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“A little bit challenging, a little bit exhausting and a lot disheartening”: Barriers to accessible online learning for students with mental-health-related disabilities

« Un peu difficile, un peu épuisant et très décourageant » : obstacles à l'apprentissage en ligne accessible pour les étudiantes et étudiants ayant des troubles liés à la santé mentale

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Abstract

Thirty-one percent of first-year university students self-declare as having a disability. Among those, mental-health-related disabilities are the most common. Each year, more students with disabilities and with mental-health issues enroll in post-secondary institutions; due to stigma and systemic barriers, many do not disclose their disability and seek support and accommodations from the post-secondary institution. At the same time, more students in Canada are taking online courses. These increases pose issues for students and educators because common symptoms of mental-health-related disabilities can affect academic performance. Additionally, instructional design and institutional accommodation and accessibility policies influence learning. Instructors play a critical role because their attitudes toward students and about disability directly affect student success. Student support professionals provide essential assistance to students in post-secondary and therefore, play a key part in health and resilience promoting strategies. Despite the increasing prevalence of students with mental-health-related disabilities in online courses and programs, limited Canadian research has examined factors affecting learning for this population. The main goal of this descriptive qualitative study was to explore influences on learning for post-secondary students with mental-health-related disabilities taking online courses. Including students, instructors, and support staff allowed for a unique exploration of the factors influencing learning within an institutional context. Data from interviews with 14 university students, 15 instructors, and seven student support staff members from one mid-sized university in Western Canada indicate that the accommodation model and online learning design elements influence learning for students with mental-health-related disabilities. In Canada, everyone has an equal right to education that meets their needs, and postsecondary institutions are legally obligated to ensure that all students can access their programs and services. Adopting a universal accessibility approach has the potential to improve learning for all students, particularly those who have mental-health-related challenges and who are studying online.

Résumé

Trente et un pour cent des étudiantes et étudiants universitaires de première année déclarent

avoir un handicap, les troubles liés à la santé mentale étant les plus fréquents. Chaque année, un nombre croissant d'étudiantes et étudiants vivant avec un handicap ou des problèmes de santé mentale s'inscrivent dans des établissements postsecondaires. En raison de la stigmatisation et des obstacles systémiques, bon nombre d'entre eux ne divulguent pas leur situation et ne sollicitent ni soutien ni accommodements auprès de leur établissement. Parallèlement, de plus en plus d'étudiantes et étudiants au Canada suivent des cours en ligne. Ces tendances soulèvent des enjeux tant pour le corps étudiant que pour le corps professoral, puisque les symptômes associés aux troubles de santé mentale peuvent affecter le rendement scolaire. La conception de l'apprentissage ainsi que les politiques institutionnelles en matière d'accommodements et d'accessibilité jouent également un rôle déterminant dans l'expérience d'apprentissage. Les attitudes des enseignantes et enseignants envers les étudiantes et étudiants et le handicap influencent directement leur réussite. De leur côté, les professionnelles et professionnels du soutien étudiant apportent une aide essentielle dans les établissements postsecondaires et contribuent aux stratégies favorisant la santé et la résilience. Malgré la présence croissante d'étudiantes et étudiants ayant des troubles liés à la santé mentale dans les cours et programmes en ligne, peu de recherches canadiennes se sont penchées sur les facteurs qui influencent leur apprentissage. Cette étude qualitative descriptive visait à explorer les éléments qui affectent l'apprentissage des étudiantes et étudiants postsecondaires ayant des troubles de santé mentale et suivant des cours en ligne. L'inclusion de personnes étudiantes, enseignantes et du personnel de soutien a permis une exploration unique des facteurs influents dans un contexte institutionnel. Les données recueillies lors d'entrevues avec 14 étudiantes et étudiants universitaires, 15 enseignantes et enseignants, et sept membres du personnel de soutien d'une université de taille moyenne située dans l'Ouest canadien révèlent que le modèle d'accommodements et les éléments de conception de l'apprentissage en ligne ont un impact significatif sur l'expérience éducative des personnes ayant des troubles liés à la santé mentale. Au Canada, chaque personne a un droit égal à une éducation adaptée à ses besoins, et les établissements postsecondaires ont l'obligation légale de garantir l'accès à leurs programmes et services. L'adoption d'une approche d'accessibilité universelle pourrait améliorer l'apprentissage pour l'ensemble des étudiantes et étudiants, en particulier celles et ceux confrontés à des troubles de santé mentale dans le cadre de l'enseignement en ligne.

Keywords

Accessibility; Mental Health; Disability; Learning Design; Inclusion; Accommodation

Mots-clés

Accessibilité; santé mentale; handicap; conception de l'apprentissage; inclusion; accommodement

Thirty one percent of first-year university students self-declare as having a disability. Among those, mental-health-related disabilities are the most common (20%) (Canadian University Survey Consortium, 2022). Mental health problems and learning disabilities are the top types of disabilities among young Canadians, with increasing prevalence (Statistics Canada, 2025). Every year, more students with disabilities and mental health challenges attend colleges and universities (Rao, Edelen-Smith & Wailehua, 2015; American College Health Association, 2016). Without accessible course design, students with disabilities must rely on accommodations which are often difficult to obtain and have implemented. Additionally, many students who are eligible for accommodations do not seek them due to things such as stigma, previous negative experiences, and concerns about credibility (Moriña, 2022). Symptoms like feeling tired and struggling to concentrate, along with inaccessible learning environments, can make it hard for students to do well in their studies (Andrews & Wilding, 2004; Eisenberg et al., 2009; St-Onge & Lemyre, 2018). Also, instructors might not know enough about helping students with disabilities, and institutions might not give them enough support to make courses accessible. At the same time, more students in Canada are taking online classes (Donovan et al., 2019; Ostrowski et al., 2017). Prior to the COVID-19 pandemic, almost every college and university offered fully online classes, and one out of every five students took at least one online class (Donovan et al., 2019). There has been an upward trend in the number of courses and programs being offered online since the pandemic (Johnson, 2023).

The main goal of this study was to explore influences on learning for post-secondary students with mental-health-related disabilities taking online courses. The prevalence of learning challenges experienced by these students is not fully known (McManus et al., 2017),

and without first-hand accounts from these students, we are missing important views on the issue. Literature over the last few decades shows that there are internal and external factors affecting learning and academic performance for students with mental-health-related disabilities. However, few studies have focused on the barriers to and facilitators for learning for students with mental-health-related disabilities who are studying online. With more teaching and learning happening online in Canada, it is important to understand how it affects students with mental health challenges. By hearing from students, instructors, and support staff, the study aimed to understand their experiences and find ways to make learning fair and accessible for everyone.

Accessible Education

Going to college or university is important for both individuals and society. Education helps develop the skills and knowledge needed for jobs, which boosts the economy (Conference Board of Canada, 2024). Attaining post-secondary education can affect quality of life through better job options and higher earning potential (National Educational Association of Disabled Students [NEADS], 2018; Public Health Agency of Canada [PHAC], 2020). This is especially true for people with mental-health-related disabilities, who might face challenges due to stigma and fluctuations in health status (Michalski et al., 2017; Murphy et al., 2019). Post-secondary education is associated with positive employment outcomes (Canadian Mental Health Association [CMHA], 2022; Luciano & Meara, 2014; Reid et al., 2020). Attending post-secondary creates opportunities to make friends and build a support network, which is good for mental and physical health (Umberson & Karas Montez, 2010). So, it is important to make sure that the learning environments for people with mental-health-related disabilities are accessible and

meeting their needs. Accessible learning in post-secondary means designing courses and using teaching methods that work well for people with varied backgrounds, abilities, and preferences (Canadian Standards Association, 2020, p. 12). Accessible learning is about valuing diversity, keeping academic standards high, and using teaching techniques that provide accessibility for everyone. It means centering disability—assuming that disability is a part of our learning environments so that we can examine and challenge assumptions about disability-related social norms and stigmatizing attitudes (Kerschbaum & Price, 2017).

In Canada, fewer students with disabilities attend university compared to those without disabilities (Arim & Frenette, 2019; Canadian Human Rights Commission [CHRC], 2017; Michalski et al., 2017). Among them, students with mental health-related disabilities are less likely to complete their post-secondary education than students without disabilities (CHRC, 2017; Leanage & Arim, 2024). For students with disabilities, access to, attendance in and persistence with post-secondary education is influenced by systemic barriers. Barriers include inaccessible course design, lack of support from the institution, complicated processes for getting accommodations, negative attitudes and stereotypes, problems resolving accommodation issues, and not enough personalized support (Ontario Human Rights Commission, n.d.). Due to these challenges, living with a disability in Canada can make it more difficult to access and complete post-secondary education, which in turn can hinder the ability to secure a good job. Data shows that 73% of Canadians aged 25 to 54 with disabilities are employed, compared to 88% of those without disabilities (Vergara & Hardy, 2024).

About Accommodations

The Canadian Charter of Rights and Freedoms (1982) and the Canadian Human Rights Act (1985) are the main laws that protect people with disabilities from being treated unfairly and encourage their inclusion in Canadian society (Government of Canada, 2018). In BC, the Human Rights Code (1996) says that organizations must make reasonable efforts to accommodate people with disabilities to ensure full participation in all aspects of their lives (including education). In universities and colleges, this usually means giving academic accommodations, which are meant to reduce or eliminate barriers so that students with disabilities have equal access to learning and services in the educational environment (Alberta Human Rights Commission, 2010; Queens University, 2016; Simon Fraser University, n.d.).

Accommodations are individual arrangements made with students, usually through university disability support offices (DSO). Canadian human rights laws, especially the anti-discrimination clauses, have influenced how disability services are set up in colleges and universities (Strange & Cox, 2016). This influence has led to a focus on providing support based on the medical needs of individuals rather than on removing barriers to improve access in the learning environment for every student. The accommodation model tends to focus on reacting to problems, or removing barriers as they come up, rather than preventing them in the first place. In the book *Academic Ableism*, Dolmage (2017), uses the "retrofit" metaphor to explain this reactive approach, whereby access is achieved when a successful retrofit is implemented, not when classes are set up to make them accessible to everyone. In Dolmage's (2017) view,

when the accommodations that students with disabilities have access to, over and over again, are intended to simply temporarily even the playing field for them in a single class or activity, it is clear that these retrofits are

not designed for people to live and thrive with a disability, but rather to temporarily make the disability go away. (p. 70)

Students can get academic accommodations if they can provide medical documentation to the university DSO that demonstrates that their disability makes it hard for them to fully take part in their studies (Condra et al., 2015). Sometimes, it is difficult to get the right medical documents because healthcare is not easy to access, and the required assessments can be expensive (CMHA, 2018; Condra et al., 2015; Moroz et al., 2020; Xiao et al., 2017). Also, students might face discrimination when trying to get accommodations, which can negatively affect their view of themselves. Thanks to the advocacy work of Navi Dhanota, students do not need to disclose their diagnosis when securing mental health related accommodations and supports (Ontario Human Rights Commission, 2016). However, students may not know this, and feel that they need to reveal health information. Even if students qualify for accommodations, their instructors might not put them in place, and students might decide not to use them because of things like feeling judged or the process taking too long. Research from Canada and the US indicates that about one-third of students eligible to receive accommodations seek them (National Dialogues and Action for Inclusive Higher Education and Communities, 2023; National Centre for Educational Statistics, 2022). This suggests that many students who could benefit from support are not pursuing it. Students transitioning from high school to post-secondary face the additional barrier of not having access to the accommodations they received in high school (Parsons et al., 2020).

While the legal requirement for post-secondary institutions to provide reasonable accommodations gives a certain level of access for some students, unless a broader, systems-level approach to accessibility is implemented, post-secondary institutions will not meet the

needs of all students. In *Crip Spacetime*, Price (2024) contends that narrowly focusing on accommodations as a means of access both exacerbates inequities, and hinders inclusivity efforts. Adopting universal accessibility models for educational settings that challenge ableist views and policies, have the potential to improve learning for all students (University of Toronto, 2023). The social model of disability, a core concept in critical disability studies, views disability as a socio-political issue involving the interplay between the body, mind, and society (Burghardt et al., 2021). This model focuses on analyzing how social and structural factors either enable or hinder participation in various aspects of life, making it valuable for researching and addressing barriers to student learning in higher education (Mulvany, 2000; Oliver et al., 2006). Instead of trying to change individuals with disabilities to fit into existing systems, this model advocates for enhancing accessibility by addressing structural ableism and changing institutional structures and policies.

Universal Design for Learning (UDL) is one approach to accessibility that complements the social model and challenges ableism by shifting the focus from individual impairments to critiquing and improving systemic barriers within curricula. UDL can be utilized by curriculum developers and instructors to address ableism by prioritizing diversity amongst learners. Full integration of UDL promotes equity, fosters accessibility, removes exclusionary barriers, and reduces the need for individual accommodations.

An important perspective in UDL is understanding that the curriculum we designed is not perfect, and in fact it often fails at meeting the needs of the diverse body of our students. Rather than seeing students as incapable or disabled, we reframe the problem as curricular disability. (Takacs et al., 2020, p. 3)

The Center for Applied Special Technology (CAST) developed the first UDL guidelines in 2008 (CAST, 2008; 2018). These guidelines offer educators and instructional designers a framework for creating course materials that cater to diverse students, thereby enhancing the learning experience *for everyone* (Al-Azawei et al., 2016; Capp, 2017; Fovet, 2021; Hall et al., 2012). The UDL guidelines promote accessibility by designing for differences in ability, culture, gender, age, and other aspects of human diversity (Navarro et al., 2016). Advocates of UDL emphasize the inclusive nature of designing for universal access, recognizing it to foster community, improve pedagogy, and empower learners. As Dolmage (2017, p. 118) aptly states, "Universal Design is not about buildings, it is about building—building community, building better pedagogy, building opportunities for agency." Fovet (2021) similarly underscores the importance of active design processes in creating inclusive learning environments:

Once an instructor shifts away from a deficit model perspective, it becomes obvious to them that all diverse learners tend to experience fairly similar barriers in their access to learning in the post-secondary classroom. The issue is not the exceptionality of the learner; it is the design of the learning experience. (p. 28)

Critiques of UDL focus on its emphasis on human performance and its exclusion of disability within the framework (Hamraie, 2017). Using frameworks such as UDL to promote accessible learning environments are worthy pursuits but it is important to also draw attention to places, spaces and processes that exclude people experiencing disability (Baglieri, 2020).

Research Methodology and Methods

Given that the goal of this study was to understand influences on and experiences of learning for post-secondary students with mental-health-related disabilities who are studying online, a phenomenological approach within a social constructivist paradigm was well-suited to

the research. Social constructivism considers the broader context (i.e., learning environment, instructor attitude, relationship between instructor and student) (Lincoln et al., 2018), which is important when considering the complexities of online learning environments and mental-health-related disabilities. Phenomenological research allowed for exploration of the phenomenon of interest (Symbaluk, 2019) from the viewpoints of the three participant groups (students, instructors, and student support staff). This study centered disability by, “turning to disabled people’s lived experiences to generate transformational knowledge that can contribute to more equitable practices” (Kerschbaum & Price, 2017, p., 98).

This research was conducted in compliance with the Tri-Council Policy Statement (TCPS2) at a mid-sized university in Western Canada, together with the university’s disability support office (DSO). The study had two phases. The first phase of data collection involved surveying participants by convenience sampling. The purpose of this phase was threefold. First, because of the limited available research on this topic, the questionnaire provided a means to collect descriptive data. Second, the questionnaires allowed for identification of variability in the sample, which was used to guide the purposeful sampling in phase two. Third, data from the questionnaire was used to better understand interview data in relation to things such as socio-demographic factors and knowledge of relevant university-based services and supports. Questionnaires were completed by students ($n = 116$), instructors ($n = 40$), and student support staff ($n = 28$).

Purposive sampling was used in phase two of the study to select participants with relevant characteristics and/or expertise to answer the research questions (Symbaluk, 2019). Students from various academic levels, genders, races, ages, and online learning experiences

were chosen. Instructors with different appointments, such as contract/sessional, tenured, pre-tenured, research-focused, lab-focused, and teaching-focused, were included to ensure diverse perspectives. Student support staff with various roles, like campus residence support and academic advising, were also selected to represent the range of services in post-secondary education. Phase two involved conducting single, one-on-one, in-depth and semi-structured interviews for all three participant groups [students ($n = 14$), instructors ($n = 15$), and student support staff ($n = 7$)] using Zoom[®] videoconferencing. Data from the semi-structured interviews will be the focus of this paper.

Inclusion criteria for study participants determine who can take part in a study and are necessary for high-quality research (Patino & Ferreira, 2018). They describe the key traits participants must have to answer the research question (s). They can include demographic, clinical, and socio-economic characteristics (Salkind, 2010). Students participating in this study had to meet the following inclusion criteria:

- 1) They were actively registered with the university's DSO, with at least one mental-health-related disabilities at the time of recruitment.
- 2) They had taken at least one course delivered online/remotely at the university.
- 3) They had been diagnosed with a mood disorder and/or an anxiety disorder [the two most common types of mental illnesses].

Instructors participating in this study had to meet the following inclusion criteria:

- 1) They were employed by the host university in a teaching-related role (e.g., sessional instructor, teaching and research stream professors, laboratory instructors).
- 2) They had taught at least one online course at the host university in the previous three years.

Student support staff participating in this study had to meet the following inclusion criteria:

- 1) They were employed by the host university in a role that provides student support (e.g., counselling, academic advising, student-focused programming and advocacy).
- 2) They had worked a minimum of 20 hours per week in the student support role for at least six months.

Data Analysis

Thematic analysis is a well-established qualitative research method used to identify and interpret themes in a data set (Denzin & Lincoln, 2018). Thematic analysis of phase two data included the following methods: field notes and jottings¹; open coding (inductive approach);² constant comparative analysis;³ axial and pattern coding;⁴ and reflexivity. Thematic analysis of the interview data was iterative and began during the data collection phase. This ongoing

¹ Jottings are pieces of analytic writing that reflect the “researcher’s fleeting and emergent reflections and commentary on issues that emerge during field work and especially data analysis” (Miles et al., 2020, p. 86).

² Codes are labels used to assign meaning to descriptive data such as interview transcripts. The codes are typically attached to “chunks” of data (e.g., words, phrases, or paragraphs) (Miles et al., 2018). Open coding is a type of “first level coding” (Miles et al., 2018) and is described by Hays and Singh (2012) as the initial step in summarizing data.

³ Constant comparative analysis involves comparing and contrasting codes in a participant data set and comparing and contrasting across participant data sets (Hays & Singh, 2012).

⁴ Axial or focused coding is a type of “second level coding” (Miles et al., 2018); it is a process of collapsing the list of open codes into broader categories or codes (Hays & Singh, 2012). Process or selective coding is used to refine axial codes—pulling material from first level coding into categories, concepts, or themes (Miles et al., 2018).

analysis throughout the research project is described by Denzin and Lincoln (2018) as typical of interpreting the meanings of qualitative interviews. The findings focused on the accommodation model and learning design will be the focus of this paper.

Findings: Navigating the Accommodation Model

Bureaucratic processes and reliance on student self-advocacy are institutional-level influences on learning and academic performance for students with mental-health-related disabilities. As discussed earlier, the accommodation model is centred on the legal “duty to accommodate.” Qualifying for accommodations is an administration process requiring navigation through medical *and* university systems. This medical orientation puts the onus on the students to overcome barriers, rather than on the university to ensure access. The processes involved in accessing accommodations are time consuming and often irrespective of *crip time* (Price, 2024). Price highlights that unlike accommodation processes, most disabilities are experienced in non-linear, *crip time*—not chronological time (Price, 2024, p. 92). *Crip time* is a mindset shift that recognizes that people with disability experience time differently and may take longer to complete tasks when compared to people without disabilities (Kuppers, 2014; Sheppard, 2023).

Students in this study described experiencing varied, intermittent, unpredictable, and diverse symptoms such as excessive worry, fatigue, low motivation, and chronic pain. Without knowing when they would feel well, completing schoolwork and having the capacity to even access disability support services was challenging at times. Support staff acknowledged that the people needing support are often unable to ask for it:

The problem, in my eyes, is that when someone is struggling with their well-being or with their mental health, anything can be exhausting. Just calling a person for help or going to an appointment...whatever it is, it's exhausting.

[Merv, student support staff]

Programs, services, and learning environments need to be easily accessible so that seeking help does not have the paradoxical effect of making students' situations worse. Integrating UDL and considering crip time for both course design *and* program/service delivery can help to ensure accessibility. Students and support staff acknowledged that the accommodation process can be cumbersome, impersonal, slow, and costly:

I've definitely been “a number in a system” and have had to fight with programs like this [disability services] more often than them coming easily to me...and because of my anxiety, I wasn't capable of doing it [self-advocacy] for a very long time. People weren't always the most understanding of that...of me...they were either frustrated with me or frustrated that I wasn't standing up for myself. I didn't have the energy to jump through the hoops within their timelines, so my mom helped me. Even just getting the diagnosis is kind of hell...it's very expensive. [Libby, student]

I found it a little bit challenging, a little bit exhausting and a lot disheartening to try and get accommodations set up. I can only imagine what it's like for people where, because of their mental health, they just have so little capacity, or they have so little extra available energy to accomplish things like that. [Abby, student]

I am on the bureaucracy side of things now. I get it...paperwork, delays in processing. We're busting our butts constantly to try and get through things for students, but it's still slow and that sucks. If you're a student who has a mental health diagnosis, and you're floundering in your class, and it takes

you a week or a month to get your registration appointment with disability services, and then there's some back and forth because you didn't understand the paperwork...all of that has become slower [during the pandemic]. [Benjamin, student support staff]

While this study did not investigate the reasons why the accommodation process (i.e., registering with disability support units) is slow, a plausible explanation is the growing numbers of students registering with DSOs without increased resources within the DSOs. At the host university, one disability support advisor has more than 1000 students to support (Sarah, student support staff). Because accommodations are either not accessible at all, or not accessible in a timely manner, it is even more essential that courses and curricula are designed with universal access.

Navigating bureaucracy does not stop once students are approved for academic accommodations. Rather, they must then try to access the accommodations, which may require negotiations with individual instructors, multiple times each term. There were mixed findings regarding access to accommodations, which indicates that despite the legal obligation of the institution to accommodate, implementation depends on instructors:

The reactions of instructors receiving my letters of accommodation have been all over the place. I've had ones that just ignored them, even when I sent an email saying, "Hey, what about these accommodations?" and nothing, no response. I ended up dropping one of those classes because I just don't have any spoons to deal with that right now. Other [instructors] have been absolutely wonderful. [Saje, student]

Students had practical advice for instructors and described feeling frustrated and anxious as they waited for answers to accommodation requests:

First and foremost, reach out to anyone that releases their accommodation letter to you. Just do it. It is so helpful. And just reiterate [to students] that if anything goes wrong, that you will sort it out. Because there’s nothing more anxiety inducing than not knowing that you have that extra time, or that you can get an extension. With some profs, I was hesitant to even ask because I thought they might not get back to me in a timely way. And that makes it difficult. [Alex, student]

Some instructors were aware of the barriers inherent in the accommodation-seeking process, where stigma can interfere with the student’s ability to ask for help.

You’re really relying on the student to come forward to tell you what’s going on, and a lot of students aren’t going to do that because of all the stigma and them not wanting their professors to find out about their personal lives. [Alison, instructor]

When courses were designed to be flexible, accommodations were not relied on as the only tool used to achieve accessibility. Integrating flexibility reduced barriers, promoted access, enhanced academic performance, and improved mental health for all students.

I’ve actually found a huge difference online. I didn’t need my accommodations at all. The books were all open access...online or PDF, and all the tests were open book. A lot of profs said, “Here’s the week to do the exam, and then hand it in.” That has been just amazing for my mental health and grades. [Libby, student]

The findings suggest that providing instructors with resources for education about how to handle accommodations, integrate inclusive teaching practices, and address stigma will foster the creation of more accessible learning spaces for all students, and in particular students with mental-health-related disabilities who face structural barriers within post-secondary institutions. Instructor’s beliefs about and biases toward disability and mental health related issues influence academic performance (Epstein et al., 2021; Markoulakis & Kirsh, 2012;

Rosenthal & Jacobson, 1992). Further, social attitudes inform the built environment (Hamraie, 2017)—including online learning spaces. Normative views about time also impact students with disability. Crip time suggests that the amount of time assigned to tasks (i.e., assignment due dates, accessing services through post-secondary DSUs) is based on people who do not face disability-related barriers (Abrams et al., 2024). Institutional-level change is required for a shift away from the medical model of disability, and instructors must critically examine their teaching approaches to change ableist practices to promote universal access in the courses they teach.

Findings: Online Learning Environment

The COVID-19 pandemic took the world by surprise, and post-secondary institutions were greatly affected. Overnight, students, instructors, support staff, and administrators were forced to study, teach, support, and lead in new ways using virtual technology. This large shift and disruption to the status quo caused stress and uncertainty, but also created opportunities for individuals and organizations. By necessity, post-secondary institutions invested in better virtual communication tools for students, staff, and instructors (e.g., Zoom®); resources for instructors who were new to teaching online; and stronger infrastructure for online learning environments (e.g., diverse educational technology tools). Under time constraints and pandemic-related uncertainty, instructors quickly transitioned to online teaching, and in the process, they tried new tools and strategies. Support staff adopted alternative ways to provide ongoing support to students, and for students who were in online programs pre-COVID, this shift to online access for support was a welcomed change. Although everyone experienced challenges and additional stressors because of the pandemic, some opportunities that arose were embraced by participants in all three role groups. Every student who participated in phase two of this study

described some benefits of learning online. Pre-pandemic reliance on medical documentation for accommodations instantly became unrealistic once the pandemic began. People were discouraged from using health services except for emergencies, and human resources were limited in health care and in post-secondaries. This essentially forced a move away from the medical model (with reliance on removing barriers at the student-level) toward an accessibility model (to ensure all students had access to their courses).

The flexibility that was put into online course delivery during the pandemic (e.g., recorded lectures) and the opportunity to learn using virtual tools such as Zoom® were beneficial to some students. When asked about how their mental health affected their experiences with online learning, several students shared experiences of improved mental health *and* academic performance:

Yeah, so the first thing that comes to mind is that I found my anxiety was lower. [Charlie, student]

When asked about how online learning affected their mental health, these students replied:

I honestly think it was great. I feel almost guilty saying this, but I think that the whole, going online situation really helped me get past a very dark episode of depression and anxiety, and it helped me get better. When you're at a point in which you just cannot pull yourself out of the house or go to class, having a recorded class that you can go over is extremely helpful. [Jamie, student]

I was not doing well in-person before COVID. To be honest, I was really struggling with my schoolwork, and then COVID happened, and, like, my grade point average went up so much...Online learning has been wonderful for my mental health. It has allowed me to work around periods of time that I have had major mood issues. If I'm feeling really down one day, since

things are recorded, I can just go back when I’m feeling better and actually attend the class. So if I’m not feeling well, I also don’t start beating myself up for not going to class. [Saje, student]

Support staff also saw benefits to online learning for students and described advantages in terms of integration of the UDL principles of *engagement* (i.e., optimizing autonomy and individual choice) and *representation* (i.e., offering multiple ways to access course material):

During COVID, a lot of students really appreciated the online components. They said, “I’m not feeling well. Normally, I wouldn’t go to class. But now I could just go onto my computer and join [the lecture] from my bed.” So, attendance improved significantly. And then, of course, students said things like, “I feel so good, I don’t have to leave my room. Taking assessments in my house has been so much better. My grades are better, everything’s better.” [Sarah, student support staff]

Symptoms common to mental illnesses and other chronic health conditions can be episodic and vary in intensity. For some students, symptoms change hourly or from day to day. How courses are designed and delivered can either help or worsen the difficulties of living with fluctuating symptoms. For instance, some students said they struggled to join and engage in live sessions because they felt tired, while others found it hard to focus and meet deadlines due to concentration issues. It was more manageable for students when they did not have to perform at specific times of the day, allowing for unpredictability in their functioning. Asynchronous courses gave the most flexibility in this regard, but having access to recorded lectures from synchronous classes provided similar flexibility:

With the symptoms that I experience, there’s a lot of times during the day that I function extremely optimally. The asynchronous helps me because when they record the lectures, I can time my day around when I know I can concentrate and focus. And I can still watch the lecture and can cater it to

how my mood swings and energy levels are—because it’s kind of hard to control sometimes. [Luis, student]

Another student had similar sentiments, and described the advantages of flexible online course delivery:

Personally, I found online learning to be a bit easier. Especially when it came to asynchronous content. I could regulate what work I was doing, and when, versus being boxed into areas that needed attention...rather than just being stuck in a lecture and kind of being forced to fidget and trying to seem like you’re “with it” when you are “out of it,” you know? [Libby, student]

Students who were involved in this study described multiple benefits from instructors adopting flexible use of Zoom® features that aligned with UDL. For example, allowing students to keep their videos off (i.e., providing multiple ways of engagement) for parts of synchronous lessons facilitated access, gave a sense of autonomy, and recruited interest. When students were not feeling well or were “not able to face other people,” having the option to listen to the lecture and participate in discussions using the “chat” feature was game-changing. Instructors were commended for providing this flexibility, and some heard positive first-hand feedback in their student evaluations:

When students participated in the discussion using the chat, many felt that it was less threatening. I got that feedback from several people...that participating through the chat was less stressful than speaking up. [Esther, instructor]

For other instructors, teaching online has provided them with opportunities to reflect on their teaching practices, including inclusive teaching methods. Some instructors have come to realize that although they believed in UDL and were committed to providing accessibility in their courses, their course design had barriers for students. That is, they were open to engaging with

students and willing to offer accommodations and extensions, but this put the onus on the students to ask the instructor to modify the existing course. As one instructor astutely noted:

It was like I had a hidden curriculum. In other words, "If I ask him [instructor], he will give me a break." But the students have to ask...so it was hidden. And students that are shy or have mental health issues, they won't ever cross that barrier to ask you for a favor. I'm a senior professor and I guess I carry some authority. So, they're reluctant to cross that line. So, I thought, well the way to do this is to offer flexibility in the front end of the course...to make it completely, I would say, kind. [Max, instructor]

Other instructors realized that what they stated in the syllabus (e.g., strict penalties for late submissions) did not align with what their practices were (e.g., willingness to give extensions when asked). Like Max, this instructor had a hidden curriculum, but for her, it was intentional:

I try to be flexible as much as possible with extensions and deadlines. Super flexible for some students. But they don't know I am flexible until they ask me. I do it that way because I'm always taken advantage of. So, I have to be a bit stern in my syllabus because if I'm not, I find that students will walk all over me. [Esther, instructor]

Another instructor was giving mixed messages to students because she believed there were institutional limits on flexibility:

I didn't think that I would be allowed to embed flexibility into the syllabus. All these very colonial and paternalistic words that I would write in the syllabus...you know these strict deadlines, need for doctor's notes for extensions. But then I would verbally say, "You know, if you need any support, if you need extra time, I'm here for you." I'm getting more confidence to put my [flexible] approach in the syllabus. [Julia, instructor]

The views of this instructor suggest that the status quo is one whereby flexibility for students happens "after the fact" (of design) and further, only when students have provided

medical documentation (e.g., doctor’s note). Their perspective also suggests that with critical self-reflection about teaching approaches, the status quo can be challenged.

With the diverse student population in post-secondary education, along with various pandemic-related challenges, and the different instructional approaches adopted by instructors, many students dealing with mental-health-related disabilities found that online learning had both positive and negative impacts. For this student, learning online both helped and hindered her mental health:

My experience with online learning was very mixed overall...especially in the context of my mental health. There are ways in which it helped and there are ways that it made it more difficult. As someone with anxiety that sometimes expresses itself as social anxiety, not having an influx of social cues in class [in-person], really brought down the anxiety. In terms of the negatives, I would say that, over time, the fact that I wasn’t getting any breaks in my day affected me. In a classroom setting, the 10 minutes between classes when you’re walking and interacting with people...I realized those breaks really bring down my anxiety. [Abby, student]

For some students, the shift to online learning meant that their study strategies were instantly unavailable, making it difficult to complete coursework. This student described some of the challenges they faced during the transition to online/remote learning early in the pandemic:

I had a really nice group of students that I would get support from. We would do our statistics work together in a group. So, as we were doing the problems, we could talk to each other and help each other. My anxiety would be better when I was working around other people who were also working. When I was alone on my computer, telling myself, “Okay, you have to do this,” it was extra hard. I couldn’t go to a coffee shop or *anywhere* outside of my house to do work. [Alex, student]

For some, the transition back to on-campus classes challenged their mental health. For example, this student described how, early in the pandemic, taking courses online helped lower anxiety-related symptoms, but how the return to on-campus classes later in the pandemic worsened those symptoms:

Online learning helped my anxiety in the short term but compromised it in the long term...just because you're not having to constantly work that social muscle in online classes. I found that it was kind of jarring to be back in an actual classroom because I hadn't been in a classroom in so long, and with all these people around, it's quite overwhelming. But short-term, I *really* liked it...to be able to type my question in the chat instead of sticking my hand up and everybody turning and looking at me. It's quite nice...I liked it a lot actually. [Ivan, student]

Study findings indicate that the accommodation model, founded on a medical orientation to disability, creates barriers for students with disabilities. Being approved for and then seeking accommodations places the work of accessibility on the student, instead of on the instructors and the institution more broadly. The move to online learning during the pandemic forced post-secondary institutions to consider flexibility first—rather than as an afterthought. While there are arguably advantages and disadvantages to both online and face-to-face courses, adopting an accessibility model reduces the reliance on accommodations and has the potential to improve learning for all students, in all course modalities.

Discussion

From the experiences shared by students, instructors and support staff in this study, it is evident that the accommodation model, based on retrofitting existing courses, is not meeting the needs of students with mental-health-related disabilities. Students with mental-health-

related disabilities face multiple challenges and barriers while attaining post-secondary education. Findings from this study highlight some of these challenges (e.g., obtaining and implementing academic accommodations). As more students continue to study online while managing mental health concerns, educators and learning-design professionals must create environments that both foster learning and support mental health. Moving away from a medical orientation of disability that meets the needs of a select few, toward a social model inclusive of universal access, is essential. Through careful consideration of individual and institutional assets and challenges, we can choose appropriate technology, design flexible and engaging online communities, challenge ableist views, and facilitate better learning outcomes.

Post-secondary institutions have a long history of ableist policies (Dolmage, 2017) and discrimination against people with disabilities (Markoulakis & Kirsh, 2013). We must focus on universal access while critically looking at systemic barriers for students with disability. This includes individual and institutional-level examination of what is valued (e.g., able-bodies, neurotypical students) so that ableist views and practices can be challenged (Gidden & Jones, 2021; Hamraie, 2017). Integrating flexibility and universal design principles into curriculum design and delivery would help ensure better access for all students. Hamraie (2013) cautions that while universal access may not be an attainable goal, it ought to be embraced as an ongoing pursuit. Identifying and eliminating systemic barriers while also improving access through tools such as UDL require institution-level change—requiring human and fiscal resources.

Although there is limited research focused on the benefits of UDL for student mental health (Al-Azawei et al., 2016; Fovet, 2020), findings from this study and others (Griful-Freixenet et al., 2017; Miller & Lang, 2016), support the claim that the flexibility that is fundamental to

universal design benefits students with mental-health-related disabilities. Lister and colleagues (2021) identify several curriculum factors as barriers to student well-being, suggesting that accessibility centred approaches such as UDL can be implemented to promote student well-being. Importantly, curriculum designed for accessibility reduces the need for students to ask for individual accommodations (Black et al., 2015; Edyburn, 2010; Kettlerlin & Geller, 2018; Lightfoot et al., 2018). This benefits all students, but perhaps students with mental-health-related disabilities even more, as they face stigma related to mental health and academic accommodations. Providing academic and mental-health-related support in post-secondary institutions is needed to ensure students develop life skills while achieving their academic goals. With support, students with mental-health-related disabilities can be successful in post-secondary education (Megivern et al., 2003), and can realize potential advantages if taking online courses. As the shift toward online teaching and learning continues, post-secondary institutions have an opportunity to adopt comprehensive, system-oriented accessibility strategies.

Intentionally designing learning experiences that promotes accessibility requires the designer to have both UDL knowledge and instructional design skills. This can be challenging for Canadian post-secondary educators, who do not receive mandatory teaching training and might not be supported to develop expertise in this area. In addition to having varying levels of expertise in curriculum development, instructors must also manage multiple priorities, including teaching, research, committee work, mentoring, and community and/or industry connections (Black & Moore, 2019). Student participants in this study offered practical suggestions for instructors to create more accessible learning environments including:

- Invest in creating accessible learning environments instead of relying on individual accommodations. Provide flexibility for all students. Examples include recording lectures, providing options to have cameras turned off in online synchronous classes, allowing students to submit assignments electronically, providing access to course materials at the start of the term, reduce use of timed assessments, and having an organized syllabus.
- Acknowledge receipt of accommodation requests from students and work with students to ensure their needs are met.
- Provide students with information about student support services (e.g., disability support, learning strategies, counselling) at multiple times during the term.

While there is increased awareness of mental health in Canada, persons with mental health problems and illnesses are still facing many barriers to accessible education, including lack of services, stigma, and discrimination (CHRC, 2017, p. 4). The findings from this research study can contribute to removing existing barriers in post-secondary, providing more accessible learning opportunities for all students, particularly those with mental-health-related disabilities. More broadly, the findings of this study can help to move post-secondary institutions toward where they ought to be—wholeheartedly embracing equity, diversity, and accessibility in design, research, and teaching. While major changes across institutions require significant human and fiscal resources, if every person working in post-secondary education committed to making one change to promote accessibility, all students would benefit. Use whatever power and privilege you have to make post-secondary institutions more accessible: “There is no more neutrality in

the world. You either have to be part of the solution, or you're going to be part of the problem."

(Eldridge Cleaver).

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