Stigma Associated with Seeking Help for Psychological Distress: How Public and Self-Stigma, Help-Seeking Attitudes and Intent, Self-Compassion, and Empathy Relate

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Abstract

College and university students experience high levels of psychological distress and would likely benefit from accessing mental health services. However, the stigma associated with seeking help as well as the stigma associated with mental illness in general reduce one's likelihood of seeking services and lead to other negative consequences such as lower self-esteem and loss of opportunities. This study was conducted in order to: (*a*) better understand the mental health difficulties, discrimination, and help-seeking patterns among university students, (*b*) elucidate the processes involved in stigma and help-seeking behaviour, and (*c*) investigate empathy and self-compassion as potential protective factors. Participants were university students who completed an online survey at two time points with an approximate 3-month interval in-between. Students demonstrated high rates of mental health difficulties and experiences of discrimination. Students sought help from informal sources more frequently than formal sources. Regarding the stigma process, endorsed stigma of mental illness predicted self-stigma of seeking help, which predicted attitudes toward help-seeking, which in turn, predicted intentions to seek counselling. Intentions did not predict help-seeking behaviour. Trait empathy did not demonstrate a moderating effect, but self-compassion demonstrated a potential buffering role in the relationship between public stigma of seeking help and anticipated self-stigma of seeking help. Based on these results, interventions seeking to promote mental health literacy and self-compassion may be helpful in promoting effective mental health support and reducing self-stigma, respectively, although future research is required. Limitations of the present research are outlined and other directions for future research are proposed.

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AQ = Attribution Questionnaire

ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form

DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety

DASS Depression = Depression Anxiety Stress Scales-21 Depression

DASS Stress = Depression Anxiety Stress Scales-21 Stress

GPCORE = General Population - Clinical Outcomes in Routine Evaluation

ISCI = Intentions to Seek Counseling Inventory

LoCR = Level of Contact Report

PDD = Perceived Devaluation Discrimination scale

SCS-SF = Self-Compassion Scale – Short Form

SSOMI = Self-Stigma of Mental Illness Scale

SSOSH = Self-Stigma of Seeking Help Scale

SSRPH = Stigma Scale for Receiving Psychological Help

TEQ = Toronto Empathy Questionnaire

USQ = Undergraduate Stress Questionnaire

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GENERAL INTRODUCTION

This dissertation examines mental health difficulties and help-seeking patterns among university students. It seeks to gain a better understanding of the process of stigma, including how stigma relates to attitudes and intentions to seek psychological services and actual help-seeking behaviour over time. *Stigma* refers to the negative societal perceptions that are associated with a label or stereotype, and are then associated with a separation between "us" and "them" and discrimination (Link & Phelan, 2001). The stigmatization process occurs within the context of lower power (Link & Phelan, 2001). This project also examines the role of empathy and self-compassion in the process that contributes to stigma. Despite students' experiences of mental illness and high psychological distress (Adlaf, Gliksman, Demers, & Newton-Taylor, 2001; Blanco et al., 2008), and the availability of health and counselling services on many post-secondary school campuses, treatment seeking is low among this population (Hunt & Eisenberg, 2010). The stigma associated with mental illness and seeking psychological services is a barrier to accessing services.

Given the importance of accessing necessary services, the present study examined the process of stigma and the various components of stigma that may serve as a barrier to seeking psychological services. To begin, the constructs of mental health, psychological distress, and mental illness will be defined and discussed in relation to college and university students. Researchers have determined that the stigma of mental illness and the stigma of seeking psychological services are distinct constructs (e.g., Tucker, 2012; Tucker et al., 2013), and these two types of stigma and their components are clarified next. Various models of stigma that link meso-level stigma (public stigma) to micro-level stigma (self-stigma) are explored, in addition to models examining how stigma relates to attitudes towards seeking psychological help, intentions

to seek psychological help, and help-seeking behaviour. Few studies have examined moderators that might have a protective influence on the process that contributes to stigma, although one study demonstrated a buffering effect of sympathy (Bathje & Pryor, 2011). Considering this finding and the need for further investigation of moderating variables, empathy and self-compassion will be examined as potential protective factors.

Psychological Distress, Mental Health Concerns, and Psychological Disorders Among College and University Students

Stressors among students. College and university students' mental health is increasingly of concern. Several factors related to post-secondary campuses and young adulthood in general contribute to students' stress levels and well-being. The transition to post-secondary school might be stressful for some young adults as this transition can entail a need to adjust one's responsibilities, sleeping and eating habits, grade expectations, and ability to meet academic demands (Ross, Niebling, & Heckert, 1999). Moreover, this might be the first time that some young adults move away from their family's home (Kadison & DiGeronimo, 2004). Accordingly, this can be a transition to increased independence and freedom. Students have reported being away from home and becoming more independent as significant stressors (Hurst, Baranik, & Daniel, 2012). The transition to post-secondary school settings might also include new experiences such as new social groups, exposure to new people with different values and cultural backgrounds, and increased exposure to drugs and alcohol (Kadison & DiGeronimo, 2004). Though some of the changes that accompany a transition to college or university can be very positive, such changes can still be associated with stress.

Not all of the stressors related to post-secondary students pertain to first year students trying to adjust to a new environment. Students in various other years of their post-secondary

education also experience stressors. For example, students might experience stress related to being away from parents, starting or ending relationships, feeling distant from peers, wanting support from faculty, having difficulties with roommates, and trying to fulfill parental expectations (Hurst et al., 2012; Kadison & DiGeronimo, 2004). Being in an environment of continuous academic evaluations could contribute to student stress levels (Ross et al., 1999). Students have indicated that coursework, exams, and studying can be stressors (Hurst et al., 2012). In addition to academic pressures, the limited contact between students and faculty might also contribute to increased difficulty for some students (Mowbray et al., 2006).

In addition to the aforementioned stressors, a deficiency of resources such as a lack of money, support, time, sleep, skills, and technology are other reported stressors that post-secondary students might encounter (Hurst et al., 2012; Kadison & DiGeronimo, 2004). Students often face high tuition fees in addition to the costs of independent living, which can create financial difficulties. To address financial hardships, some students work while attending school, which can engender further challenges in trying to balance school and work (Hurst et al., 2012). The stress related to financial difficulties can increase levels of depression and anxiety among students (Andrews & Wilding, 2004). Evidently, post-secondary students may face several potential stressors that could adversely affect their well-being. These stressors can occur at different levels, such as within an individual, within relationships, or with one's broader environment (Hurst et al., 2012). Mowbray et al. (2006) suggest based on the diathesis-stress model of the development of distress that vulnerabilities to experiencing distress might be activated by the stressors that post-secondary students experience. Given this potential triggering effect, stressors could relate to students' experiences of psychological distress and mental health challenges.

Differentiating psychological distress, mental health, and disorders. Several authors have deemed the mental health of students to be a public health issue (e.g., Hunt & Eisenberg, 2010). A considerable amount of research has been conducted to investigate the psychological functioning of students, including the presence of distress and disorders. However, the terminology that is frequently used, such as *mental health*, *psychological distress*, and *mental illness,* needs to be clearly defined. The World Health Organization (2014) defines mental health as "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.1). Mental health consists of a continuum of emotional, psychological, and social well-being that ranges from flourishing to languishing (Keyes, 2002). More recently, mental health has been purported to exist on a separate continuum from mental illness, which consists of "alterations in thinking, mood or behaviour—or some combination thereof—associated with significant distress and impaired functioning" (Government of Canada, 2006, p.2), such as experiencing a major depressive disorder. Mental health and mental illness are conceptualized to exist on separate continuums since they do not necessarily fluctuate in sync with one another – when someone has flourishing mental health, it does not necessarily mean that mental illness is absent, and when someone has languishing mental health, it does not necessarily mean that mental illness is present (Keyes, 2002). In other words, someone experiencing depression might be experiencing reduced mental health (i.e., languishing), while someone else experiencing depression may be functioning well in their life and experiencing a more moderate mental health. Keyes (2002) asserts that considering both one's mental health and mental illness can indicate one's overall mental status.

These two continuums outlined by Keyes (2002) do not indicate where psychological distress fits in. Mirowsky (2007) refers to distress as the suffering related to emotional, social, psychological, and biological factors. Symptoms of depression and anxiety are commonly conceptualized to constitute distress (Mirowsky & Ross, 2003). As demonstrated by the fact that distress was included in the aforementioned definition of a mental illness, it is clear that distress and mental illness are related. Distress is often measured using self-report questionnaires such as the Kessler Psychological Distress Scale (K10; Kessler et al., 2002), the General Health Questionnaire-12 (GHQ-12; Goldberg & Hillier, 1979), the General Population - Clinical Outcomes in Routine Evaluation (GP-CORE; Sinclair, Barkham, Evans, Connell, & Audin, 2005), the Depression Anxiety Stress Scales (DASS-21; Antony, Bieling, Cox, Enns, & Swinson, 1998), and the Mental Health Inventory-5 (MHI-5; Berwick et al., 1991). These self-report measures of distress typically assess symptoms of anxiety and depression (Mirowsky & Ross, 2003), though some aspects of functioning and subjective well-being might also be assessed by measures of distress. Several of the distress measures are used as screening tools since highly elevated stress might be indicative of a mental disorder, though this is not necessarily the case.

There is often a positive correlation between distress and mental illness. In fact, experiencing distress related to one's symptoms is often included in the criteria for mental disorders. However, distress and mental illness have been demonstrated to also exist on separate continuums (Payton, 2009). These constructs have been differentiated since distress may sometimes be expected based on a situation and it may be short in duration, which differs from mental illness. Distress is often negatively correlated with mental health, as higher distress is frequently related to poorer mental health (Payton, 2009). However, these terms also reflect

separate constructs since low distress is only part of mental health. Mental health is a broader construct that includes positive aspects of functioning. Throughout this paper, the terms *mental health challenge, difficulty,* or *concern* are used to indicate when someone is having trouble with an aspect of their mental well-being, such as feeling distressed or suffering from a mental illness. Overall, mental health, distress, and mental illness are related although they do not exist on a single continuum. Each of these constructs is important in understanding college and university students' psychological functioning and well-being.

Psychological distress. Many students in post-secondary schools experience psychological distress. Prevalence rates of high distress have ranged from 83.9% in an Australian sample (Stallman, 2010), to 30% in a Canadian sample (Adlaf et al., 2001), to 25.7% in a sample in France (Verger et al., 2009). The lower prevalence rate obtained in France might have been obtained since a different measure, the MHI-5, was used to assess psychological distress (Verger et al., 2009). In addition, Adlaf et al. (2001) compared GHQ scores from undergraduate students in Ontario within the Canadian Campus Survey data to the GHQ scores of two general samples of Ontario adults –adults aged 18 or older and adults aged 19-25. They found that distress was higher among undergraduates than among the general samples of Ontario adults. Therefore, the high prevalence of distress among Canadian university students might be higher than that of other adults.

Cooke, Bewick, Barkham, Bradley, and Audin (2006) examined the pattern of distress among first year students at a university in the United Kingdom by assessing level of well-being before students began university, and at three other time-points during the first year of their undergraduate program. Student well-being, functioning, and physical symptoms followed an inverse U shape as distress levels were low before entering university, continually higher during

first year, and lower at the end of the first year, but not as low as before beginning university. However, anxiety symptoms remained elevated all throughout the first year of university. The obtained relationship between attending university and experiencing distress led the authors to draw attention to a paradox. They assert that going to university is commonly viewed a protective factor for well-being in the long run due the enhanced likelihood of securing employment, but going to university is also related to high distress when one is in the progress of completing their degree (Cooke et al., 2006).

Some researchers have examined whether particular demographic characteristics relate to the level of distress that students experience. Several studies have reported a higher prevalence of psychological distress among women compared to men (Adlaf et al., 2001; Rosenthal & Wilson, 2008; Stallman, 2010; Verger et al., 2009). The relationship between year of study and psychological distress appears to be varied, with some studies indicating a higher prevalence of distress among first year students (Adlaf et al., 2001), and others reporting less distress among first year students compared to students of other years of their undergraduate degree (e.g., Stallman, 2010). These differences could be due to differing study locations or due to a greater number of universities being included in the former study compared to the latter.

Mental health concerns. Several studies employing various methodologies and research designs suggest a high prevalence of mental health difficulties among college and university students. A longitudinal study found that over one third of the 763 student participants at a U.S. university were experiencing mental health problems, defined as elevated scores on measures of depression, anxiety, eating disorders, self-injury or suicidal thoughts (Zivin, Eisenberg, Gollust, & Golberstein, 2009). Sixty percent of the students with a mental health problem at the first time point were also experiencing a mental health difficulty two years later, suggesting that some of

the psychological struggles that students face are longer lasting (Zivin et al., 2009). Mental health concerns among graduate students are also a prominent concern. The Graduate Student Happiness & Well-Being Report indicated that about 47% of the Ph.D. students and 37% of the Masters students at the University of California, Berkeley had scores on a measure of depressive symptoms at a level that is indicative of depression (The Graduate Assembly, 2014). Therefore, high distress is found among both undergraduate and graduate students.

Psychological disorders. The prevalence of diagnosable disorders among the college and university student population is also likely to be high. Twelve-month prevalence rates of mental health diagnoses among college students have been estimated at 36.8% (this rate referred to those who were diagnosed or treated by a professional; American College Health Association (ACHA), 2019) and 50% (Blanco et al., 2008). Data from a Canadian postsecondary student sample in 2017 showed that 23.8% of males and 27.4% of females reported persistent stress, 3.1% of males and 11.4% of females reported a lifetime mood disorder, and 6.4% of males and 13.9% of females reported a lifetime anxiety disorder (Wiens et al., 2020). The most common mental health challenges within post-secondary settings were depression and eating disorders (Zivin et al., 2009), anxiety and depression (ACHA, 2019; Holmes & Silvestri, 2016), and alcohol use disorders and personality disorders (Blanco et al., 2008). Blanco et al. reported that the prevalence of psychiatric disorders among college students was similar to that of adults, except that the prevalence of alcohol and substance use disorders was over twice as high among college students. It is notable that approximately 75% of people who will experience lifetime cases of mental disorders have an onset by age 24 (Kessler et al., 2005).

In addition to the high prevalence of mental health concerns among college and university students, the utilization of campus services for severe psychological difficulties may

be increasing. The 2014 National Survey of College Counseling Centres reported that among the students attending the counseling centres, the percent of students experiencing severe psychological problems increased from 44% in 2013 to 52% in 2014 (Gallagher & Taylor-Webmaster, 2014). Although this increase may not represent a trend due to the limited number of data points, it could suggest that more students with severe difficulties are seeking services on campus or that counselling services are becoming more developed and more accessible to students. Regardless, these percentages reflect a high prevalence of severe psychological problems.

Although the aforementioned studies outline the prevalence of mental health challenges among college and university students, this is not to suggest that other young adults who are not attending a postsecondary institution do not experience similar rates of mental health concerns. Similar rates of mental health difficulties have been reported between postsecondary students and their community peers in some studies (e.g., Blanco et al., 2008; Cvetkovski, Reavley, & Jorm, 2012). However, moderate psychological distress was higher among postsecondary students than community peers, although this difference reduced once the prevalence rates were standardized by age and gender (Cvetkovski et al., 2012). In contrast, a Canadian study showed that the odds of experiencing a mental health challenge were lower among postsecondary students compared to community peers (Wiens et al., 2020).

The prevalence of psychological distress, mental health concerns, and mental illness among college and university students is particularly concerning when considering the consequences that are often associated with some of these difficulties. Not only is distress unpleasant for those experiencing it, but it can also be related to difficulty or inability to work or study, difficulty engaging in one's daily activities, poorer grades (Stallman, 2008; 2010), and

lower exam performance (Andrews & Wilding, 2004). Similar to the effects of psychological distress, mental health difficulties or mental illness can negatively affect a student's well-being. Holmes and Silvestri (2016) found that students diagnosed with a mental illness experienced greater academic difficulties than students without a mental illness. In particular, students diagnosed with a mood disorder were more likely than students with an anxiety disorder to have trouble with alertness, attention, and peer relationships. Students with anxiety disorders were more likely than those with mood disorders to have difficulty with memory and executive functioning (Holmes & Silvestri, 2016). In addition, alcohol and substance use disorders or heavy use can be associated with missing class, difficulties concentrating, driving while intoxicated, and an increased risk of being in dangerous situations or engaging in fights or unprotected sex (Caldeira, Arria, O'Grady, Vincent, & Wish, 2009; Hingson, Heeren, Winter, & Wechsler, 2005). The presence of a psychiatric disorder in general is also associated with school dropout (Kessler, Foster, Saunders, & Stang, 1995). Thus, there are numerous negative outcomes that are associated with psychological distress and disorders for postsecondary students.

Psychological Service Use Among College/University Students

The prevalence of mental health concerns and psychological distress among college and university students is concerning. Fortunately, numerous evidence-based treatments for psychological disorders exist and many postsecondary institutions offer mental health services. Hunt and Eisenberg (2010) assert that the general composition of college campuses, including the atmosphere of education and the availability of services, presents a chance for student mental health concerns to be addressed. Mental health services that might be available to students on their campus include counselling, brief therapy, access to a physician (Eisenberg, Golberstein, &

Gollust, 2007), and sometimes access to a psychiatrist (Gallagher & Taylor-Webmaster, 2014). Other services are often available within the broader community outside of campus, such as emergency room departments, hospital outpatient services, and services through private practices such as counselling, psychotherapy, and psychological assessments. Some students might be able to access services through their own or their parents' extended health benefits.

Despite treatment availability, few college and university students seek the services they need (Hunt & Eisenberg, 2010). The National Survey of College Counseling Centres estimated that out of the student body that could have accessed services from 275 centres in Canada and the U.S., 11% received group or individual counselling, while 30% received other services such as attending a workshop (Gallagher & Taylor-Webmaster, 2014). Mental health treatment seeking rates have varied across studies, ranging from 18.45% to 36% (Blanco et al., 2008; Eisenberg et al., 2007; Rosenthal & Wilson, 2008; Stallman, 2010) for students. General practitioners were the most commonly visited professional in the study by Stallman (2010). Evidently, few college students receive services to address their mental health difficulties.

The low mental health help-seeking behaviour observed among students extends to young adults in general. In the National Comorbidity Survey, Kessler et al. (2001) found that young adults were less likely than other adults to seek mental health services. Perceptions of not needing treatment and wanting to deal with one's psychological distress independently were also associated with young adults. Several other barriers might prevent students from seeking needed treatment for their mental health difficulties. Fear or discomfort related to discussing emotions (Komiya, Good, & Sherrod, 2000), concern about parents finding out, thinking that stress is normal, or thinking one does not need services (Eisenberg et al., 2007) might deter individuals

from seeking psychological treatment. Other barriers included not being aware of services and thinking that medication or therapy would not be helpful (Eisenberg et al., 2007).

How an individual perceives their experience of an illness can also influence whether or not they seek help (Marsella & Yamada, 2000; Tseng, 2003). Moreover, Tseng (2003) outlined numerous factors that contribute to whether one will seek help such as one's motivation to seek help, one's perceptions and knowledge of available services, the costs associated with services, and the implications of seeking help within the social and cultural context. For example, males have been shown to seek help for a mental health difficulty less often than females (Kessler, Brown, & Broman, 1981) and this sex difference in help-seeking is purported to relate to gender role ideologies that dictate how acceptable it is for an individual to seek help. Males who ascribe to the traditional male gender role, which views men as independent and strong, might view seeking psychological services as a failure (Vogel, Wade, & Hackler, 2007). Therefore, the social construction of gender and societal views toward help-seeking could contribute to whether or not an individual seeks psychological services when experiencing a mental health difficulty.

In addition to all of these barriers, the fear of stigmatization is a substantial barrier to seeking help for mental illness (Corrigan, 2004; Storrie, Ahern, & Tuckett, 2010). People may avoid seeking services in order to evade the label of mental illness or the stigma and stereotypes associated with accessing psychological help.

What is Stigma?

Many definitions of stigma exist (Link & Phelan, 2001). Goffman (1963) originally defined stigma as a signal or mark that evokes negative reactions from others. However, this definition places more emphasis on an individual having a signal or mark rather than how society has associated a label or negative stereotype with that mark (Link & Phelan, 2001). More recent

research emphasizes how a stigmatized response is associated with the label of mental illness (Corrigan, 2005). In other words, labels such as "depressed" are associated with stigma. However, the relationship between labels and stereotypes is just one component of stigma. Link and Phelan stated that "stigma exists when elements of labeling, stereotyping, separating, status loss, and discrimination co-occur in a power situation that allows these processes to unfold" (p. 382). They asserted that people label human differences, and that those labels are associated with stereotypes. Labeling also leads to the separation between "us" versus "them" (i.e., between one's ingroup and an outgroup) and results in status loss and discrimination. When this occurs in the context of lower social power, stigmatization results (Link & Phelan, 2001).

Therefore, stigmatization depends on broader contextual and societal factors. A given attribute, whether physical or not, only becomes stigmatized because of the socially constructed devaluation that is associated with the attribute (Major & O'Brien, 2005). Stigma therefore exists within a social context (Hebl & Dovidio, 2005). An attribute might be associated with stigma in one social context, but not in another context, indicating that stigma depends on interpersonal dynamics and social contexts (Hebl & Dovidio, 2005). Link and Phelan (2001) asserted that a power imbalance is also necessary for stigma to occur. They argued that stigma is directed to those who have less power within society. For example, stereotyped professional groups such as lawyers do not become a stigmatized group because of their position of power (Link & Phelan, 2001). Therefore, societal factors have a significant influence on the existence of stigma, including who is stigmatized and when stigmatization occurs.

Stigma in general is associated with several negative consequences, which can occur through different processes. Major and O'Brien (2005) assert that direct discrimination is one of the ways in which people can be negatively affected by stigma. For example, having difficulty

obtaining housing due to one's stigmatized status would be a consequence of stigma. In addition, stigma might affect people through self-fulfilling prophecies whereby people begin to accept the stereotypes that society has associated with the individual (Major & O'Brien, 2005). Similarly, when a situation activates a stereotype, possibly through priming, the individual may act in accordance with that stereotype (Major & O'Brien, 2005). Stigma can also threaten one's identity. When an aspect of one's identity is stigmatized, this can create uncertainty for an individual and self-esteem could be negatively affected (Major & O'Brien, 2005).

Within the stigma literature relating to mental health difficulties and psychological distress, two aspects of stigma are frequently discussed – the stigma of mental illness and the stigma of seeking psychological help. Definitions of the specific types of stigma within these two broader categories (mental illness stigma and help-seeking stigma) are outlined in Table 1.

The Stigma of Mental Illness

Four types of mental illness stigma are typically discussed in the literature, although various terms are used to describe these general types of stigma. They include: public stigma of mental illness, self-stigma of mental illness, structural/institutional stigma, and stigma by association (see Table 1 for an overview of stigma terms and definitions). Public stigma has been conceptualized to be at the centre, with links to each of the other three stigmas (self-stigma, structural stigma, and stigma by association; Pryor & Reeder, 2011). These different types of stigma reflect how stigma can occur at micro, meso, and macro levels (Livingston & Boyd, 2010).

Public stigma of mental illness. *Public stigma,* sometimes called *social stigma*, refers to the negative attitudes and beliefs held by society or one's community regarding mental illness (Corrigan & Watson, 2002a; Livingston & Boyd, 2010). Public stigma of mental illness consists

of one's own views as well as the community or societal views. To distinguish between when one personally agrees with negative attitudes and when one indicates that their community holds negative attitudes, the terms *personal or endorsed public stigma* and *perceived public stigma*, respectively, are used. To clarify, personal or endorsed stigma of mental illness refers to the stereotypes and prejudices that an individual holds (Eisenberg, Downs, Golberstein, & Zivin 2009). Perceived public stigma of mental illness is the extent that one thinks other people endorse these negative beliefs and attitudes (Pedersen & Paves, 2014). Thus, perceived public stigma of mental illness is one's perceptions of the public's attitudes and not necessarily the public's true attitudes. When the term *public stigma* is used throughout this paper rather the term *perceived public stigma*, it is referring to both endorsed and perceived public stigma. Levels of perceived public stigma of mental illness have been shown to be higher than levels of endorsed stigma of mental illness among college students, although students might under-report levels of endorsed stigma (Eisenberg et al., 2009).

Vogel, Michaels, and Gruss (2009) emphasized distinguishing between whom the "public" refers to when measuring perceived public stigma, by specifying whether this refers to one's perception of the stigmatizing attitudes held by the community or public (i.e., the typical meaning of perceived public stigma) or whether this refers to one's perception of the stigmatizing attitudes held by people that one is close to (e.g., items inquiring about the extent that one's friends would endorse stereotypes; Cheng, Kwan, & Sevig, 2013). Vogel et al. (2009) purport that the stigmatizing attitudes held by close others has a substantial influence on whether one would seek treatment or not. If an individual is aware of stigmatizing attitudes held by the wider public, but their close social contacts are supportive of seeking psychological services, than this individual may be more likely to seek treatment than an individual who is both aware of

stigmatizing attitudes held by the public, and whose close social contacts also hold those views (Vogel et al., 2009).

Public stigma is often deconstructed into three components: stereotypes, prejudice, and discrimination (Corrigan, 2004). Stereotypes are "knowledge structures that are learned by most members of a social group" (Corrigan, 2005, p.16), where qualities are associated with a particular group. Corrigan and Watson (2002a) outline some stereotypes of people with mental illness, such as beliefs that they are violent, dangerous, incompetent, or weak. Another stereotype is the false belief that people with mental illness are responsible for their mental illness (Corrigan & Watson, 2002b). Fiske, Cuddy, Glick, and Xu (2002) proposed the Content Stereotype Model, which purports that there are two main dimensions associated with stereotypes – competence and warmth. Competence refers to the ability to pursue and achieve intentions and goals, and warmth refers to an individual or group's intentions toward others (Fiske et al., 2002; Sadler, Meager, & Kaye, 2012). Sadler et al. (2012) examined stereotypes toward different types of mental disorders, based on the levels of competence and warmth that are perceived to be associated with people with different mental disorders. They found that schizophrenia and addictions are often associated with both low competence and low warmth, while intellectual disabilities and Alzheimer's disease are often associated with low competence and high warmth, antisocial traits are often associated with high competence and low warmth, and anxiety and mood disorders are associated with medium levels of competence and warmth (Sadler et al., 2012). Thus, the content of stereotypes regarding mental illness differs across diagnoses.

The second part of the stigmatization process often involves prejudice in response to stereotypes. When people agree with a stereotype and also have an emotional response, this

constitutes prejudice (Corrigan & Watson, 2002a). Corrigan and Watson provide an example of prejudice, whereby if an individual thinks, "'That's right; all persons with mental illness are violent!'" they may then have an emotional reaction of fear, such as "'They all scare me!'" (p. 37). However, people can have awareness of stereotypes without agreeing with them or experiencing prejudice. Prejudice is a part of the stigmatization process but it is a different construct from stigma. For example, stigma occurs in response to behaviours or signals that indicate a difference from the norm whereas prejudice can occur without a deviation from the norm (e.g., two groups may view one another as an "outgroup"). Moreover, as previously noted, stigma entails a power imbalance (Link & Phelan, 2001), which prejudice does not necessarily entail.

The third part of the stigmatization process involves discrimination. Discrimination consists of the behavioural response that follows stereotyping and prejudice. For example, if someone holds the belief that people with mental illness are violent and then chooses to not hire an individual with mental illness, this would constitute discrimination (Corrigan, 2005). Numerous negative and devastating outcomes result from discriminatory behaviours, so elucidating the factors that contribute to prejudice is important. Prejudice is often a stronger predictor of discrimination than stereotypes are (Fiske, 2000). Since people can be aware of stereotypes without endorsing them, it is expected that people would be more likely to discriminate against others if they hold prejudiced beliefs (i.e., self-endorsing stereotypes and experiencing a corresponding emotional reaction). Sadler, Kaye, and Vaughn (2015) found that emotions of fear and anger mediated the relationship between stereotypes of mental illness and behaviours. Prejudiced beliefs play an important role in the process of stigmatization by

contributing to discriminatory behaviours. These three components of public stigma – stereotypes, prejudice, and discriminatory behaviour– also apply to other forms of stigma.

Reactions to and consequences of public stigma. Watson and River (2005) proposed a social-cognitive model of stigma in order to explain the different reactions that people who identify with a stigmatized group and people who do not identify with a stigmatized group have towards public stigma. For example, some people may react to public stigma by internalizing the stigma, while some people may remain indifferent, and some people may react with anger and empowerment. In Watson and River's model, the extent that one is affected by a negative event depends on how the event relates to one's contingencies of self-worth, the extent that one views the event to be legitimate, and the extent that one identifies with the stigmatized group. A negative event that addresses or threatens a component of one's self-worth is more likely to negatively affect that person's self-esteem. Next, the model considers how legitimate one perceives the negative event to be. If an individual thinks the event was legitimate and justified, then they would experience low self-esteem if they identify with the group being discriminated against. However, if an individual thinks the negative event was illegitimate, and they identify with the group being discriminated against, they will react with righteous anger. If an individual does not identify with the group being discriminated against, then their self-esteem will not be affected and the model suggests that this individual would react indifferently no matter how legitimate they perceived the event to be (Watson & River, 2005).

People may attempt to avoid the label of mental illness in order to avoid the stereotypes and prejudices associated with the label and the threats to one's self-esteem and self-efficacy that may ensue (Corrigan, 2004). When people attempt to conceal mental illness or avoid acknowledging the mental illness entirely, they likely also avoid treatment and therefore do not

receive the appropriate services and supports (Corrigan, 2004). There are many consequences of the discrimination component of public stigma of mental illness. People might discriminate by not offering help to someone with mental illness or completely avoiding people with mental illness, leading to segregation and isolation for those who experience mental illness (Corrigan & Watson, 2002b). Thus, discrimination may impede one's obtainment of employment, housing, and physical health care (Corrigan, 2004). In addition, discrimination towards people with mental illness is also reflected in public opinions suggesting that people with schizophrenia be required to participate in treatment, and that treatment should take place in a mental institution (Corrigan & Watson, 2002b).

Self-stigma of mental illness. *Self-stigma of mental illness* (also referred to as *internalized stigma)* has been conceptualized as the internalization of public stigma (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989), as well as a reduction in self-worth, and as the opposite of empowerment (Tucker, 2012). Self-stigma of mental illness refers to the internalization of publicly held stereotypes and prejudices related to mental illness in general (Tucker, 2012). For example, internalizing the stereotype that people with mental illness are weak, so that one believes he or she is weak, would be an example self-stigma of mental illness (Corrigan & Kleinlein, 2005).

Corrigan and Calabrese (2005) assert that there are some problems with how self-stigma is sometimes conceptualized as diminished self-esteem and self-efficacy, since reduced self-esteem can be due to factors other than self-stigma, such as other illnesses (especially depression) or emotional dysregulation. Tucker (2012) suggests combining the different conceptualizations of self-stigma, to define self-stigma as "the reduction in self- esteem and self-

efficacy that results from internalized public-stigma in the absence of personal empowerment" (p. 15).

Self-stigma of mental illness is associated with numerous negative outcomes such as reduced self-esteem and self-efficacy (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Livingston & Boyd, 2010), low levels of personal empowerment regarding treatment participation (Corrigan, 2004), lower treatment adherence (Livingston & Boyd, 2010), reduced hope and quality of life (Mashiach-Eizenberg, Hasson-Ohayon, Yanos, Lysaker, & Roe, 2013) and potential difficulty in pursuing opportunities and life goals (Corrigan, 2004).

Livingston and Boyd's (2010) review and meta-analysis indicated a relatively consistent relationship between internalized stigma and psychosocial variables, suggesting that self-stigma of mental illness is negatively related to empowerment, hope, self-efficacy, self-esteem, social support, and quality of life. However, the relationship between these psychosocial variables and self-stigma of mental illness has generally only been demonstrated cross-sectionally, with the exception of the relationship between internalized stigma and self-esteem, as this has been demonstrated longitudinally (Livingston & Boyd, 2010). Self-esteem and pain self-efficacy (i.e., one's perceived ability to carry out activities even while experiencing pain) were also negatively related to internalized stigma among a sample of adults experiencing chronic pain (Waugh, Byrne, & Nicholas, 2014). Moreover, meta-analysis indicated that internalized stigma is positively correlated with symptom severity (Livingston & Boyd, 2010).

Self-stigma of mental illness might also affect mental health service use. Rüsch et al. (2009) found higher self-stigma of mental illness to predict hospitalization. This might suggest that people with higher self-stigma are less likely to seek help such as outpatient counselling

services when needed, and then they may reach a crisis point that requires hospitalization (Rüsch et al., 2009).

Structural stigma. Pryor and Reeder (2011) define *institutional* or *structural stigma* (SS) as "the legitimization and perpetuation of a stigmatized status by society's institutions and ideological systems" (p. 793). In the context of mental illness, structural or institutional discrimination occurs at a macro level, as it consists of when laws, policies, or rules of organizations or institutions lead to discrimination or disadvantages for individuals with mental illness (Corrigan, Markowitz, & Watson, 2004).

Corrigan et al. (2004) indicate that structural or institutional discrimination may be either intentional or unintentional. A law or policy that explicitly discriminates against a group of people would be intentional discrimination. A law or policy that does not intend to discriminate, but results in unfair consequences for only one particular group, would be unintentional discrimination. Corrigan et al. state that the 1997 US Mental Health Parity Act is an example of unintentional structural discrimination because this act was intended to be neutral, but since the act allowed for some companies to be exempt from providing mental health coverage, this created consequences for some people experiencing mental illness.

Stigma by association. Stigma by association can occur when the stigma associated with one's identity or condition is extended to those that they affiliate with such as family members or friends. Stigma by association can refer to one's own reaction to being affiliated with someone with a mental illness or to societal reactions to those who are associated with someone with a mental illness (Bos et al., 2013). Goffman (1963) referred to this type of stigma as *courtesy stigma.* Similarly to how public stigma can be internalized, some individuals might apply stigma by association or courtesy stigma to their self. This internalization of courtesy

stigma has been referred to as *affiliate stigma* (Mak & Cheung, 2008). Affiliate stigma is negatively correlated with well-being (Mak & Kwok, 2010).

Other consequences stem from stigma by association. Just as an individual experiencing stigma might feel shameful, individuals who are associated with someone with a mental illness may experience shame (Bos et al., 2013). Stigma by association may also lead to consequences for the individual experiencing the mental illness. For example, people might advise others they know who have a mental illness to conceal the illness, and such a recommendation can negatively affect the individual with the mental illness (Bos et al., 2013). Concealing one's mental health can create internal stress as it may require one to continually think about how to maintain secrecy in various situations (Pachankis, 2007). This example illustrates how the stigma by association that one person experiences may affect the well-being of the individual experiencing the mental illness.

The Stigma of Seeking Help

In addition to the aforementioned types of stigma related to mental illness, stigma can also be associated with seeking psychological services. Stigma of seeking help refers to the negative attitudes, beliefs, and stereotypes associated with seeking help, such as counselling. More specifically, Lannin, Vogel, Brenner, and Tucker (2015) define the stigma of seeking psychological help as "the stereotyping, separation, status loss, and discrimination experienced by someone who seeks help or is considering seeking help, from a mental health professional" (p.66). This differs from the stigma of mental illness since the stigma is associated with the process of help-seeking rather than a diagnosis of a mental illness.

Public stigma of seeking help. As public stigma is conceptualized to consist of both a perceived component (one's perceptions of the stigma endorsed within society) and an endorsed

component (the extent that one endorses stigmatizing attitudes themselves), the public stigma of seeking help that is often discussed in the literature appears to include both of these components, though these two components are not assessed separately. The commonly used measure of public stigma of seeking help, the Stigma Scale for Receiving Psychological Help (SSRPH), assesses both perceived and endorsed stigma (i.e., public stigma). Some stigmatizing attitudes associated with seeking psychological treatment could include beliefs that someone who seeks treatment is emotionally unstable (Ben-Porath, 2002).

Self-stigma of seeking help. Similar to the process of self-stigma of mental illness, self-stigma of seeking help refers to when people internalize the publicly held stereotypes and prejudices related to seeking mental health services. For example, self-stigma of seeking help would be evident if an individual applied the stereotype that people who seek treatment are weak to their self and began to believe that they are weak (Tucker, 2012). Although the processes of self-stigma of mental illness and self-stigma of seeking help both involve applying public stigma towards oneself, Tucker et al. (2013) demonstrated that these are two separate constructs. Self-stigma of seeking help is also likely to be accompanied by a reduction in self-esteem (Tucker, 2012). Compared to undergraduate students with lower self-stigma of seeking help, those with higher self-stigma of seeking help in a study by Lannin, Vogel, Brenner, Abraham, and Heath (2015) were less likely to seek information on mental health and counseling. This relationship between higher self-stigma of seeking help and lower information seeking was also evident among students experiencing high distress.

Cultural Factors Related to Stigma of Mental Illness and Stigma of Help-Seeking

The stigma associated with mental illness can vary across cultures. For example, Tseng (2003) asserted that there is a strong stigma associated with mental illness in China. Levels of

endorsed stigma of mental illness might also vary depending on cultural variables. Among a college student sample, Eisenberg et al. (2009) reported that endorsed stigma of mental illness was higher among males, younger students, international students, students from a poor family, students who were more religious, and students who were Asian. Considering that higher endorsed stigma of mental illness was associated with lower perceived need for help (Eisenberg et al., 2009), it is important to consider how cultural variables relate to different aspects of stigma.

The stigma of seeking help has also been shown to vary in relation to cultural factors. Public stigma of seeking help and self-stigma of seeking help have been reported to be higher among males than females in samples of college or university students in Midwestern U.S. (Bathje & Pryor, 2001; Miller, 2009) and in Turkey (Topkaya, 2014). Again, this sex difference in stigma levels has been purported to relate to the cultural expectations of one's gender (i.e., gender role). Among a sample of racial and ethnic minority college students who identified as African American, Asian American, or Latino American, Cheng et al. (2013) found that higher perceived ethnic discrimination and higher psychological distress were both related to higher concern about public stigma of seeking help, which then predicted higher self-stigma of seeking help. Cheng et al. assert that the relationship between ethnic discrimination and stigma of help-seeking indicates the potential influence of macrolevel factors. In addition, higher identification with one's ethnicity was protective against self-stigma of seeking help among African American participants. Various intersecting identities and broader social and cultural factors contribute to how stigma is experienced.

Moreover, individuals who experience mental illness stigma in addition to stigma related to another aspect of their identity, such as gender, sexual orientation, or ethnicity, might

experience a "double stigma" where one experiences additive effects of the multiple stigmas or discrimination (Gary, 2005; Kidd, Veltman, Gately, Chan, & Cohen, 2011; Mizock & Mueser, 2014). Mental illness stigma can also interact with other factors and aspects of identity in complex ways (e.g., Collins, von Unger, & Armbrister, 2008). For example, a woman who identifies as Latina prefers a Latino partner, and due to recently immigrating, she prefers to remain within her community with other immigrants, and due to her mental illness, her partner has sex outside of the relationship, and due to living in poverty, she feels financially dependent on her partner (Collins et al., 2008). Due to all of these factors, as well as lower self-confidence and social power, she feels trapped within her relationship. Thus, the way that people experience stigma related to mental illness and help-seeking likely varies due to the unique social identities, cultural contexts, and experiences of each individual.

Models of Mental Illness Stigma and Help-Seeking Stigma

Theories of Self-Stigma of Mental Illness and Self-Stigma of Seeking Help

Link (1987) proposed the Modified Labelling Theory (MLT), which suggested that people's childhood experiences as well as other peer and family interactions and the influence of media contribute to one's perceptions about how mental illness is viewed by others (i.e., perceived public stigma of mental illness). If a person never experiences a mental illness, then these perceptions are not relevant to their self. However, if a person experiences mental illness, then they may fear the devaluation and discrimination that is associated with the label of mental illness, and they may internalize these societal beliefs (Link, 1987).

Corrigan and Watson (2002a) expanded the MLT model by also considering whether a person agrees with the publicly held stereotypes or not. Corrigan and Rao (2012) more specifically deconstruct the concept of self-stigma by introducing a stage model that consists of

Awareness, Agreement, Application, and Harm. In this model, the Awareness stage refers to one's awareness of the perceived public stigma related to the condition he or she is experiencing, while the Agreement stage refers to whether one accepts the public stereotypes as true. The Application stage then consists of applying the stereotype to one's self, which may then result in Harm (i.e., diminished self-esteem and self-efficacy, and the "why try effect" where goals are no longer sought after). This model indicates that the harmful consequences of self-stigma occur once stereotypes have been applied to oneself (Corrigan & Rao, 2012).

Lannin, Vogel, Brenner, and Tucker (2015) recently proposed the Internalized Stigma Model (see Figure 1) to indicate how the process of internalizing stigma occurs for both self-stigma of mental illness and self-stigma of seeking help. This model suggests how the two types of public stigma (perceived public stigma of mental illness and public stigma of seeking help) relate to the two types of self-stigma (self-stigma of mental illness and self-stigma of seeking help), which then relate to outcomes such as self-esteem and intentions to seek counselling. For example, perceived public stigma of mental illness contributes to self-stigma of mental illness, which then contributes to lower self-esteem. In addition, public stigma of seeking help contributes to self-stigma of seeking help, which contributes to lower intentions to seek counselling. The perceived public stigmas are therefore posited to relate to the outcomes of lower self-esteem and intentions to seek counselling through their respective type of self-stigma. Specifically, the Internalized Stigma Model asserts that public stigma of mental illness is related to self-stigma of mental illness, which is then related to reduced self-esteem. The model also suggests that public stigma of seeking help is related to self-stigma of seeking help, which then relates to both reduced self-esteem and lower intentions to seek counselling. In addition, the

model suggests that perceived public stigma of mental illness predicts public stigma of seeking help while self-stigma of mental illness predicts self-stigma of seeking help.

Research relating to the proposed models. The aforementioned theories all suggest a relationship between perceived public stigma and self-stigma, though the relationship between these variables may also depend upon the extent that one agrees with stereotypes related to mental illness and treatment seeking (i.e., endorsed stigma). Vogel and colleagues have conducted several studies that have indicated that self-stigma may become internalized overtime. Vogel, Bitman, Hamer, and Wade (2013) conducted a 3-month longitudinal study with college students to determine the direction of the relationship between public stigma of seeking help and self-stigma of seeking help. They used a cross-lagged analysis with structural equation modelling and found that higher public stigma of seeking help at the first time-point was related to higher self-stigma of seeking help at the second time-point, while self-stigma at the first time-point was not related to public stigma of seeking help at the second time-point. In other words, public stigma of seeking help predicted self-stigma of seeking help three months later.

Some empirical support was generated for Corrigan and colleagues' extended theory of self-stigma. Awareness of perceived public stigma was not consistently significantly associated with their three components of self-stigma (agreement, application, and harm), though the components of self-stigma were each significantly correlated (Corrigan, Rafacz, & Rüsch, 2011; Corrigan, Watson, & Barr, 2006). Their data emphasized how many people can be aware of stereotypes without internalizing them, but applying the stereotypes towards oneself is highly related to negative outcomes (Corrigan et al., 2011).

A study by Eisenberg et al. (2009) suggested that the extent that one agrees with public stereotypes can have important implications for the relationship between public and self-stigma.

Eisenberg and colleagues found that perceived public stigma of mental illness was not significantly related to help-seeking among college students, but endorsed stigma of mental illness was significantly related to less help-seeking. Thus, the extent that one personally endorsed stigma was related to help-seeking. Eisenberg et al.'s finding reiterates how perceived public stigma may not directly affect help-seeking behaviour, and also highlights the importance of assessing the extent that one agrees with public stigma.

Lannin, Vogel, Brenner, and Tucker (2015) assessed the Internalized Stigma Model (Figure 1) among 448 undergraduate students in the U.S. Using structural equation modelling, this model was supported and some additional relationships between the variables were evident. The public stigmas were each related to both types of self-stigma, although each public stigma was more strongly related to its respective self-stigma (Lannin, Vogel, Brenner, & Tucker, 2015). Similarly, Tucker (2012) found self-stigma of seeking help to be a stronger predictor of attitudes towards mental health services than self-stigma of mental illness. Lannin, Vogel, Brenner, and Tucker's results also indicated that intention to seek counselling was only directly related to the self-stigma of seeking help, though lower self-esteem was predicted by both types of self-stigma. They also found that public and self-stigma of mental illness predicted their respective type of stigma related to help-seeking. Overall, these findings provide further support for the internalization of self-stigma as indicated in the models by Link and colleagues and Corrigan and colleagues, while also indicating more specific relationships between public stigma and outcomes for the two types of stigmas.

Help-Seeking Attitudes and Intent

While the above theories discuss the relationships between perceived public stigma and self-stigma, several other studies have investigated how other variables related to mental health

treatment seeking are associated with public and self-stigma. In particular, research has focused on attitudes towards seeking help and intent to seek help. Attitude towards seeking help for a psychological problem generally refers to one's perception of professional psychological services including whether one views psychological services as positive or negative. Attitudes are formed based on one's expectations of psychological services (Vogel et al., 2007). Attitudes towards seeking help differ from public stigma of seeking help and self-stigma of seeking help, since attitudes are referring to an individual's personal perspective on seeking professional psychological services. In contrast, public stigma of seeking help refers to how an individual perceives the public's view on seeking help and one's own view of seeking help, and self-stigma of seeking help refers to the internalization of help-seeking stigma (Lannin, Vogel, Brenner, & Tucker, 2015). Intent to seek help refers to how likely one is to seek help. In the context of mental illness, intent to seek help is often conceptualized as willingness to seek counselling.

The act of seeking help is considered to be an "approach" coping strategy, as it entails addressing one's difficulty (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Help-seeking is conceptualized as an interaction between personal and interpersonal domains since it entails a process whereby one's personal experience of distress leads to an interpersonal social interaction regarding that distress (Rickwood et al., 2005). Rickwood et al. suggest that, within the help-seeking process, individuals must first be aware of their distress or difficulty, express a need for support, have available sources of help, and then a willingness to discuss their difficulties with a source of help.

Other theories contribute to understanding help-seeking behaviour. The theory of reasoned action (Ajzen & Fishbein, 1980) emphasizes the role of intention in predicting behaviours. The theory purports that intentions include one's motivation and the amount of

effort one is willing to put forth in order to carry out a particular behaviour (Ajzen, 1991). The theory of reasoned action also purports that one's attitude towards a given behaviour and the social pressures to engage in a behaviour or not, contribute to one's intentions. An individual's intention to engage in a behaviour is suggested to be a strong determinant of whether the behaviour will occur or not (Ajzen & Fishbein, 1980). Higher intention is purported to relate to a higher probability of the behaviour being demonstrated (Ajzen, 1991). The theory of reasoned action was extended to include perceived behavioural control, as intention is expected to lead to behaviour only when an individual has the ability to engage in the behaviour. This extended model, which is presented in Figure 2, is referred to as the theory of planned behaviour (Ajzen, 1991). With regards to the behaviour of seeking psychological services, the theory of planned behaviour would suggest that attitudes, norms, and perceived behavioural control contribute to intention to seek psychological services, and then intentions and behavioural control (e.g., having the means to access psychological services) predict whether or not one actually seeks services (Ajzen, 1991). Other theories related to health behaviours and goal setting also suggest a role of intentions in predicting behaviour (Webb & Sheeran, 2006). Moreover, meta-analysis has indicated that changes in intentions due to an intervention predict subsequent behaviour (Webb & Sheeran, 2006). Research on how intentions predict help-seeking behaviour for mental health difficulties is more limited.

Several researchers have applied the theory of reasoned action in order to understand how attitudes and intentions relate to seeking psychological services. Additionally, several studies have also examined how public and self-stigma of both mental illness and help-seeking also relate to seeking psychological services. Among a sample of undergraduate students, Vogel et al. (2007) found support for a model indicating that perceived public stigma of mental illness

predicted self-stigma of seeking help, which then predicted attitudes towards counselling, and then predicted one's willingness to seek counselling. This study also demonstrated that self-stigma of seeking help and attitudes toward seeking help separately mediated the relationship between perceived public stigma of mental illness and willingness to seek help. These findings highlight the role of self-stigma of seeking help, as they suggest that perceptions of public stigma of mental illness do not directly lead to unwillingness to seek help. Rather, it is the extent that an individual internalizes the perceived public stigma (e.g., expects their self-esteem to be negatively affected by participating in therapy) or holds personal attitudes that are negative towards mental health service use (e.g., not valuing therapy, lacking interest in therapy) that predicts an unwillingness to seek help.

As the Vogel et al. (2007) study measured perceived public stigma of mental illness and not one's endorsement of public stigma (i.e., endorsed stigma of mental illness), Bathje and Pryor (2011) sought to extend this research by also measuring endorsed stigma of mental illness among undergraduate students in the U.S. The Bathje and Pryor study also differs from that of Vogel and colleagues as they focused on public stigma of seeking help rather than perceived public stigma of mental illness. Bathje and Pryor found that the relationship between public stigma of seeking help and self-stigma of seeking help was partially mediated by the extent that one endorsed sympathy (see Figure 3). Bathje and Pryor refer to sympathy as one of the "common affective reactions to persons with mental illness" (p. 162). Eisenberg and Strayer (1987) define sympathy as "'feeling for someone…[having] feelings of sorrow, or feeling sorry, for another" (p. 6). Sympathy differs from empathy, as empathy is conceptualized as an affective response to another person's experience, where an individual takes the perspective of the other person (Davis, 1983) and experiences the emotions that the other person is

experiencing (Eisenberg & Strayer, 1987). Sympathy has been described to be an outcome of empathy or part of the emotional component of empathy (Davis, 1983; Eisenberg & Strayer, 1987).

In the Bathje and Pryor (2011) study, the relationship between public stigma and attitudes towards seeking help was fully mediated by self-stigma of seeking help (Bathje & Pryor, 2011; Vogel, Schechtman, & Wade, 2010), although Bathje and Pryor examined public stigma of seeking help while Vogel et al. examined perceived public stigma of mental illness. These findings support the notion that awareness of public stigma may play an important role in the formation of self-stigma. Next, self-stigma of seeking help predicted attitudes towards counselling, which in turn, predicted willingness to seek counselling or information seeking related to mental health and counselling (Lannin, Vogel, Brenner, Abraham et al., 2015; Vogel et al., 2007). Attitudes towards counselling mediated the relationship between self-stigma of seeking help and information seeking behaviour (Bathje & Pryor, 2011; Lannin, Vogel, Brenner, Abraham et al., 2015). These findings align with the theory of reasoned action since attitudes are demonstrated to predict intentions and intentions are purported to predict behaviour (Bathje & Pryor, 2011).

Similarly, Jennings et al. (2015) examined the relationship between public stigma of seeking help and attitudes towards seeking treatment. They assert that their research extends that of Bathje and Pryor (2011) since they examined these variables among some students who have experienced mental illness as well as students who have not experienced mental illness. They also added further complexity to the relationships between these variables by investigating how self-reliance (i.e., the tendency to deal with difficulties oneself) relates to stigma and attitudes towards seeking treatment. Their findings indicated that public stigma of seeking help by those

in one's social circle was related to higher self-stigma of seeking help, which was related to higher self-reliance for coping with mental health challenges, and then to greater negative attitudes towards treatment seeking. Thus, there was a mediation model with three paths – the relationship between public stigma of seeking help and attitudes towards treatment seeking was mediated by self-stigma of seeking help and self-reliance (Jennings et al., 2015).

Jennings et al. (2015) also examined the relationship between public stigma of seeking help and self-reported treatment seeking behaviour among those who were experiencing mental health difficulties. An indirect pathway was obtained whereby public stigma of seeking help was related to treatment seeking behaviour through self-stigma of seeking help and self-reliance. Taken together, these results indicate that coping with mental health difficulties oneself along with internalizing the public stereotypes regarding help-seeking can lead to more negative attitudes towards help-seeking and a reduced likelihood of seeking help. Help-seeking behaviour was also examined by Rickwood et al. (2005) who found that the relationship between help-seeking intentions and help-seeking behaviour varied across studies, was weak in some studies, but was modest overall.

Other Predictors of Attitudes Towards Seeking Help

Other variables that have been identified in the literature as predictors of attitudes towards seeking help include cognitive belief systems about the world and believing that people have control over their mental illness. Among a sample of 400 undergraduate students in a south-western Ontario university, Kuo, Kwantes, Towson, and Nanson (2006) found that social axioms, which were conceptualized as cognitive belief systems about "how the world works and how relationships are formed and maintained" (p. 225), accounted for variance in help-seeking attitudes even after gender, age, socioeconomic status, ethnicity, and perceived stress were

controlled. Additionally, negative attitudes towards help-seeking were predicted by high social cynicism (i.e., skepticism of others) and more positive attitudes towards help-seeking were predicted by interpersonal harmony (i.e., positive interpersonal relationships; Kuo et al., 2006). The Bathje and Pryor (2011) study found that blaming a person for their mental illness or believing that people have control over their mental illness were related to negative help-seeking attitudes. In summary, cognitive belief systems about the world and believing that people have control over their mental illness are some of the factors that contribute to negative attitudes toward seeking help.

Overview of the Stigma Literature

Overall, the stigma literature has indicated that stigma of mental illness and stigma of seeking psychological help are separate constructs. Within each of these types of stigma, public stigma tends to predict self-stigma. The role of endorsed stigma has also been highlighted, as endorsed stigma has been shown to partially mediate the relationship between public stigma of seeking help and self-stigma of seeking help (Bathje & Pryor, 2011). Moreover, some studies have indicated that self-stigma of seeking help predicts attitudes towards seeking psychological services and intentions to seek psychological services (Bathje & Pryor, 2011; Vogel et al., 2007). However, few studies have examined other factors that might affect the relationships between these variables. Bathje and Pryor indicated how endorsed sympathy can affect the relationship between public stigma of seeking help and self-stigma of seeking help. Examining variables that may buffer the influence of perceived public stigma, endorsed stigma, or self-stigma is important since many negative outcomes can result from stigma. Since sympathy has been demonstrated to have a protective effect, empathy towards oneself and others warrants investigation.

Empathy and Self-Compassion

Empathy

The definition of empathy varies greatly as there is no single, agreed upon definition (Reniers, Corcoran, Drake, Shryane, & Völlm, 2011). Davis (1983) defined empathy as "the reactions of one individual to the observed experiences of another" (p.113). These reactions include cognitions and emotions (Davis 1983). The cognitive and emotional aspects of empathy are often addressed in the literature and are included in several definitions of empathy. However, assessment tools often differ by emphasizing either the cognitive component or the emotional component of empathy (Reniers et al., 2011). Cognitive empathy refers to one's ability to understand another person's situation (Davis, 1983). This aspect of empathy is similar to "theory of mind"; the process of thinking about what another individual is thinking (Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). In comparison, affective empathy refers to the emotion that one experiences in reaction to another person's emotions (Davis, 1983; Spreng, McKinnon, Mar, & Levine, 2009). Davis (1983) stresses the importance of considering both of these aspects of empathy.

Types of empathy. Cognitive and affective empathy are further broken down into more specific types of empathy. Based on the empathy and intergroup relations literature, Batson and Ahmad (2009) differentiate empathy into two types of cognitive empathy - imagine-other perspective and imagine-self perspective and two types of affective empathy - emotion matching and empathic concern. *Imagine-other perspective* refers to thinking about the thoughts and feelings that another person is experiencing, and the *imagine-self perspective* consists of an individual imagining their self in another person's situation (i.e., imagining being in someone else's shoes). The outcome from engaging in these two types of cognitive empathy might differ

since imagining oneself in the place of another might at times lead one to appreciate another person's experience but someone could also imagine their self in another person's shoes and not appreciate the other's experience (Batson & Ahmad, 2009). *Emotion matching* refers to when an individual feels the same emotion that another person is experiencing, such as feeling sad after seeing another person's sadness. This type of empathy has also been referred to as *parallel empathy* (Finlay & Stephan, 2000). The fourth type of empathy outlined by Batson and Ahmad (2009), e*mpathic concern,* refers to the emotion that is felt in response to another person's experience such as feeling compassion towards someone. Emotion matching and empathic concern differ since empathic concern consists of a focus on others while emotion matching might not have a focus on others. Batson and Ahmad (2009) illustrate emotion matching with an example of a person who sees others looking nervous on an airplane, then also feels nervous, and then becomes focused on their own nervousness. Thus, the focus is no longer on others. These four types of empathy can interact and lead to experiencing one of the other types of empathy. For example, engaging in the imagine-other perspective might lead to empathic concern (Batson & Ahmad, 2009).

Batson and Ahmad (2009) reviewed studies that examined how these types of empathy relate to intergroup relations. They suggest that utilizing the imagine-other perspective is related to positive intergroup outcomes such as helping an out-group, viewing an out-group more positively, and feeling more empathic concern for another. They indicate that taking the imagine-self perspective is also associated with more positive views of an out-group. Emotion matching is suggested to relate to positive feelings towards an out-group and negative feelings towards those who have created hardships for an out-group. Empathic concern is also purported to relate to more positive views of an out-group in addition to a willingness to help someone in

an out-group (Batson & Ahmad, 2009). Overall, the different facets of empathy are expected to relate to more positive views of out-groups. However, many of the studies that have contributed to the summary provided by Batson and Ahmad focus on empathy as a state variable.

Relationship between state empathy and stigma. State empathy consists of a response to a specific situation (Loggia, Mogil, & Bushnell, 2008). In contrast, trait empathy refers to one's disposition to respond empathically across situations (Loggia et al., 2008). Trait empathy reflects one's tendency to empathize while state empathy is focusing on the level of empathy that is present in a given moment or situation. Some studies have demonstrated that inducing state empathy by giving participants instructions that encourage reflection on how a person in a vignette is feeling (i.e., inducing an imagine-other perspective), relates to more positive attitudes towards an out-group and stigmatized groups. For example, Anglo American students who read about African Americans being discriminated against by Anglo Americans and received empathy-inducing instructions demonstrated more positive attitudes towards African Americans than participants who did not receive the empathy-inducing instructions (Finlay & Stephan, 2000). The participants also demonstrated emotion matching or parallel empathy, as they indicated experiencing similar emotions towards Anglo Americans as the person in the vignette, such as anger (Finlay & Stephan, 2000). Batson et al. (1997) demonstrated in three experiments that inducing empathy through an imagine-other perspective related to more positive attitudes towards different stigmatized groups in comparison to participants who did not receive the empathy-inducing instructions. In addition, these authors found in one experiment of attitudes towards people convicted of murder that the positive attitudes were still evident and even stronger 1-2 weeks after participants had read the vignette (Batson et al., 1977). These studies suggest a relationship between the presence of state empathy and more positive attitudes towards

stigmatized groups. Given this relationship between increased state empathy and reduced stigmatizing attitudes, the level of empathy that one typically displays (i.e., trait empathy) might also relate to the extent that one holds stigmatizing attitudes.

Relationship between trait empathy and stigma. Few studies have directly examined how trait empathy relates to stigma of mental illness. A study by Lin, Li, Wan, Wu, and Yan (2012) examined the relationship between health providers' levels of empathy and stigmatizing behaviours towards patients with HIV in China. Their results indicated that higher empathy among the service providers was associated with less avoidance of patients with HIV (Lin et al., 2012). Though this study focuses specifically on the stigma associated with HIV as opposed to stigma of mental illness, it indicates that a relationship between empathy and stigma might exist.

Some studies focusing on stigmatizing attitudes in relation to mental illness have examined the role of trait empathy. Howell, Ulan, and Powell (2014) found that endorsement of noun labels (e.g., saying someone is a schizophrenic instead of saying they have schizophrenia) was predicted by stigmatizing attitudes and lower empathy among a sample of undergraduate students. Using such noun labels can be associated with stigma since calling someone "schizophrenic" equates the person with their diagnosis rather than first and foremost acknowledging that he or she is a person. In contrast, saying that a person has schizophrenia, acknowledges that he or she is an individual who has a diagnosis, rather than being solely identified by their diagnosis. If people hold stigmatizing attitudes or have lower empathy (i.e., are less likely to be caring and supportive toward the individual) then they may be more likely to use language that is not person-centred. In addition, empathy and stigmatizing attitudes were significantly negatively correlated in Howell et al.'s study, suggesting that higher empathy is related to lower stigmatizing attitudes.

A study that examined how empathy relates to tolerance of people with mental illness may also shed some light on the relationship between empathy and stigmatizing attitudes. Phelan and Basow (2007) conceptualized social tolerance as not wanting social distance from people with mental illness. They examined several variables as predictors of social tolerance. Among factors such as type of mental health difficulty and gender, empathy also predicted social tolerance. Thus, undergraduate students with high trait empathy were hypothetically more willing to be in close proximity or interacting with a person who has a mental illness. This may be due to the fact that when people are high in empathy, they are typically more understanding of other's experiences, supportive, and concerned for others, which may account for why they are more willing to be in close proximity to people with mental illness. In addition, Phelan and Basow found that higher trait empathy, measured by the Interpersonal Reactivity Index (Davis, 1980), was predictive of the extent that undergraduate students labelled people in a vignette as having a mental illness. Phelan and Basow suggest that people with higher empathy might be more likely to label mental illness due to the care for others that is associated with high empathy and the ability to notice when others are experiencing difficulties. Though there is limited research on how trait empathy relates to stigma of mental illness, the results of the aforementioned studies support further research in this area.

Increasing empathy to reduce stigma. Further support for a relationship between increased empathy and reduced stigma is suggested by intervention research. Some stigma-reducing interventions seek to enhance empathy in addition to disconfirming stereotypes and promoting more positive attitudes, and some studies have examined level of empathy or change in empathy as an indicator of intervention outcome. Empathy towards people with mental illness has been shown to increase following an educational intervention in classrooms with adolescents

(Naylor, Cowie, Walters, Talamelli, & Dawkins, 2009) and following a video-based and a contact stigma-reduction intervention with undergraduate students (Matteo, 2013). Contact interventions involve contact with a person with lived experience of mental illness (Corrigan & Penn, 1999). Thus, some examples of enhanced empathy following educational and contact stigma-reduction interventions have been generated.

Similarly, research has investigated the process by which contact with a member of another group (i.e., and "outgroup") contributed to reduced prejudice. Pettigrew and Tropp (2008) conducted a meta-analysis whereby empathy and perspective-taking were among some of the mediators of the relationship between intergroup contact and prejudice, although this research was not specific to mental illness. Given that increased empathy is sometimes an outcome of stigma-reduction interventions and empathy has mediated the relationship between intergroup contact and prejudice, empathy might have a role in reducing stigma. However, further research is needed in order to better understand how increased empathy relates to reduced stigma.

Empathy and seeking treatment. Not only could increased empathy potentially relate to reduced stigma of mental illness, but it may also relate to an increased willingness to seek help for a mental health difficulty. Martinez (2014) conducted three studies with community and student samples, examining how ascribed humanity, compassion, and willingness to seek treatment relate. Ascribed humanity is defined as "the degree to which perceivers ascribe human characteristics to the category of, and persons with, mental illness" (Martinez, 2014, p.188). Overall, Martinez's research suggested that assigning terms of humanity to people with mental illness contributes to a self-perspective whereby the self and people with mental illness are connected. This self-view then leads to greater compassion towards people with mental illness,

which then contributes to an enhanced likelihood of seeking treatment (Martinez, 2014). This finding indicates that compassion towards others with mental illness could relate to one's own willingness to seek treatment.

Barriers to empathy. There are several barriers to experiencing empathy such as the dehumanization of mental illness, having a social dominance orientation, and cognitive processes. Martinez (2014) asserted that when people think of mental illness, dehumanizing attributes or descriptors might come to mind first, which could be a barrier to experiencing empathy. Another factor that might influence one's ability to experience empathy for people with mental illness is social dominance orientation (SDO). SDO is conceptualized as a general attitude towards the relationship between groups that entails preferring more hierarchical relationships between groups, where their group is superior to an out-group, rather than preferring equality (Pratto, Sidanius, Stallworth, & Malle, 1994). Sidanius et al. (2013) conducted two studies where SDO and empathy were measured at two time points among participants in Belgium and New Zealand. They conducted cross-lagged analyses, which showed a reciprocal relationship between SDO and empathy in both studies. Therefore, empathy reduced one's SDO, and SDO also appeared to reduce one's level of empathy. Although the relationship was reciprocal, since SDO predicted empathy over time (Sidanius et al., 2013), this suggests that SDO could be a barrier to experiencing trait empathy.

The perspective-taking component of empathy might be associated with unique barriers. Epley and Caruso (2008) suggest that accurate perspective-taking requires three mental processes and that the absence of these processes would constitute a barrier to perspective-taking. One of the critical components of perspective-taking is the activation of perspective-taking processes (Epley & Caruso, 2008). Essentially, if people fail to attempt to consider

another person's thoughts, feelings, and situation, they will not be engaging in perspective-taking. The failure to activate these processes could occur quite automatically since egocentric thoughts might occur quickly and with little cognitive effort while taking the perspective of another requires slower and more difficult cognitive processes (Epley & Caruso, 2009). Though people have the ability to take the perspective of another, they may fail to do so due to situational demands such as lack of time, motivation, or attention.

Even once people engage in perspective-taking, there are other cognitive processes that can influence the accuracy of the perspective-taking. For example, people tend to use their self and their stored knowledge as a guide when evaluating the perspective of another, and so one's own perspective, which can contain biases, can influence one's evaluation of another person's perspective (Epley & Caruso, 2008). Lastly, accurate perspective-taking requires people to attend to information regarding the situation and to determine which information is useful or accurate and which information is not. The numerous barriers to perspective-taking may influence an individual's ability to be empathic.

In summary, the findings generated from research on empathy and stigma of mental illness suggest that a relationship between these variables might exist. A body of literature has demonstrated how the four components of empathy relate to improved intergroup relations. However, research focusing specifically on how trait empathy relates to stigma of mental illness and seeking help for a mental illness is still needed. Further research elucidating the barriers to empathy and perspective-taking would be beneficial in understanding how empathy can be promoted in order to reduce stigma.

Self-Compassion

Self-compassion appears to be a unique construct that is related to psychological well-being. Neff (2003b) describes self-compassion to consist of "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, nonjudgmental attitude toward one's inadequacies and failures, and recognizing that one's own experience is part of the common human experience" (p. 224). According to Neff (2003a) the three main facets of self-compassion include: common humanity, self-kindness, and mindfulness. Common humanity refers to viewing one's experiences within the context of human experience. For example, common humanity would be demonstrated from knowing that other people experience the same hardships instead of perceiving oneself to be alone in their experience of suffering (Neff, 2003a). Self-kindness consists of refraining from belittling oneself and engaging in self-judgement, and instead, being accepting and understanding of oneself and one's circumstances (Neff, 2003a; Neff & Pomier, 2013). The mindfulness facet consists of being aware and accepting of one's experiences, rather than over-identifying with thoughts or emotions (Neff, 2003a).

Neff (2004) conceptualized self-compassion as different from other constructs such as self-pity and self-esteem. Self-pity consists of feeling sorry for oneself, so the focus is on oneself. An individual experiencing self-pity is focusing on the intensity of their problem and only perceiving the problem within the context of their life, as opposed to perceiving the problem as something that other people also experience (Neff, 2003a). Self-compassion does not consist of focusing on only oneself. Rather, self-compassion consists of connection with others by keeping others' experiences in mind and viewing one's own situation within the context of human experiences (Neff, 2004).

Self-compassion also differs from self-esteem, although these two constructs both consist of a positive view of the self (Neff, 2011). Self-esteem involves an evaluation of the self, and this evaluation is often related to downward comparisons to others in order to make one feel better about their self (Neff, 2004). In contrast, self-compassion consists of acknowledging both strengths and weaknesses (Neff, 2011) and it is more likely to be associated with upward comparisons. Brienes and Chen (2012) demonstrated in an experiment that participants who were randomly assigned to a self-compassion condition were more likely than those in a self-esteem condition or control group to engage in upward social comparisons. Upward social comparisons in this study referred to speaking to someone who has faced a similar challenge and been able to overcome it. Therefore, the social comparisons that stem from a perspective of compassion appear to be related to positive self-improvement, as opposed to the downward social comparisons associated with self-esteem that are intended to make one feel superior to another.

Self-compassion and self-esteem might also differ in terms of how personal weaknesses are perceived. Self-compassion is associated with viewing weaknesses as a part of the human condition, rather than something that lowers one's worth (Neff, 2011). An experiment by Breines and Chen (2012) demonstrated how motivation differs when people have engaged in a self-compassionate reflection compared to a self-esteem based reflection. In this experiment, participants identified their greatest weakness and then they were randomly assigned to a self-compassion group, a self-esteem group, or a control group. In the self-compassion group, participants wrote a paragraph to their self about their weakness from a "compassionate and understanding perspective" (Brienes & Chen, 2012, p. 1135). In the self-esteem condition, participants talked to their self about the weakness "from a perspective of validating [their]

positive (rather than negative) qualities" (Brienes & Chen, 2012, p. 1135). Participants in the control group did not receive instructions about reflecting on their weakness. In comparison to the other two conditions, and after controlling for positive affect, participants in the compassionate condition viewed their weakness as the most changeable (Brienes & Chen, 2012). Therefore, engaging in compassionate self-reflection appeared to have a more positive effect on perceived ability to change a weakness than self-esteem did. This study further demonstrates how self-compassion and self-esteem differ, and suggests that compassionate self-reflection relates to a more positive view of a weakness.

Self-compassion and well-being. Self-compassion is associated with many positive outcomes that promote psychological well-being. A meta-analysis by MacBeth and Gumley (2012) examined the relationship between self-compassion assessed using the Self Compassion Scale (Neff, 2003) and symptoms of psychopathology assessed using several measures of depression, anxiety, and stress symptomatology. A large effect size was obtained in the meta-analysis of 14 articles. This indicates that higher self-compassion is related to fewer symptoms of psychopathology, and that lower self-compassion is related to greater symptoms of psychopathology (Macbeth & Gumley, 2012).

Some interventions seeking to enhance self-compassion among university students have also been related to positive outcomes. In a study by Smeets, Neff, Alberts, and Peters (2014), increased self-compassion following a brief self-compassion group intervention was related to increased optimism, self-efficacy, satisfaction with life, social connection, and mindfulness. Increased self-compassion was also related to reduced worry and rumination (Smeets et al., 2014). In addition to these positive outcomes, self-compassion is associated with motivation to improve (Brienes & Chen, 2012).

Self-compassion and health promoting behaviours. Researchers have purported that in theory, self-compassion is expected to relate to behaviours that would promote one's health. Neff (2004) asserts that a self-compassionate perspective allows one to view oneself in a more accurate manner where both strengths and weaknesses are recognized and there is an interest in growing and developing in order to facilitate well-being. This perspective seems to align with Martinez's (2014) suggestion that compassion towards the self might be related to an increased willingness to seek help for oneself. Similarly, Terry and Leary (2011) suggest that self-compassion can address two concerns that are often relevant when people avoid seeking medical services due to stigma and concern about how seeking services would affect one's image. When people perceive a medical issue to be uncommon, they may be more distressed and more hesitant about seeking treatment (Terry & Leary, 2011). In contrast, if a person does not view the medical problem to be unique to them, then they might be more likely to seek treatment. For example, viewing one's challenges with anxiety as something that other people experience might influence one's likelihood of seeking treatment. Terry and Leary suggest that individuals higher in self-compassion would be more likely to view a medical issue as something that other people experience, and therefore, those people might be less hesitant about seeking medical services. Thus, the common humanity facet of self-compassion might promote seeking services in order to promote one's well-being.

The second proposed benefit of self-compassion in relation to seeking medical services is that higher self-compassion is related to less shame and less concern about the judgement of others (Terry & Leary, 2011). In addition, self-compassion might promote treatment adherence and reengagement in treatment after a relapse since forgiveness and kindness are linked to self-

compassion (Terry & Leary, 2011). Therefore, theoretical perspectives suggest that a connection exists between self-compassion and an interest in or a willingness to promote one's health.

The purported connection between self-compassion and health promoting behaviours is also supported by some empirical research. Brion, Leary, and Drabkin (2014) examined how level of self-compassion among people diagnosed with HIV relates to reactions and coping behaviours. Their findings demonstrated that feelings of shame more strongly prevented people with low self-compassion from disclosing HIV status to people that one shares needles with, family, friends, and coworkers, from not following a treatment plan, from asking about or getting information on HIV, and from accessing physical and mental health services (Brion et al., 2014). People with higher self-compassion were less influenced by shame in terms of their coping behaviours. Self-compassion was also related to treatment adherence. Those with higher self-compassion missed taking their medications less often than those with low self-compassion (Brion et al., 2014). More adaptive reactions and behaviours were generally related to higher self-compassion.

Self-compassion and stigma. Hilbert et al. (2015) examined how self-compassion affects the relationship between self-stigma and mental and physical health outcomes among adults who are overweight or obese. They found that the relationships between self-stigma of being overweight or obese and mental and physical health symptomatology such as somatic symptoms, depression, and quality of life, were partially mediated by self-compassion. However, the relationship between self-stigma and one indicator of physical health, Body Mass Index (BMI), was not mediated by self-compassion. These findings suggest that self-compassion might act as a buffer against some of the negative effects of self-stigma of obesity (Hilbert et al., 2015).

Self-compassion research has recently extended as researchers have begun to examine how self-compassion relates to mental health help-seeking stigma. Among undergraduate samples, self-compassion was negatively related to public stigma of seeking help (Heath, Brenner, Lannin, & Vogel, 2016) and self-stigma of seeking help (Heath, Brenner, Vogel, Lannin, & Strass, 2017; Heath et al., 2016). Higher self-compassion has been related to having fewer concerns about self-disclosing emotions to a counselor among male undergraduate students (Heath et al., 2017). Other studies by Heath and colleagues have examined the buffering effect of self-compassion in relation to help-seeking stigma. Self-compassion moderated the relationship between public stigma of seeking help and self-stigma of seeking help (Heath et al., 2016). In other words, the relationship between public stigma of seeking help and self-stigma of seeking help was stronger among participants with lower self-compassion than among participants with higher self-compassion, suggesting a buffering role (Heath et al., 2016). Among their sample of male undergraduate students, Heath et al. (2017) found that self-compassion moderated the relationships between general adherence to masculine norms and self-stigma of seeking help, as well as general masculine norm adherence and self-disclosure risks. Given the negative consequences associated with self-stigma, the potential protective effect of self-compassion is intriguing and warrants further study. There is also a need to examine the relationships between self-compassion and help-seeking stigma over time since the existing studies on self-compassion and mental health stigma are cross-sectional.

Self-compassion and concern for others' well-being. Not only does higher self-compassion relate to positive outcomes for oneself, but it also appears to relate to one's concern for others. Neff and Pommier (2013) examined correlates of self-compassion among three samples - community adults, undergraduate students, and Buddhist meditators. For all three

samples, self-compassion was related to forgiveness, perspective taking, and lower personal distress in response to another person experiencing a stressor. Their results also indicated some differences across the samples. Among community adults and people who meditate, self-compassion was related to empathetic concern, altruism, and compassion for humanity. Self-compassion was not related to these variables in the undergraduate sample. Based on this finding, Neff and Pommier (2013) postulated that undergraduate students might still be formulating their identity and so they may have less of a connection between the compassion that is directed towards the self and the compassion directed towards others. They suggest that this connection develops overtime (Neff & Pommier, 2013).

Levels of self-compassion, empathetic concern, altruism, perspective taking, forgiveness, and compassion for humanity were higher among people who practiced Buddhist meditation than among the undergraduate and community adult samples. They also found that age was related to level of self-compassion, with those who are older often demonstrating higher self-compassion (Neff & Pommier, 2013). Self-compassion levels did not differ between men and women, though levels of empathetic concern, perspective taking, forgiveness, compassion for humanity, and personal distress in response to the hardships of others were higher among women (Neff & Pommier, 2013). Overall, Neff and Pommier's findings demonstrate some differences in self-compassion levels across groups, but in general, higher self-compassion was related to concern for others.

A relationship between self-compassion and concern for others is also proposed by Martinez (2014). He suggests that one's compassion towards others might be directed towards oneself, which could then motivate one to care for their well-being and to seek treatment. Thus, compassion towards oneself might play an important role in treatment seeking.

Summary

Post-secondary school can be associated with many stressors, and accordingly, psychological distress is prevalent among students. College and university can also be a time when people experience an onset of mental illness. Despite high psychological distress and the presence of mental illness for some students, many students do not access the services that they need. Both the stigma of mental illness and the stigma of seeking psychological help can deter students from accessing the needed services. Understanding the process of stigma, including when students internalize stigma and how stigma contributes to actual help-seeking behaviour is important since self-stigma and untreated mental illness are associated with a myriad of negative outcomes. Several models of stigma have been proposed and empirically tested, and some initial trends have emerged such as how public stigma contributes to self-stigma, which can then predict negative attitudes towards counselling and unwillingness to seek counselling. However, varying terms and methods of measurement convolutes some of these overall trends. For example, some studies clearly differentiate between perceived public stigma of mental illness and endorsed stigma of mental illness while others do not, and some studies measuring public stigma of mental illness refer to this construct as perceived stigma, while some studies use the term public stigma. Therefore, clarification and replication of the relationships between the different types of stigma is needed. There is also a need to examine protective factors the stigma process such as empathy and self-compassion, to examine the process of stigma over time, and to investigate actual help-seeking behaviour in relation to stigma variables.

Overview of the Present Study

The present study consisted of two parts. The overall goal of Part 1 was to examine the process of stigma and determine whether empathy and self-compassion acted as protective

factors in the stigma process, at Time 1. Similar to Bathje and Pryor's (2011) study, the relationships between public stigma of seeking psychological help, endorsed stigma of mental illness, self-stigma of seeking help, attitudes towards mental health services, and intentions to seek mental health services were examined cross-sectionally (i.e., at Time 1). Part 1 further extended Bathje and Pryor's study by examining how empathy and self-compassion influenced the relationships between the variables. Moreover, the perceived public stigma of mental illness was assessed in addition to public stigma of seeking psychological services. This study will contribute to the literature by elucidating the relationships between these variables.

The overall goal of Part 2 was to examine the stigma process over time and to examine intentions to seek help and self-compassion as predictors of help-seeking behaviour. In Part 2, the relationships between variables were examined longitudinally over a 3-month period. The Part 1 data were used as timepoint 1 ("Time 1"), with additional data collected 3 months later at timepoint 2 ("Time 2"). Thus, Part 2 included data from two timepoints. However, not all Part 1 participants completed Time 2, rendering the overall Part 2 sample to be smaller than that of Part 1. Part 2 makes an important contribution to the literature since most studies examining the relationships between self-stigma, intentions to seek help, and self-compassion used cross-sectional designs. To the author's knowledge, few studies have examined intentions to seek help and self-compassion in relation to actual help-seeking behaviour. Jennings (2015) examined how stigma related to seeking services within the past year while Lannin, Vogel, Brenner, Abraham et al. (2015) examined how self-stigma related to information seeking. However, these studies were cross-sectional. Investigating how intentions to seek help and self-compassion relate to treatment seeking behaviour at a later time-point is an important addition to the current literature.

Part 1 Hypotheses

Hypothesis 1. Endorsed stigma of mental illness was expected to predict self-stigma of seeking help (demonstrated by path *a* in Figure 4), self-stigma of seeking help was expected to predict attitudes towards seeking help (demonstrated by path *b*), and attitudes towards seeking help were expected to predict intentions to seek help (demonstrated by path *c*). This prediction was largely based on Bathje and Pryor's (2011) finding that sympathy predicted self-stigma of seeking help, which predicted attitudes towards seeking help, which predicted intentions to seek help.

Hypothesis 2. Endorsed stigma of mental illness was expected to mediate the relationship between perceived public stigma of mental illness and self-stigma of seeking help (Figure 5). The relationship between endorsed stigma of mental illness and attitudes towards help seeking was expected to be mediated by self-stigma of seeking help. Attitudes towards seeking help were expected to mediate the relationship between self-stigma of seeking help and intentions to seek help. Mediation relationships within these variables were hypothesized since mediation has been demonstrated in previous research (e.g., Bathje & Pryor, 2011; Vogel et al., 2007; 2010). Again, this hypothesis was based on Bathje and Pryor's findings. However, Bathje and Pryor examined sympathy as a mediator of the relationship between public stigma of seeking help and self-stigma of seeking help, whereas this study examined a broader measure of endorsed stigma as a mediator of the relationship between perceived public stigma of mental illness and self-stigma of seeking help.

Hypothesis 3. Empathy was predicted to moderate the relationship between public stigma of seeking help and endorsed stigma of mental illness, as well as the relationship between perceived public stigma of mental illness and endorsed stigma of mental illness (see Figure 6).

This hypothesis is based on the fact that empathy has been negatively correlated with endorsed stigma (Howell et al., 2014) and public stigma has sometimes been shown to relate to endorsed stigma (Bathje & Pryor, 2011), but sometimes the two variables are not related (Corrigan et al., 2011). Moderation analyses were proposed over mediation analyses since we do not expect empathy to account for the relationship between perceived public stigma and endorsed stigma. Rather, we expect that whether one is higher or lower in empathy will affect the strength of the relationship between perceived public and endorsed stigma.

Hypothesis 4. Based on Martinez's (2014) suggestion that having compassion towards one's self might increase willingness to seek treatment in order to promote one's well-being, higher self-compassion was expected to predict lower self-stigma as well as higher intentions to seek help. Self-compassion is also expected to moderate the relationships between other variables, as depicted in Figure 7. Specifically, self-compassion is expected to moderate the relationship between public stigma of seeking help and self-stigma of seeking help. In other words, the strength of the relationship between public stigma of seeking help and self-stigma of seeking help was expected to vary based on level of self-compassion. Since self-compassion is conceptualized as being kind and non-judgmental towards oneself, and viewing one's experiences as a part of the human condition (Neff, 2003), individuals who are higher in self-compassion are thought to be more likely to view a need for psychological services nonjudgmentally and as a part of the human condition, thereby reducing the relationship between perceiving stigma and actually applying the stigma of help-seeking toward the self. Similarly, self-compassion was hypothesized to moderate the relationship between endorsed stigma of mental illness and self-stigma of seeking help, since higher self-compassion would act as a buffer. Even if people hold stigmatizing attitudes towards mental illness, having self-

compassion would suggest being less likely to apply those attitudes towards the self. In addition, previous research by Heath et al. (2016) showed that self-compassion moderated the relationship between public stigma of seeking help and self-stigma of seeking help.

Part 2 Hypotheses

Hypothesis 5. Hypothesis 5 predicted that empathy at Time 1 would predict endorsed stigma of mental illness at Time 2. More specifically, individuals who are high in empathy at Time 1 were expected to be low in endorsed stigma of mental illness at Time 2. Although a relationship between these variables would be expected at all times, empathy at Time 1 was examined as a predictor of endorsed stigma at Time 2 in order to establish temporal precedence within this relationship.

Hypothesis 6. Self-compassion at Time 1 was expected to predict self-stigma of seeking help at Time 2 and intentions to seek counselling at Time 2. Higher self-compassion was expected to relate to lower self-stigma and greater intentions to seeking counselling, since self-compassion has moderated the relationship between public and self-stigma of seeking help (Heath et al., 2016) and it is associated with greater health promoting behaviours (Terry & Leary, 2011).

Students with higher self-compassion at Time 1 were also expected to be higher in help-seeking behaviour at Time 2 than those who were low in self-compassion. A moderation analysis was conducted to address this hypothesis since distress predicts help-seeking behaviour (Cramer, 1999) and we believed that the strength of that relationship would depend upon self-compassion. This is because self-compassion has been related to greater self-improvement (Brienes & Chen, 2012) and health promoting behaviours (Terry & Leary, 2011).

Method

Participants

Part 1. Participants were recruited from Lakehead University (a mid-sized university located in Ontario, Canada) via classroom presentations, emails to class listings by professors, and an online system (Sona Systems) where students can participate in studies to earn class bonus points, when applicable. There were no participation requirements regarding the presence or absence of mental health difficulties. An a priori power analysis using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) suggested a sample size of 85 for a multiple linear regression with four predictors, a medium effect size, and power of .8. As Part 1 participants would be invited to participate in Part 2, an a priori sample size estimate was first calculated for Part 2 (using G*Power 3.1; Faul, Erdfelder, Buchner, & Lang, 2009). An attrition rate of 70% (Wei, Russell, & Zakalik, 2005) was then used to estimate the number of Part 1 participants needed. Accordingly, this study aimed for a minimum of 283 participants in Part 1, in order to achieve a minimum sample size of 85 participants in Part 2 accounting for 70% attrition.

Five hundred and three students partially completed Part 1. Demographic information for the remaining students after data cleaning (i.e., after deleting the participants who skipped entire measures or were outliers; $N = 464$) is presented in Table 2. The majority of students were female, heterosexual/straight, white/Caucasian, and enrolled in a program within the Faculty of Health and Behavioural Sciences at Lakehead University. High rates of lifetime mental health challenges and experiences of discrimination were reported. Over one-quarter of students (28.0%) reported being diagnosed with a mental health disorder and 20.3% endorsed experiencing mental health discrimination (see Table 2). Moreover, 36.9% of students endorsed experiencing discrimination related to an aspect of their identity, apart from mental health. The

number of stressors that were affecting students in the past two weeks ranged from 0 to 78 (M = 17.61, SD = 9.11, Median = 16.0).

If students indicated that they received services to address a mental health difficulty, they were asked to check off the type of support they received help from. The list included: family, friends, mental health counsellor, psychiatrist, family physician, emergency room department of a hospital, and cultural or spiritual or religious mentor (e.g., Elder, pastor). Beside each of these options, participants were asked to rate how helpful they found the help to be on a 6-point Likert scale, with 0 indicating "not helpful at all" and 5 indicating "very helpful." As demonstrated in Table 3, in Part 1 of the study (i.e., at Time 1), a greater number of students received mental health support from informal sources (friends and family) than formal sources. In addition, these informal sources of support received higher average helpfulness ratings compared to formal sources.

Part 2. Participants from Time 1 were invited to participate at Time 2. The overall attrition rate from Time 1 to Time 2 was 70.5% for the present study. The demographic characteristics of Part 2 participants (N = 137) are presented in Tables 4 and 5. After applying an FDR correction, there were no differences on the scale totals between the students who chose to participate in Time 2 and those who did not (i.e., those who only participated at Time 1). There were also no differences based on sex, experiences of discrimination, or mental health.

Over the approximate three-month period between Time 1 and 2, 10.9% of students indicated that they were diagnosed with a mental health condition. Just over half of Part 2 participants (58.4%) believed they experienced an undiagnosed mental health challenge at Time 1, and 45.3% believed they experienced an undiagnosed mental health challenge between Time 1 and 2 (see Table 5).

Anxiety and depressive disorders were the most common diagnoses reported by students between Time 1 and 2. Several students endorsed experiencing discrimination, with 10.2% of students stating that they experienced mental health discrimination in the past three months and 16.8% of students stating that they experienced discrimination related to another aspect of their identity in the past three months.

The average number of stressors that affected students (prior two weeks) was 17.94 (*SD* = 7.37) at Time 1 and 16.42 (*SD* = 8.66) at Time 2. At Time 1, the most frequently endorsed stressors included having lots of deadlines to meet, having a difficult upcoming week, thinking about the future, thinking about unfinished work, and sitting through a boring class. Having lots of deadlines to meet, thinking about the future, and thinking about unfinished work were also commonly endorsed stressors at Time 2, in addition to feeling unorganized and lacking money.

A greater number of students received mental health support from informal sources (friends and family) than formal sources (see Tables 5 and 6). Table 6 shows the percentage of students who received only informal support, only formal support, or both formal and informal support for particular concerns. Students most frequently sought informal support for difficulties with relationships and friends. Therapy/counselling was most frequently sought for sleeping difficulties, depression, inferiority feelings, loneliness, and test anxiety. Students most frequently sought both informal support and therapy/counselling for depression. As shown in Table 7, receiving support from friends was rated as more helpful on average, compared to the other types of services and supports.

Measures

A summary of the validated measures administered at both time points, including the score ranges and interpretation of scores, is presented in Table 8. Internal consistencies of the

scales at Time 1 ranged from acceptable to very good (see Table 9). Initial internal consistency analyses at Time 1 indicated that Cronbach's alpha coefficient of the Attribution Questionnaire-9 (AQ-9) would increase from .73 to .81 across the imputed datasets if the first item were deleted. The initial value of .73 falls within the lower end of the generally considered acceptable Cronbach's alpha range (i.e., .70 to .95; Tavakol & Dennick, 2011); therefore, this item was subsequently excluded from the AQ-9 scale total computation in order to improve the scale's internal consistency.

The scale means and psychometric properties for Time 2 are presented in Table 10. Internal consistencies of the scales ranged from acceptable to very good, with the exception of the SSRPH, which ranged from questionable at Time 1 (.67-.68) to acceptable at Time 2 (.71-.72) across the samples. Deletion of one item at Time 1 would have slightly improved Cronbach's alpha but deletion of the same item at Time 2 would not have improved Cronbach's alpha. Due to this mixed finding, in addition to the fact that the scale only contains five items, no changes were made. The same item that was deleted from the AQ-9 at Time 1 of Part 1, was deleted from Times 1 and 2 of Part 2, to maintain consistency.

Demographic Questionnaire. The demographic questionnaire (Appendix A) contained questions about participant age, sex, gender, ethnicity, school program, experiences of discrimination mental illness diagnoses, and whether services have been accessed to address mental health difficulties.

Level of Contact Report. The Level of Contact Report (LoCR; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; Appendix B) assesses the extent of one's contact with mental illness. It consists of 12 questions that ask about varying levels of contact ranging from "I have never observed a person that I was aware had a severe mental illness" to "I have a mental illness"

(Holmes et al., 1999, p. 450). Students were asked to check the statements that applied to them. Each statement was given a ranking based on the level of contact with mental illness demonstrated in the item. One's overall familiarity with mental illness, as assessed by this questionnaire, is represented by the highest rank order that the participant receives among their endorsed items (Holmes et al., 1999). The highest ranked item that is endorsed becomes the participant's score, with higher scores indicating greater familiarity with mental illness.

The Perceived Devaluation Discrimination scale. The Perceived Devaluation Discrimination scale (PDD; Appendix C) is a 12-item measure that assesses the extent that one believes other people discriminate against or devalue people with mental illnesses (Link, 1987; Link, Struening, Neese-Todd, Asmussen & Phelan, 2001). It was used as a measure of perceived public stigma of mental illness. The items generally refer to how most people would react or think. For example, one item from this measure is: "Most people believe that entering a mental hospital is a sign of personal failure". The PDD uses a Likert-type scale ranging from "strongly agree" to "strongly disagree". This measure has been commonly used among clinical populations and has been shown to have good reliability. Among an undergraduate sample, the PDD demonstrated good internal consistency (Cronbach's alpha = .84). The measure is scored by calculating the average across all items, with higher scores indicative of greater perceived public stigma of mental illness.

Stigma Scale for Receiving Psychological Help. The Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al., 2000) is a 5-item measure that assesses public stigma of seeking help (see Appendix D). One of the items from this scale is: "People will see a person in a less favourable way if they come to know that he/she has seen a psychologist" (Komiya et al., 2000, p. 140). The items are rated on a 4-point Likert-type scale, ranging from a

0 for “strongly disagree” to a 3 for “strongly agree”. Items are summed to derive the SSRPH total score, with higher scores indicating greater public stigma of seeking help.

The SSRPH demonstrated acceptable internal consistency (coefficient alpha = .72) among a sample of 311 undergraduate students (Komiya et al., 2000), a sample of 211 undergraduate students (Cronbach’s alpha = .72; Bathje & Pryor, 2011), and a sample of 448 undergraduate students (Cronbach’s alpha = .75; Lannin, Vogel, Brenner, & Tucker, 2015). Some support for construct validity was generated based on the negative correlation between this measure and the Attitudes Towards Seeking Professional Psychological Help: Short Form (ATSPPH-S). Additionally, exploratory factor analysis has indicated that the measure consists of a single factor (Komiya et al., 2000).

The Attribution Questionnaire. The Attribution Questionnaire (AQ-27) is a 27-item measure that assesses endorsed stigma (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). A vignette is presented at the beginning of the questionnaire about Harry, who is a 30-year old man with schizophrenia who has been hospitalized six times. The items refer to Harry and how one would respond to him in order to assess one’s perceptions or stereotypes of mental illness (Corrigan, Watson, Warpinski, & Gracia, 2004). Specifically, the measure contains nine subscales to reflect cognitive, affective, and behavioural biases towards mental illness. The subscales include: responsibility or blame, pity, anger, fear, dangerousness, avoidance, coercion, segregation, and willingness to help the individual. There are three items per subscale and each item is rated on a 9-point Likert scale, ranging from “not at all” to “very much” (Corrigan et al., 2003).

A shorter version of this measure, the 9-item Attribution Questionnaire (AQ-9), has been devised (see Appendix E). The AQ-9 is comprised of one item from each of the AQ-27

subscales (Corrigan, Powell, & Michaels, 2014). To the author's knowledge, the AQ-9 and AQ-27 have not been used in parallel. Among a sample of 35 college students and a sample of 203 community members, the internal consistency of the AQ-9 was 0.73 and 0.62, respectively (Corrigan et al., 2014). The test-retest reliability was 0.73 among the college sample and 0.76 among the community sample (Corrigan et al., 2014). The AQ-9 was used in this study to assess endorsed stigma. The AQ-9 was selected over the AQ-27 due to the high number of items already included within the overall survey. In the present study, the vignette at the beginning of the questionnaire was revised. Rather than the vignette referring to an adult with schizophrenia, it entailed a 22-year old university student who is experiencing depression, has missed classes, is lacking energy and motivation, and has been hospitalized once. This revision was made in order to make the vignette more relatable to university students. Items are summed to derive the AQ-9 total score, with higher scores indicative of greater endorsed stigma.

The Self-Stigma of Seeking Help Scale. The Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006; Appendix F) is a 10-item measure that assesses the extent that one expects to self-stigmatize and experience lower self-esteem if one needed to seek psychological help. Some items from this scale include: "I would feel inadequate if I went to a therapist for psychological help" and "my self-confidence would NOT be threatened if I sought professional help". The items on this measure are rated on a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree". Items are summed to derive the SSOSH total score, and higher scores are interpreted as greater self-stigma of seeking psychological help. The SSOSH has been used with participants in several different countries. SSOSH data from six countries showed good internal consistency (alpha ranging from .77 - .89) and support for the univariate structure of the measure (Vogel et al., 2013). Among college populations, internal consistency of the

measure has been supported, with internal consistencies ranging from .79-.92 (Bathje & Pryor, 2011; Vogel et al., 2006).

Attitudes Toward Seeking Professional Psychological Help. The Attitudes Toward Seeking Professional Psychological Help is a 29-item scale that measures one's attitude toward seeking psychological help. A 10-item short form of this scale, the Attitudes Toward Seeking Professional Psychological Help – Short Form (ATSPPH-S; Appendix G), was devised and shown to correlate highly with the full version of the scale (Fischer & Farina, 1995). The 10-item version was used in this study. The ATSPPH-S uses a 4-point Likert-type scale ranging from 0 for "disagree" to 3 for "agree" (Tucker, 2012). An example of an item from this scale is, "I might want to have psychological counselling in the future". Items are summed to derive the ATSPPH-S total score, and higher scores indicate more positive attitudes towards seeking professional Internal consistency of the ATSPPH-S was demonstrated among two college samples, where values of .81 (Bathje & Pryor, 2011) and .84 (Tucker, 2012) were obtained.

Intentions to Seek Counseling Inventory. The Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975; Cepeda-Benito & Short, 1998; Appendix H) assesses one's likelihood of seeking counselling for a variety of difficulties. The measure asks, "How likely would you be to seek counselling/therapy if you were experiencing these problems?" and then 17 difficulties such as depression and conflict with parents are listed. Participants indicate their likelihood of seeking help for each problem using a 6-point Likert-type scale ranging from "very unlikely" to "very likely" (Cepeda-Benito & Short, 1998). Items are summed to derive the ISCI total score; higher scores indicate a greater likelihood of seeking counselling. Among undergraduate sample, this measure showed good internal consistency;

Cronbach's alpha = .88 (Bathje & Pryor, 2011). The ISCI items was also used to assess if participants have accessed psychological services for any of the listed problems.

The Self-Stigma of Mental Illness Scale. The Self-Stigma of Mental Illness (SSOMI; Tucker et al., 2013; Appendix I) scale is a 10-item self-report measure. It assesses self-stigma of mental illness by asking participants to respond to items based on how they would expect to react and feel if they were diagnosed with a mental illness (Tucker, 2013). Some of the items include: "My self-confidence would NOT be threatened if I had a mental illness", "If I had a mental illness, I would be less satisfied with myself" (Tucker, 2012). Items are rated on a Likert-type scale ranging from 1 to 5 and summed to create a total score. Higher scores indicate greater self-stigma of mental illness. The SSOMI was devised by adapting the items on the SSOSH to refer to having a mental illness, and so it is parallel to the SSOSH.

The psychometric properties of the SSOMI have been supported. Internal consistency was demonstrated among a sample of sample of undergraduate students (Cronbach's alpha = .93; Lannin, Vogel, Brenner, & Tucker, 2015), a sample of undergraduate students experiencing distress (Cronbach's alpha = .91; Tucker et al., 2013), and a sample of community adults (Cronbach's alpha = .92; Tucker et al., 2013). Convergent validity was supported as the SSOMI demonstrated a strong, positive correlation with a measure of self-stigma of depression (Tucker et al., 2013).

Depression Anxiety Stress Scales-21. The Depression Anxiety Stress Scales-21 (DASS-21; Antony et al., 1998; accessed from http://www2.psy.unsw.edu.au/dass//; Appendix J) is a self-report measure that assesses psychological distress. It is comprised of three scales – Depression, Anxiety, and Stress – which measure symptoms in these areas. Following the tripartite theory (Clark & Watson, 1991), the depression scale includes symptoms of low positive

affect, since these symptoms are unique to depression, whereas the anxiety scale includes symptoms of physiological arousal and the stress scale consists of symptoms of both anxiety and depression, such as tension (Antony et al., 1998). The DASS-21 total score and subscale scores are summed and then multiplied by two to allow comparison with the longer version (Psychology Foundation of Australia, 2018). Higher scores on the DASS-21 scales are associated with more frequent symptoms (Osman et al., 2012).

The reliability and validity of the DASS-21 has been supported among clinical samples. Osman et al. (2012) examined the factor structure of the DASS-21 when used with undergraduate populations by conducting and exploratory factor analysis in one study and a confirmatory factor analysis in another study. Their results generated greater support for examining the total score of the DASS-21 as a measure of general distress, rather than analyzing individual scale scores (Osman et al., 2012). Internal consistency of the DASS-21 was supported, as the total scale score had an omega coefficient of .89 and the omega coefficients for the subscales ranged from .83 to .88 (Osman et al., 2012). Among a sample of Lakehead University students, this measure had good internal consistency (Cronbach's alpha ranged from .78 to .90; Short & Mazmanian, 2013).

General Population - Clinical Outcomes in Routine Evaluation - (GP-CORE). The GP-CORE is a 14-item self-report measure of distress that is designed to be used with a general population, including student populations (Sinclair et al., 2005; Appendix K). This measure was derived from the Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM). The CORE-OM was devised to assess clinical symptoms throughout the course of therapy by assessing four domains: well-being, problems/symptoms, functioning, and risk. However, the

risk items identify clinically significant risk and several of the items are of high intensity, so these items are not as relevant for a non-clinical population (Sinclair et al., 2005).

The item response options for the GP-CORE are on a 5-point Likert-type scale ranging from 0 for "not at all" to 4 for "most or all of the time" (Sinclair et al., 2005). The mean score across the items is used as the total score. Higher scores indicate greater general distress. The psychometric properties were examined using datasets created from administration of the CORE-OM (by selecting the GP-CORE items from the larger CORE-OM) and with datasets created by administering the GP-CORE on its own (Sinclair et al., 2005). In a non-clinical undergraduate sample of students attending a university in England, where the CORE-OM was originally administered and the GP-CORE data was used from the dataset, the GP-CORE demonstrated high test-retest reliability (Pearson's r = .91) and significant differences in scores based on students' level of help-seeking for psychological problems (Sinclair et al., 2005).

When the GP-CORE was administered as a single measure to undergraduate students at a university in England, the measure demonstrated high internal consistency (alpha = .83; although internal consistency was lower for males than females), a negative correlation with social support, and positive correlations with sleep difficulties and financial concerns (Sinclair et al., 2005). A principal component analysis showed four correlated components, which consisted of positively worded items, negatively worded items, social support, and physical symptoms (Sinclair et al., 2005). Based on this data, clinical cut-off scores are available for both males and females (Sinclair et al., 2005). The internal consistency of the GP-CORE was supported when used with another sample of university students in the United Kingdom, as Cronbach's alpha values were above .80 at all four time-points (Cooke et al., 2006).

The Undergraduate Stress Questionnaire. The Undergraduate Stress Questionnaire (USQ; Crandall, Preisler, & Aussprung, 1992; Appendix L) is an 83-item checklist that assesses the extent of stressful life events that students have encountered in the past two weeks. Participants complete the checklist by checking the events that they have experienced. Some of the items include: "lack of money", "no sleep", "had lots of tests", "working while in school" (Crandall et al., 1992). Since the USQ is scored by adding the number of stressful events one has experienced (Crandall et al., 1992), a higher score indicates higher stress. The reliability and validity of this measure were supported, and higher scores were obtained among students socializing on campus compared to students waiting in a campus health centre (Crandall et al., 1992). Additionally, scores on this checklist have predicted depressive symptoms and negative affect (Powers, Cramer, & Grubka, 2007).

The Toronto Empathy Questionnaire. The Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009; Appendix M) is a 16-item measure that assesses trait empathy. Items are responded to using a 5-point Likert-type scale that ranges from 0 for "never" to 4 for "always." Items are summed to derive the total TEQ score, with higher scores indicating greater trait empathy. Spreng et al.'s aim was to devise a single-factor measure of the empathy construct that is reflected in current tools. The TEQ was developed using items from several established empathy questionnaires and some new items based on the empathy literature (Spreng et al., 2009). Thus, the empathy construct assessed by the TEQ reflects an amalgamation of how empathy is assessed in various measures. The initial 141 items were reduced using factor analysis techniques and the final single-factor scale consisted of 16 items (Spreng et al., 2009). The remaining items that constitute the final TEQ tend to address the affective component of empathy (Spreng et al., 2009).

After the initial development of the TEQ using exploratory factor analysis, the one-factor structure of the scale was supported in a different sample of undergraduate students, using Velicer's Minimum Average Partial test (MAP). Among a sample of 200 undergraduate students, the TEQ showed high internal consistency (Cronbach's alpha = 0.85) and convergent and discriminant validity were supported (Spreng et al., 2009). High internal consistency was also demonstrated among a sample of 497 undergraduate students (Cronbach's alpha = 0.88; Baldner & McGinley, 2014).

The Self-Compassion Scale – Short Form. The original Self-Compassion Scale (SCS; Neff, 2003b) is a 26-item measure that consists of six subscales: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. The six subscales were derived using theoretical and factor analytical approaches, and a confirmatory factor analysis indicated that the measure produces an overall self-compassion score (Neff, 2003b). This instrument was shown to have good test-retest reliability over a 3-week interval, and convergent and discriminant validity were supported (Neff, 2003b).

More recently, the Self-Compassion Scale – Short Form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011; Appendix N) was derived. The SCS-SF is a 12-item measure that assesses self-compassion. Items are rated on a 5-point Likert-type scale ranging from "almost never" to "almost always". The total SCS-SF score is the average score across the items, and higher scores indicate greater self-compassion. The SCS-SF correlates highly with the original 26-item version (Raes et al., 2011). Moreover, the short-form scale was shown to have a similar factor structure to the original scale (i.e., six subscale factors, but one overall factor of self-compassion), and a similar internal consistency for the total score, which was 0.87 (Raes et al., 2011). The SCS-SF was used in this study to assess self-compassion.

Procedure

The study consisted of an online survey at two time points. During Time 1 of the study, when potential participants accessed the online survey, they were presented with a detailed information letter that described the study. To reduce socially desirable responding, a broad study title and description were provided in the information letter (see Appendix O) and the term *attitudes* was used over the term *stigma*. The questionnaire was also used for a separate research project that focused on gender, which further contributed to the use of a broad study description. Mental health resources were provided within the information letter. A consent form (see Appendix P) was presented and individuals were asked to indicate if they wished to participate in the study or not. Students who consented to participate were presented with the demographic questionnaire and the other measures. Students enrolled in introductory psychology courses were offered one bonus point for participation. Students who were not receiving a bonus point were offered entry into a draw for one of three gift certificates of $50.00. Class presentations were conducted to recruit participants, for which the script is outlined in Appendix Q.

The author contacted participants by email three months after they completed Time 1 to invite them to complete the questionnaire a second time (i.e., Time 2). The students who participated at Time 2 were again presented with a detailed information letter (see Appendix R) that described the study and included a list of mental health resources. A consent form was presented and individuals were asked to indicate if they wished to participate in the study or not. Students who consented to participating were then presented with the demographic questionnaire and the other measures. At the end of the survey, students were presented with a debriefing form that described the purpose of the study, outlined the measures that were used, provided contact information for the researchers and the research ethics board, and provided a list of resources that

participants could contact if feeling distressed (Appendix S). Students enrolled in introductory psychology courses were again offered one bonus point for participation. Students who were not receiving a bonus point were offered entry into a draw for one of three gift certificates of $50.00.

Statistical Analyses

Data were analyzed using IBM SPSS, version 25, for Macintosh. In Part 1 of the study, the data were screened prior to analyses. Descriptive statistics of the sample were examined, including demographic characteristics of the sample, levels of distress, contact with mental illness, self-reported psychological diagnoses, and experiences of discrimination. The means and bivariate correlations between scale totals were conducted. Scale psychometric properties such as inter-item correlations, item-total correlations, and internal consistency coefficients were examined. The primary analyses consisted of linear and logistic regressions. When mediation and moderation analyses involved a continuous dependent variable, Hayes' (2018) PROCESS macro was used in SPSS. Within PROCESS, bootstrapping methods were used to estimate the indirect effect for mediation analyses. Bootstrapping is a procedure that consists of repeated resampling of a distribution and estimating the indirect effect within each of the samples (Preacher & Hayes, 2004). The mediation analyses used 5000 samples and a 95% confidence interval. The average indirect effect produced through bootstrapping represents the point estimate of the indirect effect (Preacher & Hayes, 2004). For moderation analyses conducted in PROCESS, probing techniques were used to better understand the interaction (i.e., understanding where empathy relates to endorsed stigma of mental illness in the distribution; Hayes, 2013) if moderation was demonstrated.

The same statistical procedures used in Part 1 were used for Part 2. In brief, data were first screened followed by examination of demographic variables. Linear and logistic

regressions were used to test prediction-related hypotheses, while the PROCESS macro (Hayes, 2018) was once again used to examine hypotheses related to moderation.

Part 1 Results

Data Screening

Missing data. The data were screened for impossible values and missing data. Thirty-two students were deleted due to missing data on at least one full measure. An additional three cases were deleted for students who appeared to complete Part 1 more than once. Only item-level missingness remained, rather than scale-level missingness. Apart from age, all of the scale items had less than 5% missing data. Little's Missing Completely at Random test (MCAR) was significant, χ^2 (13413) = 13918.20, p = .001, suggesting that the data were not missing completely at random.

To further examine the pattern of missing data, students with some missing data (i.e., those who skipped at least one item from a scale) were compared to those who did not have any missing scale data. Specifically, one-way *ANOVAs* were conducted to determine if those with missing data differed from those without on the main study variables, age, and the number of mental health services received. To correct for the increased likelihood of a Type 1 error that occurs when multiple tests are conducted, Benjamini and Hochberg's (1995) False Discovery Rate (FDR) correction was applied. The FDR was selected over other correction procedures such as the Bonferroni correction, since such corrections are conservative (Verhoeven, Simonsen, & McIntyre, 2005) and may therefore increase the likelihood of a Type II error. The FDR critical value was set at .05 and it was applied to the 17 comparisons. Only the difference in number of services received was significant (students with missing data had received less

mental health services compared to students without missing data); Welch's $F(1,429.79) = 82.08$, $p < .001$.

Similarly, to examine if students with or without missing data were associated with the categorical demographic data, a crosstabs analysis was conducted and χ^2 tests were examined for the following variables: sex, mental illness diagnosis, perceived experience of an undiagnosed mental health challenge, experience of discrimination related to mental health, and experience of discrimination related to other aspects of one's identity. An FDR correction was applied to the five tests; none were significant. Newman (2014) indicated that when missing data depend on observed data, the data are missing at random. As the missing data appeared to be related to the number of services received, it was assumed that the data were missing at random.

The primary approach used for missing data was multiple imputation (note that, for analyses using the PROCESS macro, proration was used to handle missing data instead of multiple imputation). Multiple imputation was used to address missing data since it is purported to be superior to older data imputation techniques such as mean substitution (Graham, 2009) and it does not require data to be missing completely at random (Newman, 2014; Tabachnick & Fidell, 2013). All scale variables (except for the LoCR, which had no missing items) were included in the imputation model. Ten imputations were conducted using the automatic method, with 25 parameters. The minimum and maximum values for each variable were set as constraints to ensure that all generated values fell within the acceptable range.

Data Normality. Skewness and kurtosis *z* scores (reported in Table 11) and Quantile-Quantile (Q-Q) plots were examined to assess normality for each scale variable. Transformations were applied to six variables (AQ, DASS-21 Depression, DASS-21 Anxiety, DASS-21 Stress, DASS-21 Total, TEQ, and LoCR) due to significant skewness or kurtosis. *Z*

scores and Q-Q plots of transformed variables were examined to determine the transformation that best addressed normality. The final transformations used are displayed in Table 12. The normality of the DASS-21 Stress scale did not improve with transformations so it was left untransformed.

Next, both univariate and multivariate outliers were addressed. Univariate outliers were addressed by changing the outlier to one unit above or below the next value in order to reduce the influence of the outlier (Tabachnick & Fidell, 2013) and maintain the data order. Multivariate outliers were identified by mahalanobis distance. One univariate outlier (PDD scale) was reduced, and four cases with multivariate outliers were deleted from the data set. Thus, the number of students reduced to 464.

Homoscedasticity and multicollinearity. Multicollinearity and homoscedasticity were examined within each regression analysis. There were no multicollinearity issues. Any heteroscedasticity issues are reported alongside the results of the relevant analysis.

Correlations

Bivariate correlations between variables are presented in Table 13. The FDR correction was applied to the 91 correlations using a critical value of .05. Notably, some of the correlations are limited by a weak linear relationship between variables. Perceived public stigma of mental illness was significantly negatively related to endorsed stigma of mental illness ($r = -.22$, $p < .05$) but public stigma of seeking help was not significantly related. This suggests that perceiving there to be higher public stigma related to mental illness was related to having greater endorsement of stigmatizing attitudes. Perceived public stigma of mental illness and public stigma of seeking help were both positively and significantly correlated with self-stigma of seeking help ($r = .17$, $p < 0.5$; $r = .38$, $p < .05$; respectively), indicating that greater perceptions

of public stigma were related to greater self-stigma related to help-seeking. Self-stigma of seeking help was negatively and significantly correlated with attitudes towards seeking help (r = -.60, $p < .05$), suggesting that greater self-stigma is related to more negative views of mental health services. Attitudes towards psychological services was positively and significantly correlated with willingness to seek help (r = .41, $p < .05$), suggesting that more positive attitudes are related to greater willingness to seek help. Trait empathy was significantly negatively associated with endorsed stigma of mental illness (r = -.50, $p < .05$). That means that having more empathy was related to holding less stigmatizing attitudes related to mental illness. Lastly, self-compassion was significantly and negatively related to perceived public stigma of mental illness (r = -.23, $p < .05$), public stigma of seeking help (r = -.24, $p < .05$), self-stigma of seeking help (r = -.32, $p < .05$), and self-stigma of mental illness (r = -.39, $p < .05$). Therefore, having higher self-compassion was related to perceiving lower public stigma and having lower anticipated self-stigma.

Part 1 Hypotheses

Gender identity, experiences of discrimination related to mental health, experiences of discrimination related to another aspect of one's identity, and level of contact with mental illness (i.e., score on the LoCR) were entered as covariates in all analyses. These variables were selected as covariates since they all relate to levels of stigma (e.g., Angermeyer, Matschinger, & Corrigan, 2004; Corrigan, Edwards, Green, Diwan, & Penn, 2001; Corrigan et al., 2003; Gary, 2005; Kidd et al., 2011; Vogel et al., 2007). They were entered as covariates in order to control for their effects on stigma, so that any significant main effects would not be due to these variables. In regression analyses, the covariates were entered at the first step. In analyses using PROCESS, they were entered as covariates.

Hypothesis 1. Hypothesis 1 predicted that endorsed stigma of mental illness would predict self-stigma of seeking help, self-stigma of seeking help would predict attitudes towards seeking help, and attitudes towards seeking help would predict intentions to seek help (see Figure 4). Three separate linear regressions were conducted to examine this hypothesis. In the first analysis, endorsed stigma of mental illness significantly predicted self-stigma of seeking help across the imputed datasets (as there were 10 dataset due to multiple imputation; the average F statistic was $F(5, 453) = 6.92$, $p < .001$; see Table 14) and accounted for 6.1% of the variance in self-stigma of seeking help, based on the average adjusted R^2 (average $R^2 = 7.1$ %). Higher endorsed stigma of mental illness was associated with higher self-stigma of seeking help. In other words, holding more negative attitudes about mental illness was associated with having greater perceived self-stigma related to help-seeking. There was some heteroscedasticity within this analysis; however, this was not considered problematic as the data are ungrouped (Tabachnick & Fidell, 2013).

In the second analysis, attitudes towards help-seeking were regressed on self-stigma of seeking help. Self-stigma of seeking help significantly predicted attitudes towards seeking help across the imputed datasets (the average F statistic was $F(5, 453) = 61.42$, $p < .001$; see Table 15) and accounted for 39.7% of the variance in attitudes towards seeking help, based on the average adjusted R^2 (average $R^2 = 63.5\%$). Greater hypothetical self-stigma of seeking help was related to less positive attitudes about help-seeking.

In the third regression analysis, intentions to seek help were regressed on attitudes towards seeking help. Attitudes towards seeking help significantly predicted intentions to seek help across the imputed datasets (the average F statistic was $F(5, 453) = 19.83$, $p < .001$; see Table 16) and accounted for 17.1% of variance in intentions to seek help, based on the average

adjusted R^2 (average R^2 = 18.0%). Greater positive attitudes towards seeking help was associated with greater willingness to seek services.

Hypothesis 2. Hypothesis 2 predicted that endorsed stigma of mental illness would mediate the relationship between perceived public stigma of mental illness and self-stigma of seeking help, that self-stigma of seeking help would mediate the relationship between endorsed stigma of mental illness and attitudes towards help-seeking, and attitudes towards help-seeking would mediate the relationship between self-stigma of seeking help and intentions to seek help (see Figure 5). These mediation analyses were conducted using Hayes' (2018) PROCESS macro. First, endorsed stigma of mental illness was examined as a potential mediator of the relationship between perceived public stigma of mental illness and self-stigma of seeking help. The transformed Attribution Questionnaire variable was used as the measure of endorsed stigma of mental illness. The results were consistent with a mediation model (indirect effect = -.06, *SE* = .02, 95% CI[-.09,-.02]). Second, self-stigma of seeking help was examined as a potential mediator of the relationship between endorsed stigma of mental illness and attitudes towards help seeking. The results were consistent with a mediation model (indirect effect = -.10, *SE* = .03, 95% CI[-.15,-.05]). Third, attitudes toward seeking help was examined as a potential mediator of the relationship between self-stigma of seeking help and intentions to seek help. The results were consistent with a mediation model (indirect effect = -.35, *SE* = .05, 95% CI[-.46,-.25]). The results from these analyses are displayed in Figure 8.

A post-hoc analysis was conducted to examine if endorsed stigma of mental illness mediated the relationship between perceived public stigma of mental illness and self-stigma of mental illness, using Hayes' (2018) PROCESS macro. The transformed version of the Attribution Questionnaire was again used as the measure of endorsed stigma. The results were

consistent with a mediation model (indirect effect = -.03, *SE* = .01, 95% CI[-.06,-.01]; see Figure 9).

Hypothesis 3. Hypothesis 3 examined whether empathy moderated the relationships between public stigma of seeking help and endorsed stigma of mental illness, as well as between perceived public stigma of mental illness and endorsed stigma of mental illness (see conceptual model in Figure 6). Since endorsed stigma of mental illness was the outcome variable and interpreting a transformed variable as the outcome variable can be challenging, the median-split version of the Attribution Questionnaire was used instead of the transformed variable. Therefore, logistic regression analyses were used instead of PROCESS by entering the covariates, empathy, and public stigma (either of help-seeking or mental illness) in the first step, then entering the predictors and their interaction term (public stigma of help-seeking or mental illness by empathy) in a second step. The first model showed that the interaction between empathy and public stigma of seeking help was not a significant predictor of endorsed stigma of mental illness. However, endorsed stigma of mental illness was significantly predicted by one of the covariates, familiarity with mental illness (measured by the LoCR), and empathy. A one-unit reduction in familiarity with mental illness was associated with a 1.70 odds of greater endorsed stigma of mental illness. A one-unit reduction in trait empathy was associated with a 2.62 odds of greater endorsed stigma of mental illness. Experiencing mental health discrimination was related to a 2.47 times lower odds of having higher endorsed stigma of mental illness.

The second model showed that the interaction between empathy and perceived public stigma of mental illness was not a significant predictor of endorsed stigma of mental illness. However, endorsed stigma of mental illness was significantly predicted by two of the covariates, familiarity with mental illness and experience of mental health discrimination. A one-unit

reduction in familiarity with mental illness was associated with a 1.61 odds of having higher endorsed stigma of mental illness. Having experienced mental health discrimination was associated with a 2.30 lower odds of having higher endorsed stigma of mental illness.

Hypothesis 4. Hypothesis 4 predicted that self-compassion would predict self-stigma of seeking help and intentions to seek help. Two separate linear regressions were conducted to examine this hypothesis. In the first analysis, self-compassion significantly predicted self-stigma of seeking help across the imputed datasets (as there were 10 dataset due to multiple imputation; the average F statistic was $F(5, 453) = 12.08$, $p < .001$; see Table 17) and accounted for 10.8% of the variance in self-stigma of seeking help, based on the average adjusted R^2 (average R^2 = 11.8%). Higher self-compassion was associated with lower self-stigma of seeking help. There was some heteroscedasticity within this analysis; however, it was not considered problematic as the data were ungrouped (Tabachnick & Fidell, 2013). In the second analysis, where self-compassion was examined as a predictor of intentions to seek help, the model was significant across the imputed datasets (the average F statistic was $F(5, 453) = 3.69$, $p < .01$) and accounted for 2.9% of the variance in intentions to seek help, based on the average adjusted R^2 (average R^2 = 3.9%). However, self-compassion did not individually predict intentions to seek help (see Table 18).

Hypothesis 4 also predicted that self-compassion would moderate the relationship between public stigma of seeking help and self-stigma of seeking help, as well as the relationship between endorsed stigma of mental illness and self-stigma of seeking help (see conceptual model in Figure 7). Moderation analyses (Model 1) were again conducted using PROCESS. All variables were mean centered prior to the analysis. The interaction between self-compassion and public stigma of seeking help significantly predicted self-stigma of seeking help (b = -.32, t(452)

= -3.79, $p < .001$); therefore, self-compassion moderated the relationship between public stigma of seeking help and self-stigma of seeking help. Simple slopes were examined at the 16th, 50th, and 84th percentiles of self-compassion scores. At each percentile, public stigma of seeking help positively predicted self-stigma of seeking help (16th percentile: $b = .69$, $t(542) = 8.52$, $p < .001$; 50th percentile: $b = .49$, $t(542) = 7.84$, $p < .001$; 84th percentile: $b = .29$, $t(542) = 3.62$, $p < .001$). In other words, as public stigma of seeking help increased, self-stigma of seeking help also increased. However, the relationship between public stigma of seeking help and self-stigma of seeking help was weaker when self-compassion was lower and stronger when self-compassion was higher (see Figure 10).

Self-compassion was also examined as a moderator of the relationship between endorsed stigma of mental illness and self-stigma of seeking help, using PROCESS (Model 1). All variables were again mean centered prior to the analysis. The relationship between endorsed stigma of mental illness and self-stigma of seeking help was not moderated by self-compassion.

Part 2 Results

Data Screening

The following data screening procedures were applied.

Missing data. The data were screened for inaccurate values and missing data. Little's MCAR was not significant, χ^2 (12730) = .000, $p = 1.00$, indicating that the data is missing completely at random. Apart from age, all of the scale items had less than 5% missing data. Out of the 137 students, 82 (59.9 %) had complete data and 55 (40.1 %) were missing data on at least one item. Multiple imputation with 10 imputations was again the primary method for addressing missing data (although mean proration was conducted to address missing data for the analyses using the PROCESS macro).

Data normality. Skewness and kurtosis z scores and Quantile-Quantile (Q-Q) plots were examined to assess normality for each scale variable. The AQ-9 and the LoCR were significantly skewed at both time points. Three transformations were tried for each variable, and skewness and kurtosis *z* scores and Q-Q plots were examined to determine the best fit. An inverse transformation for positive skew was selected for the AQ variables at both time points, and a logarithmic transformation for negative skew was selected for the LoCR variables at both time points. Since some of the analyses required the AQ-9 to be used as a dependent variable, and there are interpretation challenges associated with transformed dependent variables, a median-split variable was generated for the AQ-9 at each time point (median = 1.75 at both time points). The transformed AQ-9 variables were used in analyses when the AQ-9 was an independent variable, but the median-split versions were used when the AQ-9 was a dependent variable.

Univariate and multivariate outliers were examined using the same procedures previously described in Part 1. One univariate outlier was found on the Time 2 transformed AQ-9 variable, and one was found on the Time 2 SSRPH scale. These outliers were reduced by one tenth. No multivariate outliers were detected. Homoscedasticity and multicollinearity were examined and any issues are discussed within the relevant analysis section, below.

Part 2 Hypotheses

Gender identity, experiences of discrimination related to mental health, experiences of discrimination related to another aspect of one's identity (i.e., not mental health), and level of contact with mental illness (i.e., score on the LoCR) were entered as covariates in the first step of each regression analysis.

Hypothesis 5. A logistic regression was conducted to examine if empathy at Time 1 predicted endorsed stigma of mental illness at Time 2. A logistic regression was used since endorsed stigma of mental illness was the outcome variable, and interpretation would be more clear with a split-variable (dichotomous) rather than a transformed continuous variable. Therefore, the split AQ variable was used as the measure of endorsed stigma of mental illness. A Box-Tidwell test showed that the linearity assumption was met. The regression model was significant across datasets (as there were 10 datasets based on multiple imputation); average χ^2 (9) = 30.21, p <.001 and accounted for 26.7% (Nagelkerke R^2) of the variance, on average. The model accurately predicted 68.9-69.6% of cases across the datasets. Greater empathy at Time 1 was associated with lower endorsed stigma at Time 2 (Odds ratio = 0.89). None of the covariates significantly contributed to the model (coefficients of predictor variables are shown in Table 19). To better understand the direction of the relationship between these variables, a post-hoc cross-lagged analysis (Locascio, 1982) was conducted. A linear regression was conducted where endorsed stigma of mental illness at Time 1 was examined as a predictor of empathy at Time 2. The regression model was significant across datasets; average F (5,129) = 5.35, p <.001 and accounted for 20.3% of the variance based on the average adjusted R^2 (average R^2 = 23.3%). Higher endorsed stigma predicted lower empathy (see Table 20). Therefore, empathy and endorsed stigma of mental illness both predict each other.

Hypothesis 6. Hypothesis 6 proposed that self-compassion at Time 1 would predict self-stigma of seeking help and intentions toward seeking help at Time 2. Multiple regression analyses were conducted. First, self-stigma of seeking help at Time 2 was regressed on self-compassion at Time 1. Self-compassion significantly predicted self-stigma of seeking help at Time 2, across the imputed datasets (the average F statistic was F(5,129) = 4.92, p < .001) and

accounted for 12.8% of variance in self-compassion, based on the average adjusted R^2 (average R^2 = 16.0%; see Table 21). Lower self-compassion at Time 1 was associated with higher anticipated self-stigma towards seeking help at Time 2. To better understand the direction of the relationship between these variables, a cross-lagged analysis was again conducted. Self-compassion at Time 2 was regressed on self-stigma of seeking help at Time 1. Self-stigma of seeking help at Time 1 significantly predicted self-compassion at Time 2 across the imputed datasets (the average F statistic was $F(5,129) = 7.05$, $p < .001$) and accounted for 4.0% of variance in self-compassion, based on the average adjusted R^2 (average R^2 = 6.9%). Higher self-stigma of seeking help was associated with lower self-compassion (see Table 22). Therefore, self-compassion and self-stigma of seeking help both predict each other over time. These analyses were limited by heteroscedasticity but this was not believed to invalidate the results due to the ungrouped data (Tabachnick & Fidell, 2013).

Second, intentions to seek help at Time 2 was regressed on self-compassion at Time 1. The regression model was significant in one dataset but not in the others, and it approached significance overall (the average F statistic across all 10 datasets was $F(5,129) = 2.27$, $p = .051$), accounting for 4.5% of the variance in self-compassion, based on the average adjusted R^2 (average R^2 =8.1%; see Table 23). However, Time 1 self-compassion did not individually predict intentions to seek help at Time 2 (coefficients presented in Table 23).

The third part of Hypothesis 6 predicted that, among students experiencing psychological distress, those with high self-compassion at Time 1 would demonstrate greater help-seeking behaviour. Rather than examining the relationship between self-compassion and help-seeking behaviour among only the students who were distressed, this hypothesis was investigated by examining self-compassion at Time 1 as a moderator of the relationship between distress at Time

1 and help-seeking behaviour between Time 1 and Time 2. Therefore, all Part 2 participants were included in the analysis. Help-seeking behaviour was based on whether or not students indicated that they had sought any form of help (informal or formal) within the past three months. Six logistic regressions were conducted where an interaction between self-compassion and distress at Time 1 was entered as a predictor. Six analyses were conducted because there were two distress variables that were independently used in the interaction term (GPCORE and DASS-21 Total Score), and three help-seeking outcome variables - whether a participant sought support from informal (i.e., support from friends or family), formal (i.e., support from therapists/counsellors, physicians, psychiatrists, emergency departments, or cultural/spiritual/religious figures), or either informal and formal sources. The PROCESS macro was not used for these moderation analyses since the outcome variables were dichotomous. None of the interaction terms significantly predicted the use of informal, formal, or any type of support.

Post-hoc analyses were conducted to determine if intentions to seek help at Time 1 predicted help-seeking behaviour over the following three-month period. Three binomial logistic regressions were conducted to examine intentions to seek help as a predictor of seeking any type of help (formal or informal), formal help, and informal help. Gender, experiences of discrimination, level of contact with mental illness, and psychological distress were controlled in the analyses. Linearity of the continuous variables in all analyses were demonstrated using the Box-Tidwell procedure. The first logistic regression model, where intentions to seek help was examined as a predictor any type of help-seeking for a mental health difficulty, was statistically significant, $\chi^2(11) = 23.94$, $p < .05$. The model explained 39.6% (Nagelkerke R^2) of the variance

in seeking formal or informal help. However, none of the predictor variables were statistically significant.

The second logistic regression model, where intentions to seek help was examined as a predictor of formal help-seeking for a mental health difficulty, was statistically significant, $\chi^2(11) = 51.99$, $p < .001$. This model explained 44.8% (Nagelkerke R^2) of the variance in seeking formal help. Only experiences of discrimination and distress, as measured by the DASS-21, were significant predictors. The odds of seeking help was 5.17 times greater for students who have experienced mental health discrimination compared to those who have not experienced mental health discrimination, and 1.03 times greater for students who experienced higher psychological distress at Time 1.

The third logistic regression model, where intentions to seek help was examined as a predictor of informal help-seeking for a mental health difficulty, was statistically significant, $\chi^2(11) = 24.48$, $p < .05$. This model explained 36.8% of the variance in informal help-seeking. None of the predictor variables were statistically significant, although psychological distress, measured by the DASS-21, approached significance ($p = 0.55$; lower distress was associated with an increased odds of informal help-seeking by a factor of 1.04).

General Discussion

This research sought to better understand help-seeking, stigma, and protective factors in relation to these variables, among university students. Specifically, Part 1 extended the research of Bathje and Pryor (2011) by assessing perceived public stigma of mental illness and examining self-compassion and empathy as potential protective factors. Public stigma of seeking help, endorsed stigma of mental illness, self-stigma of seeking help, attitudes towards mental health services, and intentions to seek mental health services were examined cross-sectionally. Part 2

extended the findings of Part 1 by assessing the process of stigma and help-seeking over an approximate three-month period. Part 2 also sought to address a gap in the literature regarding the dearth of research on help-seeking behaviour for mental health challenges by examining how intentions to seek help and self-compassion relate to help-seeking behaviour.

Mental Health Concerns

The self-reported lifetime rate of mental disorders in the Part 1 participants was 28.0%. This lifetime rate of mental disorders is lower than other prevalence rates. For example, the lifetime prevalence rate of mental disorders among the general Canadian population, aged 15 years and older, for only four mental disorders (bipolar disorder, depression, generalized anxiety disorder, and substance use disorder) is 33.1% (Pearson, Janz, & Ali, 2013). In addition, for Canadians between the ages of 13 to 29, lifetime prevalence rates of mental disorders are approximately 35% to 45%, while one-year prevalence rates are about 26% to 29% (Smetanin et al., 2011). The lower lifetime rate of mental disorders in the present study may be due to the fact that postsecondary students have been shown to be less likely to have a mental disorder than their community counterparts (Wiens et al., 2020).

Among Part 1 participants, 49.1% believed they had experienced an undiagnosed mental health challenge within their lifetime. Although this is not diagnostic information, it suggests that the prevalence of mental disorders is likely higher than the estimate based on diagnosis alone. Moreover, the fact that Blanco et al. (2008) found that approximately half of college students experienced a mental disorder in the past year after applying structured interviews to a nationally representative U.S. sample, suggests that estimates based on diagnostic and treatment information are likely under-estimates of the true prevalence of mental disorders in this population.

Mental Health and Discrimination

Between Times 1 and 2, which was approximately a three-month interval, 10.9% of students reported receiving a mental health diagnosis and 45.3% of students believed they experienced an undiagnosed mental health challenge. This rate is somewhat similar to the 2019 survey of Canadian postsecondary students, which showed that 36.8% of students were diagnosed with or received treatment for a mental health condition in the past 12 months (ACHA, 2019). These high rates of mental health difficulties over an approximate three-month period may speak to this population's vulnerability to experiencing distress (e.g., Blanco et al., 2008).

Participants also reported high rates of experienced discrimination; 20.3% of Part 1 participants reported experiencing discrimination related to mental health difficulties and 36.9% reported experiencing discrimination related to another aspect of their identity in their lifetime. Part 2 examined these experiences in a three-month timeframe: 10.2% of students endorsed experiencing mental health discrimination in the past three months and 16.8% endorsed experiencing discrimination related to another aspect of their identity in the past three months. These rates seem to be high given the short time frame. Information on the rates and types of mental health discrimination among postsecondary students is lacking in the literature. In the broader literature, it is evident that mental health discrimination is frequently experienced in the workplace, as 67.7% of Ontarians and 63.7% of Canadians over age 15 with mental health or addiction disabilities reported being disadvantaged in the workplace due to their disability (Ontario Human Rights Commission, 2015). The present study did not acquire information on how mental health discrimination is experienced. Therefore, research is needed to determine the nature of mental health discrimination endured by postsecondary students such as whether

students experience social exclusion, reduced opportunities, or receive discriminatory remarks from others, to name some potential examples. The high rates of discrimination reported by participants in this study are concerning as discrimination is associated with a host of negative outcomes such as greater mental health (Kessler, Mickelson, & Williams, 1999) and economic (Sharac, Mccrone, Clement, & Thornicroft, 2010) challenges as well as increased risk of developing substance use problems (Hatzenbuehler, Corbin, & Fromme, 2011). In addition, "double stigma," can result when one experiences an exacerbated negative effect from being discriminated against due to both mental health and another part of one's identity (Gary, 2005; Kidd et al., 2011; Mizock & Mueser, 2014). Further data on the discrimination experienced by postsecondary students, as well as the intersection of discrimination associated with different aspects of one's identity, are therefore warranted.

Help-Seeking

Students sought help for mental health difficulties from informal support (family and friends) more frequently than formal supports (mental health counsellor, psychiatrist, family physician, hospital emergency department, cultural/spiritual/religious mentor, other) across both parts of the study. This trend aligns with previous research showing greater intentions to seek help or help-seeking behaviour from informal sources compared to formal (Brown et al., 2014; Findlay & Sunderland, 2014; Rickwood et al., 2005). Over the study period, 90.5% of students sought help from informal support, while 31.4% of students sought help from formal supports. Only two participants (1.5%) had solely accessed formal support over the study period. This finding aligns with Brown and colleagues' research, which found among a community sample of adults that fewer people sought only formal support compared to only informal support over the past year. In the present study, when students received formal support, it was most frequently

from mental health counsellors and family physicians, a finding consistent with the 2012 Canadian Community Health Survey–Mental Health which demonstrated that family physicians were the most frequently accessed providers (by the 15-24 year age group; Findlay & Sunderland, 2014). Therefore, family physicians and mental health counsellors (training of counsellors was not specified) appear to play an important role in providing mental health care and connecting students with other services as necessary.

People may seek informal support more frequently than formal support due to the availability of informal supports and the trust and familiarity of friends and family (Rickwood et al., 2005). Since students use informal support more frequently, mental health literacy becomes increasingly important in order to ensure that students receive appropriate support. Mental health literacy consists of having knowledge of mental health issues, recognizing mental health challenges, knowing what professional supports and treatments are available as well as some self-help strategies, and providing support to those who are struggling with their mental health (Jorm, 2012). Therefore, mental health literacy among friends and family members would help them to recognize that someone is having difficulty, to provide support, and to guide the individual towards effective treatments. Interventions can help equip people to support their friends and family (Rickwood et al., 2005). One potential avenue in this regard could be the use of online mental health literacy interventions, as some have demonstrated an ability to enhance mental health literacy; however, further research is needed to determine the most suitable online interventions for community populations (Brinjath, Protheroe, Mahtani, & Antoniades, 2016).

Informal supports were not only sought most frequently, they also tended to receive higher helpfulness ratings than formal supports. Friends consistently received the highest average helpfulness ratings, generally followed by family members. Although students

perceived the informal support to be beneficial, the quality of that support is not known. A family member may provide advice that a student finds to be helpful, and that advice could align with evidence-based mental health interventions or that advice could be contrary to evidence-based practice (e.g., promoting maladaptive avoidance). As support from family physicians was frequently sought but the corresponding helpfulness ratings were lower than that of informal supports and mental health counsellors, a better understanding of the mental health services that family physicians in Ontario typically provide (e.g., prescribing medications, making referrals, conducting therapy, etc.) is needed. Data specific to mental health intervention in primary care are lacking. In a qualitative study in Ontario, some participants described feeling unsatisfied with the lack of referrals for emotional support or being prescribed medication rather than provided with therapy, when accessing support within primary care (Ross et al., 2015). At the same time, there are several barriers that could prevent family physicians from being able to provide further mental health support. In a study by Clatney, MacDonald, and Shah (2008), family physicians in Saskatchewan identified ways that mental health services could be improved, with the most commonly endorsed areas entailing increased access to other mental health professionals and increased resources related to mental health. Less than half of the physicians who participated were satisfied with the mental health care they provided to patients (Clatney et al., 2008). Further research on how family physicians provide mental health support is needed to better contextualize the perceived helpfulness of those services.

The Process of Stigma

Hypothesis 1 examined the relationships between endorsed stigma of mental illness, self-stigma of seeking help, attitudes towards seeking help, and help-seeking intentions. We expected that, based on Bathje and Pryor's (2011) research, endorsed stigma of mental illness

would predict self-stigma of seeking help, that self-stigma of seeking help would predict attitudes about mental health services, and those attitudes would predict intention to seek help. This hypothesis was supported. The data demonstrated that holding more negative attitudes about mental illness predicted having greater hypothetical self-stigma of seeking help. This result partially aligns with Bathje and Pryor's finding that being more sympathetic toward someone with a mental illness was associated with lower self-stigma of seeking help. The data also demonstrated that, in congruence with past research (e.g., Lannin, Vogel, Brenner, & Tucker, 2015; Vogel et al., 2007), greater hypothetical self-stigma of seeking help predicted less positive attitudes about help-seeking, and more positive attitudes towards seeking help predicted greater willingness to seek services.

The second hypothesis examined many of these variables as mediators in congruence with Bathje and Pryor's (2011) research, and the data largely confirmed their findings. First, endorsed stigma of mental illness explained the relationship between perceived public stigma of mental illness and self-stigma of seeking help. Therefore, awareness of publicly held stigma relates to the extent that one expects to apply stigmatizing attitudes about help-seeking towards their self, based on one's personal attitudes about mental illness. Holding more negative and stigmatizing attitudes about mental illness is related to a greater likelihood of self-stigmatizing. This finding aligns with the progressive model of stigma, which suggests that stigma occurs in stages – having an awareness of stereotypes and stigmatizing attitudes, followed by agreeing with those attitudes, then applying the attitudes to oneself (i.e., self-stigma), which is then associated with harmful outcomes such reduced self-esteem (Corrigan & Rao, 2012; Corrigan et al., 2006; 2011). In the present study, perceived public stigma corresponds to the awareness stage, while endorsed stigma corresponds to the agreement stage, and self-stigma corresponds to

the application stage. As the progressive model of stigma suggests, simply being aware of stereotypes and stigmatizing attitudes held by others in the public does not mean that one personally endorses those attitudes or would apply them to oneself. However, endorsing those stereotypes is a precursor to applying them towards oneself by self-stigmatizing. In this sense, targeting endorsed stigma with interventions may be fruitful in preventing self-stigma (Corrigan et al., 2011).

The mediating effect of endorsed stigma of mental illness in this study corresponds with prior research that used related variables. Bathje and Pryor (2011) found that sympathy mediated the relationship between public stigma of seeking help and self-stigma of seeking help. The present study extended that research by examining perceived public stigma of mental illness, rather than only public stigma of seeking help, since these are different constructs (Tucker et al., 2013). Perceived public stigma of mental illness was examined because endorsed stigma was measured in relation to mental illness, and stigma constructs are purported to be more strongly related to other stigma constructs in the same domain (i.e., mental illness versus help-seeking; Lannin, Vogel, Brenner, & Tucker, 2015; Tucker et al., 2013). In this study, perceived public stigma of mental illness was significantly correlated with endorsed stigma of mental illness, while public stigma of seeking help was not. However, in line with Bathje and Pryor's finding, a post-hoc analysis was conducted, which showed that endorsed stigma of mental illness was consistent with a mediator in accounting for the relationship between perceived public stigma of mental illness and self-stigma of mental illness.

The second mediation analysis demonstrated that self-stigma of seeking help explained the relationship between endorsed stigma of mental illness and attitudes toward seeking help. In other words, the extent that one would hypothetically apply stigmatizing attitudes about mental

illness toward their self if seeking help for a mental health challenge, may account for the relationship between holding stigmatizing attitudes about mental illness and holding negative attitudes about psychological services. Similarly, Bathje and Pryor (2011) found that self-stigma of seeking help partially mediated the relationship between one aspect of endorsed stigma of mental illness (sympathy) and attitudes toward seeking psychological services.

A third mediation analysis demonstrated that attitudes toward seeking psychological services explained the relationship between self-stigma of mental illness and intentions to seek help, which aligns with Bathje and Pryor's (2011) finding. This suggests that the attitudes that one holds regarding mental health services accounts for the relationship between hypothetical self-stigma of seeking help and one's likelihood of seeking help for various concerns. This aligns with previous empirical research showing that higher self-stigma related to more negative attitudes toward seeking help (Tucker, 2012; Vogel et al., 2007, 2010; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011) and that more positive attitudes towards therapy related to greater intentions to seek therapy (Tucker, 2012; Vogel at al., 2007; Vogel, et al., 2009). Moreover, the relationship between attitudes towards seeking help and intentions to seek help coincides with the theory of planned behaviour, which purports that one's attitude toward a given behaviour is a factor that contributes to one's intentions to engage in the behaviour (Ajzen, 1991).

Predicting Help-Seeking Behaviour with Intentions

Post-hoc analyses were examined to determine if intentions to seek help predicted help-seeking behaviour, as the theory of planned action would suggest. Intentions to seek help at Time 1 did not predict help-seeking behaviour over the approximate three-month interval. The lack of predictive influence of intention on help-seeking behaviour is contrary to the theories of

planned behaviour and reasoned action as well as other research showing that intention predicts behaviour (Rickwood et al., 2005; Webb & Sheeran, 2006). However, the theory of planned action suggests that perceived behavioural control, which can relate to self-efficacy (Webb & Sheeran, 2006), also influences behaviour. Therefore, other barriers could have been present that contribute to help-seeking behaviour. Although all students were attending Lakehead University, which contains a student health centre that provides mental health services, students may have been unaware of this service, had low confidence in their ability to attend counselling sessions, or perceived there to be other barriers to attending that were not assessed. One example of a variable that was not assessed in the present study but could affect behaviour is emotional competence. Having difficulties identifying and expressing one's emotions can act as a barrier to help-seeking, while greater emotional awareness and expression can facilitate help-seeking (Rickwood et al., 2005).

Another reason that intentions may not have predicted help-seeking behaviour is due to the way that intentions to seek help was measured. Intentions to seek help was measured using the Intentions to Seek Counseling Inventory (see Appendix H), which lists various difficulties and then asks respondents how likely they would be, hypothetically, to seek counselling or therapy for each of those difficulties. The fact that students were estimating how likely they would be to seek help hypothetically may differ from their intentions if they actually faced those difficulties. In addition, students' hypothetical estimates of their help-seeking intentions at Time 1 may not have predicted help-seeking behaviour at Time 2 because they may not have felt distressed enough to seek help. The approximate 3-month period between measurement time points may not have been long enough to capture many changes in distress. Another limitation of the Intentions to Seek Counseling Inventory is that the difficulties listed may not have

represented the wide range of challenges for which one would seek help. Moreover, the questionnaire asks if students sought counselling or therapy for those challenges; therefore, it is not measuring other types of supports (e.g., family physician, informal support) that someone may intend to seek.

There are other potential explanations for why intentions did not predict help-seeking behaviour. Although there were no differences in distress levels or mental health between those who completed only Time 1 and those who went on to complete Time 2, that finding was based on measurement at specific time points. The students who completed Time 2 could have potentially been less vulnerable to distress overall than those who only completed Time 1, which could have affected help-seeking rates. In addition, the Transtheoretical Model of Change (Prochaska, DiClemente, & Norcross, 1992) suggests that people work through stages of change, of increasing motivation, before they are ready to engage in a behaviour and maintain that behaviour. This study did not measure stage of change so it is not known how ready students were to seek help if they were distressed. Perhaps several students were within a contemplative stage of change where they were aware of their mental health difficulty and debating seeking help, but had not yet done so. Lastly, help-seeking behaviour in this study was measured based on students' reports of whether or not they had sought support. Students were not asked if they had sought support but were on a waiting list to receive services.

The Role of Empathy

We anticipated that empathy would moderate relationships between study variables. However, these hypotheses were not supported because the interaction between empathy and public stigma of seeking help did not significantly predict endorsed stigma of mental illness after controlling for gender, level of contact with mental illness, experiences of discrimination, and

public stigma of help-seeking. Similarly, the interaction between empathy and perceived public stigma of mental illness did not predict endorsed stigma of mental illness after entering the covariates. Since previous research showed that higher empathy is related to lower stigmatizing attitudes (Howell et al., 2014) and greater willingness to interact with someone with a mental illness (Phelan & Basow, 2007) it was expected that empathy would moderate the relationships between public and endorsed stigma. In addition, research has shown empathic concern to explain the relationship between condition (stigma-reducing intervention or control group) and stigma (social distance and perceived dangerousness of people with mental illness; Tippin & Maranzan, 2019). Therefore, the lack of a moderating effect of empathy was contrary to prediction and it may relate to the unexpected relationships between public and endorsed stigma. Public stigma of seeking help was not significantly correlated with endorsed stigma of mental illness (r = .02). Perceived public stigma of mental illness was negatively and significantly correlated with endorsed stigma, (r = -.22), which contrasts past research showing a positive but insignificant relationship between publicly held stereotypes and agreement with stereotypes (Corrigan et al., 2006). There is a need for further research to clarify the relationships between perceived public and endorsed stigma. Currently, how awareness of publicly held attitudes relates to endorsed stigma appears to be a less understood component with the stigma process.

Although these analyses did not show significant moderation effects, other predictors of endorsed stigma of mental illness were identified. Lower familiarity with mental illness predicted greater endorsed stigma of mental illness. In other words, having less contact with people with mental illness was related to an increased likelihood of holding more negative stigmatizing attitudes. This finding aligns with a large body of research that has shown a negative correlation between familiarity with mental illness and endorsing stigmatizing beliefs,

attitudes, or behaviour (Angermeyer et al., 2004; Corrigan et al., 2001; Corrigan et al., 2003; Tippin, 2016). In this study, lower trait empathy was associated with a greater likelihood of holding endorsed stigma of mental illness, which concurs with other research (e.g., Howell et al., 2014). In addition, experiencing mental health discrimination was related to a lower likelihood of holding stigmatizing attitudes. This finding relates to rejection-identification model (Branscombe, Schmitt, & Harvey, 1999) and supporting research (e.g., Cronin, Levin, Branscombe, van Laar & Tropp, 2012; Jetten, Branscombe, Schmitt, & Spears, 2001) suggesting that experiencing discrimination or prejudice from the population regarding one's ingroup can relate to increased identification with the ingroup. However, the relationship between mental health discrimination and stigmatizing attitudes warrants further investigation.

To clarify the relationship between empathy and endorsed stigma of mental illness over time, Hypothesis 5 examined empathy at Time 1 as a predictor of endorsed stigma of mental illness at Time 2. Empathy at Time 1 negatively predicted endorsed stigma of mental illness at Time 2, suggesting that higher trait empathy is related to lower endorsed stigma of mental illness. However, the cross-lagged analysis revealed that endorsed stigma of mental illness at Time 1 also predicted empathy at Time 2. Therefore, empathy and endorsed stigma of mental illness appear to be related to one another and this study was not able to lend support for the notion of that relationship occurring in one direction. The demonstrated relationship between empathy and endorsed stigma of mental illness concurs with past research (Howell et al., 2014) and suggests that individuals who have a greater tendency to be empathic are less likely to hold stigmatizing attitudes towards mental illness. Individuals with higher trait empathy may be better able to consider and understand another person's situation and emotional experience. One would expect that greater understanding would lower the likelihood of holding stigmatizing

attitudes. After all, personal contact with someone with a mental illness is one of the most effective interventions for reducing stigma (Thornicroft et al., 2016). Other possibilities are that having fewer stigmatizing attitudes about mental illness could help one to consider another person's experience of mental illness, or other variables could simultaneously affect both empathy and endorsed stigma of mental illness. Taken together with the finding that empathy did not moderate the relationship between perceived public and endorsed stigma, it appears that empathy and endorsed stigma may have a unique relationship that is separate from the effects of perceived public stigma. As previously stated, the unclear relationship between perceived public and endorsed stigma could contribute to the lack of an effect of empathy when perceived public stigma is involved. Alternatively, other factors could have contributed to the lack of a moderating effect of empathy. For example, gender was entered as a covariate, which may have reduced the influence of empathy.

The Role of Self-Compassion

We anticipated that self-compassion would moderate relationships between several study variables, and one of these predictions was confirmed. Self-compassion moderated the relationship between public stigma of seeking help and anticipated self-stigma of seeking help. Perceiving the public to hold greater stigmatizing attitudes toward seeking help was associated with greater anticipation that one would apply stigmatizing attitudes toward their self if they sought help; however, this relationship was weaker when individuals had higher self-compassion. Therefore, self-compassion may buffer against the development of self-stigma of seeking help. This finding coincides with that of Heath et al. (2016) as well as other research showing a buffering effect of self-compassion in relation to stigma (Heath et al., 2017; Hilbert et al., 2015). It also aligns with theory suggesting that self-compassion allows individuals to

recognize their strengths and weaknesses and to promote their well-being (Neff, 2004). The exact mechanism by which self-compassion may exert a protective effect is not known. However, Terry and Leary (2011) suggested that higher self-compassion can promote help-seeking by viewing one's medical concern as something that other people experience and feeling less concerned about judgment by others.

Despite the buffering effect of self-compassion in the relationship between public stigma of seeking help and self-stigma of seeking help, this effect was not observed regarding the relationship between endorsed stigma of mental illness and self-stigma of seeking help. This suggests that when people hold personal stigmatizing beliefs about mental illness, that having higher or lower self-compassion does not influence the extent that one anticipates to self-stigmatize if considering seeking mental health services. Although this finding is contrary to prediction, it is understandable within the context of Corrigan and colleagues' (2006; 2011) progressive model of stigma, suggesting that self-stigma occurs in a process consisting of awareness, agreement, application, and then harm. Their model emphasizes the role of agreement with stigmatizing attitudes (i.e., endorsed stigma) and suggests that an individual only applies stigmatizing attitudes toward their self if they personally agree with those attitudes. The data show that self-compassion interrupts the awareness-agreement relationship – the relationship between awareness and agreement is weakened when people have more self-compassion. However once there is agreement (endorsed stigma), self-compassion does not influence the relationship between endorsed stigma of mental illness and self-stigma of seeking help.

The reason that self-compassion may not influence the relationship between endorsed and self-stigma, but influence that of public and self-stigma, could be that, the nature of endorsed

stigma (i.e., personal beliefs) entails more strongly held beliefs that are less influenced by self-compassion compared to perceptions of public beliefs. Alternatively, the lack of variance observed within the Attribution Questionnaire, the measure of endorsed stigma, may contribute to this finding. Specifically, the Attribution Questionnaire scale remained skewed after transformation was applied, since a floor effect was observed (i.e., indicating that many participants demonstrated low endorsed stigma scores). This scale could have been skewed due to the fact that the vignette was altered to resemble a mental health challenge more commonly experienced by university students but the items are still directed towards a more severe form of mental illness (e.g., items inquiring about dangerousness and fear of the person in the vignette), which could have contributed to the lower endorsement of those items.

Considering the buffering effect of self-compassion in relation to some variables, interventions geared toward increasing self-compassion among post-secondary students may be helpful. Various types of interventions have been utilized to increase self-compassion such as meditation, writing tasks, and therapy-based approaches (e.g., acceptance and commitment therapy, compassion-focused therapy; Ferrari et al., 2019). A meta-analysis by Ferrari and colleagues of 27 randomized controlled trials showed that self-compassion interventions improved self-compassion scores on various measures of self-compassion, including the SCS (short and long versions), the Compassionate Attributes and Actions Scales, Fears of Compassion Scale, and an adapted version of the Self-Compassionate Attitude scale. Analyses using only the long version of the SCS showed a similar effect size (Ferrari et al., 2019). Further research is needed to determine which interventions are most effective in increasing self-compassion, particularly for a postsecondary student population.

Self-Compassion and Help-Seeking

In the present study, self-compassion at Time 1 predicted self-stigma of seeking help at both Time 1 and Time 2, in that lower self-compassion was associated with higher self-stigma of seeking help. Cross-lagged analyses showed that self-stigma of seeking help at Time 1 also predicted self-compassion. Therefore, this study did not demonstrate a one-directional relationship self-compassion and self-stigma of seeking help. Further research is needed to understand how these variables relate to one another over time.

Self-compassion at Time 1 did not significantly predict intentions to seek help at Time 1 or Time 2. Hypothesis 6 also showed that self-compassion at Time 1 did not moderate the relationship between psychological distress at Time 1 and help-seeking behaviour at Time 2. The relationship between psychological distress and whether one sought formal or informal mental health support over the approximate three months between Times 1 and 2, was not influenced by how compassionate students were toward themselves. Notably, distress level and self-compassion generally did not independently predict help-seeking behaviour (although scores on the DASS-21 approached significance in predicting any type of help-seeking). The general lack of association between distress and help-seeking in this study is surprising, given that higher distress has been related to greater seeking of mental health and counselling information (Lannin, Vogel, Brenner, Abraham et al., 2015).

Limitations and Future Directions

The findings from this study must be considered within the context of their limitations. First, the cross-sectional nature of the Part 1 data is a notable limitation. With cross-sectional data, the direction of associations cannot be confirmed. For example, holding more positive attitudes towards seeking help predicted greater willingness to seek services, but it is also

possible that being less willing to seek mental health services could predict having negative attitudes towards those services. Part 2 then addressed this limitation by examining variables over time.

In addition, the above "mediation" models showed that the relationships between variables were consistent with mediation, but they do not necessarily demonstrate causation. Hayes (2018) referred to a simple mediation model as a "causal system" where one variable influences an outcome variable, through another variable (i.e., the mediator; p. 78); however, other research and methods would be needed to ascertain a causal relationship. According to Hill (1965), considerations for establishing causality include: association strength, how consistently the association has been observed, specificity (i.e., relating to particular variables and not others), temporal occurrence of the variables, if a dose-response curve exists, plausibility, experimental data, and using analogy (i.e., applying information from one association to a similar situation). With cross-sectional data, one cannot establish that the proposed mediator precedes the outcome variable in time. Therefore, future research should seek to assess the variables at multiple time points (this was the focus of Part 2). This study also does not provide experimental evidence supporting the association. Future research could consider using experiments to examine these potential mediation models. For instance, endorsed stigma was consistent with a mediator in explaining the relationship between perceived public stigma of mental illness and self-stigma of seeking help. Future research could randomly assign students to an intervention that is intended to reduce stigmatizing attitudes or a control group and then endorsed stigma and self-stigma of seeking help could be subsequently measured.

The self-report nature of the data used in this study is another limitation. Self-report measures have been criticized for being susceptible to errors such as recall mistakes despite

responding honestly or biases such as socially desirable or extreme responding (Paulhus & Vazire, 2007). To circumvent potential socially desirable responding, especially since the topic of mental health stigma may provoke such responding, a broad description of the study was provided and the term *stigma* was not used; however, it is possible that participants quickly became aware of the focus of the study simply through the nature of the questionnaires administered. Future research could collect data from multiple informants or could use other measurement techniques. For example, attitudes toward mental illness could be assessed implicitly using Brief Implicit Association Tests (e.g., see Rüsch, Corrigan, Todd, & Bodenhausen, 2010). Variables such as state empathy or state self-compassion could also be induced experimentally. For example, state empathy could be induced by asking participants to consider what another person is thinking or feeling and self-compassion could be induced by asking participants to complete a self-compassionate writing task (e.g., see Brienes & Chen, 2012). A possible limitation to the measurement of self-stigma in this study is that these measures assessed anticipated self-stigma – the extent that one expects to self-stigmatize if faced with a mental health challenge or need to seek help. It is possible that anticipated self-stigma could differ from one's actual experience of self-stigma after experiencing a mental health challenge and considering seeking help.

Generalizability of the study findings is also a consideration. The samples consisted of university students at Lakehead University who were primarily Caucasian, heterosexual, female, and identified as women. Considering how several studies have shown stigmatizing attitudes or self-stigma to be higher among men compared to women, the results of this study may not generalize to the total university population at Lakehead University. Similarly, a student sample may differ from that of the community; however, research has shown that undergraduate and

community samples demonstrated similar attitudes towards mental illness (Penn & Nowlin-Drummond, 2001). Therefore, although the generalizability of the current findings is certainly limited, it may not be as limited as one might anticipate.

The fact that this study did not assess cognitive and affective trait empathy separately is another limitation. Further research is warranted that assesses these constructs separately to determine if one is more strongly related to lower stigmatizing attitudes than the other. Again, these results are not causal so additional research is needed to determine if a change in empathy leads to a change in stigmatizing attitudes. Previous research has shown that empathy can increase following interventions (Matteo, 2013; Naylor et al., 2009) but there is less research showing how increased empathy affects stigmatizing attitudes. Considering the numerous negative outcomes associated with holding stigmatizing attitudes towards mental illness, further exploring whether empathy can exert a protective role, will be important.

Another measurement limitation is the approximate 3-month interval between time points. This time frame may not have been long enough for the cross-lagged analyses to obtain support for a unidirectional relationship. Other limitations, including the time interval between data collection, may have affected the examination of intention as a predictor of behaviour. Webb and Sheeran (2006) suggest that it is usually best to measure intention and behaviour close in time. In this study, willingness to seek help was examined as a predictor of help seeking over the subsequent three months, approximately. Using repeated measures within shorter time frames, such as assessing intentions and help-seeking behaviour monthly, may lead to a better understanding of the relationships between these variables. Moreover, the way that intention to seek help was measured within this study should be considered in light of the findings. The Intentions to Seek Counseling Inventory presents several concerns and asks participants how

likely they would be to seek counselling for each concern. Therefore, participants are estimating their likelihood of seeking help rather than indicating if they are experiencing a particular problem and indicating their likelihood of seeking help. Another aspect of measurement that could have affected these findings is the use of self-report measures. Webb and Sheeran found larger effect sizes regarding the impact of intentions on behaviour, when variables were measured objectively rather than subjectively. The self-report methods of this study may have been less equipped to capture significant effects. On a minor note, the help-seeking data was limited by the fact that the present study did not inquire about online help-seeking (e.g., reading self-help mental health information online, participating in online support groups) or acquiring self-help books.

Future research in this area could examine other factors that may contribute to help-seeking behaviour. For example, Rickwood and colleagues (2005) suggested that emotion competence (i.e., one's ability to recognize, describe, and regulate emotions), past experiences with help-seeking, and the impact of others in one's social circle (i.e., whether others encourage one to seek help or speak negatively about help-seeking) may contribute to help-seeking behaviours. These factors warrant further exploration.

Conclusion

Overall, this study aimed to: (*a*) better understand university students' experiences of mental health, discrimination, and help-seeking, (*b*) to investigate the process of stigma and help-seeking behaviour, and (*c*) to examine empathy and self-compassion as protective factors. The prevalence of students' lifetime and recent mental health diagnoses and challenges within this study were similar to that reported in the literature. Notably, many students endorsed experiencing discrimination related to their mental health or another aspect of their identity.

These rates are concerning, given the negative effects of discrimination. Students sought informal support for their mental health challenges more frequently than they sought formal support. Informal sources of support, particularly friends, tended to be viewed as the most helpful. The mental health literacy of friends and family members therefore becomes important considering the frequency in which help is sought from them.

Taken together, Parts 1 and 2 of the present study helped clarify the stigma process. Endorsed stigma of mental illness predicted higher self-stigma of seeking help, which predicted less positive attitudes about help-seeking, which then predicted lower willingness to seek services. Mediation analyses demonstrated that: (*a*) endorsed stigma of mental illness explained the relationship between perceived public stigma of mental illness and self-stigma of seeking help, (*b*) self-stigma of seeking help was explained the relationship between endorsed stigma of mental illness and attitudes toward seeking help, and (*c*) attitude towards seeking psychological services explained the relationship between self-stigma of mental illness and intentions to seek help. These results support the process contributing to stigma outlined by Bathje and Pryor (2011).

Contrary to expectations, intentions to seek counselling did not predict help-seeking behaviour, which is contradictory to theories such as the theories of reasoned action and planned behaviour that highlight the importance of intention in predicting behaviour. As there is a lack of research on predictors of actual help-seeking behaviour for mental health difficulties, further research in this area is important.

Empathy and self-compassion were then explored as potential protective factors in the process that contributes to stigma. Results from this study indicated that having higher trait empathy is related to holding less stigmatizing attitudes toward mental illness. Despite this

finding, trait empathy did not affect the relationships between perceived public stigma and endorsed stigma of mental illness. Therefore, buffering effects of empathy were not demonstrated.

In contrast, this study suggested a buffering role of self-compassion but only in some circumstances. Higher self-compassion weakened the relationship between public stigma of seeking help and anticipated self-stigma of seeking help, but did it not influence the relationship between endorsed stigma of mental illness and self-stigma of seeking help. This pattern of results may indicate that self-compassion no longer exerts a buffering effect if one personally holds stigmatizing attitudes. However, the fact that self-compassion moderated the relationship between public stigma of seeking help and anticipated self-stigma of seeking help has potential implications for reducing or preventing self-stigma among university students. Future research investigating the utility of self-compassion interventions in reducing or preventing self-stigma is warranted.

The stigma literature tends to be limited by self-report measures, cross-sectional data, and limited investigation of help-seeking behaviour. Improving upon these research methods and continuing to pursue research in this area will enhance the understanding of the process that contributes to stigma. Elucidating this process is instrumental in informing interventions that could promote help-seeking behaviour, which may combat the typically low help-seeking rates among students and thereby help to enhance student well-being.

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Table 1

Stigma Terms and Definitions

Term	**Definition**	**Example**
Perceived public stigma of mental illness	Perception of the public's attitudes toward mental illness	"Other people think that mental health problems are a sign of weakness"
Endorsed stigma of mental illness	One's own attitudes toward mental illness	"I think that mental health problems are a sign of weakness"
Self-stigma of mental illness	Internalization of stigma related to mental illness	"I am weak because I have a mental health problem"
Structural stigma	Stigmatization by structural or systemic factors.	If an organizational policy leads to disadvantages for people with mental illness, but not for people without mental illness.
Stigma by association	When stigma is extended and applied to people who interact with a person who is stigmatized.	"The whole family is dangerous because one family member has a diagnosed mental illness"
Public stigma of seeking help	Perception of the public's attitudes and one's own attitudes toward seeking psychological services	"People think that those who seek psychological services are weak"
Self-stigma of seeking help	Internalization of stigma related to seeking psychological services	"I am weak because I am receiving psychological services"

Table 2

Participant Demographics for Part 1 (N = 464)

	M (*SD*)	Frequency	%
Age	21.56(5.61)[a]		
Sex			
Male		95	20.5
Female		368	79.3
Other[b]		1	0.2
Gender Identity			
Man		91	19.6
Woman		362	78.0
Other[c]		9	1.9
Sexual Orientation*			
Heterosexual/straight		405	87.3
Gay/lesbian/bisexual/queer		42	9.1
Unsure		11	2.4
Other[d]		5	1.1
Cultural Affiliation*			
Indigenous/Aboriginal (First Nation, Inuit, Métis)		33	7.1
Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese)		14	3.0
Black (e.g., African, Haitian, Jamaican)		19	4.1
Chinese		9	1.9
Filipino		5	1.1
Korean		3	0.6
Japanese		4	.9
South Asian		9	1.9
South East Asian		3	0.6
White/Caucasian		384	82.8
Latin American		2	0.4
Other[e]		17	3.7
Program of Study			
Business Administration		12	2.6
Education		60	12.9
Engineering		22	4.7
Health and Behavioural Sciences		253	54.5
Natural Resources Management		2	0.4

Science and Environmental Studies	24	5.2
Social Studies and Humanities	82	17.7
Faculty Unknown	14	3.0
Years in Program of Study		
<1	160	34.5
1	61	13.1
2	106	22.8
3	88	19.0
4	40	8.6
5 or more	9	1.9
Lifetime Mental Health and Discrimination Experiences		
Received Mental Health Diagnosis	130	28.0
Experienced an Undiagnosed Mental Health Challenge	228	49.1
Experienced Mental Health Discrimination	94	20.3
Experienced Discrimination Related to Another Aspect of Identity	171	36.9
Lifetime Psychiatric Diagnoses*		
Neurodevelopmental Disorders	11	2.4
Schizophrenia Spectrum and Other Psychotic Disorders	1	0.2
Bipolar and Related Disorders	5	1.1
Depressive Disorders	80	17.2
Anxiety Disorders	94	20.3
Obsessive-Compulsive and Related Disorders	6	1.3
Trauma- and Stressor-Related	9	1.9
Feeding and Eating Disorders	5	1.1
Substance-Related and Addictive Disorders	3	0.6
Personality Disorders	8	1.7
Other[f]	2	0.4
Number of Supports Received[g]		
1	70	15.1
2	128	27.6
3	74	15.9
4	49	10.6
5	31	6.7
6	17	3.7
7	5	1.1

[a]The *N* for age was 424.

[b] "Other response for Sex included Male and Female

[c] "Other" responses for Gender Identity included Transgendered/Gender queer, Two-spirit, Unsure, Man and Two-spirit, Woman and Two-spirit
[d]"Other" responses for Sexual Orientation included pansexual, polyamorous, pansexual, queer, and asexual.
[e]"Other" responses for Cultural Affiliation included one or more of the following: biracial, Canadian, Croatian, Dutch, East Indian, European, Hispanic, Irish, Italian, Finnish, Middle Eastern, Scottish, Turkish, West Indian.
[f]"Other" responses for Past Psychiatric Diagnoses include short-term memory loss and insomnia
*The responses are not mutually exclusive. Some students gave multiple responses.
[g] Supports included friends, family, mental health counsellor, psychiatrist, family physician, hospital emergency department, cultural/spiritual/religious mentor, and other
Note. Percentages are based on the overall sample of 464 students

Table 3

Help-Seeking for Mental Health Difficulties And Perceived Helpfulness (Part 1; N = 464)

Services	**Accessed/Received Help**	**Average Helpfulness Rating**[a]		
	Frequency (%)	**Average**	***SD***	***N***
Family	292 (62.9)	3.29	1.48	382
Friends	311 (67.0)	3.54	1.29	381
Mental Health Counsellor	142 (30.6)	3.01	1.71	194
Psychiatrist	78 (16.8)	2.52	1.89	143
Family Physician	131 (28.2)	2.69	1.65	196
Hospital Emergency Department	49 (10.6)	1.90	1.80	126
Cultural/Spiritual/Religious Mentor (e.g., Elder, Pastor)	33 (7.1)	2.21	1.99	115
Other	4 (0.9)	Not reported		
Response could not be categorized	1 (0.2)	Not reported		

Note. "Other" included: school doctor, employer, teacher, and keeping one's difficulties to oneself. Responses of therapist, psychotherapist, and psychologist were included within "Mental health counsellor"

Note. The Average Helpfulness Rating Ns are greater than the frequency of Accessed/Received Help, suggesting that some students rated the helpfulness of a service without endorsing that they received help from that service.

[a]Helpfulness scale ranged from 0 (Not helpful at all) to 5 (Extremely helpful).

Table 4

Demographic Information for Part 2 Participants (N = 137)

	***M* (*SD*)**	**Frequency**	**%**
Age	21.80 (6.03)[a]		
Sex			
Male		17	12.4
Female		119	86.9
Male and Female		1	0.7
Gender Identity			
Man		19	13.9
Woman		114	83.2
Other		3	2.2
Sexual Orientation*			
Heterosexual/straight		116	84.7
Gay/lesbian/bisexual/queer		16	11.7
Unsure		4	2.9
Other[b]		3	2.2
Cultural Affiliation*			
Indigenous/Aboriginal (First Nation, Inuit, Métis)		13	9.5
Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese)		5	3.6
Black (e.g., African, Haitian, Jamaican)		5	3.6
Chinese		2	1.5
Filipino		4	2.9
Japanese		1	0.7
South Asian		1	0.7
South East Asian		1	0.7
White/Caucasian		118	86.1
Latin American		1	0.7
Other [c]		4	2.9

[a]The *N* for age was 129.
[b]"Other" responses for Sexual Orientation included pansexual and polyamorous.
[c]"Other" responses for Cultural Affiliation included one or more of the following: European, Irish, Scottish, West Indian.
*The responses are not mutually exclusive. Some students gave multiple responses.
Note: Percentages are based on the overall sample of 137 students.

Table 5

Additional Demographic Information for Part 2 Participants (N = 137)

	Time 1		Time 2	
	Frequency	**%**	**Frequency**	**%**
Mental Health and Discrimination Experiences[a]				
Received Mental Health Diagnosis	48	35.0	15	10.9
Experienced an Undiagnosed Mental Health Challenge	80	58.4	62	45.3
Experienced Mental Health Discrimination	34	24.8	14	10.2
Experienced Discrimination Related to Another Aspect of Identity	56	40.9	23	16.8
Past Psychiatric Diagnoses[a]*				
Neurodevelopmental Disorders	2	1.5	0	.0
Bipolar and Related Disorders	3	2.2	1	.7
Depressive Disorders	31	22.6	4	2.9
Anxiety Disorders	34	24.8	11	8.0
Obsessive-Compulsive and Related Disorders	2	1.5	1	.7
Trauma- and Stressor-Related	4	2.9	1	.7
Substance-Related and Addictive Disorders	1	.7	1	.7
Personality Disorders	3	2.2	0	.0
Other[d]	1	.7	1	.7
Services Accessed[a]				
Family	94	68.6	79	57.7
Friends	102	74.5	94	68.6
Mental Health Counsellor	59	43.1	20	14.6
Psychiatrist	31	22.6	6	4.4
Family Physician	48	35.0	24	17.5
Hospital Emergency Department	18	13.1	3	2.2
Cultural/Spiritual/Religious Mentor (e.g., Elder, Pastor)	10	7.3	10	7.3
Other	1	.7	0	.0
Program of Study				
Business Administration	3	2.2	3	2.2
Education	14	10.2	16	11.7
Engineering	3	2.2	6	4.4
Health and Behavioural Sciences	83	60.6	82	59.9

Natural Resources Management	0	.0	1	.7
Science and Environmental Studies	5	3.6	4	2.9
Social Studies and Humanities	21	15.3	24	17.5
Faculty Unknown	6	4.4	5	3.6
Years in Program of Study				
<1	53	38.7	51	37.2
1	12	8.8	9	6.6
2	37	27.0	36	26.3
3	21	15.3	23	16.8
4	12	8.8	15	10.9
5	0	.0	0	.0
6	2	1.5	0	.0
7 or more	0	.0	1	.7

[a]These questions at Time 2 referred to experiences in the past 3 months.
[d]"Other" responses for Past Psychiatric Diagnoses include insomnia and "psychosomatic disorder"
*The responses are not mutually exclusive. Some students gave multiple responses.
Note. Percentages are based on the overall sample of 137 students.
Note. This table reflects a subset of participants who completed Time 1.

Table 6

Frequency and Percent of Services Sought (prior 3 months) for Particular Difficulties Among Part 2 Participants

Presenting Concerns	**Time 2**		
	Only Informal Support	**Only Counselling/ Therapy**	**Both Informal Support and Counselling/ Therapy**
Relationship Difficulties	55 (40.1)	1 (0.7)	2 (1.5)
Sexuality Concerns	5 (2.9)	0 (0)	0 (0)
Depression	41 (29.9)	6 (4.4)	11 (8.0)
Conflict with Parents	47 (34.3)	3 (2.2)	2 (1.5)
Speech Anxiety	14 (10.2)	2 (1.5)	1 (0.7)
Difficulty Sleeping	33 (24.1)	9 (6.6)	4 (2.9)
Inferiority Feelings	26 (19.0)	6 (4.4)	3 (2.2)
Difficulty with Friends	49 (35.8)	2 (1.5)	1 (0.7)
Self-understanding	29 (21.2)	4 (2.9)	5 (3.6)
Loneliness	43 (31.4)	6 (4.4)	3 (2.2)
Difficulties Dating	24 (17.5)	0 (.0)	0 (.0)
Choosing a Major	28 (20.4)	1 (0.7)	1 (0.7)
Test Anxiety	38 (27.7)	6 (4.4)	3 (2.2)
Academic Work Procrastination	33 (24.1)	5 (3.6)	1 (0.7)

Table 7

Perceived Helpfulness Ratings of Supports Sought by Part 2 Participants

Services/Support	**Average Helpfulness Rating (SD)**	***n***
Family	3.17 (1.44)	101
Friends	3.43 (1.26)	107
Mental health counsellor	2.84 (1.73)	31
Psychiatrist	2.18 (1.87)	22
Family physician	2.90 (1.62)	39
Emergency department of a hospital	1.05 (1.13)	19
Cultural/spiritual/religious mentor (e.g., Elder, pastor)	2.14 (1.93)	22

Note. Average Helpfulness Ratings refer to services or support accessed in the past 3 months. The number of students who provided an Average Helpfulness Rating (*n*) is generally greater than the frequency of Services Accessed, suggesting that some students rated the helpfulness of a service without endorsing that they received help from that service.

Table 8

Measures Administered in Parts 1 and 2

Scale	Number of Items	Variable Measured	Score Range	Meaning of Higher Scores
PDD	12	Perceived public stigma of mental illness	1-6	Higher perceived public stigma of mental illness
SSRPH	5	Public stigma of seeking help	0-15	Higher public stigma of seeking help
AQ	9	Endorsed stigma of mental illness	9-89[a]	Higher endorsed stigma of mental illness
SSOSH	10	Anticipated self-stigma of seeking help	10-50	Higher anticipated self-stigma of seeking help
SSOMI	10	Anticipated self-stigma of mental illness	10-50	Higher anticipated self-stigma of mental illness
ATSPPH-S	10	Attitude toward seeking professional psychological help	0-30	More positive attitudes toward seeking help
ISCI	14	Likelihood of seeking counselling/therapy	14-84	Greater willingness to seek services
DASS Depression	7	Depression symptoms	0-21	Greater depressive symptoms
DASS Anxiety	7	Anxiety symptoms	0-21	Greater anxious symptoms
DASS Stress	7	Stress symptoms	0-21	Greater stress symptoms
DASS Total	21	Psychological distress	0-126	Higher psychological distress
GPCORE	14	Psychological distress	0-4	Higher distress
TEQ	16	Trait empathy	0-64	Higher empathy
SCS-SF	12	Self-compassion	1-5	Higher self-compassion
LoCR	12	Familiarity with mental illness	1-12	Greater familiarity with mental illness
USQ	82	Number of stressful life events experienced	0-82	Higher number of stressful life events experienced

Note. PDD = Perceived Devaluation Discrimination scale; AQ = Attribution Questionnaire; SSRPH = Stigma Scale for Receiving Psychological Help; SSOSH = Self-Stigma of Seeking Help Scale; ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form; ISCI = Intentions to Seek Counseling Inventory; SSOMI = Self-Stigma of Mental Illness Scale; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; DASS Stress = Depression Anxiety Stress Scales-21 Stress; GPCORE = General Population - Clinical Outcomes in Routine Evaluation; TEQ =

Toronto Empathy Questionnaire; SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report; USQ = Undergraduate Stress Questionnaire.
[a]One item was later excluded from the AQ total score, creating score range of 8-72

Table 9

Psychometric Properties and Scale Means for Part 1 Measures (N = 464)

Scale	**Cronbach's Alpha**	**Scale Mean**[a]	***SD***
PDD	.80	3.94 – 3.95	0.66
SSRPH	.70	6.69 - 6.70	2.53
AQ	.81	17.61 – 17.62	8.36 – 8.39
SSOSH	.87	26.47- 26.49	7.24- 7.25
ATSPPH-S	.75 - .76	17.27 – 17.29	4.19 – 4.20
ISCI	.89	42.56- 42.59	13.84- 13.87
SSOMI	.92	31.85- 31.86	7.72- 7.73
DASS Depression	.91	12.98 – 13.00	10.21 – 10.22
DASS Anxiety	.86	12.60 – 12.62	9.77 – 9.78
DASS Stress	.85 - .86	16.07 - 16.09	9.47 – 9.51
DASS Total	.94	41.66 – 41.70	26.55 – 26.59
GPCORE	.85	1.64	0.68
TEQ	.89	46.37 - 46.39	8.76 – 8.79
SCS-SF	.84	2.76	0.63
LoCR	Not reported[b]	8.13	2.90
USQ	Not reported[c]	17.61	9.11

Note. Ranges are only reported when applicable. If there is no variation in scores between datasets after rounding to two decimal places, then a single value is reported. PDD = Perceived Devaluation Discrimination scale; AQ = Attribution Questionnaire; SSRPH = Stigma Scale for Receiving Psychological Help; SSOSH = Self-Stigma of Seeking Help Scale; ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form; ISCI = Intentions to Seek Counseling Inventory; SSOMI = Self-Stigma of Mental Illness Scale; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; DASS Stress = Depression Anxiety Stress Scales-21 Stress; GPCORE = General Population - Clinical Outcomes in Routine Evaluation; TEQ = Toronto Empathy Questionnaire; SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report; USQ = Undergraduate Stress Questionnaire.

[a] The scale mean and *SD* are based on scale totals (scored as indicated for that measure such as a mean score or sum, etc.) before transformations were applied.

[b]The score on the LoCR is the highest item selected by students. Since that score is based on a single item's value, Cronbach's alpha is not applicable.

[c]The USQ is a checklist and the score reflects the number of stressors that have affected an individual in the past two week

Table 10

Psychometric Properties and Scale Means for Part 2 Measures (N = 137)

	Time 2		
Scale	**α**	**Scale Mean**[a]	***SD***
PDD	.83	3.90	0.68
SSRPH	.71-.72	6.52- 6.55	2.47 – 2.50
AQ	.77	16.02 – 16.05	6.91 – 6.96
SSOSH	.89	26.14 – 26.17	7.61 – 7.63
ATSPPH-S	.79	17.94 – 17.96	4.20 – 4.22
ISCI	.90-.91	44.22 – 44.25	13.97 – 14.00
SSOMI	.92	30.13 – 30.15	7.79 – 7.81
DASS Depression	.92	13.78 – 13.88	11.01 – 11.12
DASS Anxiety	.83-.84	12.65 – 12.74	9.24 – 9.30
DASS Stress	.83	16.73 – 16.77	8.82 – 8.85
DASS Total	.94	43.21 – 43.37	25.90 – 26.07
GPCORE	.87	1.75	0.69 – 0.70
TEQ	.87-.88	47.39 – 47.43	7.80 – 7.85
SCS-SF	.87-.88	2.61	0.68 – 0.69
LoCR		8.80	2.97
USQ		16.42	8.66

Note. Ranges are only reported when applicable. If there is no variation in scores between datasets after rounding to two decimal places, then a single value is reported. PDD = Perceived Devaluation Discrimination scale; AQ = Attribution Questionnaire; SSRPH = Stigma Scale for Receiving Psychological Help; SSOSH = Self-Stigma of Seeking Help Scale; ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form; ISCI = Intentions to Seek Counseling Inventory; SSOMI = Self-Stigma of Mental Illness Scale; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; DASS Stress = Depression Anxiety Stress Scales-21 Stress; GPCORE = General Population - Clinical Outcomes in Routine Evaluation; TEQ = Toronto Empathy Questionnaire; SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report.

[a] The scale mean and *SD* are based on scale totals (scored as indicated for that measure such as a mean score or sum, etc.) before transformations were applied.

Table 11

Data Screening Information for Part 1 (N = 468)

	Original Dataset				Imputed Datasets			
Scale	**Mean**	***SD***	**Skewness Z Score**	**Kurtosis Z Score**	**Pooled Mean**	**Pooled S.E.**	**Skewness Z Score Ranges**	**Kurtosis Z Score Ranges**
PDD	3.94	0.67	1.50	1.00	3.94	0.03	1.49 to1.52	0.96 to 1.08
AQ	17.51	8.30	11.81	6.87	17.61	0.39	11.55 to 11.62	6.31 to 6.43
SSRPH	6.64	2.56	-0.58	1.50	6.66	0.12	-0.74 to -0.68	1.52 to1.56
SSOSH	26.35	7.33	1.37	-0.51	26.40	0.34	1.41 to 1.46	-0.54 to -0.49
ATSPPH-S	17.22	4.25	0.58	1.96	17.28	0.20	0.52 to 0.59	2.09 to 2.23
ISCI	42.27	13.86	0.71	-1.03	42.49	0.64	0.60 to 0.69	-1.09 to -1.03
SSOMI	31.78	7.78	-2.61	-0.32	31.88	0.36	-2.66 to -2.62	-0.21 to -0.17
DASS Depression	13.02	10.21	6.10	-1.16	12.98	0.47	6.13 to 6.19	-1.17 to -1.13
DASS Anxiety	12.55	9.84	7.13	0.29	12.54	0.45	7.25 to 7.28	0.42 to 0.46
DASS Stress	16.09	9.53	3.39	-1.41	16.06	0.44	3.41 to 3.46	-1.47 to -1.38
DASS Total	41.66	26.80	5.31	-0.89	41.57	1.23	5.33 to 5.36	-0.86 to -0.81
GPCORE	1.65	0.68	0.57	-1.96	1.65	0.03	0.54 to 0.59	-1.99 to -1.95
TEQ	46.28	8.85	-2.92	-3.46	46.41	0.41	-2.94 to -2.89	-3.56 to -3.52
SCS-SF	2.74	0.63	-0.56	-0.32	2.76	0.03	-0.87 to -.73	-0.32 to -0.26
LoCR	8.15	2.89	-5.49	-4.14	8.15	0.13	-5.49[a]	-4.16[a]

Note. Descriptive statistics are based on variables before they were transformed.
PDD = Perceived Devaluation Discrimination scale; AQ = Attribution Questionnaire; SSRPH = Stigma Scale for Receiving Psychological Help; SSOSH = Self-Stigma of Seeking Help Scale; ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form; ISCI = Intentions to Seek Counseling Inventory; SSOMI = Self-Stigma of Mental Illness Scale; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; DASS Stress = Depression Anxiety Stress Scales-21 Stress; GPCORE = General Population - Clinical Outcomes in Routine Evaluation; TEQ = Toronto Empathy Questionnaire; SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report.
[a]A range is not reported because all values were the same.

Table 12

Transformations Applied to Part 1 Measures

Variable	**Final Transformation Applied**
AQ	Logarithmic for Positive Skew
DASS Depression	Square Root for Positive Skew
DASS Anxiety	Square Root for Positive Skew
DASS Total	Square Root for Positive Skew
TEQ	Square Root for Negative Skew and Kurtosis
LoCR	Square Root for Negative Skew

Note. AQ = Attribution Questionnaire; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; TEQ = Toronto Empathy Questionnaire; LoCR = Level of Contact Report

Table 13

Pearson Correlations Between Variables (Part 1; N = 464)

	PDD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. AQ	-.22*													
2. SSRPH	.42*	.02												
3. SSOSH	.17*	.26*	.38*											
4. ATSPPH-S	.04	-.36*	-.14*	-.60*										
5. ISCI	-.02	-.03	-.05	-.20*	.41*									
6. SSOMI	.23*	.10	.31*	.57*	-.33*	-.03								
7. DASS Depression	.11*	-.05	.22*	.27*	-.02	.13*	.26*							
8. DASS Anxiety	.07	.02	.15*	.25*	-.02	.15*	.18*	.65*						
9. DASS Stress	.13*	-.08	.17*	.26*	.01	.18*	.27*	.75*	.73*					
10. DASS Total	.13*	-.07*	.20*	.28*	-.00	.17*	.24*	.87*	.85*	.93*				
11. GPCORE	.14*	-.07	.28*	.35*	-.13*	.04	.31*	.76*	.56*	.65*	.73*			
12. TEQ	.16*	-.50*	-.03	-.29*	.42*	.12*	.01	-.04	-.06	.03	-.01	-.08		
13. SCS-SF	-.23*	.14*	-.24*	-.32*	.07	.02	-.39*	-.52*	-.34*	-.48*	-.49*	-.61*	-.10*	
14. LoCR	.22*	-.23*	.14*	-.02	.17*	.08	.04	.19*	.14*	.19*	-.23*	.22*	.10*	-.13*

Note. The transformed AQ, DASS Depression, DASS Anxiety, TEQ, and LoCR variables were used in these correlations. PDD = Perceived Devaluation Discrimination scale; AQ = Attribution Questionnaire; SSRPH = Stigma Scale for Receiving Psychological Help; SSOSH = Self-Stigma of Seeking Help Scale; ATSPPH-S = Attitudes Toward Seeking Professional Psychological Help – Short Form; ISCI = Intentions to Seek Counseling Inventory; SSOMI = Self-Stigma of Mental Illness Scale; DASS Depression = Depression Anxiety Stress Scales-21 Depression; DASS Anxiety = Depression Anxiety Stress Scales-21 Anxiety; DASS Stress = Depression Anxiety Stress Scales-21 Stress; DASS Total = Depression Anxiety Stress Scales-21 Total Score; GPCORE = General Population - Clinical Outcomes in Routine Evaluation; TEQ = Toronto Empathy Questionnaire; SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report.

*Significant after applying the FDR correction

Table 14

Endorsed Stigma of Mental Illness as a Predictor of Self-Stigma of Seeking Help within Part 1 (N = 459)

Model	Predictors	B	SE B	*t*	*p*
1	Constant	27.16	2.30	11.80	0.00
	Gender	0.08	0.48	0.17	0.87
	Mental Health Discrimination	-0.41	0.91	-0.45	0.65
	Other Discrimination	-0.30	0.51	-0.58	0.56
	LoCR	0.03	0.54	0.05	0.96
2	Constant	14.73	3.09	4.77	0.00
	Gender	0.13	0.46	0.28	0.78
	Mental Health Discrimination	-0.07	0.88	-0.08	0.94
	Other Discrimination	-0.02	0.50	-0.05	0.96
	LoCR	-0.53	0.53	-0.99	0.32
	AQ	10.50	1.81	5.81	0.00

Note. LoCR = Level of Contact Report; AQ = Attribution Questionnaire

Table 15

Self-Stigma of Seeking Help as a Predictor of Attitudes Toward Seeking Help within Part 1 (N = 459)

Model	Predictors	B	SE B	*t*	*p*
1	Constant	16.08	1.30	12.36	0.00
	Gender	0.21	0.27	0.78	0.44
	Mental Health Discrimination	1.43	0.51	2.79	0.01
	Other Discrimination	0.27	0.29	0.92	0.36
	LoCR	-0.74	0.31	-2.40	0.02
2	Constant	25.44	1.18	21.53	0.00
	Gender	0.24	0.21	1.11	0.27
	Mental Health Discrimination	1.29	0.41	3.17	0.00
	Other Discrimination	0.16	0.23	0.72	0.47
	LoCR	-0.73	0.24	-2.99	0.00
	SSOSH	-0.35	0.02	-16.35	0.00

Note. LoCR = Level of Contact Report; SSOSH = Self-Stigma of Seeking Help Scale

Table 16

Attitudes Toward Seeking Help as a Predictor of Intentions to Seek Help within Part 1 (N = 459)

Model	Predictors	B	SE B	*t*	*p*
1	Constant	39.00	4.34	8.99	0.00
	Gender	-1.03	0.90	-1.15	0.25
	Mental Health Discrimination	4.30	1.71	2.52	0.01
	Other Discrimination	1.89	0.96	1.96	0.05
	LoCR	-0.81	1.02	-0.80	0.43
2	Constant	18.27	4.63	3.95	0.00
	Gender	-1.30	0.83	-1.57	0.12
	Mental Health Discrimination	2.45	1.59	1.55	0.12
	Other Discrimination	1.55	0.89	1.74	0.08
	LoCR	0.14	0.95	0.14	0.89
	ATSPPH-S	1.29	0.14	8.92	0.00

Note. LoCR = Level of Contact Report; ATSPPH = Attitudes Towards Seeking Professional Psychological Help – Short Form

Table 17

Self-Compassion as a Predictor of Self-Stigma of Seeking Help within Part 1 (N = 459)

Model	Predictors	B	SE B	*t*	*p*
1	Constant	26.76	2.02	13.23	0.00
	Gender	0.08	0.48	0.17	0.87
	Mental Health Discrimination	-0.41	0.91	-0.45	0.65
	Other Discrimination	-0.30	0.51	-0.58	0.56
	LoCR	0.03	0.54	0.05	0.96
2	Constant	39.33	2.51	15.69	0.00
	Gender	-0.27	0.45	-0.59	0.55
	Mental Health Discrimination	-1.07	0.86	-1.25	0.21
	Other Discrimination	-0.80	0.49	-1.64	0.10
	LoCR	0.29	0.51	0.56	0.57
	SCS	-4.06	0.53	-7.71	0.00

Note. LoCR = Level of Contact Report; SCS = Self-Compassion Scale

Table 18

Self-Compassion as a Predictor of Intentions to Seek Help within Part 1 (N = 459)

Model	Predictors	B	SE B	*t*	*p*
1	Constant	43.30	3.81	11.36	0.00
	Gender	-1.03	0.90	-1.15	0.25
	Mental Health Discrimination	4.30	1.71	2.52	0.01
	Other Discrimination	1.89	0.96	1.96	0.05
	LoCR	-0.81	1.02	-0.80	0.43
2	Constant	38.91	5.01	7.76	0.00
	Gender	-0.91	0.90	-1.01	0.31
	Mental Health Discrimination	4.53	1.71	2.64	0.01
	Other Discrimination	2.06	0.97	2.13	0.03
	LoCR	-0.90	1.02	-0.88	0.38
	SCS	1.41	1.05	1.34	0.18

Note. LoCR = Level of Contact Report; SCS = Self-Compassion Scale

Table 19

Logistic Regression Examining Empathy at Time 1 as a Predictor of Endorsed Stigma of Mental Illness at Time 2

	B	S.E.	*p*	Odds Ratio	95% C.I. for Odds Ratio	
					Lower	Upper
Gender Identity(1)	-0.51	0.61	0.40	0.60	0.18	1.96
Gender Identity(2)	20.20	40192.97	1.00	594060329.96	594060329.96	594060329.96
Gender Identity(3)	19.77	40192.97	1.00	387164394.77	387164394.77	387164394.77
Gender Identity(4)	18.89	40192.97	1.00	160031349.50	160031349.50	160031349.50
Mental Health Discrimination (1)	-0.50	0.51	0.32	0.61	0.23	1.62
Other Discrimination (1)	-0.41	0.43	0.34	0.66	0.29	1.54
Other Discrimination (2)	-0.33	0.64	0.61	0.72	0.21	2.53
LoCR	0.00	0.71	1.00	1.00	0.25	4.03
TEQ	-0.12	0.03	0.00	0.89	0.84	0.94
Constant	6.41	1.86	0.00	609.35	15.90	23353.05

Note. All variables presented in this table were measured at Time 1. Endorsed stigma of mental illness at Time 2 was the dependent variable. Gender Identity(1) = woman compared to man, Gender Identity(2) = transgendered/genderqueer and two-spirit compared to man, Gender Identity(3) = woman and two-spirit compared to man, Gender Identity(4) = other compared to man, Mental Health Discrimination (1) = yes compared to no, Other Discrimination (1) = yes compared to no, Other Discrimination (2) = unsure compared to no.

Table 20

Cross-Lagged Analysis Examining Endorsed Stigma at Time 1 as a Predictor of Empathy at Time 2

Model	Predictors	B	SE B	*t*	*p*
1	Constant	52.05	2.78	18.75	0.00
	Gender	-1.55	0.71	-2.18	0.03
	Mental Health Discrimination	0.66	1.69	0.39	0.70
	Other Discrimination	1.73	0.99	1.74	0.08
	LoCR	2.29	2.44	-0.94	0.35
2	Constant	41.66	3.19	13.08	0.00
	Gender	-1.27	0.65	-1.96	0.05
	Mental Health Discrimination	-0.41	1.55	-0.26	0.79
	Other Discrimination	1.19	0.91	1.32	0.19
	LoCR	0.43	2.25	-0.19	0.85
	AQ	-125.75	23.54	5.34	0.00

Note. LoCR = Level of Contact Report; AQ = Attribution Questionnaire

Table 21

Self-Compassion at Time 1 as a Predictor of Self-Stigma of Seeking Help at Time 2

Model	Predictors	B	SE B	*t*	*p*
1	Constant	27.79	4.09	6.80	0.00
	Gender	0.14	0.72	0.20	0.84
	Mental Health Discrimination	0.58	1.71	0.34	0.74
	Other Discrimination	-0.50	1.00	-0.50	0.62
	LoCR	-1.18	2.46	-0.48	0.63
2	Constant	43.01	4.88	8.81	0.00
	Gender	-0.19	0.67	-0.29	0.78
	Mental Health Discrimination	0.33	1.57	0.21	0.83
	Other Discrimination	-1.21	0.94	-1.30	0.20
	LoCR	-2.38	2.28	-1.04	0.30
	SCS-SF	-4.56	0.93	-4.90	0.00

Note. LoCR = Level of Contact Report; SCS-SF = Self-Compassion Scale – Short Form

Table 22

Cross-Lagged Analysis Examining Self-Stigma of Seeking Help at Time 1 as a Predictor of Self-Compassion at Time 2

Model	Predictors	B	SE B	*t*	*p*
1	Constant	27.79	4.09	6.80	0.00
	Gender	0.14	0.72	0.20	0.84
	Mental Health Discrimination	0.58	1.71	0.34	0.74
	Other Discrimination	-0.50	1.00	-0.50	0.62
	LoCR	-1.18	2.46	-0.48	0.63
2	Constant	43.01	4.88	8.81	0.00
	Gender	-0.19	0.67	-0.29	0.78
	Mental Health Discrimination	0.33	1.57	0.21	0.83
	Other Discrimination	-1.21	0.94	-1.30	0.20
	LoCR	-2.38	2.28	-1.04	0.30
	SSOSH	-4.56	0.93	-4.90	0.00

Note. LoCR = Level of Contact Report; SSOSH = Self-Stigma of Seeking Help Scale

Table 23

Self-Compassion at Time 1 as a Predictor of Intention to Seek Help at Time 2

Model	Predictors	B	SE B	*t*	*p*
1	Constant	49.78	7.33	6.79	0.00
	Gender	-1.94	1.28	-1.51	0.13
	Mental Health Discrimination	8.20	3.06	2.68	0.01
	Other Discrimination	-0.69	1.80	-0.39	0.70
	LoCR	-0.85	4.42	-0.19	0.85
2	Constant	41.42	9.47	4.38	0.00
	Gender	-1.75	1.29	-1.36	0.17
	Mental Health Discrimination	8.34	3.05	2.73	0.01
	Other Discrimination	-0.30	1.81	-0.17	0.87
	LoCR	-0.19	4.43	-0.04	0.97
	SCS-SF	2.51	1.81	1.39	0.17

Note. SCS-SF = Self-Compassion Scale – Short Form; LoCR = Level of Contact Report; ISCI = Intentions to Seek Counseling Inventory

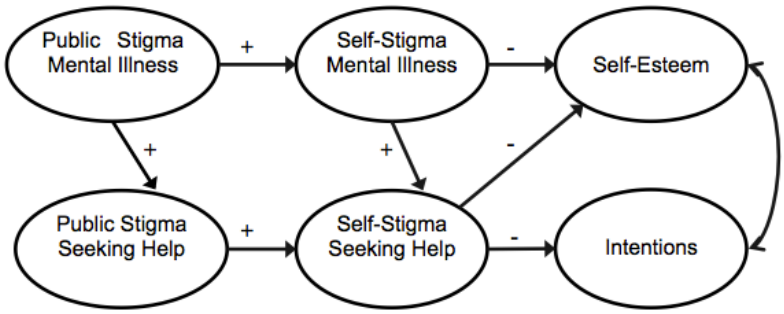

Figure 1. The theoretical Internalized Stigma Model presented by Lannin, Vogel, Brenner, and Tucker (2015)

Note. The plus and minus signs indicate the direction of the relationship between variables.

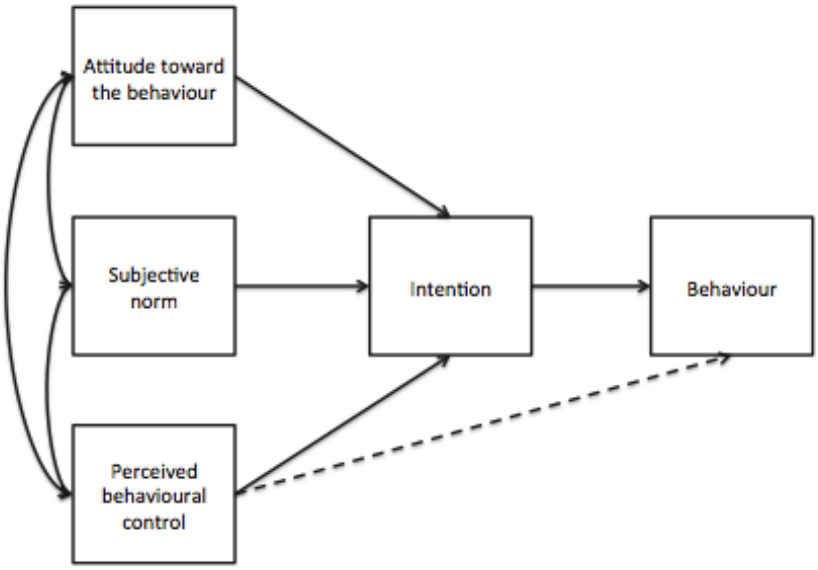

Figure 2. The theory of planned behaviour presented in Ajzen (1991, p.182)

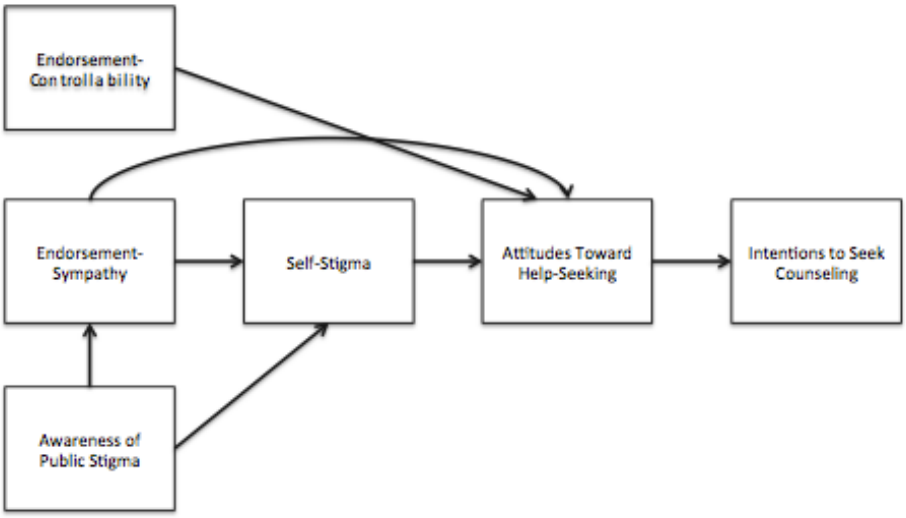

Figure 3. The conceptual model presented in Bathje and Pryor (2011, p.171)

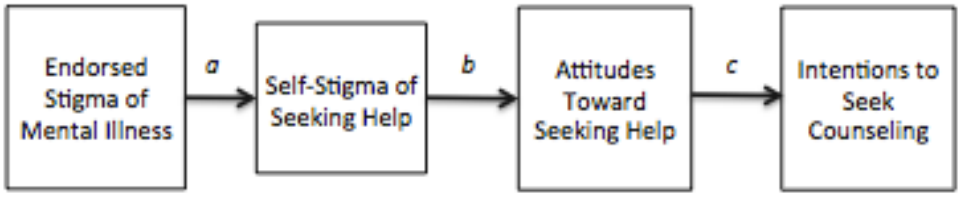

Figure 4. Hypothesized relationships between endorsed stigma of mental illness, self-stigma of seeking help, attitudes towards help-seeking, and intentions to seek counselling

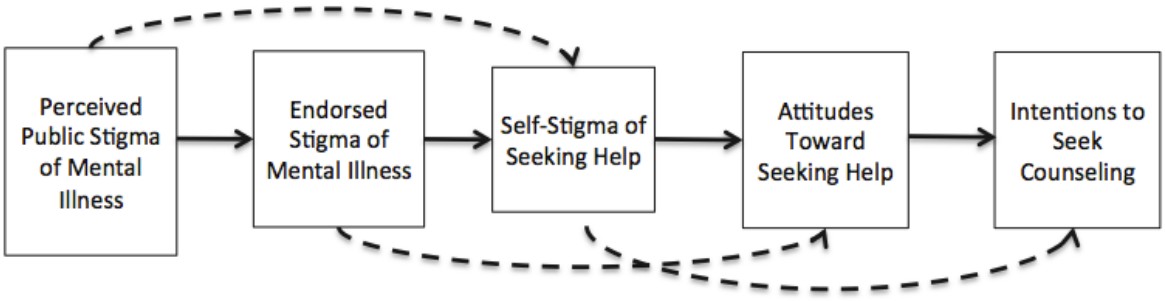

Figure 5. Hypothesized mediating roles of endorsed stigma of mental illness, self-stigma of seeking help, and attitudes towards seeking help

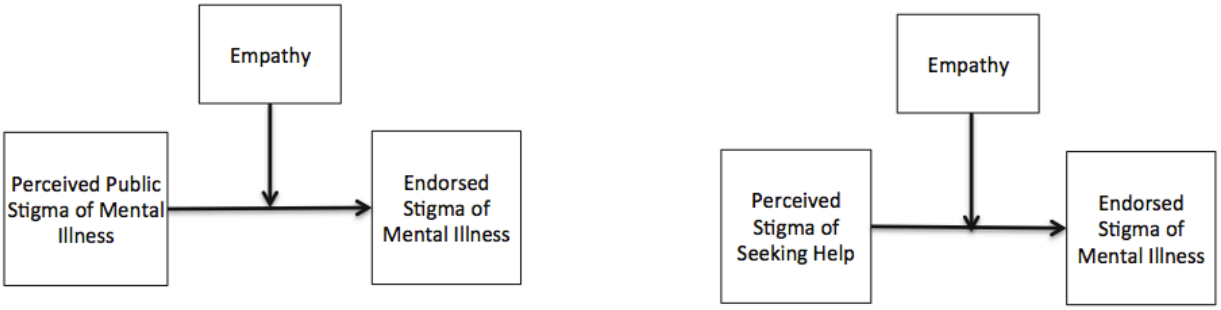

Figure 6. Hypothesized moderating role of empathy

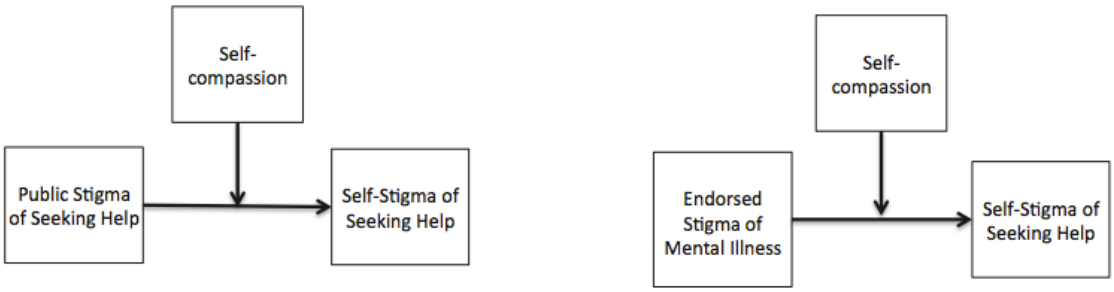

Figure 7. Hypothesized moderating role of self-compassion

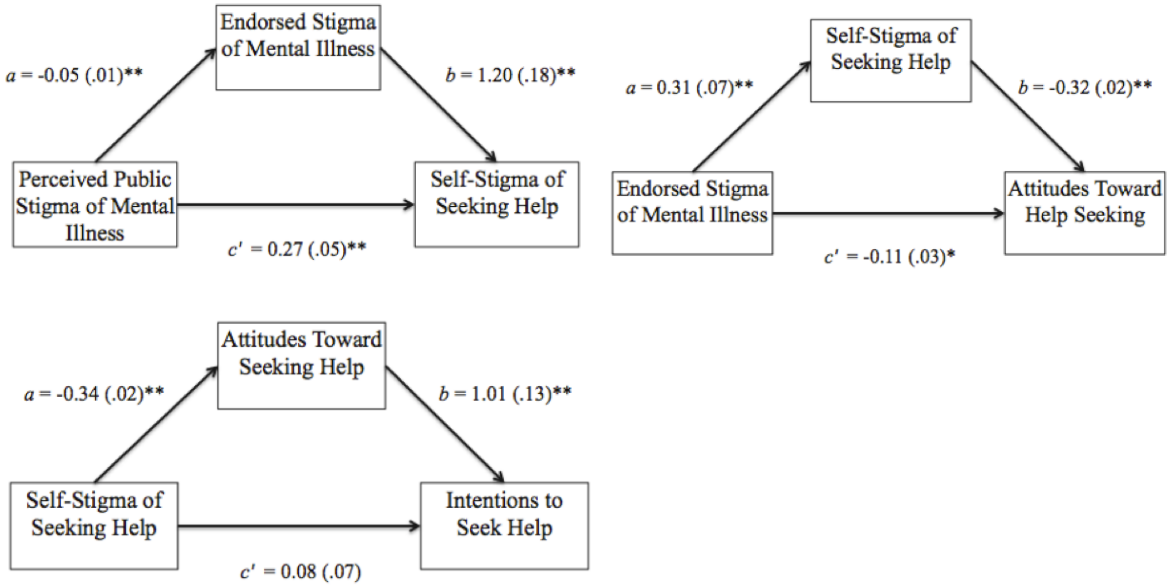

Figure 8. Mediation analyses related to help-seeking stigma, $N = 425\text{-}460$.

*$p < .01$, **$p < .001$

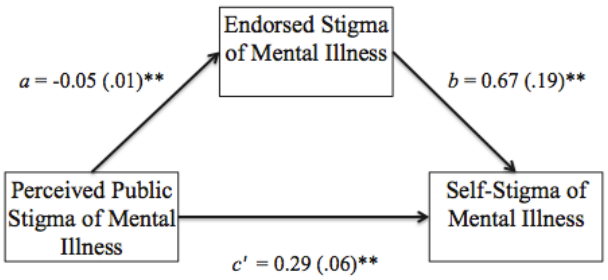

Figure 9. Endorsed stigma of mental illness is consistent with a mediator, $N = 460$.

$^{**}p < .001$

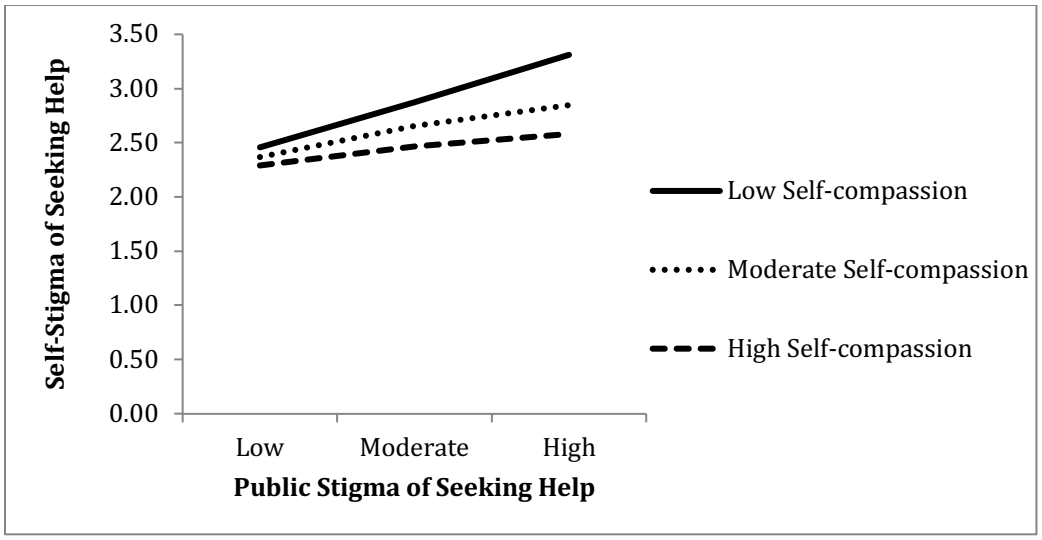

Figure 10. Interaction effects of self-compassion on the relationship between self-stigma of seeking help and public stigma of seeking help.

Appendix A

Demographic Questionnaire

1. Age: _____ (years) (Time 1 only)

2. Sex: □ Male □ Female □ Intersex (Time 1 only)

3. Gender identity: (Time 1 only)
   □ Transgendered/Genderqueer
   □ Man
   □ Woman
   □ Two-spirited
   □ Agender or neither man nor woman
   □ Other
   □ Unsure

4. Sexual orientation: (Time 1 only)
   □ Heterosexual
   □ Gay/Lesbian/Bisexual/Queer
   □ Asexual
   □ Unsure
   □ Other

5. Cultural affiliation (rank number all that apply – 1 for primary affiliation, 2 for secondary, etc.) (Time 1 only)

   ____ Indigenous/Aboriginal (First Nation, Inuit, Metis)

   ____ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese)

   ____ Black (e.g., African, Haitian, Jamaican)

   ____ Chinese

   ____ Filipino

   ____ Japanese

   ____ Korean

   ____ Latin American

____ South Asian

____ South East Asian

____ White (Caucasian)

____ Other (please specify: _____)

6. What program are you currently enrolled in?

_____

7. How many years have you been in this program for?
___1
___2
___3
___4
___5
___6
___7 or more

8. Have you ever been diagnosed with a psychological, emotional, or psychiatric condition? (For Time 2, "In the last 3 months have you been ….")

□ No □ Yes

If "yes", please list: _____

9. Have you experienced a challenge with your mental health that was not diagnosed? (For Time 2, "In the last 3 months have you experienced …")

□ No □ Yes

10. Have you accessed or received any help or services from any of the following people or professionals in order to address psychological distress or a mental health difficulty? (Please check all that apply) (For Time 2, "In the last 3 months, have you accessed ….")

_____ Family
_____ Friends
_____ Mental health counsellor
_____ Psychiatrist
_____ Family physician
_____ Emergency department of a hospital

_____ Cultural/spiritual/religious mentor (e.g., Elder, pastor)

11. For each of the categories listed above, please rate from 0-5 how helpful you found each to be. A rating of 0 indicates not helpful at all, while a rating of 5 indicates extremely helpful.

12. Discrimination is defined as "the practice of unfairly treating a person or group of people differently from other people or groups of people" (Merriam-Webster, n.d., p.1).

Have you ever experienced discrimination related to mental health difficulties or mental illness? (For Time 2, "In the last 3 months have you experienced …")

□ No □ Yes

Have you ever experienced discrimination related to any aspect of your identity that is unrelated to mental illness (e.g., discrimination related to religion, ethnicity, sexual orientation, sex or gender, socioeconomic status, etc.)? (For Time 2, "In the last 3 months have you experienced …")

□ No □ Yes □ Not Sure

Appendix B

Level of Contact Report

Please read each of the following statements carefully. After you have read all the statements below, place a check by the statements that best depict your exposure to persons with a severe mental illness.

___I have watched a movie or television show in which a character depicted a person with mental illness.
___My job involves providing services/treatment for persons with a severe mental illness.
___I have observed, in passing, a person I believe may have had a severe mental illness.
___I have observed persons with a severe mental illness on a frequent basis.
___I have a severe mental illness.
___I have worked with a person who had a severe mental illness at my place of employment.
___I have never observed a person that I was aware had a severe mental illness.
___My job includes providing services to persons with a severe mental illness.
___A friend of the family has a severe mental illness.
___I have a relative who has a severe mental illness.
___I have watched a documentary on the television about severe mental illness.
___I live with a person who has a severe mental illness

Appendix C

Perceived Devaluation-Discrimination Scale (PDD)

1. Most people would willingly accept a former mental patient as a close friend.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

2. Most people believe that a person who has been in a mental hospital is just as intelligent as the average person.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

3. Most people believe that a former mental patient is just as trustworthy as the average citizen.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

4. Most people would accept a fully recovered former mental patient as a teacher of young children in a public school.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

5. Most people believe that entering a mental hospital is a sign of personal failure.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

6. Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

7. Most people think less of a person who has been in a mental hospital.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

8. Most employers will hire a former mental patient if he or she is qualified for the job.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

9. Most employers will pass over the application of a former mental patient in favor of another applicant.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

10. Most people in my community would treat a former mental patient just as they would treat anyone.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

11. Most young women would be reluctant to date a man who has been hospitalized for a serious mental disorder.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

12. Once they know a person was in a mental hospital, most people will take his or her opinions less seriously.

Strongly agree ---- 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- Strongly disagree

Appendix D

Stigma Scale for Receiving Psychological Help (SSRPH)

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.

Strongly Disagree ---- Disagree ---- Agree ---- Strongly Agree

2. It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.

Strongly Disagree ---- Disagree ---- Agree ---- Strongly Agree

3. People will see a person in a less favourable way if they come to know the he/she has seen a psychologist.

Strongly Disagree ---- Disagree ---- Agree ---- Strongly Agree

4. It is advisable for a person to hide from people that he/she has seen a psychologist.

Strongly Disagree ---- Disagree ---- Agree ---- Strongly Agree

5. People think it is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.

Strongly Disagree ---- Disagree ---- Agree ---- Strongly Agree

Appendix E

Attribution Questionnaire (AQ)

PLEASE READ THE FOLLOWING STATEMENT ABOUT HARRY:

Harry is a 22 year-old single man with depression. He is a university student. Sometimes Harry has no energy or motivation to get out of bed so he has missed several classes. He has been hospitalized once before because of his depression.

CIRCLE THE NUMBER OF THE BEST ANSWER TO EACH QUESTION.

1. I would feel pity for Harry.

1 2 3 4 5 6 7 8 9
none at all very much

2. How dangerous would you feel Harry is?

1 2 3 4 5 6 7 8 9
not at all very much

3. How scared of Harry would you feel?

1 2 3 4 5 6 7 8 9
not at all very much

4. I would think that it was Harry's own fault that he is in the present condition.

1 2 3 4 5 6 7 8 9
not at all very much

5. I think it would be best for Harry's community if he were put away in a psychiatric hospital.

1 2 3 4 5 6 7 8 9
not at all very much

6. How angry would you feel at Harry?

1 2 3 4 5 6 7 8 9
not at all very much

7. How likely is it that you would help Harry?

1 2 3 4 5 6 7 8 9

definitely would help — definitely would not help

8. I would try to stay away from Harry.

1 2 3 4 5 6 7 8 9
not at all — very much

9. How much do you agree that Harry should be forced into treatment with his doctor even if he does not want to?

1 2 3 4 5 6 7 8 9
not at all — very much

Appendix F

The Self-Stigma of Seeking Help Scale (SSOSH)

Directions: People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5- point scale to rate the degree to which each item describes how you might react in this situation.

	Strongly Disagree	**Disagree**	**Agree/ Disagree Equally**	**Agree**	**Strongly Agree**
1. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4	5
2. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4	5
3. Seeking psychological help would make me feel less intelligent.	1	2	3	4	5
4. My self-esteem would increase if I talked to a therapist.	1	2	3	4	5
5. My view of myself would not change just because I made the choice to see a therapist.	1	2	3	4	5
6. It would make me feel inferior to ask a therapist for help.	1	2	3	4	5
7. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4	5
8. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4	5
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.	1	2	3	4	5
10. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

Appendix G

Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH-S)
Directions: Please read each statement and check the circle corresponding to the scale that indicates how much you agree or disagree with the statement.

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	0	1	2	3
3. If I were experiencing a serious emotional crisis at this point in my life. I would be confident that I could find relief in psychotherapy.	0	1	2	3
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.	0	1	2	3
5. I would want to get psychological help if I were worried or upset for a long period of time.	0	1	2	3
6. I might want to have psychological counseling in the future.	0	1	2	3
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	0	1	2	3
8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	0	1	2	3
9. A person should work out his or her own problems; getting psychological counseling would be a last resort.	0	1	2	3
10. Personal and emotional troubles, like many things, tend to work out by themselves.	0	1	2	3

Appendix H

Intentions to Seek Counseling Inventory (ISCI)

Instructions: Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling/therapy if you were experiencing these problems?

	Very unlikely	**Moderately unlikely**	**Slightly unlikely**	**Slightly likely**	**Moderately likely**	**Very likely**
Relationship difficulties	1	2	3	4	5	6
Concerns about sexuality	1	2	3	4	5	6
Depression	1	2	3	4	5	6
Conflict with parents	1	2	3	4	5	6
Speech anxiety	1	2	3	4	5	6
Difficulty in sleeping	1	2	3	4	5	6
Inferiority feelings	1	2	3	4	5	6
Difficulty with friends	1	2	3	4	5	6
Self-understanding	1	2	3	4	5	6
Loneliness	1	2	3	4	5	6
Difficulties dating	1	2	3	4	5	6
Choosing a major	1	2	3	4	5	6
Test anxiety	1	2	3	4	5	6
Academic work procrastination	1	2	3	4	5	6

Please check if you have received support for any of the following: (For Time 2, "Please check if you have received support IN THE LAST 3 MONTHS for any of the following")

	Attended Counselling?	**Have you sought informal support?**
Relationship difficulties		
Concerns about sexuality		
Depression		
Conflict with parents		
Speech anxiety		
Difficulty in sleeping		
Inferiority feelings		
Difficulty with friends		
Self-understanding		
Loneliness		
Difficulties dating		
Choosing a major		
Test anxiety		
Academic work procrastination		

Appendix I

The Self-Stigma of Mental Illness Scale (SSMIS)

Directions: People at times find that they face mental health problems. This can bring up reactions about what mental illness would mean. Please use the 5- point scale to rate the degree to which each item describes how you might react if you were to have a mental illness.

	Strongly Disagree	**Disagree**	**Agree/ Disagree Equally**	**Agree**	**Strongly Agree**
1. I would feel inadequate if I had a mental illness.	1	2	3	4	5
2. My self-confidence would NOT be threatened if I had a mental illness.	1	2	3	4	5
3. Having a mental illness would make me feel less intelligent.	1	2	3	4	5
4. My self-esteem would decrease if I had a mental illness.	1	2	3	4	5
5. My view of myself would not change just because I had a mental illness.	1	2	3	4	5
6. It would make me feel inferior to have a mental illness.	1	2	3	4	5
7. I would feel okay about myself if I had a mental illness.	1	2	3	4	5
8. If I had a mental illness, I would be less satisfied with myself.	1	2	3	4	5
9. My self-confidence would remain the same if I had a mental illness.	1	2	3	4	5
10. I would feel worse about myself if I had a mental illness.	1	2	3	4	5

Appendix J

Depression, Anxiety and Stress Scale (DASS-21)

Please read each statement and circle a number 0, 1, 2, or 3 which indicates how much the statement applied to you OVER THE PAST WEEK. There are no right or wrong answers. Do not spend too much time on any statement.

	Never	**Sometimes**	**Often**	**Almost Always**
1. I found it hard to wind down	0	1	2	3
2. I was aware of dryness of my mouth	0	1	2	3
3. I couldn't seem to experience any positive feeling at all	0	1	2	3
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5. I found it difficult to work up the initiative to do things	0	1	2	3
6. I tended to over-react to situations	0	1	2	3
7. I experienced trembling (eg, in the hands)	0	1	2	3
8. I felt that I was using a lot of nervous energy	0	1	2	3
9. I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10. I felt that I had nothing to look forward to	0	1	2	3
11. I found myself getting agitated	0	1	2	3
12. I found it difficult to relax	0	1	2	3
13. I felt down-hearted and blue	0	1	2	3
14. I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15. I felt I was close to panic	0	1	2	3
16. I was unable to become enthusiastic about	0	1	2	3

anything				
17. I felt I wasn't worth much as a person	0	1	2	3
18. I felt that I was rather touchy	0	1	2	3
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20. I felt scared without any good reason	0	1	2	3
21. I felt that life was meaningless	0	1	2	3

Appendix K

General Population - Clinical Outcomes in Routine Evaluation (GP-CORE)

This form has 14 statements about how you have been OVER THE LAST WEEK. Please read each statement and think how often felt that way last week. Then tick the box which is closest to this.

Over the last week

	Not at all	**Only Occasionally**	**Sometimes**	**Often**	**Most of the Time**
	0	**1**	**2**	**3**	**4**
1. I have felt tense, anxious or nervous	0	1	2	3	4
2. I have felt I have someone to turn to for support when needed	0	1	2	3	4
3. I have felt O.K. about myself	0	1	2	3	4
4. I have felt able to cope when things go wrong	0	1	2	3	4
5. I have been troubled by aches, pains or other physical problems	0	1	2	3	4
6. I have been happy with the things I have done:	0	1	2	3	4
7. I have had difficulty getting to sleep or staying asleep	0	1	2	3	4
8. I have felt warmth or affection for someone	0	1	2	3	4
9. I have been able to do most things I needed to	0	1	2	3	4
10. I have felt criticized by other people	0	1	2	3	4
11. I have felt unhappy	0	1	2	3	4
12. I have been irritable when with other people	0	1	2	3	4
13. I have felt optimistic about my future	0	1	2	3	4
14. I have achieved the things I wanted to	0	1	2	3	4

Appendix L

Undergraduate Stress Questionnaire

Please check the appropriate stressors in your life that have affected you during the past two weeks.

_____ 1. Death (family member or friend)
_____ 2. Had a lot of tests
_____ 3. It's finals week
_____ 4. Applying to graduate school
_____ 5. Victim of a crime
_____ 6. Assignments in all classes due the same day
_____ 7. Breaking up with boy/girlfriend
_____ 8. Found out boy/girlfriend cheated on you
_____ 9. Lots of deadlines to meet
_____ 10. Property stolen
_____ 11. You have a hard upcoming week
_____ 12. Went into a test unprepared
_____ 13. Lost something (especially wallet)
_____ 14. Death of a pet
_____ 15. Did worse than expected on test
_____ 16. Had an interview
_____ 17. Had projects, research papers due
_____ 18. Did badly on a test
_____ 19. Parents getting divorce
_____ 20. Dependent on other people
_____ 21. Having roommate conflicts
_____ 22. Car/bike broke down, fiat tire
_____ 23. Got a traffic ticket
_____ 24. Missed your period and waiting
_____ 25. Thoughts about future
_____ 26. Lack of money
_____ 27. Dealt with incompetence at the Register's Office
_____ 28. Thought about unfinished work
_____ 29. No sleep
_____ 30. Sick, Injury
_____ 31. Had a class presentation
_____ 32. Applying for a job
_____ 33. Fought with boy/girlfriend
_____ 34. Working while in school
_____ 35. Arguments, conflicts of values with friends
_____ 36. Bothered by having no social support of family
_____ 37. Performed poorly at a task

_____ 38. Can't finish everything you needed to do
_____ 39. Heard bad news
_____ 40. Had confrontation with an authority figure
_____ 41. Maintaining a long-distance boy/girlfriend
_____ 42. Crammed for a test
_____ 43. Feel unorganized
_____ 44. Trying to decide on major
_____ 45. Feel isolated
_____ 46. Parents controlling with money
_____ 47. Couldn't find a parking space
_____ 48. Noise disturbed you while trying to study
_____ 49. Someone borrowed something without permission
_____ 50. Had to ask for money
_____ 51. Ran out of toner while printing
_____ 52. Erratic schedule
_____ 53. Can't understand your professor
_____ 54. Trying to get into your major or college
_____ 55. Registration for classes
_____ 56. Stayed up late writing a paper
_____ 57. Someone you expected to call did not
_____ 58. Someone broke a promise
_____ 59. Can't concentrate
_____ 60. Someone did a "pet peeve" of yours
_____ 61. Living with boy/girlfriend
_____ 62. Felt need for transportation
_____ 63. Bad haircut today
_____ 64. Job requirements changed
_____ 65. No time to eat
_____ 66. Felt some peer pressure
_____ 67. You have a hangover
_____ 68. Problems with your computer
_____ 69. Problem getting home from bar when drunk
_____ 70. Used a fake ID
_____ 71. No sex in a while
_____ 72. Someone cut ahead of you in line
_____ 73. Checkbook didn't balance
_____ 74. Visit from a relative and entertaining them
_____ 75. Decision to have sex on your mind
_____ 76. Spoke with a professor
_____ 77. Change of environment (new doctor, dentist, etc.)
_____ 78. Exposed to upsetting TV show, book, or movie
_____ 79. Got to class late
_____ 80. Holiday
_____ 81. Sat through a boring class
_____ 82. Favorite sporting team lost

Appendix M

Toronto Empathy Questionnaire (TEQ)

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

		Never	**Rarely**	**Sometimes**	**Often**	**Always**
1.	When someone else is feeling excited, I tend to get excited too	0	1	2	3	4
2.	Other people's misfortunes do not disturb me a great deal	0	1	2	3	4
3.	It upsets me to see someone being treated disrespectfully	0	1	2	3	4
4.	I remain unaffected when someone close to me is happy	0	1	2	3	4
5.	I enjoy making other people feel better	0	1	2	3	4
6.	I have tender, concerned feelings for people less fortunate than me	0	1	2	3	4
7.	When a friend starts to talk about his\her problems, I try to steer the conversation towards something else	0	1	2	3	4
8.	I can tell when others are sad even when they do not say anything	0	1	2	3	4
9.	I find that I am "in tune" with other people's moods	0	1	2	3	4
10.	I do not feel sympathy for people who cause their own serious illnesses	0	1	2	3	4
11.	I become irritated when someone cries	0	1	2	3	4
12.	I am not really interested in how other people feel	0	1	2	3	4
13.	I get a strong urge to help when I see someone who is upset	0	1	2	3	4
14.	When I see someone being treated unfairly, I do not feel very much pity for them	0	1	2	3	4
15.	I find it silly for people to cry out of happiness	0	1	2	3	4
16.	When I see someone being taken advantage of, I feel kind of protective towards him\her	0	1	2	3	4

Appendix N

Self-Compassion Scale- Short-Form (SCS-SF)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				**Almost always**
1	**2**	**3**	**4**	**5**

_____1. When I fail at something important to me I become consumed by feelings of inadequacy.
_____2. I try to be understanding and patient towards those aspects of my personality I don't like.
_____3. When something painful happens I try to take a balanced view of the situation.
_____4. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
_____5. I try to see my failings as part of the human condition.
_____6. When I'm going through a very hard time, I give myself the caring and tenderness I need.
_____7. When something upsets me I try to keep my emotions in balance.
_____8. When I fail at something that's important to me, I tend to feel alone in my failure
_____9. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
_____10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
_____11. I'm disapproving and judgmental about my own flaws and inadequacies.
_____12. I'm intolerant and impatient towards those aspects of my personality I don't like.

Appendix O

Information letter for Time 1 (to be presented electronically)
Study: Relationships between Mental Illness, Help-Seeking, and Gender

Dear Potential Participant,

Thank you for considering participating in our study. You have been invited to participate in this research because you are a university student. Tegan Tsubouchi and Erika Portt (student researchers), and Dr. Amanda Maranzan (Psychology professor) are the researchers conducting this study.

Purpose: The purpose of this research is to examine attitudes about mental illness and seeking services for mental health difficulties.

Procedure: You are invited to complete an online questionnaire at two time-points, approximately 3-months apart. The questionnaire will invite you to provide demographic information about yourself (e.g., age, sex, program of study), to indicate your familiarity with mental illness, to rate your opinions and attitudes about mental illness, psychological services, gender roles, your thoughts and feelings towards others and yourself, and to indicate if you have accessed services for mental health difficulties. It will take you approximately one hour to participate at each time-point. After completing the questionnaire once, you would be asked to provide your email address so that the researchers can contact you approximately 3-months later to invite you to complete the questionnaire again.

Compensation: If you are taking a psychology course that allows bonus points you can choose to receive one bonus point for participating at one time-point (2 bonus points for participating at both time points). Alternatively, you can choose to be entered into a draw for one of three $50.00 gift certificates (two ballots if you participate at both time points).

Risks: We have not identified any risks associated with this research. However you may become more aware of a stressor or difficulty you are experiencing; we have included a list of resources that you can contact for support if needed.

Benefits: The information that participants provide will help the researchers to better understand the relationships between gender, gender roles, and attitudes about mental illness and seeking help for mental health difficulties.

Confidentiality: All information will be treated as private and confidential. You will be asked to provide an email address to be reminded of the Time 2 questionnaire, but your information will not be stored with your email address. Instead we will generate a unique code for your

information, and only the researchers will have access to the list of email addresses and participant codes. You will be asked questions about your demographic information such as age, sex, gender identity, sexual orientation, program of study, and experiences with mental illness, but it is not likely that this information would identify you.

All data will be collected using Survey Monkey. *Survey Monkey* is a websurvey company based in the United States, and data will be stored on secure servers in the USA. Please note that Survey Monkey is hosted by a server located in the USA. The US Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participant in this study, you acknowledge this. You can read more about *Survey Monkey*'s privacy policy here: https://www.surveymonkey.com/mp/policy/privacy-policy/

Data Storage: During the process of data collection, the data is stored on Survey Monkey. Once data is ready to be analyzed, it will be kept on the researchers' computers in password-protected files. After the study is finished, the data will also be stored on a USB in a locked filing cabinet in a locked research office at Lakehead University. It will remain there for a period of five years and then it will be destroyed.

Participation: Participation in this study is completely voluntary. You may refuse or agree to participate in this study and the researchers and your course instructors would not know. If you do decide to participate, you may choose to not answer any questions that you don't want to answer and you may decide at any time during the study that you want to stop filling out the survey. You can withdraw your data from the study by contacting the researchers (contact information provided below).

Publication of Research Findings: The data obtained from this study might be presented in conference presentations, posters, manuscripts, or other presentation formats. However, any presentations or publications will present the data in group format, so no one individual will be identifiable.

If you would like to receive information about the results of the study, please email or call the researchers to request information about the results of the study (contact information listed below).

Questions: If you have any further questions or concerns regarding this research, please do not hesitate to contact the researchers. Their contact information is provided below:

Dr. Amanda Maranzan
Associate Professor, Department of Psychology
Lakehead University
Tel: (807) 343-8322
Email: kamaranz@lakeheadu.ca

Erika Portt

Clinical Psychology Ph.D. Student,
Lakehead University
Tel: (613) 243-8955
Email: eportt@lakeheadu.ca

Tegan Tsubouchi
Psychology Honour's Thesis Student,
Lakehead University
Email: ttsubouc@lakeheadu.ca

This research study has been reviewed and approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

Thank you for considering participating in this study.

Sincerely,
The Research Team:
Dr. Amanda Maranzan, Associate Professor
Erika Portt, Ph.D. Student,
Tegan Tsubouchi, Honour's Thesis Student,
Lakehead University

MENTAL HEALTH RESOURCES
please print this page for your reference

Lakehead University Resource:

Counseling Services
Lakehead University
955 Oliver Road
Thunder Bay, Ontario, P7B 5E1
(807) 343-8361

Community Resources:

Thunder Bay Crisis Response Service
(807) 346-8282
Mental health workers provide support 24 hours a day and can help you to access further services, as needed

Thunder Bay Counselling Centre
(807) 684-1880
Mental health workers provide counselling to individuals, couples, and families

Beendigen Crisis Line
(807) 346-HELP
(807) 346-4357

Mental Health Assessment Team
At the Emergency Department (Thunder Bay Regional Health Sciences Centre)
Mental health workers will assess your emergency mental health needs

Thunder Bay Sexual Assault/Abuse Crisis Service
(807) 344-4502
Crisis workers are available 24 hours to give immediate help, as well as follow-up counseling, court advocacy and other services. Phone support for women who have experienced current ot past assault or abuse.

Walk-in Counselling Services –Wednesdays from 12 noon to 8 pm
-1st & 3rd Wednesday each month at –Thunder Bay Counselling Centre – 544 Winnipeg Avenue
-2nd & 4th Wednesday each month at Children's Centre Thunder Bay – 283 Lisgar Street

Lakehead UNIVERSITY

Appendix P

Consent Form (to be presented electronically)

Study: Relationships between Mental Illness Stigma, Help-Seeking Stigma, and Gender Roles

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By consenting to participate in this research, you are indicating that you understand and agree to the following conditions:

- You have read and understood the information provided in the information letter.
- You understand the risks and benefits of the study.
- You understand that the purpose of the study is to examine how gender, thoughts and feelings about oneself and others, attitudes about mental illness, and help seeking relate to one another.
- You know that participating consists of completing an online survey at two time-points that will take approximately one hour at each time-point.
- You know that if you complete the questionnaire once and provide your email address, the researchers will contact you 3 months later and invite you to complete the questionnaire a second time.
- You agree to participate in this study.
- If applicable, you can choose to receive one bonus point for eligible psychology courses or enter a ballot into a draw for a chance to win one of three $50.00 gift certificates. You can be given a bonus point or a ballot at the first time-point and at the second time-point.
- You may refuse to answer any questions that you don't want to answer.
- You are free to stop participating in the study at any time by not completing the questionnaire. You can withdraw from the study at anytime before the study is finished by contacting the researchers.
- You acknowledge that Survey Monkey is hosted by a server located in the USA. The US Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this we cannot absolutely guarantee the full confidentiality and anonymity of your data.
- The information that is collected from this study will be securely stored at Lakehead University for a period of five years following the completion of the study, and after five years, the information will be destroyed.
- Findings from this study may be presented in publications or at conferences. You will remain anonymous in any publications/presentations of the research findings.
- You can choose to see the results of this study once it is finished by providing your email address at the end of the survey. You could also contact the researchers directly to request to see the results.

I have read the information letter provided and have been told how to obtain more information about this study. By completing the following questionnaires, I am indicating that I understand the information provided and agree to participate in this research:

□ I agree, proceed to questionnaires
□ I do not agree, end study

Appendix Q

Scripts for Recruiting Participants

Script for Classroom Presentations

The student researchers would introduce themselves and then describe the study using the following script:

"We are conducting research to examine the relationships between sex, gender, thoughts and feelings towards others and oneself, opinions and attitudes about mental illness and receiving mental health services such as counselling, and whether people have received a service to address a mental health difficulty. This study is all online – participating would consist of filling out a survey online at two-time points about 3 months apart. The survey takes about an hour each time. Participating is completely voluntary. At each of the two time-points, a bonus point can be earned for participating in this study if you are enrolled in a course that gives bonus points for participation in research or you could choose to enter a ballot into a draw for a chance for win one of 3 $50.00 gift certificates. If you are interested in finding out more about the study, please go to the link that we are passing around (*note – a small piece of paper with the study title, survey link, and researcher contact information will be distributed at this time*). If you have any questions about the study, please do not hesitate to ask us! Thanks!"

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Appendix R

Information letter (reminder) for Time 2 (to be presented electronically)

Study: Relationships between Mental Illness, Help-Seeking, and Gender

Dear Potential Participant,

You have been invited to participate in the second part of this study because you participated in the first part of the study approximately 3 months ago. Thank you for participating in the first part of the study and for considering participating in the second part. Tegan Tsubouchi and Erika Portt (student researchers), and Dr. Amanda Maranzan (Psychology professor) are the researchers conducting this study.

Purpose: The purpose of this research is to examine attitudes about mental illness and seeking services for mental health difficulties.

Procedure: We invite you to complete the questionnaire a second time. The questionnaire will invite you to provide demographic information about yourself (e.g., age, sex, program of study), to indicate the extent of contact you have had with mental illness, to rate your opinions and attitudes about mental illness, psychological services, gender roles, your thoughts and feelings towards others and yourself, and to indicate if you have accessed services for mental health difficulties. It will take you approximately one hour to participate in this time-point.

Compensation: If you are taking a psychology course that allows bonus points you can choose to receive one more bonus point for participating at this time-point. Alternatively, you can choose to be entered into a draw for one of three $50.00 gift certificates.

Risks: We have not identified any risks associated with this research. However you may become more aware of a stressor or difficulty you are experiencing; we have included a list of resources that you can contact for support if needed.

Benefits: The information that participants provide will help the researchers to better understand the relationships between gender, gender roles, and attitudes about mental illness and seeking help for mental health difficulties.

Confidentiality:
All information will be treated as private and confidential. You will be asked to provide an email address to be reminded of the Time 2 questionnaire, but your information will not be stored with your email address. Instead we will generate a unique code for your information, and only the researchers will have access to the list of email addresses and participant codes. You will be asked questions about your demographic information such as age, sex, gender identity, sexual

orientation, program of study, and experiences with mental illness, but it is not likely that this information would identify you.

All data will be collected using Survey Monkey. *Survey Monkey* is a websurvey company based in the United States, and data will be stored on secure servers in the USA. Please note that Survey Monkey is hosted by a server located in the USA. The US Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participant in this study, you acknowledge this. You can read more about *Survey Monkey*'s privacy policy here: https://www.surveymonkey.com/mp/policy/privacy-policy/

Data Storage: During the process of data collection, the data is stored on Survey Monkey. Once data is ready to be analyzed, it will be kept on the researchers' computers in password-protected files. After the study is finished, the data will also be stored on a USB in a locked filing cabinet in a locked research office at Lakehead University. It will remain there for a period of five years and then it will be destroyed.

Participation: Participation in this study is completely voluntary. You may refuse or agree to participate in this part of study and the researchers and your course instructors would not know. If you do decide to participate, you may choose to not answer any questions that you don't want to answer and you may decide at any time during the study that you want to stop filling out the survey. You can withdraw your data from the study by contacting the researchers (contact information provided below).

Publication of Research Findings: The data obtained from this study might be presented in conference presentations, posters, manuscripts, or other presentation formats. However, any presentations or publications will present the data in group format, so no one individual will be identifiable.

If you would like to receive information about the results of the study, please email or call the researchers to request information about the results of the study (contact information listed below).

Questions: If you have any further questions or concerns regarding this research, please do not hesitate to contact the researchers. Their contact information is provided below:

Dr. Amanda Maranzan
Associate Professor, Department of Psychology
Lakehead University
Tel: (807) 343-8322
Email: kamaranz@lakeheadu.ca

Erika Portt
Clinical Psychology Ph.D. Student,
Lakehead University

Tel: (613) 243-8955
Email: eportt@lakeheadu.ca

Tegan Tsubouchi
Psychology Honour's Thesis Student,
Lakehead University
Email: ttsubouc@lakeheadu.ca

This research study has been reviewed and approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

Thank you for considering participating in this study.

Sincerely,
The Research Team:
Dr. Amanda Maranzan, Associate Professor
Erika Portt, Ph.D. Student,
Tegan Tsubouchi, Honour's Thesis Student,
Lakehead University

MENTAL HEALTH RESOURCES
please print this page for your reference

Lakehead University Resource:

Counseling Services
Lakehead University
955 Oliver Road
Thunder Bay, Ontario, P7B 5E1
(807) 343-8361

Community Resources:

Thunder Bay Crisis Response Service
(807) 346-8282
Mental health workers provide support 24 hours a day and can help you to access further services, as needed

Thunder Bay Counselling Centre
(807) 684-1880
Mental health workers provide counselling to individuals, couples, and families

Beendigen Crisis Line
(807) 346-HELP
(807) 346-4357

Mental Health Assessment Team
At the Emergency Department (Thunder Bay Regional Health Sciences Centre)
Mental health workers will assess your emergency mental health needs

Thunder Bay Sexual Assault/Abuse Crisis Service
(807) 344-4502
Crisis workers are available 24 hours to give immediate help, as well as follow-up counseling, court advocacy and other services. Phone support for women who have experienced current ot past assault or abuse.

Walk-in Counselling Services –Wednesdays from 12 noon to 8 pm
-1st & 3rd Wednesday each month at –Thunder Bay Counselling Centre – 544 Winnipeg Avenue
-2nd & 4th Wednesday each month at Children's Centre Thunder Bay – 283 Lisgar Street

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Appendix S

Debriefing Form (to be presented electronically)
Study: Relationships between Mental Illness Stigma, Help-Seeking Stigma, and Gender Roles

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This form contains important information about the study that you just participated in. You were invited to participate in the study since you are a university student. We were interested in obtaining a post-secondary student sample for this study, since university and college can be associated with unique stressors, many university and college students experience psychological distress (Adlaf, Gliksman, Demers, & Newton-Taylor, 2001), and because help-seeking among post-secondary students has been shown to be low despite the availability of services on campuses (Hunt & Eisenberg, 2010).

Participating consisted of responding to questions in an online survey. You were first asked about your demographic information, and then invited to answer questions from several different scales that measure constructs such as contact with mental illness, gender roles, gender role conflict, stigma of mental illness, stigma of seeking help for mental health problems, attitudes towards psychological services, intentions to seek psychological services, experiences with accessing services, psychological distress, and stressors. The measures that you were invited to complete included: The Level of Contact Report, Perceived Devaluation-Discrimination Scale, Stigma Scale for Receiving Psychological Help, Attribution Questionnaire – Short Form, The Self-Stigma of Seeking Help Scale, Self-Stigma of Mental Illness Scale, Attitudes Toward Seeking Professional Psychological Help- Short Form, Intentions to Seek Counselling Inventory, Depression, Anxiety, and Stress Scale – 21, General Population – Clinical Outcomes in Routine Evaluation, the Undergraduate Stress Questionnaire, The Bem Sex Role Inventory, and if you identify as a man, you were asked to complete the Gender Role Conflict Scale. The Gender Role Conflict Scale includes questions that refer to being a man, so that is why only men were asked to complete this measure.

Research has shown sex differences in terms of stigma and help-seeking. Males have been shown to be less likely to seek psychological help than females (Kessler, Brown, & Broman, 1981), and previous researchers have suggested that this sex difference in help-seeking is due to masculine gender roles that some men ascribe to where they strive to be independent and strong. Given this proposed reason for lower help-seeking among males, this study sought to examine how gender roles and gender role conflict relate to the stigma of mental illness and the stigma of seeking psychological help. Gender role conflict refers to when restrictive gender roles lead to consequences for an individual (O'Neil, Helms, Gable, David, & Wrightsman, 1986).

The low rates of help-seeking for mental health difficulties and the particularly low rates among males is concerning. Gaining a better understanding of how gender roles, gender role conflict, stigma, and help-seeking relate is important for addressing the issue of low help-seeking, as this

knowledge could inform interventions or initiatives that seek to reduce stigma and promote the utilization of mental health services.

Thank you for participating in this study! If you have any questions about the study, please do not hesitate to contact the researchers. The researchers' contact information is listed below. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Lakehead University Research Ethics Board at 807-343-8283.

Researchers' contact information:

Dr. Amanda Maranzan
Assistant Professor, Department of Psychology
Lakehead University
Tel: (807) 343-8322
Email: kamaranz@lakeheadu.ca

Erika Portt
Clinical Psychology Ph.D. Student,
Lakehead University
Tel: (613)243-8955
Email: eportt@lakeheadu.ca

Tegan Tsubouchi
Psychology Honour's Thesis Student,
Lakehead University
Email: ttsubouc@lakeheadu.ca

Sometimes people might feel distressed after answering questions that ask them to reflect on how they're feeling. If you're feeling distressed, there are several resources that you could contact and these resources are listed below.

Lakehead University Resource:

Counseling Services
Lakehead University
955 Oliver Road
Thunder Bay, Ontario, P7B 5E1
(807) 343-8361

Community Resources:

Thunder Bay Crisis Response Service
(807) 346-8282
Mental health workers provide support 24 hours a day and can help you to access further services, as needed

Thunder Bay Counselling Centre
(807) 684-1880

Mental health workers provide counselling to individuals, couples, and families

Beendigen Crisis Line
(807) 346-HELP
(807) 346-4357

Mental Health Assessment Team
At the Emergency Department (Thunder Bay Regional Health Sciences Centre)
Mental health workers will assess your emergency mental health needs

Thunder Bay Sexual Assault/Abuse Crisis Service
(807) 344-4502
Crisis workers are available 24 hours to give immediate help, as well as follow-up counseling, court advocacy and other services. Phone support for women who have experienced current ot past assault or abuse.

Walk-in Counselling Services –Wednesdays from 12 noon to 8 pm
-1st & 3rd Wednesday each month at –Thunder Bay Counselling Centre – 544 Winnipeg Avenue
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