such changes were increasing personal knowledge about mental health, recognizing the benefits of support, and changing awareness about mental health.

Personal knowledge of mental health, either their own or mental health more broadly, was the main factor in improved willingness to seek support. In terms of their own mental health, participants described how their understanding of their own challenges shifted. The change that can occur between the undergraduate and graduate levels is described in two illustrative examples. In the first example, P14 responded to the question about whether her willingness to seek support has changed since undergraduate:

Absolutely, I'm definitely more aware of my mental health than I was then. I was very scared in those days to talk about how I'd been feeling, because I thought it would make me feel weak or unable to do things. . . . I've been obviously more educated and I'm more accepting of it, and I'm more accepting of my own limitations. I know what they are. . . . So, I'm way more receptive to seeking help and I'm more self-aware in that sense and I'm less embarrassed about talking about it than I was then, but it's still very difficult.

Being afraid to seek support because of the belief that it would make one appear weak or incapable was echoed by others. However, as P14 pointed out, one way that willingness to seek support can change is by becoming more aware of your abilities and needs. For some participants, they felt this occurred as part of the maturing process. In the second example, P17 touches on this maturing process in addition to a shift in her own understanding of her mental health challenges. She responded:

I would say definitely, yeah, my willingness has changed. It's not a great feeling to have a diagnosis. You feel like a crazy person. . . . But now I've accepted that and I think it makes me more open to the fact that you have these things and because of that, it's better to reach out for help. I've definitely changed in that way. And I think I've also just matured and I have more confidence now in speaking to people that I might need help from.

In both of these examples there is a description of being more self-aware and accepting of their mental health challenges and the role this plays in seeking support. Note that these examples are similar to those highlighted in the earlier section regarding identity development. This was similarly the case with other examples, where participants' descriptions of their changing willingness appeared to be tied to their mental health identity development.

Participants also commented on how they saw the benefits of seeking help. Some participants said they saw how mental health support helped their peers and this in turn shaped their willingness to seek support over the years. For others, they had come to recognize the benefits of support. P12, for example, responded to the question concerning whether her willingness to seek support had changed since she was an undergraduate student:

Yes. Wholeheartedly, yes. I think it's just been a journey from when I was 20 to now, realizing that things can change so much by receiving accommodations but also by receiving psychotherapy services and stuff like that that allow me to be here. . . , I don't think I would be able to be here if I didn't receive services.

In her response, P12 revealed that one's recognition of the benefit of support can also shift over time. This was echoed by P8, who commented: "When I was an undergrad, I felt like 'I can deal

with this, I'll do it on my own'. Whereas now I think, if I didn't seek help, there's no way I would have made it on my own." Recognizing the positive effect that support can have therefore shaped some participants' willingness to seek support. At the same time, however, there were instances where negative experiences also shaped students' willingness. Participants showed that prior experiences have a significant influence on one's decision to seek support again. One participant's statement summarized this conundrum:

This is something that I hear with other people who experience depression and mental health issues and are getting counseling. You have one bad experience with a counselor and it's just a lot of work to want to get back and do that again, because again, it's a vulnerable process and it's just not worth it. (P13)

Seeking help for a mental health challenge is a vulnerable and emotional process – one that participants indicated was quite difficult to initiate. Persistence is also therefore an essential part of help-seeking. The three comments below illustrate the struggle that occurs following a negative experience:

I think I was always willing, and I think that's why I had such a letdown when I knew that I could get a shitty counselor that's giving me that Zen meditation exercises, when I was telling them that I had a lot more to deal with. So, I think it took some work after that experience, in terms of willingness, to give it another shot. (P13)

Most counselors I've been to, over time I haven't been happy with, so every time seeking out a new one has been difficult for me to actually take that step and be like 'Okay, I'm going to put myself out there again and hopefully this works'. (P5)

My first experience at the counseling services wasn't that great, because I went and I was like, 'Listen, I have anxiety and I just need strategies to help me manage it and help me push through it.' And the counselor basically told me that going to therapy would be the slowest way to make any progress, and I'd be better paying all this money to go take classes to help me figure out strategies, or by reading self-help books, or something like that. That was a bit discouraging. And then, it wasn't until just this past summer, when I was preparing for my qualifying and I found myself getting more and more depressed, that I was like, 'You know what? I'm going to give counseling another shot.' And it actually was quite helpful the second time around. (P7)

The final issue identified by participants as changing their willingness to seek support concerned the growing awareness about mental health within the institutional and broader

contexts. Participants commented on how there had been a change in social attitudes towards mental health and that the topic is not as stigmatized as it once was. In her response to whether her willingness had changed, P18 said:

Well there's definitely been a shift. I think part of it is education. . . . It has been helpful to read quite a few of the articles that have been coming out lately, even just in magazines or on certain online posts that I've read, about how common these problems are in grad school and the number of grad students who actually do suffer from anxiety and depression, insomnia, so many issues. And the encouragement from that to seek help too was also good.

This participant commented on the impact of some of the recent conversations that have been taking place concerning graduate student mental health. When these participants were at the undergraduate level, such conversations on student mental health would have just been starting to emerge. In her response, P33 reflected on what changes have occurred for her:

I've talked about this with people recently. I think I didn't have the same understanding of it. . . , it wasn't the same media and popular awareness of mental health stuff. . . . I don't think I really saw what I was going through in my undergrad as mental health stuff. So, I think two things. One, being increased media and popular conversations about mental health. Then also, coming to a professional program where I learned about mental illness, and actual symptoms and treatment possibilities, those things kind of have really validated for me that these things are real, and made me more willing to seek support.

For this participant it was a combination of increased discussion in the media as well as development of personal knowledge about mental health that shifted her willingness to seek support. Attributing their changing willingness to multiple factors was common amongst the participants. P2 attributed hers to her personal knowledge about mental health issues as well as institutional efforts around campus mental health. She explained:

What prompted me to become more willing to seek support is, both my own personal knowledge about mental issues and just seeing campuses support accessibility. It's something that I became aware of slowly, so it took a few years. . . . By now after, I would say, it's been almost eight years, I see the importance of seeking help because it can change your life. I think when campuses offer support, even a poster on a wall in the campus pub, it really does help in giving students some initiative to go and seek support.

Crediting campus accessibility and mental health initiatives for having a role in shifting perception around mental health and students' willingness to seek support illustrates the impact that institutional efforts can have on students.

Though the majority of the participants indicated their willingness had changed and that they had become more willing to seek support, this is not to say that there were no participants who felt their willingness to seek support had not changed. P5, for example, explained her position:

I wish it would. I'm still a little reluctant to seek out help partly in terms of the negative experience I've had, partly because I like being very independent, so I find it difficult to ask for help in any sense, so I unfortunately don't think I've made much growth in that over the course of time.

At the same time, while there were cases similar to this one where there was still an unwillingness to seek help for their challenges, two participants suggested their willingness had changed in other ways. For example, P32 said he thought he was more willing to reach out for support but that access to support had also changed. He said:

Now that my psychologist has her own private practice, I need to think about whether it is a serious enough issue that I want to use one of those five sessions on it. If I have already used all five of my sessions, do I have the money to go see her and is this serious enough for me to go into a deficit in my budget.

Even though a participant may be willing to seek support this is not to say that they are going to be able to do so. This quotation, however, reiterates that one's understanding of their own mental health and their needs is a key part of seeking support. While this participant remarked on needing to consider whether his issue is serious enough to utilize the services, another participant noted how he had become more aware of his own needs:

No, I don't think my willingness to seek support has changed. I think that I'm more confident and more assertive in my needs now, with anything. . . . I know the type of therapy that I need, and it's not solution-focused therapy, which is largely what campus counseling is about. It's like putting out fires, giving people the tools that they need to

keep their head above water, but it's not the type of therapy where they're looking at trauma, or your childhood experiences. (P13)

Willingness to seek support, therefore, is not solely about whether the person reaches out for help or not, but level of commitment to the support is also central to the process. Recognizing the type of therapy needed is one way that the help-seeking behaviours can change, as P13 showed, and this was echoed by P6: "I think my willingness to try different types of therapy came to me within the past two years."

Information Received / Services Available

One interview question was the following: "Have you received information about mental health/mental health support from your department, faculty, or institution that is specifically geared towards graduate students?" After conducting a few interviews, I realized participants were consistently commenting on the information they had received from their department or institution but it was not necessarily graduate-student specific. Subsequent interviews therefore inquired about what types of information students had received in general, and then narrowed to graduate students specifically where appropriate.

E-mail was the most frequently reported way of receiving information. These e-mails were sometimes from institutional administration. P8 commented:

Even our president, during exam periods, will send out emails telling people, 'I know this is a stressful time. These are all the services that we offer. Please seek help if you need it.' I think we've, in the past, there's been some negative events that have occurred with mental health, so I think that they're pretty proactive in making sure that students know that these things are available.

Participants suggested institutions may send emails in response to major events taking place on campus that could cause concern for students, which P8 pointed out in terms of exam periods.

Another participant similarly noted the institution's response to losing several students to suicide:

Yeah, I think the university has been pushing a lot of mental health initiatives in the last few years, because I think that last year or the year before, there were four suicides in a

few months at the university. They really stepped up their mental health campaign. They definitely send out emails with different resources that are available on campus. (P7)

Emails advertising different resources could come from a variety of people at the institution. In addition to administration, the information could come from within the student's department. P3 commented on how she receives weekly emails from her department that sometimes include information about mental health: "Our department sometimes sends out emails about mental health. I've seen a few from our department. Every week they send out their weekly email, and I always read them. Sometimes there's mental health information and, 'check out this thing'." In addition to emails, departments provide information about mental health and mental health support during orientation programming. P35 reported:

When you start the program, you do get a little bit of information about that. What kind of support is available to you, what your insurance is, what the mental health stuff on campus is, sexual assault, crisis, all those things. They do run that down when you start the program.

In addition to the institution more broadly, as well as departments, various student services offices can also be key sources of information. For example, P38 commented on the information provided by a specific student services office:

Every now and then we'll get an email from the Student Development Center which is where I went for my counseling, and they'll send out things like if it's exam period time, they will have extra counseling services on board or they'll just send out a reminder like the stress of it, if you need somebody to talk to, here's some numbers and that kind of thing. I find that our social media accounts are very active as well. I think the Student Development Center and the Wellness Center, they maintain their own social media accounts, and so they're always tweeting and that kind of thing.

P38's comment not only highlights how the information can come from different places, but also, by different ways. In addition to social media, other participants suggested they had seen information on flyers or posters advertised throughout the institution: "They do have quite a bit of programs and all over the school they have flyers about different programs they have, about stress or anxiety, that sort of thing," said P23. Students also described learning about mental

health and campus resources through workshops they had completed. Most often, participants described attending workshops for their positions as teaching assistants and learning about mental health and support through those. The comment by P37 illuminates this way of learning:

To be honest, the way that I learned about health and wellness on campus, and the services that they offer, was by teaching on campus. I teach at [Institution name] and being a course instructor out there, you get a bit of training. There are classes available for dealing with students in distress, suicide prevention training, that kind of stuff, which is done through health and wellness. That's where I began finding out about those services on campus. It actually wasn't really through my department at all.

Another source of information for students was student organizations, such as Graduate Student Associations, Graduate Student Unions, or related graduate student groups. Participants indicated these sources provided information about campus resources as well as hosted events and information sessions. Comments from several participants showed the role of these groups; for example:

The GSA at [Institution name] has actually been excellent about publicizing resources and hosting events and information sessions, so that's been really good for information dissemination. . . . It seems that anything that is really spearheaded by the GSA, especially over the past few years, they've had a big focus on wellness in a very holistic sense, so they host a wellness week every semester, but that's really been where any focus on graduate students has come from. (P5)

I believe all the information from the Graduate Student Union is related to graduate students. The types of mental health initiatives and things like that. They post on social media certain services. (P34)

They have these, I believe, these drop-in sessions, that are specific to grad students, because the Grad Students Association organizes a few things and they have different wellness events that they hold. (P23)

While students may be passive receivers of such information, there was also evidence that participants would initiate or play an active role in developing information or support for students. For example, one participant who had been a student president commented on his involvement in creating a mental health resource guide for all incoming students that included information about mental health resources on campus. Another participant described being

involved in student government and supporting the development of a wellness committee. In the following example, the rationale for developing a graduate-student specific initiative is also provided:

In October, which I told you about already, I launched for the first time, a graduate wellness week. In the report I wrote, I said a lot of things, like the majority of services at [Institution name] are targeted for undergraduate students and the studies have shown the same things. And the strategist who was hired for [Institution name]'s mental health strategy just did focus groups with graduate students, and one of the issues relating to graduate students was a lot of graduate students feel that the majority of services at [Institution name] are undergraduate focused. So, I wanted to have a week-long event that had graduate student-specific things about mental health. (P16)

There were other examples of sources of information that were noteworthy, but not mentioned as frequently as e-mail, social media, and posters. For example, course syllabi were mentioned as a way to learn about campus mental health support. P5 and P15 said:

During coursework, some profs on their syllabus included information about mental health in general, like health and wellness resources available on the campuses. (P5)

Every syllabus that I receive has a list of services on it that I could seek out for various things that I'm experiencing. (P15)

And another participant described a graduate wellness ambassador, whose purpose was to provide information about graduate student initiatives to students:

I do know that every department now has an undergraduate and a graduate wellness ambassador. . . , who is given like minimal training, of course, minimal, to help people direct people to resources if they need them, so everybody knows who your person is within your faculty and they know what resources we have on campus, what's going on in town, where to go if a person is suicidal, what to do and where to send them and all that kind of stuff. That's something that's brand new this year. . . . And she sends us weekly emails about here's what's going on this week. There's this workshop on stress management. It's therapy dog day where they bring in the puppies to the library and everybody can go and that kind of thing. She sends out these weekly emails about what's going on and that kind of thing, support services, what's new. (P38)

In discussions of whether students had received information about graduate student-specific programming, different types of initiatives were mentioned. For example, two participants talked about a peer support group that they established:

So, for example, we recently launched what is called the Graduate Peer Support, and I'm sure you've heard of student support things before. But there was no such thing at [Institution name] until this past year because no one thought to have separate peer support services for graduate students, because why would graduate students want to go talk to undergrads about their problems? I certainly wouldn't. So, we started that. (P16)

I'm the person in our department who organizes our peer support group, for disabled students. . . , and then I organize the MAD student group on campus, so I'm willing to connect with students from outside of my department. (P10)

Other students commented on workshops they were aware of. P33 said, "just different skills and social/emotional stuff," and P35 commented on his department's workshops: "usually it's informal sessions, that type of stuff. De-stress, or mindfulness, or talking about how to time manage, or that type of thing."

Even though there were descriptions of the type of general mental health information that was received and graduate student-specific initiatives, it was not uncommon for students to indicate they had not received any information specific to graduate students' mental health or services that were specifically for graduate students. About one third of participants indicated they had not received any information of this type nor had they seen any services specific to graduate students. In general, participants' comments tended to either recognize the limitations in the services for graduate students specifically or recognize how much was available. The following two examples illustrate these two stances. In the first, the participant noted the gaps in the resources and how there is a need to address this:

Specifically towards grad student mental health? Not a lot. I think, a lot to do with accessibility in general and then my role as a senator has been to say, graduate students need to be considered equally and separately in a lot of ways and so there's definitely been discussion, at least in senate, about the unique challenges of graduate students and how we don't have the resources available to tell incoming graduate students, 'This is how your funding works, this is how we can accommodate you in these ways.' So, there is a discussion about some of these holes that graduate students are falling through and they're going to have a big sort of question and answer period with expert panelists coming in soon. And I've advocated for graduate student needs to be discussed specifically at that as well, so there's things that are happening in terms of political discussions but I haven't noticed any changes in terms of the services that I received at a

master's level to now, in terms of large, sweeping changes to graduate student services. (P12)

This is another example of a participant who had an active role in student government and advocating for graduate students' needs, but the quotation also underlines the limitations of what is occurring on campus concerning graduate student mental health. Conversely, in the second example, the participant noted how much has been going on at her institution:

I think [institution name] is, even within the past, because I've been here now five years. I think they're really bolstering their mental health support. There's a whole section in the graduate, if you go on their website, they have a whole wellness section. They offer mindfulness courses. There are thesis writing boot camps where it's like a supportive place to go and talk to other Ph.D. students. They have months, wellness months where they just have activity after activity of just, various activities for grad students. I'm trying to think. There was yoga. There are mindfulness sessions. There was healthy eating, planning. They'd bring puppies in, and you can play with puppies. . . . There are always events going on to highlight the importance of mental health for graduate students. (P8)

Comments about the lack of graduate student-specific support and services similar to those in the first example were also made by other participants. Students felt there was a need for this type of tailored support. P13 commented: "I think services on-campus are definitely geared more toward undergrads, and you can't cookie cut that approach to the grad student problems." Specifically, students expressed the need for counsellors who were familiar with the challenges graduate students face and who were informed about how to deal with this specific population. This perspective is shown in comments such as this:

A few years ago, somebody in my cohort ran for GSA president, like Graduate Student Association President, and one of her foundational pillars was that she was going to argue for a graduate student-specific mental health counselor, and it never happened. So, I don't know if they weren't able to or what. I asked her privately once 'What happened with that?' And she's like 'Oh, they're trying.' But it never happened and I felt like part of the reason that the people I went to weren't equipped to deal with me, is also because they were used to undergrads, and people who are young, people who are binge drinking, and just out of their parents' house, and they weren't equipped for like a 27-year-old person in a graduate program who was dealing with comprehensive mental illness. . . . They weren't equipped. . . , didn't even know how grad school works, they just weren't ready. . . They were ready for 20-year-olds with problems. And I really felt like we needed a

graduate student-specific person, and we haven't had one. So, I'm not impressed with anything on my campus. (P27)

While some commented on how a graduate student-specific counsellor perhaps would have improved their help-seeking experiences, a comment from P16 takes this a step further:

And even in some of the mental health literature that I've read, again not a lot, but in comparing graduate student mental health to undergraduate student mental health and some of the surveys that have been done by the Canadian Federation of Students, it was called Not in the Syllabus, it talked about having graduate student-specific spaces and then also designated counselors/programming. And I know for sure that a number of graduate students. . ., overwhelmingly graduate students say, 'We want to be put into the entrance with the staff and faculty because we hate when our students see us in the waiting rooms.' Because of the way our health services are set up, if you go through a certain door, everyone in the waiting room knows why you're there.

This comment illustrates that there is still concern about the perception of being someone who has a mental illness or someone who seeks mental health support. This may be complicated in the postsecondary environment where graduate students are also employees who teach other students. Participants therefore expressed the need for information, programming, and services that are specific to graduate students' needs.

Accommodations

In this section, I discuss themes related to accommodations for participants who identified as having a mental health disability separately from those who identified as having a mental health challenge.

Student identity - mental health disability. Out of the nine participants who identified as having a disability, three indicated they had received formal accommodations for their mental health condition through an office for students with disabilities during their graduate education. Two of these participants had also received accommodations at the undergraduate level. The primary reason participants did not receive accommodations at the graduate level was because they received informal accommodations. Several participants described different types of

informal accommodations during their undergraduate degree. For example, when asked if he had received formal accommodations, P24 responded:

Thinking of it now, most of them were just between me and the professor. . . . I would email the professor and ask them if I could hand it in late. And I guess we didn't, at the time, have a mandated "have to go through accommodations" policy. I'd ask if I could write the exam at a later date, usually they'd just put me in with one of their other classes, or in just a side room.

In addition to informal exam accommodations, another participant described accommodations for an undergraduate thesis. When asked if she received formal accommodations she responded:

So never anything official. When I talked to my supervisor and I voluntarily sort of said, 'This is what I have.' He sort of orchestrated all of that, and I think his knowledge of anxiety from being a clinical psychologist, he just sort of took that and went with that. But it was all mostly informal except for, maybe getting an official extension for my thesis, which was required. So, I could still graduate and everything. (P12)

Another participant similarly described working one-one-one with professors. He explained why he did not receive formal accommodations:

I wasn't really aware of accommodation services in my undergrad, and certainly wasn't aware of how those things would work for people with mental health issues. I think that my understanding at that point was accommodations were for learning disabilities and I hadn't really thought about the intersection of mental issues and other learning disabilities. (P26)

This participant eventually experienced some challenges during the comprehensive exam stage of his doctoral degree and during that time was trying to negotiate an extension for the completion of his exam. In response to whether he received formal accommodations during that process, he responded: "I wasn't asked to, but I did have medical notes. I was seeing a psychiatrist and a therapist at the university. There was sort of a note made in my file and I had official documentation that I brought with me, but I didn't speak to accommodation services." In this case, it appears the accommodations made within the department were sufficient and the student was not required to go through accessibility services. Another participant experienced a similar situation where she was not required to register with the accommodations office but

instead, spoke to her supervisor: “I took a month off of school, it wasn’t official, it was just between me and her, to try to get calmed down and I spent most of that time seeing doctors and therapists to try to figure out what was going on with me and get on some medication” (P27).

However, while informal accommodations were suitable for some, one participant noted their apprehension surrounding this type of support. They explained that the reason they sought formal services was because of these informal accommodations:

People were seemingly okay with doing informal accommodations, but at some point, instead of actually going to work, there was a suggestion that I just do things secretly, and for my comps, I just start early, so I don’t need extensions, Because I just secretly started early, so I’ve given myself more time, and I was like, ‘Yeah, logically, I suppose that makes sense, but I don’t feel protected by that. I worry that at some point, you’re going to tell me that that wasn’t okay.’ There are different kinds of things that made it not possible to trust folks, and so, then, when people were suggesting informal accommodations, I didn’t feel like that was a good-enough guarantee, and I did register formally.

Specific accommodations. Once students register for accessibility services, they are provided with various types of accommodations. P4 described the accommodations she received during her undergraduate degree, which focused on test-writing and extensions: “For example, I wouldn’t write tests in the gym with everybody else. I would write them in a small room and I would get extra time.” Another participant described receiving similar accommodations in her undergraduate degree: “I think I got extra time on exams. I was able to write in a separate room with fewer people, although I never felt the need to write in a room with fewer people, really. . . . And then extensions on assignments” (P12). At the graduate level, P12 described the accommodations she received at a different institution than where she completed her undergraduate degree:

Very similar I think to undergrad. Technically, I think I have exam writing accommodations, even though that doesn’t happen. I have extensions on assignments and that’s probably the one that I use the most. And then I also have alternatives to presentations and in class participation, which I’ve rarely used. And then I think writing tests in another room, and I actually have used that once, because that particular test I

needed to write in another room. So, very similar to what I had for undergrad, but nothing beyond that at all.

Because these accommodations focused on components of coursework, I asked the participant what would occur once she reached the comprehensive exam, proposal, and dissertation stages. She described what she is considering for her comprehensive exam:

If I were to do the literature review comp, I know that I would need to get that 12 hours changed and to have it split up a little bit more, because I know that would just be an impossibility for me because I'd be so stressed about 12 hours I wouldn't be able to write anything at all.

In addition to this example, P10 also described some accommodations for the graduate level that extended beyond the coursework stage:

I mostly just registered so I can get extra time on my comps, but then, while I was at it, I was like, 'I shouldn't have to defend or have meetings prior to 10 o'clock' or something. I was having a lot of difficulty [doing teaching assistant work at] really late hours, getting home at midnight, and having to get to class at 9 the next morning, and commuting, so, was getting some accommodations around the timing, and scheduling of work, and committee meetings. I was really worried about a defense, or having to defend a comp, or whatever, so I was asking for the questions to be written down. But I haven't activated any of those kinds of accommodations. I think the only ones I've activated, are more time on my comps. (P10)

The difficulty of types of accommodations beyond the course stage of a degree were noted by two participants. P12 commented: "Aside from extending timelines, I'm not aware of much else they can do in terms of thesis accommodations." This challenge was similarly described by P34 when asked whether she received accommodations during a difficult time she was having in her master's:

No [I did not receive accommodations], because it was just me and my thesis. I don't know what accommodations I would have been given, because there's no sort of set 'you have to have your thesis done by this date' type of thing. So, I don't know what accommodations I could have been given.

P12 suggested that those working in accessibility may not know how to accommodate graduate students, as she was told that because she was in graduate school there was “not a lot they could do for [her] at this point.” She argued:

I think there’s a lot more going on in graduate studies that isn’t just course work that accessibility services really needs to think about, or start networking to figure out how to work for graduate students better, because there are so many intricacies going on there. . . . I don’t think that the people who are administering accommodations necessarily know about all of the graduate student resources available to them.

While this participant talks about how those administering accommodations may not know how to accommodate graduate students, students themselves are also often unaware of what accommodations they can receive. This was often the case for students who identified as having mental health challenges.

Student identity- Mental health challenge. Of the 29 participants who identified as having a mental health challenge, two indicated they had received formal accommodations during their undergraduate degree for a physical disability and not their mental health condition. Four additional participants reported receiving formal accommodations related to mental health at some point during their post-secondary education. One of the reasons participants did not utilize accommodations for their mental health condition was because they were unaware they could receive accommodations. In discussion of the challenges she experienced in her doctoral program, P3 was asked if she had received formal accommodations for her mental health condition. She responded: “Well, no we don’t. I don’t think we get formal accommodations for what I have, as far as I know. I’ve never really used it; I don’t really know. . . . I don’t think our program does that for mental health.” While this participant shares her doubt regarding whether a mental health condition would qualify for accommodations, others noted the uncertainty of what specific accommodations could be made. P13 received formal accommodations during his undergraduate degree for a physical disability but had never received accommodations for this

mental health condition. When asked why he did not receive accommodations for the mental health condition at the same time as the physical disability he responded: “I wasn’t really too sure what they would do. I wasn’t sure what an accommodation for depression would be.” P18, when asked whether she was aware of what types of accommodations she would be able to get at the dissertation stage, similarly responded:

Not really. I know one of my friends has stuff on file, so she was able to do her second comp a different way, which I wish I had known back then. She was able to push back on the university. But I don’t really know, as far as dissertation stuff, what kind of accommodations are available. I have not looked into it.

While this uncertainty concerning types of accommodations was one reason that participants did not seek accommodations, responses also revealed a general sense of not wanting to use accommodations. One participant described why they did not use accommodations during a particularly difficult time in their undergraduate degree:

I would say for a variety of reasons. I think that especially the year that I was hospitalized in the psych ward was also the year that I came out as gay. I think that that year accommodations would have made sense, and I think that if I had known that mental health was something that I could get an accommodation for, I might have looked into it, but I also think that I was so terrified of losing the opportunities that I had in my department as a research assistant, that I probably would not have looked into that option just because I would’ve been scared of what the ramifications of being identified that way would have been.

P2 described a similar sense of fear during her undergraduate degree: “With the professors, I kept thinking ‘What if I get a deduction for this?’ I kind of was afraid of any sort of consequences that might come from that. So, no, I didn’t ask for any type of accommodation.”

However, in addition to a fear of what consequences might come from seeking accommodations, P2, as well as others, describe wanting to be able to do things on their own. When asked if she received accommodations, P2 responded: “No, I think I was also overcoming my own internal biases. . . , because I kept thinking ‘I don’t need an accommodation, I can work through this’.” P6 describes a similar thinking pattern that she had during her undergraduate degree: “I actually

walked up to the accessibility center, and I just turned around, and was like, ‘This is silly. I’m getting work done, I’m fine. I’m functioning fine also. What are they going to tell me?’ And so, I just didn’t do it.” As a final example of these thinking patterns, P8 described her perception of accommodations:

I think, even in my undergrad, I wasn’t fully accepting of the anxiety. I didn’t feel comfortable with it. . . . I just felt like it was my fault and I wasn’t dealing with things appropriately, and I can figure this out and I’m not going to get accommodations, because why should I have more time, it’s not fair. I should just be working harder. . . . I had all these internal dialogues that kind of made me not think that I really needed those services, or that I should be using those services. I think that that’s probably the reason I didn’t get any. I think it’s also the type A personality in that I didn’t want to feel less than anyone else. If I was the top of my class it’s because I did it the exact same way as everyone else.

Similar to participants who identified as having a mental health disability, formal accommodations through an accessibility office were sometimes not used by participants with mental health challenges because informal accommodations were provided elsewhere. P38, for example, described a particularly challenging time she was having with her mental health while completing coursework and how informal accommodations were provided:

I needed to take some time away from class and so I had gone to my doctor to get documentation, because I was going to be away. I was taking a course where there was an attendance grade component. . . . I just gave that form to my graduate program assistant and she filed it. I did not go through the accessibility office. . . . And actually, the professor was very understanding as well. I suppose I’ve been very, very fortunate in that way.

While this participant describes how several people worked together to provide the accommodation, P8 described the role of one person in supporting her at a difficult time during her master’s degree:

The head of the department for our program was extremely understanding. So, if I had an issue and I was literally having a mental breakdown, he would take the time, and I could actually go in his office, and I felt comfortable just sitting there talking to him, crying, and telling him what was wrong. We would generally come to some sort of understanding. At that point, I did take some accommodations. So, I got extensions on writing papers, and making sure that my lectures weren’t coinciding having to submit

five things. . . . So I was given accommodations, and I did take them at that point, whereas before I felt a lot worse about taking them. I still felt guilty. But I did seek them out and take them.

Chapter Summary

In chapter five, results for the qualitative dataset were presented. I described the participants and the types of institutions they attended, their educational pathways, their subject areas, their enrollment status, and their gender. I then turned to when participants became aware of their mental health-related challenges and the types of mental health-related challenges that they identified as having. Subsequent discussion focused on whether participants identified as having a diagnosis and, if so, what type of service provider gave the diagnosis. The themes that were identified in participants' definitions of disability were discussed alongside sections about student identity. The academic challenges students experienced at each stage of the doctoral program were presented, followed by a section concerning mental health supports. In the section about mental health supports, I discussed individual coping as well as the informal and formal sources of support that participants reported using. I then detailed how participants' willingness to seek support changed throughout their educational experiences and presented the types of mental health-related information students had received. A discussion of accommodations and students' experiences accessing accommodations concluded the chapter.

CHAPTER SIX: DISCUSSION

Postsecondary students' mental health is a topic that has increasingly been addressed not only in the research literature, but also by media, professional organizations, and institutions themselves. The focus of these discussions is typically the undergraduate student population and, as a result, the graduate student experience has been underexamined. The purpose of this study was therefore to explore the experiences of graduate students, with a specific focus on the challenges they experience and the supports they use to overcome barriers related to their mental health challenges and disabilities. The research questions guiding the study were:

Phase 1: Quantitative

1. How do the experiences of graduate/professional students with a mental health condition compare to the experiences of their peers without a mental health condition in terms of challenges and supports?

Phase 2: Qualitative

2. How do doctoral students with a mental health challenge or mental health disability describe their experiences of doctoral studies?
3. What challenges have students experienced and what supports have they used?

A sequential explanatory mixed-methods design was used. For the quantitative analysis, the 2016 Canadian Reference Group dataset of the National College Health Assessment was analyzed. Comparisons were made between graduate/professional students with and without a mental health condition. Based on responses to three questions, a subgroup of 1,461 participants with one or more mental health conditions was developed. The subgroups of participants without a mental health condition was therefore 3,291 respondents. Qualitative interview data were used to enhance the initial quantitative analysis. A total of 38 interviews with doctoral students in

Ontario were included for this second phase. While 29 of these participants identified as having a mental health challenge only nine identified as having a mental health disability. Where appropriate, qualitative lines of inquiry in the interview protocol were used to explain aspects of the quantitative data, though this was not the primary purpose of the mixed-methods design.

Discussion of Results

Prevalence of (Psychiatric) Disability and Specific Mental Health Conditions

Of the total sample of 4,752 graduate/professional students in the 2016 NCHA dataset, almost 22% reported having one or more disabilities. This is much higher than the prevalence of disability in the sample of students in the CGPSS in 2016, when about 5% of the sample of roughly 50,000 participants self-identified as having a disability. The most frequently reported types of disability in this study were chronic illness and psychiatric condition, with about 8% of the overall sample reporting each of these. Mental health was similarly the most frequently reported disability in the CGPSS data, but it was reported by only 2% of the overall sample. The NCHA and the CGPSS data are the most accurate representations of the prevalence of disability and specific disability types in Canadian graduate students. However, the variance between the two datasets reveals a need for additional research in this area to obtain a more precise understanding of the overall prevalence of disabilities and especially mental health disabilities across Canada.

The NCHA survey question concerning diagnosis of and treatment for mental health conditions in the past 12 months was the only question that could be used to ascertain the prevalence of specific mental health conditions. The most common mental health conditions that were identified in the overall graduate student sample were anxiety (17%) and depression (13%). Anxiety and depression were also the conditions most frequently identified by the interview

participants. This finding is consistent with the literature. Data from the spring 2016 data collection in the United States showed that in the past 12 months, 17% of the graduate/professional student sample had been diagnosed with or treated for anxiety and 13% had been diagnosed with or treated for depression (ACHA, 2016b). Compared to spring 2014 data from the United States, the prevalence for both had increased from 14% for anxiety and 11% for depression (ACHA, 2014).

Comorbidity. Both phases of this study showed that comorbidity was common for graduate students with disabilities. Analysis of the quantitative data found that, of the 1,037 graduate students who reported having a disability, approximately one third indicated they had two or more. This is similar to the rate of comorbidity in the CGPSS data: Of the 2,166 participants with disabilities who indicated what type of disability they had, about one third reported two or more (Clarke, 2019). This was similarly seen in the CGPSS data: when looking specifically at the 991 participants who had a mental health disability, half had more than one disability (Clarke, 2019).

For specific mental health conditions, of those who reported they were diagnosed with or treated for a mental health condition in the past year, about 60% had been diagnosed or treated for more than one condition. This was similarly found within the qualitative data, where 28 out of 38 participants identified as having more than one mental health condition.

Disability Identity

An unexpected finding from this study was that many participants in the quantitative data who responded that they had been diagnosed with or treated for a mental health condition in the past 12 months, or that they had been diagnosed with depression, did not identify as having a psychiatric condition. Overall, 70% of respondents who said they had been diagnosed with

depression at some point did not identify as having a psychiatric condition. Participants' perception of the term psychiatric may be a contributing factor to the low prevalence of psychiatric condition in the quantitative data. It is possible that participants do not view their condition as meeting the definition of a psychiatric condition or that they do not view their condition as a disability. This finding was further explored in the interviews by asking participants if they identify as having a mental health challenge or disability. Only nine out of 38 interview participants identified as having a mental health disability. Participants' discussions of how they define disability and why they did not identify in this way raises questions about how accurate quantitative prevalence data are. Disability was described in terms of interruption in functioning and severity: those who have a disability are worse-off and have more severe challenges. Yet, it was striking to hear participants describe the negative impact their mental health challenge often had on their life and their academic experience. At the same time, however, they did not identify as having a disability or view their condition as disabling. As one participant commented, "there's something about the word disabled" (P3).

This is all to say that how students perceive and understand terms such as psychiatric, disability, and diagnosis may vary and subsequently influence how they respond to self-report quantitative instruments such as the NCHA. Though the limitations of this type of instrument are discussed in the next section, the identity aspect of the qualitative data perhaps indicates that it is how students identify that is important. Whether the participant has a diagnosed condition, is receiving treatment, or views their condition as a disability, that they identify as a person with a mental health challenge is one of multiple identities that shape their experience. In their conceptual model of multiple dimensions of identity, Jones and McEwen (2000) describe how students' identities (e.g., race, culture, gender, family, education, sexual orientation) have varied

importance, and that the importance of these identities can change. Therefore, although students may not view the identity they have developed around their mental health condition as a core element of their identity, it is still one of many identities which influences their perception.

Languishing and Flourishing

In terms of feelings and behaviours linked to poor mental health, it was not surprising to find that more graduate students with mental health conditions reported experiencing these in the past year than those without mental health conditions. However, given most effect sizes were small, it was noticeable that a high number of participants in both graduate student subsamples identified experiencing some of the feelings or behaviours. The finding that 92% of those with a mental health condition and 83% of those without a mental health condition reported being overwhelmed by all they had to do in the past year is different from existing literature, such as the 46% of graduate students in the Hyun et al. (2006) study who reported feeling overwhelmed. Though this difference could be attributed to how old the Hyun et al. study is, the smaller sample size, or the instrument that was used, it demonstrates that certain feelings and behaviours associated with poor mental health may be an issue for all students, not just those with a mental health condition. I previously mentioned the dual continuum of mental health and mental illness meaning that students with mental illness may flourish and those without mental illness may languish (CACUSS & CMHA, 2013). The finding that many students who were not in the subgroup of students without a mental health condition may also relate to the identity findings. Students may experience feelings and behaviours linked to poor mental health but may not identify as a person with a mental health condition.

Stressors and Impediments to Academic Performance

Turning to stressors that are considered traumatic or very difficult to handle, several findings merit further discussion. First, there were significant differences on all types of stressors, but these differences had small effect sizes. Overall, it appears more graduate/professional students with mental health conditions experienced the items in the last 12 months in comparison to their peers without mental health conditions, but with the small effect sizes this requires further investigation. One possible explanation for the difference between the groups is that those with a mental health condition may be more likely to self-report challenges they experience. However, one explanation for the large number of students reporting these items is that the items are interrelated and not distinct in the way that they are presented in the instrument. For example, is it possible that participants reported that career-related issues had been traumatic or very difficult to handle because of their finances? Or, could participants report sleep difficulties that were actually related to a personal health issue that they were experiencing? And, in what ways do these items relate to academics? *Academics* was the most commonly reported item for graduate students with (62%) and without (42%) a mental health condition. The proportion of students without a mental health condition indicating this was traumatic or difficult to handle is consistent with the 40% that was found in the spring 2014 and 2016 data collection in the United States.

Consistent with the literature, mental health and illness had various educational implications for study participants. Overall, the quantitative data analysis showed more graduate students with a mental health condition reported they experienced various impediments to academic performance, and that their academic performance was impacted. Academic performance was also impacted differently based on whether the participant had a mental health

condition or not. However, the effect sizes for the differences that were found ranged from negligible to medium. Only two items (depression and anxiety) had a medium effect size, 16 items had small effect sizes, and the remaining 11 items all had negligible effect sizes. The findings therefore suggest that there may be differences between the groups, but that strength of these differences varies based on the type of impediment. Therefore, there is evidence to suggest that the subgroups may experience various stressors in different ways and that the frequency with which they impeded academic performance may also vary. The qualitative data showed different ways mental health and illness may impact academics. Specifically, participants described how aspects of their program took longer to complete because of their condition. While the existing literature describes a host of factors that contribute to extended time-to-completion, this study showed that the presence of a mental health condition could also be a factor that departments and institutions should consider.

Interview participants described how they faced challenges at different stages of their program. The coursework stage was fairly straightforward for most and it was not until they were completing the comprehensive exam that many faced difficulties. Given that Sverdlik and Hall (2019) found the largest difference in well-being was between the coursework and comprehensive examination stage, this finding was not surprising. The comprehensive exam stage is often cited as a problem area for doctoral students. As Gardner (2009) reported, the candidacy examination “is often the most stressful period of time for the student” (p.96). CAGS has recently been examining the purpose of comprehensive exams and the dissertation in their project called ‘Rethinking the Ph.D.’ In their consultation document on the comprehensive exam, CAGS (2017) reports comprehensive exams typically involve the student responding to a set of questions over a fixed amount of time, but that the purpose of the comprehensive exam is

sometimes unclear. The finding that comprehensive exams were a problem stage for interview participants reveals that further clarity is required. Gardner suggested students can be better prepared for the comprehensive exam stage by being provided with clear expectations of what they are being asked to do. Although all students should be given clear instructions for this stage, this is perhaps even more important for those with mental health conditions.

Information Received/Wanted

Overall, the quantitative data analysis found few differences between participants with and without mental health conditions on questions regarding the topics for which they had received information from their institutions and which topics they wanted more information on. When comparing information received and interest in receiving information, it was topics related to mental health and wellness that were frequently reported, but these were also the topics participants were interested in receiving more information on. Two findings from the qualitative data analysis add to these quantitative findings. First, about one third of interview participants had not received any information about mental health and mental illness specific to graduate students. Second, participants shared that information and services on campus were often geared towards undergraduate students. Combined, the findings suggest graduate students are interested in receiving more information about topics related to mental health and wellness but perhaps this information should be tailored to graduate student needs.

Peers

Findings showed that peers play a critically important role in the educational experiences of students with mental health conditions. Peers create an academic community and are a key source of support for students. Gardner (2007) notes that, at the graduate level, peers may serve as informal mentors, advisors, and supportive colleagues throughout students' programs. The

role of peers in graduate education and the doctoral context specifically is often overlooked in favor of undergraduate students. Flores-Scott and Nerad (2012) argue that the reason peers may be overlooked in the doctoral context is because traditionally this level of education is framed as an apprenticeship model where students primarily learn from faculty members, and their supervisor specifically. Yet, theoretical frameworks of graduate student development and socialization note the role of peers in these processes. In Gardner's (2009) model of doctoral student development, peers are a source of support at each phase of development. Regarding the second phase (completion of coursework and preparation for comprehensive exams), Gardner (2009) notes: "A big part of the relationship development at this phase is built on the empathy that students receive from one another about their stresses, challenges, and concerns" (p. 66). This quotation is in line with findings from the quantitative phase of this study: On-campus peers were often the first point of contact for students when they are experiencing mental health challenges. This is consistent with findings by Mousavi et al. (2018), who examined the mental health concerns of graduate students in a chemistry department using a survey that was developed collaboratively by the student health services office, representatives from the Community of Chemistry Graduate Students, and departmental representatives. In 2013, there were about 100 participants, and overall, they found that participants were less likely to seek help from a professional (such as a doctor or counsellor) than from friends and family members. When asked, "If you felt that your health was being affected by the stress in your life, would you consider consulting any of the following individuals?", 91% of participants said they would consult a friend, and this was the most frequently reported source.

Findings from this study showed that peers are in a position not only to provide informal emotional support, but also to provide information about mental health services and to

recommend mental health support to others. Examining how graduate students are equipped to support and refer fellow students to mental health support is an important consideration in how to support graduate students' mental health. Using a sample of 682 students (only 1% of whom were graduate students), Vidourek, King, Nabors, Lynch, and Merianos (2014) found that students felt confident supporting a friend with a mental health disorder, encouraging a friend to see a counsellor, recognizing a mental health disorder, asking a friend if they are experiencing mental health problems, and that they could convince a friend to see a counsellor. However, little is known about graduate students' confidence in these areas nor their effectiveness. The quantitative findings from this study showed that almost 70% of students from each subgroup (those with a mental health condition and without a mental health condition) wanted more information about how to help others in distress. For this reason, institutions should consider how they are providing this information to graduate students specifically and whether graduate students are using this information in an effective way.

Supervisors

Qualitative findings from this study showed that faculty members play a critical role in the experiences of doctoral students' with mental health challenges and disabilities. This important position of faculty is similarly noted in the literature, where Weidman, Twale, and Stein (2001) suggest that faculty members are in a key position of power where they may be viewed as gatekeepers throughout the doctoral process. Thesis supervisors specifically are in a position where they may be one source of challenge for students, but at the same time, also the greatest source of support. Evans et al. (2018) found that the majority of those who experienced anxiety and depression disagreed with the statement that their supervisor/advisor provided ample

support. Furthermore, when asked if their advisor/supervisor positively impacts their emotional or mental well-being, 48% of those with anxiety and 47% of those with depression did not agree.

The findings from this study highlight the importance of having faculty who are knowledgeable about academic accommodations. Within the existing literature, one study suggested that most faculty members in a sample of 36 were aware of the accommodation process, recognized the importance of the accommodations process for students with disabilities, and were aware of the legal requirements that pertain to them (Bell, 2014). In another study, 71% of respondents said they were familiar or very familiar with the services on campus that provide accommodations to students with disabilities (Baker et al., 2012). While the literature suggests most faculty are familiar with accommodations, findings from the interviews suggest faculty may often provide informal accommodations for students who are not registered with accessibility services. While these negotiated, informal accommodations may suit the needs of students, faculty must also be aware of the institutional support that could be provided. It is recommended that faculty are provided with mandatory professional development that details the process for obtaining accommodations, what these accommodations might be for different aspects of academics (courses, comprehensive exams, dissertation), and what faculty responsibilities are in supporting students in this process.

In addition to being knowledgeable about academic accommodations, faculty may also be the first person at the institution that a student discloses their mental health struggles to. It is therefore critical that faculty are prepared to handle these situations. It is recommended that faculty have training in mental health first aid so that they have some knowledge in managing these situations. The principles of mental health first aid are to recognize a change in behaviour, respond confidently, and guide to appropriate resources and supports. Several studies have

looked at familiarity of services to determine how knowledgeable faculty members are regarding on-campus supports. Becker et al. (2002) found 63.4% of faculty indicated they were very familiar or somewhat familiar with the campus mental health services, such as counselling. Becker et al. also found that confidence in ability to deal with students with mental illness were related to the number of referrals and accommodations that a faculty member made. This means that faculty who are very familiar with services are also more likely to refer students to the university counselling center. Though it is important that faculty have some knowledge in how to manage situations regarding disclosure, they should not be viewed as mental health professionals. It is therefore important that institutions and departments have clear policies regarding the role of faculty in handling these situations so that faculty are clear on what their responsibilities are.

Use of Formal Mental Health Services

Unsurprisingly, more of the graduate students with mental health conditions reported receiving psychological or mental health services from each of the examined sources. However, it should be noted that about one quarter of those in the sample of students without a mental health condition also reported they had received psychological or mental health services from a counselor/therapist/psychologist. A smaller number of students also reported receiving support from the other sources (psychiatrist, other medical providers, religious source). In light of the findings related to identity, it is possible that the students without a mental health condition could meet the criteria for a mental illness diagnosis, but do not view themselves as having a mental health condition. Because of this, they may not report that they had been diagnosed or treated for a condition in the past 12 months, or that they had been diagnosed with depression. It is also

possible that they had received support outside of the past 12 months. This perhaps speaks to the episodic nature of certain mental health conditions.

Quantitative analyses showed that 45% of those with a condition and 12% of those without had sought support from their current college or university. However, the survey instrument does not inquire about use of off-campus support. Phase 2 of the study found that, out of the 35 participants who accessed some form of mental health support during their doctoral studies, 13 used on-campus support services, 14 used off-campus support services, and 8 used both on- and off- campus support services. It is possible that a number of participants in the quantitative data sought support from an off-campus source and that these percentages do not provide a complete understanding of graduate students' help-seeking.

It is important to consider the relationship between campus and community mental health services, as students often use only off-campus services or a combination of on-and-off campus services. This may be particularly relevant given that many students would not travel to the main campus (depending on location) if they require counselling services (McCarthy et al., 2010). Supporting students by providing information about off-campus services may be one way that institutions can address concerns about wait-time for appointments and limits on the number of appointments.

Implications

For Policy

Most institutions across Canada have developed policies on student mental health and accessibility. However, these policies and strategies often overlook the graduate student population. During a time when the number of students enrolling in graduate programs continues to increase, it is of utmost importance that policymakers consider the needs of graduate students

with disabilities and mental health conditions specifically. I recommend that institutions revisit their policies to ensure that they address this subgroup of students. Revisiting the “Post Secondary Student Mental Health: Guide to a Systemic Approach” report by the CACUSS and CMHA would yield insights into how institutions can create a culture that is inclusive of the graduate student population. In the report, seven components for mental health strategy development are outlined:

1. Institutional Structure: Organization, Planning and Policy
2. Supportive, Inclusive Campus Climate and Environment
3. Mental Health Awareness
4. Community Capacity to Respond to Early Indications of Student Concern
5. Self-Management Competencies and Coping Skills
6. Accessible Mental Health Services
7. Crisis Management

Policymakers should ask, for example, whether and how *graduate* students’ mental health is supported within an institution’s strategic goals and resource allocation; how *graduate* students’ voices and perspectives are represented in institutional structure, planning, policy, practices and processes related to student mental health; whether there are services offered in a variety of formats that would meet the needs of students who are located off-campus; and whether staff in counselling and medical centers trained to work effectively with the challenges faced by graduate students specifically.

For Theory

An unexpected component of this study was the examination of identity and whether students identified as having a mental health disability. Overall, disability identity development

has been an underexplored area, resulting in a lack of literature pertaining to postsecondary students' disability identity development. It was only recently, in the 3rd edition of *Student Development in College: Theory, Research, and Practice*, a book often used in student affairs coursework, that disability identity was examined. Patton et al. (2016) discuss two ecological approaches and two-stage models of disability identity development, but only one of the models was developed based on research of postsecondary students with disabilities. In their study at one institution in the United States, Forber-Pratt and Aragon (2013) conducted observations in residence halls and in an accessibility office and interviewed four students with physical disabilities to understand their perceptions of disability culture and how they entered and came to identify with this culture. The phases in this model are: Acceptance; Relationship; Adoption; and Giving Back to Community.

Forber-Pratt and Aragon explain how individuals go through an acceptance process regardless of whether they are born with a disability or whether it was acquired later on. During this process, participants may go through these stages of grief: denial; anger; bargaining; depression; and acceptance. With only nine out of 38 participants in this study identifying as having a disability, most participants would be at this phase of identity development. Although most participants did not identify as having a disability, some had developed acceptance around having a mental illness. The subsequent Relationship phase is when relationships are developed with others who have disabilities and a person learns the ways of the disability culture. In this study, interview participants described the critically important role that peers had as academic and mental health support and how a sense of community was developed. Social justice is a key component of the Adoption stage and the final stage is Giving Back to the Community. Forber-Pratt and Aragon describe how, when one becomes part of the disability culture, they have a

responsibility to help “pave the way for others” (p. 10). Again, although participants in this study may not have identified as having a disability, there were several who had not only accepted their condition but who had become mental health advocates, had shared their experiences with mental illness, and taken specific actions to address graduate students’ mental health at their institution.

Few participants described developing a disability identity and being part of the disability community. However, it is noteworthy that participants described a process whereby they would come to terms with or accept their mental health condition, in the same way that one would with a disability. This study therefore raises questions about the trajectory of how those with a mental health condition develop identity around their condition and how this trajectory might compare to their peers with a mental health disability.

For Research

This study lays the groundwork for many different areas of future work. In particular, more quantitative data need to be collected. Furthermore, these data must be more accurate in reflecting graduate-level studies. For example, demographic questions on level of studies should differentiate between master’s and doctoral level students so that comparisons can be made between these two groups. Additionally, a year of study variable should subsequently capture the year students are in within each of these levels. In doing so, we could then examine differences in mental health status, challenges, and supports according to how long students have been in their doctoral program. This is especially important as the conversations about attrition continue to gain momentum. Collecting data with graduate-level studies in mind would also mean paying particular attention to whether questions about academic progress or impediments to academic performance include specific tasks that are completed at this level. These data could then

illuminate how graduate-level studies could be improved not only for those with mental health challenges, but for all graduate students. Collecting additional quantitative data that is geared towards graduate students is my primary recommendation for future research. However, in the sections that follow I provide additional recommendations for future research that would extend this study.

Delimitations and Limitations

Positionality

It is important to acknowledge that I completed a study on graduate students' mental health while I too was a graduate student. This is particularly relevant to the qualitative phase of the study, as my positionality could have shaped not only the data that were collected but also the data analysis. For data collection, my position as a graduate student could have fostered trust with the participants that allowed for more open dialogue about their experiences. An inductive data analysis approach means my position as a graduate student could also have influenced the themes that I derived from the data. I did not take steps to strengthen the trustworthiness of the findings and this should be considered a limitation of the study. However, steps could be taken in the future to strengthen the credibility. For example, peer debriefing is a technique that Lincoln and Guba (1985) describe as "a process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind" (p. 308). Member checking could also be completed. This technique is a process "whereby data, analytic categories, interpretations, and conclusions are tested with members of those stakeholding groups from whom the data were originally collected" (Lincoln & Guba, 1985, p. 314).

Self-Reporting

The self-report nature of both the NCHA and the interviews should be considered a limitation. For the quantitative work, respondents may have indicated they had been diagnosed with a mental health condition, but whether the diagnosis is from a certified health practitioner is unclear. Therefore, it is not possible to know whether the respondents who were in the subgroup of students with a mental health challenge meet certain DSM-IV criteria for a mental illness. Similarly, the interviews were framed with student identity in mind and as a result, I sought participants who personally identified as having a mental health challenge or disability. Students did not complete a clinical screener to determine if they did in fact have a mental illness. The self-report limitation for both the quantitative and qualitative phases opens the possibility for additional research to be completed that does use a clinical measure to determine whether participants have a mental illness. Quantitatively, this would allow for more accurate comparisons to be made between those with a mental illness and those who do not have a mental illness and for a more precise understanding of prevalence to be acquired.

Additionally, only one interview was completed with each of the participants so the data could have been collected at a particularly stressful time. Future research could involve collecting data at multiple points throughout the students' programs and throughout the academic year, to further understand how the challenges that are experienced and supports that are used change throughout the doctoral programs.

Enrollment Status

Turning to the qualitative phase of the study, the screening criteria I used are considered delimitations. For example, I sought participants who were *currently* enrolled in a doctoral program. During the recruitment stage, I was contacted by several prospective participants who

indicated they were not current students but they wished to participate. For example, one person who contacted me eventually had to withdraw from their program due to their mental health and the barriers they faced. It would be beneficial to conduct additional work that broadens the scope to this perspective.

Another aspect of enrollment status that is not considered in this study is part-time versus full-time status. The few participants in the study who were part-time students had previously been full-time, and had switched to part-time after the funding period ended. No comparisons were made between the experiences of these participants and those who remained full-time because of the limited number of participants who were part-time. Research examining mental health differences based on part-time versus full-time status would add to existing work that focuses on the part-time doctoral student experience (See Gardner & Gopaul, 2012; Zahl; 2015).

Disability

I originally aimed to include enough participants who identified as having a mental health disability to be able to compare their experiences to the experiences of those who identified as having a mental health challenge (and not a disability). In the end I did not complete this comparative analysis for several reasons. The primary reason was that there was an underrepresentation of those with mental health disabilities, with only about a quarter of my participants identifying in this way. Due to time restrictions I did not complete further recruitment to obtain additional participants with this perspective. The second reason I did not complete these comparisons was because data analysis showed that several of the participants who identified as having a disability had never done so prior to participating in this study. Therefore, while this study does offer insight into why doctoral students with mental health challenges do not identify as having a disability, the perspectives of those who have developed a

disability identity is not represented by a large number of participants. Future work should therefore focus on purposeful sampling of those who identify as having a mental health disability. In doing so, this work would be more intentional about capturing the perspectives of those with disabilities and could explore identity and accommodations in more depth. More specifically, it would be interesting to examine what led those who identify as having a mental health disability to identify in such a way. One participant who identified as having a disability in this study did so in order to access accommodations. If this is a common reason for identifying in such a way, this could raise the issue of universal design for learning and the question of why the environment is designed in a way that some students require accommodations.

Data Analysis Approach

The overall purpose of the quantitative phase of this study was to obtain an understanding of Canadian graduate students' mental health, the challenges they experience and the supports they use. A basic descriptive analysis approach was taken with some interpretive statistics. This means that I did not control for whether differences were due to other variables such as institution type, gender, sexual orientation, or discipline.

Though presented demographic information included type of institution for the participants, analyses did not compare across these institution types. The majority of the participants came from the Medical/Doctoral Maclean's category (58%), so there was not an even distribution of participants across the categories. An extension of this study could therefore examine how institutional type might influence doctoral students' mental health, the challenges they experience, the supports they use, and the relationship between these items and their academic performance. Other frameworks for categorizing institutions should be used to further capture institutional differences in addition to level of research funding, diversity of course

offerings, and breadth of graduate/professional programs. For example, number of students, types of student services offered, and athletics, could be institutional characteristics used to examine differences based on institution type.

When considering gender, the quantitative analyses found that a higher proportion of graduate students with mental health conditions indicated they were female (75%), while only 66% of those without a mental health condition responded they were female. In the interview phase, 27 of the 38 participants identified as female. There was therefore an overrepresentation of participants in both phases who identified as female. This research therefore may not fully capture the perspective of those who identify with other genders nor does it identify what differences might exist in terms of challenges that are experienced and supports that are used. Existing work shows there are differences based on gender. For example, female graduate students report higher levels of stress (Oswalt & Riddock, 2007) and female graduate students are known to be more likely to seek mental health support (Hyun et al., 2006). Supplementary work could therefore investigate whether differences that exist based on gender in terms of mental health might shape academic performance in different ways.

Turning to sexual orientation, higher proportions of respondents with a mental health condition indicated they identified in a way that was not heterosexual. These response options were bisexual, gay, lesbian, pansexual, queer, questioning, same gender loving, or another identity. Some literature exists that compares mental health indicators of students based on sexual orientation. For example, Oswalt and Wyatt (2011) found that gay, lesbian, bisexual, and unsure students report higher levels of mental health issues and a more frequent impact on academics, in comparison to heterosexual students. A limitation of this study is that it does not address what differences might exist based on this variable.

For discipline, a limitation of the NCHA is it does not differentiate between graduate and professional students and, as a result, I was not able to complete preliminary analyses to establish that differences between these groups existed. However, because of existing literature noting that differences exist between these populations, the scope of the qualitative component was limited to doctoral students in non-professional programs. Yet, interview participants were still from a range of disciplines, and analyses did not compare across the disciplinary groupings. There is room for additional work that examines whether there are disciplinary differences in non-professional programs, especially in light of existing research that compares doctoral student experiences across disciplines (see Gardner, 2007; Gardner, 2010), some of which has a mental health lens (see Hyun et al., 2006; La Touche, 2017).

Now that an overall understanding of the Canadian graduate/professional students has been obtained, subsequent work should extend this and utilize other analytic methods such as statistical modelling to examine variables such as these in more depth.

Conclusion

This study contributes to the existing literature on graduate students' mental health and academic experiences. Based on a dataset with a national sample of 1,461 graduate students and another dataset of 38 interviews, the findings show the critical role that mental health has in the graduate student experience. The findings from this study suggest there are differences in terms of the challenges experienced, supports that are used, and the academic performance of graduate students based on the presence of a mental health challenge or mental health disability. In light of these findings, stakeholders are encouraged to consider how institutional policies and procedures, student services programming, and academic programs alike provide mental health information and support that is tailored to the needs of this population.

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Appendices

Appendix A: Data Use Permission Letter



December 5, 2016

Kathleen Moore
University of Toronto
10 Garner Ave
Welland, ON L2B3X6

Dear Kathleen,

Thank you for submitting a request to use ACHA-NCHA data in your project, “Exploring Canadian Graduate/Professional Student Stress, Mental Health, and Academic Performance.” Your request has been approved and enclosed you will find the ACHA-NCHA Reference Group Datasets you requested and the corresponding survey codebooks. Both institutional and student identifiers have been removed from the files.

Changes were made to the ACHA-NCHA Iib survey instrument beginning Fall 2015. The ACHA Iic now includes E-cigarettes in items #8A and #9A. Items #20 (sexual partners), #47 (sex and gender identity), and #48 (sexual orientation) have been revised. **Data from these items should not be compared with data collected before Fall 2015.** A new variable has been computed based on sex at birth and gender identity. The new variable is used to sort cases into groups- female, male, non-binary, and missing. **Caution should be used when comparing data sorted by gender (RNQ47) using data that were collected before Fall 2015.**

I have enclosed a copy of our data use guidelines and agreement for your information. Your signed copy is on file in my office. Please note that additional studies using the ACHA-NCHA data acquired through this request require submission of a new data use request to the ACHA-NCHA Program Office.

As stated in the agreement, we would appreciate a copy of any final products that result from your research. We also ask that you add the following disclaimer to any article or presentation you make using the ACHA-NCHA data:

The opinions, findings, and conclusions presented/reported in this article/presentation are those of the author(s), and are in no way meant to represent the corporate opinions, views, or policies of the American College Health Association (ACHA). ACHA does not warrant nor assume any liability or responsibility for the accuracy, completeness, or usefulness of any information presented in this article/presentation.

Please don't hesitate to contact me if you have any questions.
Best of luck with your research,



Mary Hoban, Ph.D., MCHES
Director, ACHA-NCHA Program Office

Enclosure: ACHA-NCHA Data Use Guidelines and Agreement

Data Use Guidelines

The ACHA-NCHA data contain information about high-risk behaviors, and all data are confidential. ACHA will not release data on any institution, nor will it release data sets where it is possible to identify any participating schools. Individuals who are granted access to any ACHA-NCHA data must adhere to ACHA's data use guidelines, which follow. Failure to sign or to adhere to the attached agreement will result in immediate termination of data use privileges.

The accuracy of the users' statistical analyses and the findings they report are not the responsibility of the American College Health Association. ACHA shall not be held liable for improper or incorrect use of the data.

Data Use Agreement

By signing below, I agree to the following:

- I acknowledge that the ACHA-NCHA data is the exclusive property of ACHA. The data is confidential and proprietary, and I will take all reasonable precautions to prevent unauthorized disclosure or access, including through necessary communications with, and oversight of, the persons named herein. I will use the data solely for the purposes stated, and I shall not transfer the data to, or share the data with, any person not identified in this Request Form. Upon completion of my use of the data, or at any time if so directed by ACHA, I shall return the data to ACHA, without retaining a copy, and shall purge such data from any print or electronic records.
- I will reference the American College Health Association when reporting any data obtained from the ACHA-NCHA utilizing the following standard format (items in red font are specific to the data you receive and must be completed appropriately):

American College Health Association. American College Health Association-National College Health Assessment, Survey Period(s) [data file]. Hanover, MD: American College Health Association [producer and distributor]; (YYYY-MM-DD of distribution).
- I will include the following disclaimer language in any published article or presentation:

The opinions, findings, and conclusions presented/reported in this article/presentation are those of the author(s), and are in no way meant to represent the corporate opinions, views, or policies of the American College Health Association (ACHA). ACHA does not warrant nor assume any liability or responsibility for the accuracy, completeness, or usefulness of any information presented in this article/presentation.

- I will grant access to ACHA-NCHA data to only those individuals specified in this *Data Use Request Form*. Should the need to grant access to additional individuals arise, I will contact the ACHA Research Director immediately.
- If my institution requires, I will obtain all necessary Institutional Review Board (IRB) approval for secondary data analysis prior to beginning my research, and I will provide ACHA with appropriate documentation of IRB approval.
- I will provide ACHA with any final products produced using ACHA-NCHA data, which include but are not limited to: professional journal manuscripts, professional conference presentations, student theses/dissertations, book chapters, policy documents, fact sheets, and brochures.

Signed copy on file at ACHA, 11-21-2016

Appendix B: Ethics Approval Letter



OFFICE OF THE VICE-PRESIDENT,
RESEARCH AND INNOVATION

RIS Protocol
Number: 34284

Approval Date: 5-Feb-19

PI Name: Kathleen Moore

Division Name:

Dear Kathleen Moore:

Re: Your research protocol application entitled, "Investigating the experiences and academic success of graduate students with mental health challenges or disabilities: A mixed methods study"

The Social Sciences, Humanities & Education REB has conducted a Administrative review of your application and has granted approval to the attached protocol for the period 2019-02-05 to 2020-02-05.

Please be reminded of the following points:

- An **Amendment** must be submitted to the REB for any proposed changes to the approved protocol. The amended protocol must be reviewed and approved by the REB prior to implementation of the changes.
- An annual **Renewal** must be submitted for ongoing research. You may submit up to 6 renewals for a maximum total span of 7 years. Renewals should be submitted between 15 and 30 days prior to the current expiry date.
- A **Protocol Deviation Report (PDF)** should be submitted when there is any departure from the REB-approved ethics review application form that has occurred without prior approval from the REB (e.g., changes to the study procedures, consent process, data protection measures). The submission of this form does not necessarily indicate wrong-doing; however follow-up procedures may be required.
- An **Adverse Events Report (AER)** must be submitted when adverse or unanticipated events occur to participants in the course of the research process.
- A **Protocol Completion Report (PCR)** is required when research using the protocol has been completed. For ongoing research, a PCR on the protocol will be required after 7 years, (Original and 6 Renewals). A continuation of work beyond 7 years will require the creation of a new protocol.
- If your research is funded by a third party, please contact the assigned Research Funding Officer in Research Services to ensure that your funds are released.

Best wishes for the successful completion of your research.

Appendix C: Online Advertisement



My name is Kathleen Moore and I am a doctoral candidate in Higher Education at the Ontario Institute for Studies in Education/ University of Toronto. I am looking for doctoral students who would like to participate in my study titled: “*Investigating the Experiences and Academic Success of Graduate Students with Mental Health Challenges or Disabilities: A Mixed Methods Study.*”

Overview of the Study

The purpose of the present study is to understand the experiences of doctoral students from Ontario who identify as having a mental health challenge and disability. Specifically, the focus is previous educational experiences, current help-seeking practices through support services, disclosure, academic success, and the workplace. The study uses a sequential-mixed methods design in which quantitative data from the Spring 2013 Canadian dataset of the National College Health Assessment are examined first to begin investigating the experiences of graduate students with mental health challenges and disabilities.

For the qualitative part of the study, I am looking for Ph.D. students in Ontario who:

- Self-identify as having a mental health challenge or a mental health disability
 - If students have multiple disabilities, one of the disabilities must be a mental health disability
- Currently enrolled in a Ph.D. program at a University in Ontario
- Are not registered as an international student
- Are enrolled in a program that is **not** considered a professional program (Examples of professional programs include: chiropractic, dentistry, law, medicine, optometry, chiropractic medicine, pharmacy, theology, veterinary medicine, law, and/or clinical psychology programs)
- **Are willing to complete open-ended questions on the phone, on Skype, or in person (if located in the Greater Toronto Area). We anticipate the questions will take approximately 60-90 minutes to complete.**

If you meet these criteria, please go to [SURVEY GIZMO LINK] to begin the Screening.

Kathleen Moore
 Ph.D. Candidate
 LHAE, OISE
 University of Toronto
 E-mail:
 Phone:

Dr. Ruth Childs
 Professor
 LHAE, OISE
 University of Toronto
 E-mail:
 Phone :

Appendix D: Screening Questionnaire



UNIVERSITY OF TORONTO
OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

My name is Kathleen Moore and I am a doctoral candidate in Higher Education at the Ontario Institute for Studies in Education/ University of Toronto. I am looking for doctoral students who would like to participate in my study titled: *“Investigating the Experiences and Academic Success of Graduate Students with Mental Health Challenges or Disabilities: A Mixed Methods Study.”*

Overview of the Study

The purpose of the present study is to understand the experiences of doctoral students from Ontario who identify as having a mental health challenge and disability. Specifically, the areas of focus are:

- 1) How doctoral students’ mental health challenges or disabilities affect their academic success;
- 2) How the challenges and support systems that doctoral students with mental health challenges or disabilities experience during their current studies compare to those they experienced in their undergraduate and master’s degrees;
- 3) How doctoral students believe their mental health challenges will affect them once they are in the workplace, whether that be academic or elsewhere.

What will I be asked to do?

If you are interested in participating in the study, on the next page you will be asked 4 screening questions that will determine if you are eligible to participate. If you are eligible, you will be asked to provide your name and institutional email address so that I can contact you to arrange a date, time, and location for an interview. This interview will include questions concerning previous educational experiences, current help-seeking practices through support services, disclosure, academic success, and the workplace.

INTERESTED IN PARTICIPATING?

CLICK NEXT TO SEE IF YOU MEET THE CRITERIA

[NEXT]

1. Do you identify as having a mental health challenge or disability?
 - a. Yes
 - b. No [participant is sent to thank-you for interest but not eligible page]

2. Are you a student enrolled in a doctoral program?
 - a. Yes

- b. No [participant is sent to thank-you for interest but not eligible page]
3. Are you registered as an international student?
- a. Yes [participant is sent to thank-you for interest but not eligible page]
- b. No
4. Are you currently registered in, or most recently registered in, a professional program*?
- a. Yes [participant is sent to thank-you for interest but not eligible page]
- b. No

*A professional-stream graduate program is a master's or doctoral program that does not require the creation or defense of a thesis. While these programs may contain significant research components (e.g., major research projects, capstone projects), there is less requirement for independent research. These programs may be more course-based, may include practicum or placement learning opportunities, and may be more restricted in terms of time to completion. These professional degrees are typically needed to practice in a profession that requires licensure.

Examples of professional programs are chiropractic, dentistry, law, medicine, optometry, chiropractic medicine, pharmacy, theology, veterinary medicine, law, and/or clinical psychology programs.

[SUBMIT BUTTON]

Congratulations! You are eligible to participate in the study.

If you are interested in discussing your experiences as a doctoral student with a mental health challenge or disability on Skype, on the phone, or in person (in the Greater Toronto Area) please provide your name **and** institutional email address below so that you can be contacted to arrange a suitable date and time. This information will remain confidential.

Name: **Institutional E-mail:**

If you do not want to participate in the interview the data from this screener will not be used in the study. Thank you in advance for your interest in this study.

Kathleen Moore
 Ph.D. Candidate
 Department of Leadership, Adult and Higher Education
 OISE/University of Toronto
 E-mail:

Dr. Ruth Childs
 Professor
 Department of Leadership, Adult and Higher Education
 OISE/University of Toronto
 E-mail:

Appendix E: Informed Consent Form



UNIVERSITY OF TORONTO
OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

Study Title: Investigating the Experiences and Academic Success of Graduate Students with Mental Health Challenges or Disabilities: A Mixed Methods Study

Purpose of Study

The purpose of the present study is to understand the experiences of doctoral students from Ontario who identify as having a mental health challenge and disability. Specifically, the focus is: 1) How doctoral students' mental health challenges or disabilities affect their academic success; 2) How the challenges and support systems that doctoral students with mental health challenges or disabilities experience during their current studies compare to those they experienced in their undergraduate and master's degrees; 3) How doctoral students believe their mental health challenges will affect them once they are in the workplace, whether that be academic or elsewhere.

Participation

Participation in the study involves completion of a semi-structured interview. The interview will be approximately 60-90 minutes in length. You are able to complete the questions on the phone, on Skype, or in person (if located in the Greater Toronto Area).

If you complete the questions on the phone, Skype, or in person, you will be provided with a \$30 gift card.

Confidentiality, Withdrawal Procedures, and Risks/Benefits

While the information provided by participants in this study will be used primarily as an exit requirement for my doctoral degree, the information may also be used in academic publications and/or conference presentations. The information you provide will be kept confidential and I will not reveal your name or any identifiable information in the thesis, any research articles, or presentations. A pseudonym will always be used in lieu of your name so that you cannot be identified.

You can skip any questions you do not feel comfortable answering and you can discontinue your participation at any time. The interviews will be audio-recorded and the audio files will be sent to a transcriber for verbatim transcription. The transcriber will sign a confidentiality agreement to ensure that the data will remain confidential. Once I receive the transcribed interviews, I will assign a pseudonym to the data. Your real name will then no longer be associated with your data and thus, once this process takes place you will no longer be able to withdraw your data. If you choose to withdraw from the study prior to being assigned a pseudonym, the information provided during the initial screening will also be deleted.

My supervisor, the transcriber, and I will have access to the data and all data will be encrypted and stored on encrypted personal computers. Once transcription is complete, the transcriber will be asked to delete all transcriptions and audio files. All data that my supervisor has or that I have will be destroyed after 5 years.

There is a risk that you may feel uncomfortable or become upset by responding to questions in the study. You will be given a list of resources and support services that you may wish to access if you feel this way. There are no personal benefits to you for participating in the study; however, your participation will help us gain a better understanding of the doctoral student experience particularly concerning mental health challenges and disabilities. This may lead to greater awareness of the topic and development of appropriate support systems.

Limits to Confidentiality

- The research study may be reviewed by the Research Ethics Program to ensure participant protection procedures are followed.
- Every effort will be made to maintain confidentiality. However, if you disclose imminent risk of suicide or serious harm to self or others, the researcher will have to breach confidentiality to report this. The researcher will report as required. Only information that is relevant to the circumstances if your disclosure will be shared.

Questions?

If you have any questions, please feel free to contact me by e-mail at _____. The study is being carried out under the supervision of Dr. Ruth Childs, Full Professor at the Ontario Institute for Studies in Education/ University of Toronto, who can be contacted at _____. Finally, if you have any questions about your rights as a participant in this study you can contact the Office of Research Ethics at the University of Toronto by email ethics.review@utoronto.ca or by phone 416-946-3273.

Thank you in advance for your participation and interest in this study.

Kathleen Moore
Ph.D. Candidate
Department of Leadership, Adult and Higher Education
OISE/University of Toronto
Telephone:
E-mail:

Dr. Ruth Childs
Professor
Department of Leadership, Adult and Higher Education
OISE/University of Toronto
E-mail:

By signing below, you are indicating that you are indicating that you are willing to participate in the study, you have received a copy of this consent form, and you are fully aware of the conditions above.

Name (print): _____

Signature: _____

Date: _____

Please initial if you would like a summary of the findings of the study upon completion: _____

Appendix F: Interview Protocol

Introduction

- a) Provide overview of the study
- b) Discuss consent form
- c) Ask participant where he/she is currently located

Student Information and Background

- a) What gender do you identify with?
- b) What is the subject area of your master's and doctoral program?
- c) Did you switch universities between undergrad and master's, master's and Ph.D.?
- d) Did you take a break in between programs or go right through?
- e) Did your master's program have a thesis component?

Identity

- a) When did you first become aware of your mental health challenge / disability?
- b) If you are comfortable disclosing, can I ask which challenges/disabilities you experience?
 - a. Do you have more than 1 mental health challenge / disability?
- c) Did you receive a diagnosis for these conditions? From what kind of service provider?
- d) What is your understanding of the difference between a mental health challenge and a mental health disability?
- e) Has your understanding of these terms changed over the years?
- f) How do you, as a student with a mental health challenge (but not a disability) envision your experience in graduate school might differ if you had a disability and sought accommodations?

Previous Educational Experiences

- a) What kinds of challenges, if any, did you experience in your undergraduate program due to your mental health condition?
- b) How did you overcome these challenges? Did you access mental health support or disability services?
- c) Did you receive any accommodations during your program? Why or why not?
- d) How did your experience in your undergraduate degree compare to your experience in your master's program, specifically in terms of the challenges you experienced and supports you used?

Current Experiences- Academic Progress and Success

- a) When did you start your current program?
- b) Can you describe what your program entails and what the timeline is that you have followed through your program? (i.e., when did you completed courses, comprehensive examinations etc.)

- c) According to your department, what is the expected time-to-completion for your program? Are you on-track to complete your program in this time?
 - a. If yes, what factors have contributed to you staying on-track?
 - b. If not, what barriers have you experienced that have caused a delay in completion? What role has your mental health played in this?
- d) How do you feel that your mental health condition has affected your academic success in the different stages of your program (coursework, proposal etc.)?
- e) How do you think your experience in these areas might differ from a peer without a mental health condition?
- f) On the survey, one question asked participants whether a bunch of items had been traumatic or very difficult to handle in the past 12 months. Career-related issues was the only item where more graduate students reported it in comparison to undergraduate students with mental health conditions.
 - a. What kind of career-related concerns have you experienced during your current program and how might these differ from what you experienced in your undergraduate program?

Current Experiences- Help-Seeking and Support Services

- a) What kind of services or accommodations have you used during your doctoral program to overcome challenges related to your mental health condition? (e.g., peers, faculty, counselling services, e-health, accessibility services)
- b) How would you describe your experience of seeking support as a doctoral student? How does this experience compare to your experience as an undergraduate or master's student?
- c) From the survey, I found that in comparison to undergraduate students, more graduate students with mental health conditions indicated they would seek mental health support in the future if they were having a problem (95% vs 87%). Has your willingness to seek support changed since you were an undergraduate student and, if so, how?
- d) Have you received information about mental health/ mental health support from your department, faculty, institution that is specifically geared towards graduate students? (examples of types of information: depression/anxiety; how to help others in distress; sleep difficulties; stress reduction)
- e) Do you have any suggestions for what forms of institutional support could be offered to graduate students with mental health challenges/disabilities?

Appendix G: Mental Health Support Resource List

Helplines and Websites for Information about Mental Health

Mental Health Helpline: this helpline provides community information about where to get information and supports in your area and they also operate a chat line. Find more information about this service at <http://www.mentalhealthhelpline.ca> or call them at 1-866-531-2600.

ConnexOntario: www.connexontario.ca. Provides free and confidential health services information for people experiencing problems with alcohol and drugs, and mental illness or gambling.

Distress and Crisis Ontario: www.dcontario.org. Offers support and a variety of services to their communities. Available 24 hours a day 7 times per week. They provide their listening and referral services primarily through highly trained and committed volunteers.

Good2Talk: <http://www.good2talk.ca>. Good2Talk is a free, confidential helpline providing professional counselling and information and referrals for mental health, addictions and well-being to post-secondary students in Ontario, 24/7/365. Visit the website for more information or call 1-866-925-5454.

Helpguide.org: <http://www.helpguide.org/.htm> provides information to help understand mental health and to develop coping strategies.

Canadian Mental Health Association- Ontario. <http://ontario.cmha.ca/about-us/#.WLXR7BgZPwc>
CMHA Ontario works closely with its 31 local branches in communities across the province to ensure the utilization of best practices in the organization, management and delivery of services to consumers and families of individuals with mental illness, dual diagnosis and concurrent disorders.

Options for Counselling

Ontario Psychological Association: The Ontario Psychological Association has a referral service to link individuals with psychologists for treatment or assessment. Visit the web page: <http://www.psych.on.ca/Utilities/Find-a-psychologist>.

Ontario Psychotherapist Referrals for Psychotherapy and Counseling: The service can help you find a Counselor or Psychotherapist in Ontario to help with short or long-term life challenges, such as: depression, anxiety, anger management, obsessive compulsive disorder, gender identity issues, relationship problems, struggles with addictions and other challenges you might be experiencing. Visit <http://referrals.psychotherapyandcounseling.ca> for more information.

Ementalhealth: Mental Health Services, Help and Support in Your Community. This website includes various section such as key resources and description of mental health conditions, and information about what to do in a crisis or emergency. Additionally, you can find links to various options for counselling, therapy, and support groups in your community. Visit: <http://www.ementalhealth.ca>