Examining mental health on Canadian post secondary campuses and the role universities play in supporting students during semesters impacted by COVID-19

A Thesis

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Abstract

The purpose of this research is to examine mental health in Canadian post secondary campuses and the role universities play in supporting students during semesters impacted by COVID-19. The World Health Organization (WHO, 2014) and the Canadian Mental Health Association (CMHA, 2015) first identified the prevalence of students who suffer from mental illness. Utilizing the framework of the Perceived Stress Scale and the Healthy Mind this study found that university students are more predisposed to stressors associated in the development of mental illness as a result of COVID-19. Students in higher education are experiencing amplified negative effects as a result of COVID-19 leading to lower academic attainment and cognitive function. Drawing on academic literature and the quantitative data collected for this research, this thesis argues that higher education still relies on a reactive approach to handling mental illness in their student populations. The inadequate efforts to develop and address the detrimental impact of mental illness on Canadian campuses during semesters impacted by COVID-19 and beyond, could have severe long-term consequences on the students health and academics. This thesis contributes to the holistic understanding of how mental illness has been handled in higher education during the pandemic in Canada.

Introduction

Mental health, a term once shrouded in stigma and segregated from other medical conditions, has now been catapulted into the limelight, in particular, that of the educational realm. The World Health Organization (WHO) has garnered much of the momentum for this new area of exploration when they published studies that suggested 20 percent of the world's children or adolescents suffer from a form of mental illness (Engelhardt, 2014). This statement was further supported by evidence provided by the Canadian Mental Health Association that estimated roughly 20 percent of Canadian youth suffer from mental health problems (Canadian Mental Health Organization, 2015).

As the societal stigma of mental illness has been steadily dissolving, so have these numbers been exponentially climbing in Canadian youth. The *American College Health Association National College Health Assessment; Canadian Reference Group Executive Summary* published startling evidence that of 55,284 respondents, 51.6 percent, “felt so depressed that it was difficult to function,” and 68.9 percent “felt overwhelming anxiety (ACHA-NCHA II, 2019). More concerning is that the ACHA-NCHA II discovered that of those who reported experiencing mental illness, 67 percent had received no treatment by a professional,” in the last 12 months (ACHA-NCHA II, 2019).

It is well documented that university students are in fact a vulnerable population with regards to experiencing mental health issues, “suffering higher levels of anxiety, depression, substance abuse, disordered eating compared to the general public” (Browning et al., 2021). University students are exposed to a unique array of correlates linked to the development mental illness including: (1) the absence of personal goals, (2) a high level of anxiety (3) dysfunctional thoughts regarding success, (4) a lack of emotional adjustment to college, (5) receiving little warmth and encouragement of autonomy from one's mother or father (Villatte et al., 2017). Furthermore, and as a direct result of experiencing the repercussions of mental illness, many researchers have directly linked both externalized and internalized mental health issues to lower cognitive performance. Eisenberg et al., (2009) identified that depression is a significant predictor of a lower grade point average (GPA) and this is exponentially increased when students have pre existing anxiety disorders. This is especially concerning with the development of Covid-19 which researchers have already discovered to be a significant correlate in

relation to mental health with some literature stating that 71 percent of college level students are experiencing an increase of anxiety and stress caused by Covid-19 (Son et al., 2020). With both literature and statistics giving evidence to the proportionally higher occurrence of mental health on Canadian campuses, researchers are now shifting their focus to how institutions and governments are supporting this vulnerable population from the effects of Covid-19 during semesters impacted by the pandemic.

A significant portion of momentum on this topic was generated by the Canadian Mental Health Organization and its importance has been recognized by the Canadian government. Whitley and Berry (2013) delve further into the federal coverage of mental illness between the years of 2005-2010 and suggest that since Canada has a tiered government, it is the provincial government's responsibility to develop and fund mental health initiatives to support the needs of students. Adelman and Taylor (2002) provide further evidence by stating, “As a result, other sector agencies, specifically education, have not only been included with helping identify mental health challenges in students, but have also helped provide support to allow these students to achieve some level of academic success” (Adelman & Taylor, 2002). With the surge of new information pertaining to the effects of mental illness, Canadian institutions have shifted to a proactive stance in combating mental illness in their schools, through screening and identification, creating structured intervention plans, virtual counseling and more (Whitley, 2010; Adelman & Taylor, 2002). Engelhardt’s (2016) research found that schools play a pivotal role in identifying, assessing and supporting students with mental illness, although educational institutions have a unique opportunity to support students,

they are also met with significant challenges. Emerging statistics paint a bleak reality of the prevalence of mental illness on Canadian campuses, further amplified by Covid-19.

Literature Review

Defining Mental Illness

In order to unpack the complexities of how mental illness affects students in post secondary education, a working definition of 'mental illness' must first be established. Stein et al., (2010) praised the Diagnostic and Statistical Manual of Mental Disorder - 5 (DSM-5) for its seminal contributions to the understanding and categorization of mental disorders, however criticized the definition provided. Through cross referencing and operationalizing the criteria of mental illness from DSM-III through V, the working definition or criterion of mental illness for the purpose of this paper can be found in **Table 1.**

DSM-IV: Definition of Mental Disorder

Table 1 (Stein et al., 2010)

DSM- IV Definition of Mental Disorder

Features
I. a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual

II. is associated with present distress (e.g. a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom.

III. must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one

IV. a manifestation of a behavioural, psychological, or biological dysfunction of an individual

V. neither deviant behaviour (e.g., political, religious, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual

Physiology of Cognition and Mental Illness

Research pertaining to the physiological effects of internalized mental illness and its relation to cognition has received a significant amount of recognition in recent years, as “several evidences have suggested that depression increases the risk of cognitive impairment and functional disability (Lebowitz et al., 1997). Evidence of this phenomena can be further categorized into two groupings: structural neuroimaging evidence and functional neuroimaging evidence (Papazacharias & Nardini, 2012). Functional imaging studies, which are the studies on the human brain using a functional magnetic resonance imaging (fMRI) machine, have found, “white matter hyperintensities and abnormal gray matter in dorsolateral prefrontal cortex, cingulate cortex, orbito-frontal cortex and hippocampus,” of those with depression (Papazacharias & Nardini, 2012). White matter hyperintensities, commonly referred to as leukoaraiosis,

are believed to be vascular perforations into certain brain structures and are, “inversely associated with cognitive impairment in youth, and with educational attainment (Wardlaw et al., 2015). Other researchers have demonstrated neural dysfunction in crucial brain structures that are critical in the role of cognitive performance (Okada et al., 2003). In addition to structural abnormalities in key brain regions vital in cognition, researchers have also demonstrated functional neuroimaging evidence of reduced cognition in those with internalized mental illness. One such contribution comes from the research of Pizzagalli et al., 2006, that suggests that normal cognition is inhibited due to hyper or hypo functionality of key brain regions in those with mental illness. Others speculate that since mental illness causes negative ruminations, neuronal resources are being wasted on these functions that otherwise would have been allocated to intrinsic brain functions, such as cognition or focus (Siegle et al. 2004). Researchers in the pathophysiological field appear to agree that internalized mental illness such as depression is linked to both structural and functional abnormalities otherwise not exhibited in control subjects (Papazacharias & Nardini, 2012).

Correlates of mental health in higher education

As aforementioned students attending university and college are considered a vulnerable population; predisposed to a statistically higher concentration of correlates associated with mental illness (Browning et al., 2021). The article *Correlates of Depression in First-Year College Students* sheds light on the various classifications of mental illness correlates that students might experience including but are not limited to: family-related correlates, personal correlates, social correlates, academic correlates,

and combination risk factors (Villatte et al., 2017). Substantial research demonstrates the effects maternal and paternal mental illness has on children during developmental periods of emerging adulthood or in other words going to university (Gourion et al., 2008). Other research suggests that sociocultural or socioeconomic family-related factors are a primary correlate in the development of depressive symptoms (Vivatte et al., 2017). Studies pertaining to personal correlates suggest that students transitioning to adulthood in their first year of post-secondary education are susceptible to, “the presence of cognitive distortions, regarding one’s self, the outside world, and the future (Alloy et al., 2006).” Unfortunately many of these students turn to self medication and develop problematic substance use and dependencies to combat negative ruminations experienced in this complex developmental stage (Villatte et al., 2017).

Research pertaining to academic correlates highlights several catalysts in the development of major depressive disorders including but not limited to: academic subgroups, transition from highschool to university, grade point average and bullying (Vivatte et al., 2017). The most common correlation to mental illness in university students is during the transitional period between highschool and post secondary, experiencing a phenomena coined as ‘double transition’ which is both institutional and developmental (Villatte et al., 2017). Furthermore some students enrolled in programs including medicine and social work are found to have a greater likelihood of developing depressive disorders due to the nature and amplified stressors associated with these programs (Boujet et al., 2009). First year university students experience a range of transitional stressors that contribute to the development of mental illness including:

increased freedom, a heavier workload, heightened academic expectations, and the need to determine their vocational choice (Schwartz et al., 2005). Most concerning is that, “nearly 50 percent of students struggling with mental disorders say that their symptoms began at the same time as their postsecondary studies (Benton et al., 2003). Researchers can agree that university students experience a unique range of institutional and developmental stressors that lead them to be more predisposed for the potential to develop mental illness.

The development of Novel Coronavirus (Covid-19) has created a unique set of stressors that have affected the entire world, however studies such as those conducted by Browning et al. (2021) state that vulnerable populations, such as those in higher education are more at risk. Son et al. (2020) findings give evidence to this notion, indicating that 71 percent of students reported an increase in stress due to Covid-19, 89 percent found it more difficult to concentrate, 86 percent found their sleep was disrupted and 86 percent had concerns about academic performance. The Mental Health Commission of Canada supports these findings stating, “young people are particularly vulnerable to the disruptions the pandemic has caused, and many are being left behind in education, economic opportunities, health and wellbeing during a crucial stage of their development (MHCC, 2020). The MHCC has identified some unique stressors as a result of the pandemic that include, “disruptions to student’s education, alternative methods of curriculum delivery, online learning, isolation and limited access to mental health and other health related supports (MHCC, 2020).” A common theme amongst the research published so far is that Covid-19 has caused significant stress in crucial

developmental periods of students transitioning into post secondary education. Browning et al. (2021) stresses that, ‘inadequate efforts to recognize and address college students’ mental health challenges, especially during a pandemic, could have long-term consequences on their health and education.

Covid-19 has undoubtedly been attributed to an increase of stress amongst university students in Canada, however two large at-risk groups have emerged, that being within a student population that has been marginalized and international students. Youth who have been marginalized include, “young refugees, students living in rural areas, Indigenous, ethnic minorities, those with disabilities and young people of diverse sexual orientations (MHCC, 2020). Students that fall under the marginalized categories have reported unstable internet connections to attend virtual classes, discrimination and exclusion from accessing essential health services (MHCC, 2020). Equally at risk are that of the international student population, with Canada ranked third amongst other countries with an enrollment of nearly 600,000 students (Firang, 2020). Firang (2020) further contributes to the research gap shedding light on the unique set of stressors international students have experienced during the pandemic including: isolation from loved ones, descrimination, emotional distress, financial burden or lack of support from government due to citizenship and loss of interpersonal contact. Utilizing narrative research Firang (2020) this study was able to highlight anecdotal evidence that painted a stark reality these international students face with one account stating, “Our university was unexpectedly shut down in mid-March… at the time when we weren’t prepared. With no money on me, I am starving, I panic and experience anxiety every day.”

Another student provided insight into the financial hardships international students faced, expressing their frustration; “After the lockdown, I couldn’t travel home to Ghana. I reached out to my relatives to send me money, but international money transfers have been very slow during the pandemic. Everyday, I go hungry and stressed" (Firang, 2020). Students that are institutionally marginalized or international, compose a uniquely susceptible population in developing mental illness as a result of Covid-19.

Mental health and Covid-19 in the context of education

The concept of mental illness is applicable and has been acknowledged by all levels of education in Canada, however the stigma associated with mental illness has persisted and subsequently inhibited the response of mental wellness in higher education. This notion is supported by the works of Engelhardt (2016) who suggested, “this perception, reinforced in the literature is that schools are not in the mental health business, specifically with reference to the role in treating and supporting psychological challenges; this stigma may also exist because society often correlates mental health with treating mental illness.” In essence and according to Adelman & Taylor (2006), higher education institutions in Canada have a firm belief that their objective is to ensure that learning is taking place, however intervention and support of students who are experiencing mental illness are acknowledged when it directly impacts learning. Whitley (2010) states that since mental health care funding is not a federal government responsibility, but provincial, uniform funding and literature that keeps higher higher education accountable for their students well being is not in place currently. Due to this, higher education institutions in Canada rely heavily on a, “reactionary method of

addressing mental health in student," which, "not only enhances the stigma that mental health always has negative connotations, but it puts the school in a perpetual state of being reactionary rather than being proactive in intervening with students (Engelhardt, 2016)." There has been a shift in the understanding of mental illness in Canadian higher education institutions, however negative connotations still remain and the responsibility of who should provide treatment still remains.

Role of Educational Institutions in Addressing Mental Health

Educational institutions have an interactive position in the identification and self advocacy of mental illness in their student population due to the amount of time they spend with their students during major developmental periods of their life. Kutcher and Wei (2012) described the shift of mental health care in education, "Although schools now have more of a role in addressing mental health needs in students, it does not replace community and private mental health services; in fact, schools facilitate a pathway for the delivery of mental healthcare." Brener et al. (2007) argued that instead of educational institutions facilitating a pathway to mental health care they should capitalize on their unique characteristics of being: "a neutral, safe setting in which trained professionals, including teachers, counselors, and psychologists, can not only assess but also provide support to address mental health in students." Educational institutions offer convenience in the promotion of mental health literacy, intertwining advocacy throughout the current curriculum as well as facilitating a pathway to mental health services.

Current Mental Health Strategies in Canadian Universities

Strategy concerning the intervention and treatment of mental illness in education has evolved tremendously, and universities across Canada have taken various approaches to combating this issue. A study titled *An Environmental Scan of Canadian Campus Mental Health Strategies* delved into various initiatives produced by universities in Canada, and how they differ in the systematic approach to creating these programs and reccomendations. Post-secondary institutions have recognized multiple drivers in this shift in ideology towards mental illness: recognizing students undergo a significant psychological transition from highschool to university, amplified environmental stressors, and their responsibility as an institution to support and care for their student population (Yuen et al., 2019). In response to this shift in ideology a significant number of schools across Canada have recognized the need for direct instruction of self advocacy and educational psychologists at all school levels for students and staff (Flaherty et al. 1998). A common theme produced by the work of Flaherty et al. (1998) and Reback (2010) is that when mental health services are available to students, there not only is an academic improvement but also a general improvement in a student's mental health.

With a shift in ideology towards mental illness on campus, many universities across Canada have made commitments to bolster their health strategy initiatives in order to better serve their student population. Examples of this can be found in the article titled *Towards a Mental Health Strategy for Queen's: Principal's Commission on*

Mental Health which discusses the multi pronged approach to combat mental health on campus. The approach adopted by Queen's university involves a pyramidal approach, pictured below in Table 2.

Table 2

Queen's University Pyramidal Approach to Combat Mental Health on Campus

A Pyramidal Approach (Queen's University, 2012)
1. Promote a healthy community and culture of health and wellness, inclusivity, and understanding and helpfulness. 1.1. Expression of value of a healthy community 1.2. Accommodations for exams, midterms, tests 1.3. Academic support services 1.4. Academic activity in student mental health 1.5. Mental health education and literacy
2. Facilitate the inherent transition and adjustments to university life and foster resilience, coping and other life skills 2.1. Community dons 2.2. BISC student re-orientation 2.3. Resilience
3. Actively encourage help-seeking and helping behaviours such that students in difficulty may receive the assistance, accommodation and treatment they require. 3.1. Stigma reduction 3.2. Setting expectations 3.3. Self-identification 3.4. Vulnerable Populations

3.5. Counselling Services
3.6. After Hours Support
3.7. Accessibility/ Red-flagging

4. Provide accessible, high quality health services, both on campus and, as appropriate, with tight linkages to the academic, health sciences and community sectors.
   4.1. Health, Counselling and Disability Services (HCDS)
   4.2. Crisis Intervention on campus
   4.3. Withdrawal and Readmission

Universities across Canada have produced similar initiatives with the intentions to help curb the prevalence of mental illness on their campuses; this paper seeks to examine mental health in Canadian post secondary campuses and the role they play in supporting students during semesters impacted by Covid-19.

Research Questions

1. Are students experiencing a higher level of stress due to COVID-19?
2. Do students feel that their educational institution has been supportive of their mental health needs during COVID-19?
3. Do students feel that their educational institution health services have adapted to evolving students needs as a result of the COVID-19 pandemic?

Methodology

Participants

The method in which data was collected and analysed was through voluntary survey completion and a meta-analysis of previously conducted research. This study consisted of 50 higher education students that were enrolled in a Canadian institution during semesters that have been impacted by COVID-19. The respondents consisted of 42 female, 7 male and 1 non-binary ranged in age from 18 to 33 years volunteered to participate in this study and were not incentivized to complete the survey. Participants were selected based on a four point criterium including: logistics (approximate distance from the target demographic), abundance of potential respondents (Queen's University n=26,000; St.Lawrence College n=6500; Royal Military College n=2000), student diversity and lastly a variety of undergraduate, graduate and doctoral students within those student population. The respondents who met that criteria must have also been enrolled in a Canadian university during semesters impacted by COVID-19, therefore their responses would not represent that of the general public. All participants completed the same survey titled *Higher Education during semesters impacted by COVID-19* and no responses were excluded as the vetting process was held prior to beginning the survey.

Materials

The Perceived Stress Scale and the Human Minds Study Scale was utilized in the development of the survey used for this study (see Appendix). The Perceived Stress

Scale is one of the most widely used psychological instruments and its validity with relation to health was demonstrated by Cohen et al., (1988) who drew correlations between PSS and: stress measures, self reporting health, health behaviour measures (Cohen, 1994). The Healthy Minds Study is a data bank with over 400,000 respondents across 320 universities examining mental health and services amongst undergraduate students. Questions from each survey were utilized to gain a holistic understanding of how COVID-19 might have impacted higher education students.

Procedure

Respondents were asked to fill out the survey that would take approximately 8 minutes titled *Higher education during semesters impacted by COVID-19*. The design and wording of the title was carefully conceived with the intent to prevent priming and to garner as many responses as possible. Information pertaining the sensitive nature of questions in the survey was not disclosed until the respondent read the informed consent section to prevent the title from misleading respondents once they obtained access to the survey The first page of the survey includes the informed consent section which requires respondents to meet the following prerequisites in order to participate: *have read the above information, voluntarily agree to participate, are at least 18 years of age, and attend a Canadian post secondary institution.* Additionally, respondents were not required to submit emails or any other identifying information, guaranteeing they had full anonymity if they chose to participate in this study. If the respondents agreed to all of the terms and prerequisites outlined in the informed consent section they were able to proceed to the first page of the survey.

Since the nature of this research is a survey based there were no assignments to alternate conditions or surveys. Each respondent filled out the exact same survey that included questions from the Perceived Stress Scale (PPS) and the Healthy Minds Study which required no experimental manipulations. To ensure further anonymity respondents were not able to access the results of the survey nor were they given a debrief, however they were given a written debrief thanking them for their participation as well as a list of local and institutional resources for mental health queries and crises.

Results

All 50 participants met this study's prerequisites, outlined in the survey's informed consent section; all were invited to complete the remainder of the online survey. Due to the nature of the data collection being a single survey study, no data was excluded as a result of attrition. Data was collected from a sample of fifty university level students in Canada (*n=50),* with 66% of respondents residing and attending university in the Frontenac county region of Kingston, Ontario. The remaining 34% of respondents resided in Canada and attended a university or college during semesters impacted by COVID-19. The *mean* age of the sample collected was 23.74 years old, with a range of 15, a variance of 13.46. Refer to Table 3 for a further breakdown of the sample demographics .

Demographic

Table 3

Demographic of Sample

Category	*n*=	Percentage
Gender		
Male	7	14%
Female	42	84%
Non-Binary	1	2%
Age		
18-20	8	16%
21-23	16	32%
24-26	9	18%
27-29	12	24%
30-32	2	4%
33+	3	6%
Race/ Ethnicity		
White or Caucasian	42	84%
Hispanic or Latino	0	0%
Asian or Asian American	2	4%
Indigenous or Aboriginal	1	2%
Other	4	8%

Of the respondents, 52% (*n=26)* attended Queen's university, 34% (*n=17)* attended other Canadian institutions, 12% (*n=6)* attended St. Lawrence College and 2%

(*n=1)* attended Royal Military College. The participants were at various academic levels as well as majors as depicted on Table 4.

Table 4

Distribution of Major by Year of Academic Study

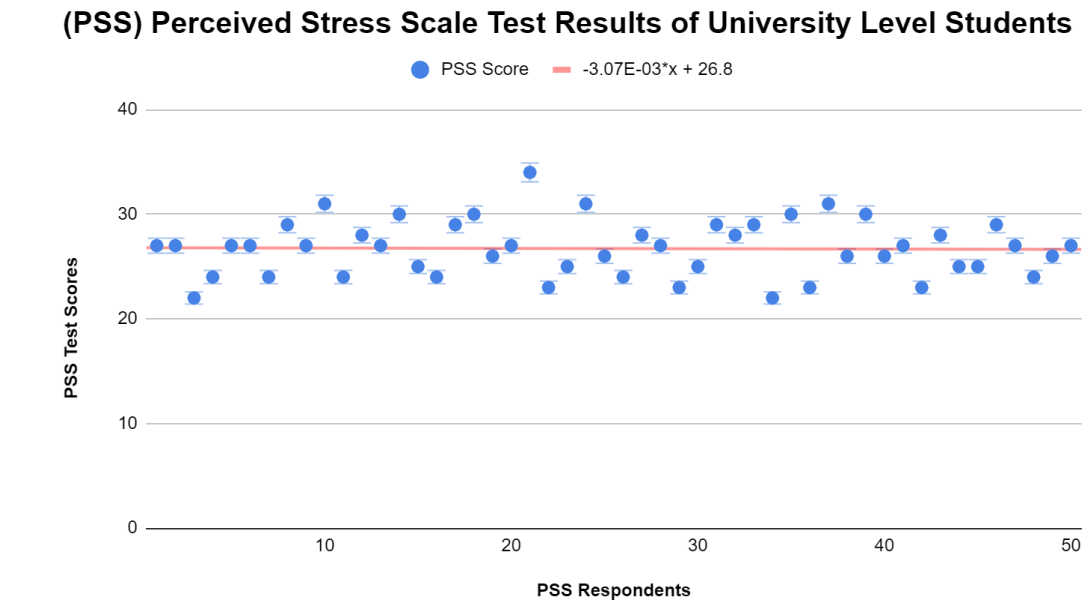
	Freshman	Sophomore	Junior	Senior	Graduate Student	Doctoral Student
Business	2	1	2	3	1	
Computing		1			1	
Education	1				2	
Applied Science	1	1		2		
Humanities			2	3	2	1
Languages		1		1		
Law					1	
Medicine	3	2		1	3	

The Perceived Stress Scale test was used to determine students' perceived stress during semesters impacted by COVID-19 with the test results yielding a mean score of 26.72. Respondents' PSS scores fell within a 2.65% standard deviation of the mean value and is indicated on Figure 1 by error bars on the data points. The standard PSS test has ten questions with each question being weighted four points for a total score of 40 points. This study omitted one question from the standard PSS and adjusted the scale by subtracting four points from each scoring range pole. Perceived stress is

determined by categorizing score within three distinct ranges: low stress 0-9, medium stress 10-22, high stress 23-36. Results indicate that of the sample collected, 98% (*n=49)* of respondents fell within the high stress range with 2% (*n=1)* falling within the medium stress range during semesters impacted by COVID-19. Results demonstrated a data range of 15 with the highest score of 34 and lowest of 22 (Figure 1).

Figure 1

PSS - 9 Test Results of University Level Students

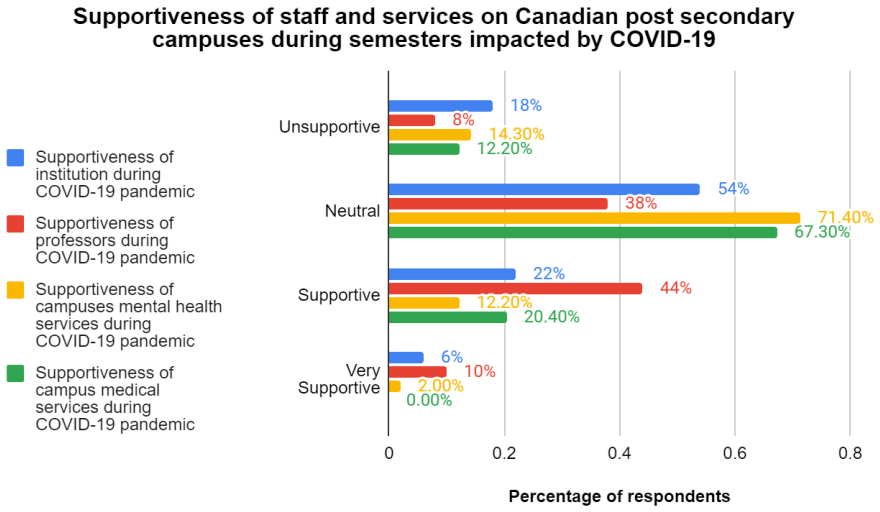


Findings indicated that COVID-19 impacted students in numerous ways, including academic and financial; with 64% of students stating that the COVID-19 pandemics had negatively impacted their financial situation. When asked, "*In the past year, how often have you felt that your emotional or mental difficulties negatively impact your academic performance?" 48%* of responses admitted it happened fairly often, and

44% felt it happened very often. Similarly, when asked, "*In the past year, how often did you procrastinate or not complete homework, assignments or study for tests due to anxiety or depression?"* 38% responded it happened fairly often and 40% reported it happened very often. Of the respondents 94% suggested they had experienced to some degree, symptoms of anxiety or depression during semesters impacted by COVID-19.

Figure 2

Supportiveness on Campus

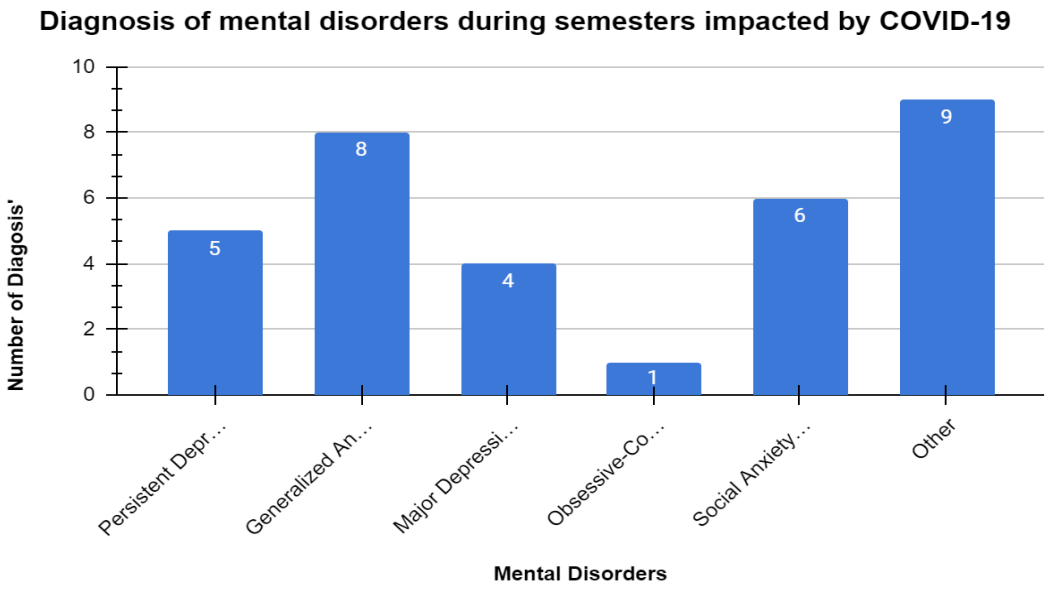


Participants responded to multiple questions regarding the supportiveness of their educational institution during semesters impacted by COVID-19. When asked about the *supportiveness of their educational institution during semesters impacted by COVID-19,* 18% felt their school was unsupportive, 54% had a neutral opinion and 28%

felt that they were supported to some degree. More respondents felt that their campuses mental health services were unsupportive during the pandemic at 14.30% to those who felt those services were supportive at 12.20%, however the majority had a neutral opinion at 71.40%. Respondents indicated that professors were the most supportive on campus, accounting for 54% of the votes with the remaining 38% feeling they had a neutral impact and only 8% stating professors were unsupportive and can be seen on Figure 2 above.

Figure 3

Diagnosis of Mental Disorders During Semesters Impacted by COVID-19

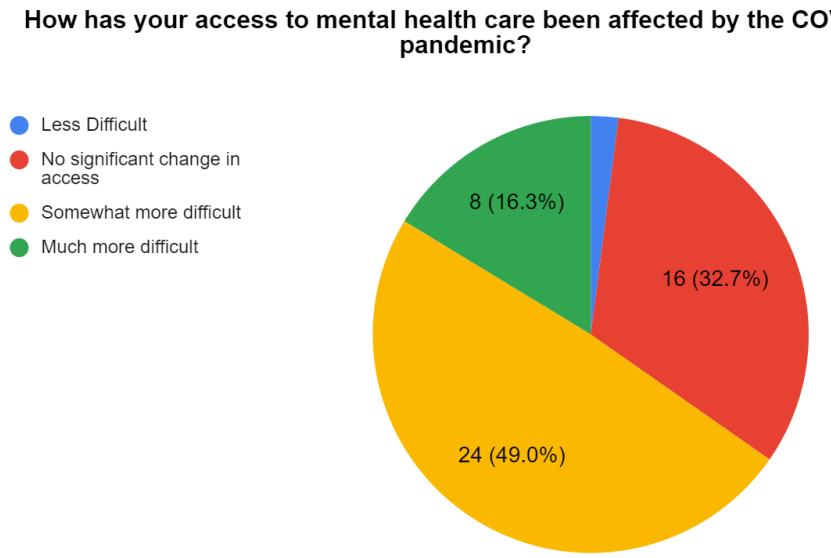


Findings indicated on Figure 3 demonstrate that during schools months between March 2020 and April 2021; 10% of respondents were diagnosed with persistent depressive disorder, 16% with generalized anxiety disorder, 8% with major depressive disorder, 2% with obsessive-compulsive disorder, 12% with social anxiety disorder and

18% with “other.” Of the sample collected, 50% of respondents reported to have been diagnosed with some form of mental disorder during semesters impacted by COVID-19.

Figure 4

Mental Health Care Accessibility



Note: Approximately 65% of students surveyed felt that access to mental health services on campuses had become more difficult to access during semesters impacted by COVID-19.

When participants were asked, “*If I needed to seek professional help for my mental or emotional health, I would know where to access my school’s resources?*” *70%* indicated that they knew precisely where to seek mental health help and resources on campus (pictured above on Figure 4) . Figure 5 demonstrates that 48% of students would rather seek mental health services off campus at either a local community provider or one from their hometown, with only 17% stating they receive services provided on campus.

Figure 5

Mental Health Services used by Students

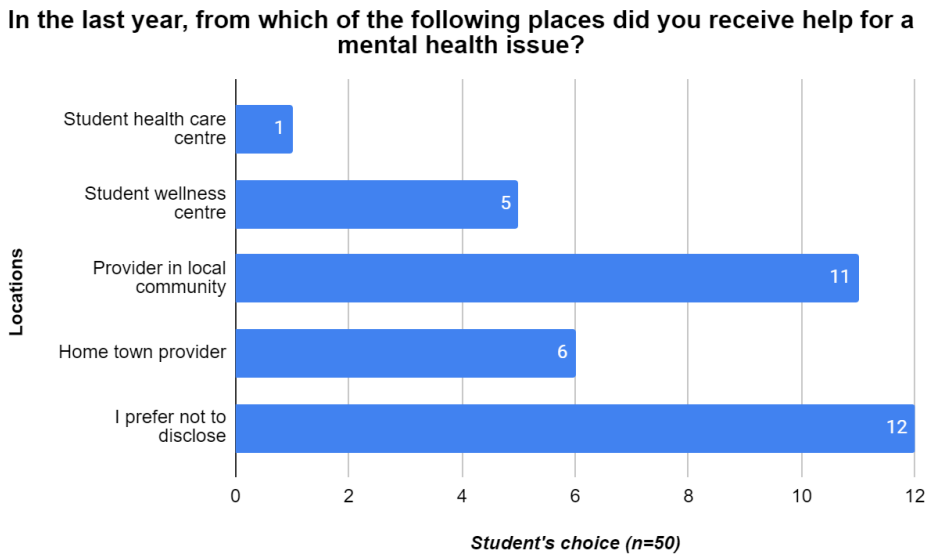


Figure 6

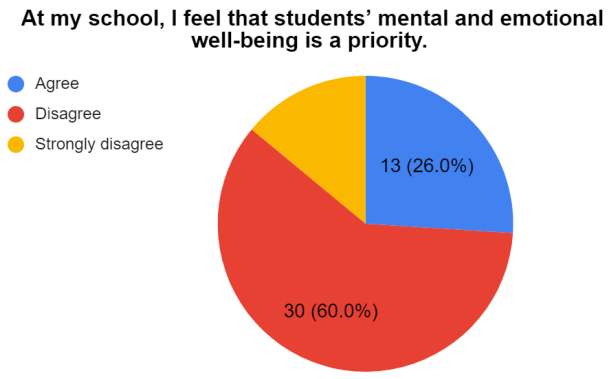
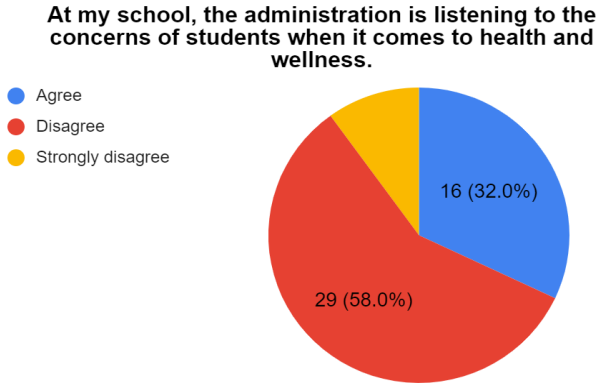


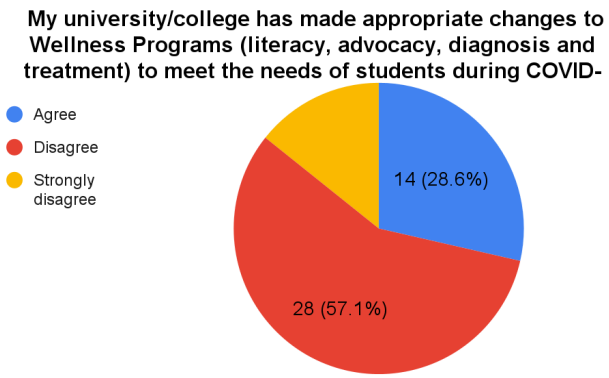
Figure 7

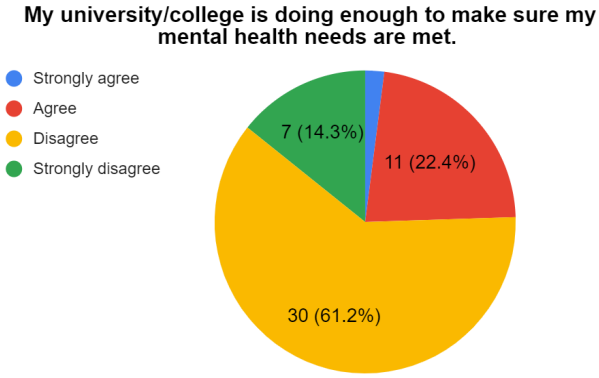


Note: When students were asked, how much they agree with the statement being made.

When students were asked about how they felt their educational institutions' efforts to address mental health concerns during semesters impacted by COVID-19 74% felt that their mental and emotional well-being was not a priority. Similarly, when asked, *"at my school, the administration is listening to the concerns of students when it comes to health and wellness?"* 68% felt that their university administration was not acknowledging the concerns voiced by the student population with regards to mental health and wellness.

Figure 7 **Figure 8**





When students were asked if they felt their university made necessary changes to wellness programs with regards to advocacy, accessibility and treatment, 71% of students felt that their schools failed to adapt to changing needs. Furthermore, 75.5% of students felt that their university or college was not doing enough to ensure that mental health needs were met on campus during semesters affected by COVID-19.

Discussion

The purpose of this study was to gain a holistic understanding of student mental health on Canadian post secondary campuses during semesters impacted by COVID-19. The results of this study support the hypothesis that post secondary institutions rely heavily on a reactive model of addressing mental health and lack proactive initiatives to reach students in a pandemic climate. The findings provide supporting evidence that post secondary students have experienced amplified mental distress, which has resulted in lower cognition, mental health, and sense of belonging during semesters impacted by COVID-19. With reference to this study's research questions, there are three key findings outlined in the previous section. First, based on the *Perceived Stress Scale (PSS),* students are experencieningamplified stressors during semesters impacted by COVID-19 c. Second, the vast majority of students surveyed indicated that they felt professors were the most supportive figures on campus. Lastly, students surveyed strongly believe that their post-secondary institutions and wellness programs have not done enough to adapt to the evolving mental health needs on campus during semesters impacted by COVID-19.

Perceived Stress Scale

The pattern of results found in this research is consistent with previous literature produced by Browning et al., 2021 who stated that students attending university and college are considered a vulnerable population; predisposed to a statistically higher concentration of correlates associated with mental illness. The findings of the present

study demonstrate that on a PSS-9 test scale 98% of students have a *high* perceived stress and is significantly higher than the general public. Interestingly, studies using the PSS-10, including the work of Adamson et al., 2020 titled *International Prevalence and Correlates of Psychological Stress during the Global Covid-19 Pandemic,* found that the average PSS-10 score had increased from previous years to 19.08 and is within the moderate range. When examining the overall mean of both studies, students have a 40% higher PSS score in comparison to the general public, with a mean score of 26.72. The findings produced by the present study coincides with literature produced by Villatte et al., 2017 and Gourion et al., 2008, who suggest that students are met with a plethora of stressors when attending post-secondary school including; financial, academic, transitional, family, social and personal stressors and have been further amplified by the COVID-19 pandemic. Furthermore and as a result of this high stress environment, the vast majority of students stated that their academics have been significantly impacted as a result of the pandemic. Taken together with past literature, my findings demonstrate that students have experienced a significant increase in perceived stress that has negatively impacted cognitive function, focus and has increased experiences of mental illness during semesters impacted by COVID-19.

Supportiveness on Campus

Interestingly the majority of students in the current study felt that professors were the most supportive people on Canadian campuses, when asked of the supportiveness of the educational institution, medical and wellness centres on campus. These results are consistent with claims made by Adelman & Taylor (2006) stating, intervention and

support of students who are experiencing mental illness are acknowledged when it directly impacts learning. In my view, the most compelling explanation for my set of findings is that professors have direct contact with the students on a daily or weekly basis. Unlike professors who see first hand the impact of COVID-19 on their students, the institution and medical centres are disassociated from the daily rigours of student life and only see students who actively seek an audience with administration or campus services. This explanation is consistent with literature review produced by Engelhardt (2016) who suggests that post secondary education is not in the business of mental health, thus addressing concern reactively when it negatively impacts the pedigree of the school. With reference to the works of Adelman & Taylor (2006); Engelhardt (2016) and the present research one can infer that the lack of student support can be attributed to the dissociation between the educational institution and it's services to the student population during this pandemic.

Educational Institution's Health Services

Most notable of the findings in the present study was that the majority of respondents felt that the mental health services offered at the post secondary school were inadequate in handling the evolving needs of students during the pandemic. Student's voiced their dissatisfaction with administration, services, and general handling of the pandemic on campus which resulted in lower number of students seeking mental health services on campus. One possible explanation for this consensus is that mental health needs were not a priority and that services did not adapt to a largely virtual delivery. This possible explanation aligns with the findings produced by Rashid &

Genova (2020*,* who suggested that mental health services struggled to transition from in person to virtual for a variety of reasons including: technical training, updated clinical protocols, clinical practice, confidentiality and standard of practice for remote services . These transitional struggles are further supported by findings from Rashid & Genova (2020) that during the shift to virtual services, “student usage dropped by 50%, which resulted in layoffs,” as universities were not renewing contracts to save resources. Furthermore, with fewer in-person connections, in addition to barriers such as accessibility, identification of students experiencing crisis is reduced and in turn further perpetuating a reactive mental health model on Canadian campuses. Results demonstrating the dissatisfaction towards the handling of COVID-19 services was prominent in the present study, and should act as a catalyst to investigate and produce a robust mental health delivery system.

Two other results from the present study merit comment. Firstly, despite 70% of respondents knowing precisely where to seek mental health services on campus only 17% stated they utilized these school provided services. This is further supported by the present study as 65% of respondents indicated that access to campus mental health services had become more difficult during the pandemic. This pattern of results is consistent with works produced by Son et al., (2020) who’s findings suggest that campus services were not sought due to accessibility as, “participants describe several barriers to seeking help, such as lack of trust in counseling services and low comfort levels in sharing mental health issues with others, which may be indicative of stigma.” Secondly, and aligning with the present studies findings that 68% of respondents felt

their schools administration was not acknowledging their mental health concerns, Son et al., (2020), “suggests that self-management is preferred by students.” Taken together, one possible explanation is that due to barriers in mental health services students are attempting to build resilience through both positive and negative coping mechanisms.

Study Recommendations

The present study identified several emerging concerns that impacted the efficacy of mental health services on Canadian campuses and aligns with notions produced by Rashid & Genova (2020) stating: accessibility of services, reactive mental health model, and transitional problems from in person to virtual. The recommendations outlined by the present study should be carried out by both appointed staff and student body representatives cooperatively. I recommend a cooperative task force to increase transparency, accountability and efficacy in creating a well rounded strategy to curb the mental health crisis on Canadian campuses. The University of Saskatchewan produced literature titled *Wellness Strategy: An Integrated Approach for Students, Faculty and Staff,* giving evidence to this notion and demonstrates the effectiveness of collaboration amongst the student body and faculty in the development of a robust wellness strategy. Representatives of the educational institution have access to school resources vital in supplementing research and implementation of recommendations produced by both staff and students. Another recommendation to be considered is a data driven feedback system which might include surveys, workshops and seminars that can continuously provide information on efficacy of newly implemented programs for the commissioned task force. The commissioned task force would be responsible for the collection,

deliberation and implementation of all mental health recommendations on campus with hopes of creating a robust mental health care system.

Data Driven Feedback System

This strategy requires a continuous collection of longitudinal data to analyze the lasting effects of COVID-19 on the student population and would allow administration to track the effectiveness of online counselling and mental health services (Rashid & Genova, 2020). Continuous data collection will allow administration to devise specific interventions for various diverse groups of students to create more personalized services. Reconnecting the school with the student population through data collection could increase the accountability of the institution and shift to adaptive and proactive mental health modelling. Personalized mental health services could promote equality pertaining to services provided towards students who are marginalized, and are considered even more vulnerable in comparison to the general student population.

Virtual Services & Advocacy

The utilization of social media platforms has proven to be an effective method to screen as well as enable self-management of mental health issues demonstrated by Youn et al., (2013), “who successfully used social media networks as a means to reach out to college students and screen for depression by administering a standardized scale, the Patient Health Questionnaire-9 (Son et al., 2020). Virtual workshops might be used to promote and supplement self advocacy, information and coping strategies for

students across campus and can be joined from various platforms including; Zoom, Google Meets, Facebook, Instagram etc.

Student Lead Workshops

Past literature produced by Son et al., (2020) suggests self-management is preferred by students, who use a variety of coping strategies to alleviate stress. If students are reluctant to seek help from services they don't trust, a shift in ideology towards student-led webinars, virtual discussions, self-advocacy lessons should be considered. Alternatively, a hybrid model of students working in collaboration with their campuses mental health services, by appoint ambassadors who, "ensure that programs explicitly address scientifically based notions of wellbeing and resilience and are not merely used as an attractive title of programs that do not explicitly teach resilience and wellbeing (Rashid & Genova, 2020)."

Limitations

There are two notable limitations concerning the results of this study. The first limitation of this study is the use of a modified PSS-9 test due to the omittance of one question from the standard PSS-10 test. The standard PSS-10 test includes ten questions worth four points per question for a total of 40 points. Respondents are categorized based on their cumulative score into three distinct categories; 0 -13 low stress, 14 - 26 moderate stress and 27 - 40 high stress. To adjust for the omitted question this study subtracted four points from the pole of each range. Although the present results clearly support students as a vulnerable population who experience a

higher perceived stress in comparison to the general public, it is necessary to address the potential issues that may conflict with results.

Secondly, the lack of diversity amongst respondents does not accurately depict a holistic understanding of how all students have been impacted by COVID-19. This study was unable to collect responses from international students and only a small portion who identified as indigenous or part of the LGBTQ community. These students who have been marginalized have been identified as having a higher vulnerability to the stressors associated with COVID-19 and the development of mental disorders (MHCC, 2020). The present study represents an attempt to address these limitations however further research that specifically examines the impact of COVID-19 on students who have been marginalized may shed light on the unique challenges these groups endured in comparison to the general student body.

Conclusion

Despite the limitations previously mentioned, this study has contributed to an enhanced understanding of the relationship between COVID-19 and the role of post secondary education in providing mental health services. The present research adds to a growing body of evidence that traditional brick and mortar institutions are still relying heavily on a reactive model of handling mental health issues on campus. The rapid virtualization of services has created gaps in accessibility and quality of services and students are resorting to self-management. Proactive initiatives including, data driven feedback systems, virtual services and student lead services should be considered moving forward to curb the growing mental health concerns on campuses across

Canada. It is with hopes that the present research acts as a catalyst to promote further investigation into the role higher education plays in addressing the mental health issues of students on their campuses during the pandemic and beyond.

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