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Post-Secondary Education Student Mental Health: A Global Perspective
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CHAPTER FOURTEEN

COVID-19 in Canadian Colleges: The Drawbacks, Advantages, and Areas for Improvement in Crisis-Evolved Remote Learning

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ABSTRACT

In March of 2020, the COVID-19 global pandemic changed the nature of many sectors in society, including higher education. A sudden shift to distance learning was mandated in most colleges and universities across Canada and other nations. Despite the overwhelming number of studies that have explored the experiences of faculty and students with, what I have termed, *Crisis-Evolved Remote Learning* (CERL), thoughtful investigation of the *Canadian* post-secondary context was absent. Through qualitative exploratory research and thematic analysis, this paper examined Canadian college student perceptions about how they experience CERL. Survey data was collected from 96 students at a college campus in Toronto, Ontario. Six key themes emerged from the data: technology; student-to-student interaction; learning environment; support; instructor clarity, compassion, and communication; and curriculum construction and consistency. These themes were reported, analyzed, and discussed in relation to challenges and positive outcomes of CERL, as well as areas in need of improvement. With considerable uncertainty towards the future of learning, even if/when the pandemic ends, it appears sensible for institutions and researchers to continue their efforts in developing and evaluating optimal and sustainable online learning.

Keywords: COVID-19 Pandemic, Remote Learning, Higher Education, Student Experiences.

INTRODUCTION

In March of 2020, the global COVID-19 pandemic abruptly transformed the nature of many sectors in society, including higher education. A sudden shift to distance learning was mandated in most colleges and universities across Canada and the world. Students, faculty and administrators had to "improvise quick solutions in less-than-ideal circumstances" as they embarked on an emergency remote learning venture (Hodges et al., 2020, para. 2). This has been commonly termed *Emergency Remote Learning* (McDaniel et al., 2020), *Remote Emergency Instruction* (Rothenberg, 2020), and *Emergency Remote Teaching* (Hodges et al., 2020), to name a few. Considering the stark differences between conventional virtual learning typically facilitated by willing, trained, and experienced faculty, and the current model imposed by necessity, along with the fact that it has been over a year since the onset of the pandemic and transition to remote learning, the current study coined the term *Crisis-Evolved Remote Learning (CERL)*. In as little as one month since the start of the pandemic, newscasts, editorials, and digital media exploded with stories about mental health concerns in relation to COVID-19 and the mandated physical distancing measures (Basilaia & Kvavadze, 2020; Johnson, et al., 2020; Savage, 2020). As summarized by Liu et al. (2020), "pandemic-related stresses, including… social distancing, and anxiety over health and economic risks are likely to persist as long-term stressors" (para. 2). Moreover, the tensions and stresses caused by the pandemic have been further exacerbated by political, civil, and racial injustices such as the police killing of George Floyd and the January 6th Capitol Hill riot in the United States (McDaniel et al., 2020).

While most people worldwide have been affected by the pandemic to one degree or another, post-secondary students have faced additional mental health concerns particular to their

situation (Anderson, 2020; Aucejo, et al., 2020; Centre for Innovation in Campus Mental Health, 2020; Dennon, 2020a/b; Schwartz, 2020). According to Active Minds (2020), a non-profit organization that supports young adult mental health, 20% of college students have experienced a decline in mental health since beginning CERL, with 38% reporting more trouble focusing on their academic work than normal and 91% feeling more anxious and stressed than normal. In a study that examined college student transitions to synchronous (NOTE 1) virtual classes during the pandemic, Murphy et al. (2020) found that 59.5% of students expressed uncertainty and 75% reported feeling anxious. Although CERL may not be a primary contributor to current student mental health concerns, it is certainly worthwhile to welcome the voices of students and acknowledge the strengths and weaknesses of this new method of learning. As Gillis and Krull (2020) put it, "by systematically analyzing students' perceptions of… [the] emergency transition to remote instruction, we can assess not only the effectiveness and accessibility of diverse instructional tools but also the barriers that students encountered that impeded their learning…" (p. 287).

LITERATURE REVIEW

Following the Spring 2020 semester, researchers began collecting data from faculty and students to learn how crisis-evolved remote teaching and learning is experienced. Grey literature publications (e.g., editorials, national/organizational reports, etc.) on the topic have also surfaced. As Johnson et al. (2020) acknowledge in their work on how faculty and administration approach the pandemic, grey literature "is instructive as it affirms the upheaval in higher education arising from COVID-19, reveals that the impacts for institutions, faculty, and students alike have been pervasive, and highlights experiences 'on the ground'" (p. 8). Whether addressed in a study or an

editorial, research in this area points to several factors that contribute to mental health distress for higher education students, most of which draw from three interdependent levels: (1) the *individual/personal* level (e.g., remote learning environment), (2) the *institutional* level (e.g., student services department), and (3) the *course* level (e.g., teaching delivery format). This literature review is organized and presented according to these categories, and includes both academic studies and grey literature materials.

The Individual/Personal Level

At the individual/personal level, the literature reveals that students have grappled with issues of time, space, and technology/the internet (Betancourt, 2020; Blankstein et al., 2020; Dennon, 2020a; Means et al., 2020; Murphy et al., 2020; St. Amour, 2020). Results from a survey administered at over 20 American post-secondary institutions during the pandemic pivot of Spring 2020 indicated that students were struggling most significantly with time management, specifically balancing family, household, and school responsibilities (Betancourt, 2020). Blankstein et al. (2020) discovered that American college students were having difficulties finding a quiet place at home to study. Similarly, Anderson (2020) illustrated how student mental health was deteriorating as the pandemic continued, and one possible reason was that some students were learning from unstable or unsafe home environments. On the other hand, a few studies revealed that students felt positively about the change, due to more free time, and healthy home learning environments (Elmer, et al., 2020; Shim & Lee, 2020). For example, Elmer et al. (2020) found that some students under lockdown enjoy CERL, as they feel less pressure to compete with peers.

Looking more specifically at technology, Gillis and Krull (2020) described how some

American students were unable to access a computer or internet connection to engage in remote learning. Following a systematic analysis of surveys of student reflections on the remote learning transition, they discovered that "more than half of students, 20 out of 39, encountered at least occasional internet problems during the five weeks of remote instruction, with 8 percent of students experiencing these problems often" (Gillis & Krull, 2020, p. 293). Likewise, in Shim and Lee's (2020) investigation of South Korean college students' experience of crisis-evolved remote teaching, "network instability" appeared in 34.14% of survey responses. Means et al. (2020) also conducted a national survey of American undergraduates to understand their experiences with online learning during the pandemic, and found that 44 percent of students experienced occasional disruptions with their internet connection.

The experience of marginalized groups is a common theme embedded in conversations about concerns at the individual/personal level. Low-income, minority, international, disabled, at-risk, etc., students can face increased challenges and inequities during CERL (Aucejo et al., 2020; Blankstein et al., 2020; Dennon, 2020a; Fox, Scrinivasan, & Lin, 2020; Gillis & Krull, 2020; Liu et al., 2020; Shim & Lee, 2020). Gillis and Krull (2020) noted that marginalized groups, along with those living in rural communities, are less likely to own a computer or have internet access. Liu et al. (2020) suggested that beyond lack of access to technology, low-income, underrepresented minority, and first generation students may encounter challenges in accessing basic needs, such as food, shelter, and healthcare—inequities that have been exacerbated by the pandemic, and can further damage their mental health.

In a survey study of 15,000 students across 21 American higher education institutions by Blankstein et al. (2020), about half of students reported physical and mental health concerns

overall, but that this did not affect all students equally: "across student subgroups, those who identified as transgender, non-binary, and students of color, as well as those who are caregivers to siblings, parents, and/or grandparents, displayed higher concern for their physical and mental health than their peers" (p. 11). Concerns at the individual/personal level experienced by many underrepresented groups consequentially add barriers at the *institutional* and *course levels*, which are addressed in the sections that follow.

The Institutional Level

At the institutional level, research shows that students have encountered difficulties accessing college and university support services (e.g., tutoring, career, counselling, etc.), contributing to the distresses they have faced during the implementation of CERL (Anderson, 2020; Centre for Innovation in Campus Mental Health, 2020; Dennon, 2020a; McDaniel et al., 2020; O'Keefe, et al, 2020; Schwartz, 2020). Blankstein et al. (2020) found that just under 40% of students wanted more communication about personal counselling and mental health services. Limitations in student support services was a key finding in McDaniel at al.'s (2020) study of how students and faculty viewed CERL in the United States:

> Many of our focus group participants felt that existing support services were not as accessible to students after the emergency shift. Students expressed frustration about student support services, such as financial aid and registrar offices, not being responsive to their questions or needs that arose during the pandemic. (McDaniel et al., 2020, p. 13)

Likewise, Dennon (2020b) reported that American students "are having a harder time accessing tutoring centres and career services" (para. 15), and Murphy et al. (2020) concluded that

insufficient access to mental health services on college campuses was a dominant concern of students in Maine, USA.

In a *Maclean's* article on mental health in Canadian universities, Treleaven (2020) offers a thoughtful summary of these accessibility issues as they pertain to student mental health support:

> Concerns among post-secondary students across Canada have been fairly consistent: lengthy wait times to see a counsellor, even in crisis situations; inadequate student representation in decision-making related to mental health services; mandated leave policies, which can force an academic leave on students who may potentially self-harm; mandatory sick notes for missed assignments or exams, which place an additional burden on students who are struggling; and overall inaccessible, disparate, opaque, discriminatory and inadequate campus supports. (para. 12)

As alluded to earlier, marginalized students are more likely to face challenges in accessing institutional support services, leaving this population more emotionally vulnerable. Evidence suggests that "students with lower quality social support were six times more likely to experience mental health problems than students who had high quality social support" (Dennon, 2020b, para. 9), further indicating that the mental health of marginalized students can be affected by intersectional barriers associated with CERL.

The Course Level

The course level is where students undoubtedly experience CERL most directly and ubiquitously. It has been suggested that it isn't the act of learning online that is problematic for higher education students, but rather the features of online courses (e.g., class size, assessment

tasks, etc.) that determine student satisfaction and overall learner well-being (Means et al., 2020). Several studies have explored how the content and delivery of crisis-evolved remote courses can contribute to student distress (Armstrong, 2011; Blankstein et al., 2020; Hara & Cling, 2020; Johnson et al., 2020; McDaniel et al., 2020; Means et al., 2020; Murphy et al., 2020). The specific features of courses identified as causing student distress generally fall into three categories: *Communication/collaboration*, *Preparedness/organization*, and *Engagement*. Conversations around these themes were not specific to either synchronous or asynchronous (NOTE 2) models of course delivery. St. Amour (2020) notes that "experts in online learning argue that it's the way a course is designed, not whether it's synchronous, that determines whether a student will succeed" (para. 3). Additionally, course delivery in a remote context relies heavily, if not exclusively, on the use of Learning Management Systems (LMS) (NOTE 3) and the expectations put on faculty members (Murphy et al., 2020).

Several studies attest to the detrimental effect on students caused by the lack of communication/collaboration brought about by the transition to remote learning. In their national survey of Americans, Means et al. (2020) recorded an extensive list of remote course-related challenges reported by students, Most prominent was that 65% reported inhibited opportunity to communicate and collaborate with their classmates. Interestingly, 64% of survey respondents in Means et al.'s (2020) study reported understanding the material just as well or better, which supports the point made earlier about course design as a determinant of student success. Blankstein et al. (2020) similarly found that "students did not feel especially connected to each other or their instructors" (p. 12), and McDaniel et al. (2020) showed that task expectations (e.g., assignment deadlines) were inconsistent and poorly communicated between remote courses. While some of

these issues may be attributed to haphazard transitions to online delivery by faculty lacking experience with it, student anxiety and stress over limited interactions with instructors and classmates (physically or virtually) has been a concern with remote learning since before the pandemic (Hara & Kling, 2000), suggesting this may be an inherent drawback to the format.

Preparedness/organization was a key point of discussion in a survey study of over 4,000 faculty across 1,500 American higher education institutions by Fox et al. (2020), which found that students engaged in CERL were challenged and distressed by course inconsistencies in approach, tools, etc. McDaniel et al. (2020) similarly found a drop-in student satisfaction with their learning experiences when course content was unorganized and faculty were ill-prepared.

McDaniel et al. (2020) also illustrated challenges in sustaining student engagement: "Manifestations of this ranged from ineffective instructional practices that were not engaging to disorganization … [affecting] their motivation, enjoyment, and focus" (p. 14). Means et al. (2020) similarly found that 57% of surveyed students felt disengaged with or unmotivated by their remote course content, especially when class sizes were larger. And of the 66 American students surveyed by Gillis & Krull (2020), 86.4% reported feeling unmotivated by their remote course experiences. Like with communication/collaboration, organization, quality, and engagement levels in online courses was an important determinant of student well-being and success even before the pandemic (Armstrong, 2011).

Although outside the scope of this study, it is worth noting that concerns at the course-level do not necessarily represent shortcomings with teaching faculty. Educators have been similarly burdened by the challenges of CERL and teaching and are not completely responsible for the design and execution of online courses (Shim & Lee, 2020).

With (a) continued challenges at the individual, institutional, and course levels, (b) post-secondary student mental health distress rising, and (c) an indeterminate end to post-secondary remote learning (even after the resolution of the pandemic), immediate intervention strategies have become a priority for post-secondary institutions and related governing bodies. The objective? Finding ways to mitigate the aforementioned individual, institutional, and course level challenges and to support the well-being of students in CERL. Central to this objective is the recent implementation and continued development of an *Equity, Diversity, and Inclusion (EDI)* framework, driven by pivotal policy enactments like the Okanagan Charter (NOTE 4) (Baxter, 2020) and Universal Design Learning (UDL) principles (NOTE 5) (Hodges et al., 2020). The implementation or evaluation of EDI frameworks or CERL support strategies is understandably still in its infancy, especially in the Canadian context.

A review of the current literature shows an overwhelming amount of thoughtful attention and comprehensive information related to student mental health and CERL. Research has identified a number of prevailing challenges at the individual, institutional, and course levels that can frustrate and distress students engaged in CERL. Online delivery of education is not new, and indeed, there have been many progressive developments in it over the last decade (O'Keefe et al., 2020). There was, of course, also an existing body of research on pre-pandemic post-secondary online education , and much of it has pointed to similar challenges students experience with the format (Lee, 2020), but it was previously not given nearly the attention it is now receiving from researchers. For example, a pre-pandemic article by Astani, Ready, and Duplaga (2010) asserted "there is a paucity of research studies exploring students' perspectives about online learning, such as quality of learning, collaborative opportunities, teamwork skills, and technology embedded in

online learning" (p. 15). Recognizing the need to support student mental health amidst the pandemic, Anderson (2020) alluded to such long-standing shortcomings of distance learning, but at the same time argued that "when schools are pushed, they can act." Evidence suggests that institutions are indeed acting (or perhaps, *re*acting). The pre-pandemic literature on online learning is a testament to CERL, and hopefully the current drive forward in research will bridge some long-standing gaps.

From a methodological standpoint, a substantial number of studies and reports that gathered data directly from students was observed, rather than just, for example, institutional administrators or faculty members. The perspectives of the latter are certainly important, but understanding the impacts of CERL on students, including on their mental health, is obviously best captured by the subjects of that experience.

On the other hand, there is a current lack of literature on *Canadian* post-secondary students' CERL experiences. The literature review found only a limited number of studies on the accessibility, acceptability, and student reactions to the challenges of CERL in Canadian colleges and universities. Most of what has been done was situated in an American context, with a few others from the UK or Southeast Asia—locations that were/are epicentres of this global pandemic (Khosrawipour et al., 2020). Any research that considered a Canadian context was housed in grey literature, namely national reports from mental health and education organizations and opinion editorials in mainstream media outlets. Despite the benefits that grey literature can provide, scholarly studies offer the research breadth and verifiability that is necessary for this topic to be properly understood through a Canadian lens.

THE PRESENT STUDY

Through qualitative exploratory research and thematic analysis, this study examined Canadian college student perceptions about their experience with pandemic-driven remote learning environments, or CERL. Four research questions guided this study: (1) How do college students evaluate their overall experiences with CERL? (2) In what ways do college students believe their remote learning experiences cause distress, discomfort, or unease? (3) In what ways do college students believe their CERL experiences support their mental health or encourage positive well-being? (4) What suggestions do students have that can improve how CERL is experienced?

METHODOLOGY

This study used a qualitative, exploratory research design. Exploratory research attempts to gain familiarity with relatively new ideas, actions, events, problems, etc. (Mack et al., 2005). Canadian college students engaged in CERL due to the COVID-19 pandemic is a relatively new phenomenon that warrants academic study. Qualitative approaches in exploratory research usually involve human participants to gather meaningful, rich, and interpretive data, and its methods of data collection are typically flexible and open in nature (Mack et al., 2005). Methodological details of the current study are discussed below.

Study Sample

Data was collected from 96 students at the Humber Institute of Technology and Advanced Learning in Toronto, Ontario, with approximately 27,000 full-time and 56,000 part-time students (about 5,300 of which graduate annually), offering four-year bachelor/baccalaureate degrees, two and three-year diplomas, and one and two-year certificates. Study participants drew from various

faculties and programs across the college. To be eligible for participation, students must have taken at least two remote courses during the time of the COVID-19 pandemic restrictions. Voluntary, non-probability sampling was used to gather students. Relevant details of the participants are presented in Table 1.

Table 1

Relevant details of study participants

	Proportion (n = 96)
Faculty/Program*	
Faculty of Media and Creative Arts	38.5%
Faculty of Social and Community Services	30.6%
Faculty of Business	19.8%
Faculty of Applied Sciences and Technology	10.4%
CERL Courses Taken	
5+	78%
4-5	19%
2-3	3%
CERL Format	
Blended synchronous and asynchronous	78%
Strictly synchronous	13%
Strictly asynchronous	9%

**Note*. A further breakdown of programs within each Faculty is available in Appendix A.

Data Collection and Analysis

In March 2021, five voluntary faculty members were recruited via email invitation, chosen from the English Department because they teach students from all faculties and programs offered at the college. They were asked to post a study invitation and information letter for students of at least three English courses they teach, linking to a one-time online survey on the SurveyMonkey® consisting of 7 questions (see Appendix B.) Three questions collected academic program and course data (e.g., number of remote courses taken, format of remote courses, etc.), and four on

students' experiences with CERL—three open ended and one with a rating scale based on Statistics Canada's (2016) classification levels of perceived health. Students were given one month to complete the survey. The college's Research Ethics Review Board approved the current study, and all participants provided informed consent.

The data were evaluated using thematic analysis, which is "a method for identifying, analyzing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). This was applied to interpret multiple facets of the present study topic (e.g., mental health, remote learning, COVID-19 pandemic, etc.). The open-ended survey data was reviewed, categorized, and analyzed according to common themes or patterns. Guided by the four research questions, themes and patterns were then discussed in relation to theories and conversations found in similar works.

Limitations of Study

While students are critical data sources when examining how they experience CERL in higher education, triangulation offers greater consistency and verification of study findings. Considering the perspectives of faculty alongside the self-reported data of students would therefore be ideal for understanding the "whole picture" of CERL in higher education. Only about 24% of invited participants took part in the current study—a common outcome in studies with students as participants (Porter & Whitcomb, 2005)—limiting generalizability due to potential non-response bias. Nonetheless, the perceptions shared can be helpful in identifying current challenges with remote learning, and institutions can render support for students to mitigate these challenges going forward.

FINDINGS

Of the estimated 400 invited, 96 students participated in the current study and completed the survey. Table 2 highlights the key themes that were salient across responses, as well as students' overall evaluation of their CERL experiences.

Table 2.

Summary of survey data

Emergent Themes	Proportion (*n* = 96)
Technology	25%
Student-to-Student Interaction	41%
Learning Environment	30%
Support	46%
Instructor…	
clarity	19%
compassion	63%
communication	41%
Curriculum…	
construction	53%
consistency	9%
Overall experiences with CERL	
Excellent	9%
Very Good	16%
Good	34%
Fair	28%
Poor	13%

Technology

One in four participants discussed technology in their survey responses, particularly regarding the challenges they've experienced with CERL. Students reported internet connection

difficulties, "device glitches, computer software accessibility and/or compatibility problems" and overall technical issues more broadly. When asked how their CERL experiences could be improved, 24 some remarked that the college should regularly update learning management systems.

Student-to-Student Interaction

Approximately 41% of participants alluded to student-to-student interaction when describing the challenges of CERL and suggestions for improvement. Most highlighted limited connection with peers, as one student bleakly reported: "…it's a lonely learning process. I am unable to make class friends. I want to connect with classmates on a deeper level." With this challenge, it was unsurprising to observe many suggest more student interaction to improve CERL experiences for students. As one student put it, "…there needs to be more innovative ways in lectures to have students interact with one another. Not just break-out room discussions."

Learning Environment

About 30% of participants referred to aspects of their learning environment as contributory to either challenging or beneficial to their CERL experience. For the most part, respondents stated that they struggled with responsibilities, distractions, and inadequate learning spaces while engaging in CERL. One participant disclosed dealing with family members at home who do not support his/her sexuality: "…usually I live on campus, so I don't have to deal with it." On the other hand, some indicated feeling safer and having less anxiety when learning from home. These participants explained that CERL reduced health fears surrounding COVID-19, or eliminated tensions with in-person learning such as long commutes and social phobias. To remedy distracting

or responsibility-laden at-home CERL, some respondents suggested keeping an agenda to track task deadlines and practising good note-taking to help better retain information. Likewise, several participants suggested that asynchronous formats and recorded live sessions as solutions for less productive CERL environments.

Support

Forty-six percent of participants included the topic of support when making suggestions on how to improve CERL. For the most part, respondents believed that the college does not adequately assist students in CERL: "…it's not fair that students who have been studying remotely now for like 3 semesters still have to pay facility fees. They should be giving us money back that can help us." Another participant said "…the college should help us access and pay for therapy." Only a few students acknowledged the academic and mental health support efforts offered by the college for crisis-evolved remote learners: "So much support is available by our school and department even though we are not there."

Instructor Clarity

Insights into remote teaching practices emerged in many survey responses, , with about 19% addressing the topic of instructor clarity in particular. For example: "…some instructors do not provide clear criteria for assignments. We need to read information on 3 different pages on blackboard plus an email to understand the full criteria of an assignment." Similarly, another said "some courses are disorganized. I think there's just too much to go through, like learning materials, announcements, updates, assignments, discussion boards…" Greater clarity in lesson/task design and description was therefore unsurprisingly a common suggestion given for improving CERL.

One participant recommended the development of a single document that lists all weighted tasks with detailed instructions and submission due dates. Another suggested recording lectures and any other related correspondence for students to view or review if greater clarity is required.

Instructor Compassion

The topic of instructor compassion was a theme in 63% of survey responses. Several students commented on some form of compassion when suggesting how CERL could be improved, for example: "…there needs to be more understanding that not everyone is comfortable with participating online by turning on their cameras or microphones to speak." Some participants reported that they could feel the frustration from instructors and a lack of attention and compassion towards students. While less than above, a few also said that some of their instructors did show by providing flexible due dates or extending submission deadlines.

Instructor Communication

The issue of instructor communication appeared in 41% of the surveys. A popular CERL-related concern shared by students was untimely communication from instructors when requiring assistance: "…it is really difficult to get a hold of teachers especially when I need immediate or short-term help with an assignment." Conversely, only a few students acknowledged effective instructor communication when providing instructions, updates, or feedback, or example "…professors would email me feedback on my work, which was good." Suggestions included the need for instructors to respond to student inquiries in a timelier fashion, as well as better inter-faculty communication: "…better communication between faculties or instructors from different

departments so that they can organize assignment deadlines evenly."

Curriculum Construction

curriculum construction (delivery and organization of content and tasks) arose as a theme in just over 53% of survey responses. For the most part, participants reported challenges in the way their CERL courses were constructed, mentioning issues such as "too much work," "assignment deadlines [are] too close together," "too fast-paced," and "not enough samples provided." Several students recognized components of curriculum that contributed to more positive CERL experiences, such as flexible asynchronous class formats, and assignments that do not rely too much on technology. Recommendations for improved CERL included "less group work," "smaller tasks," "no last minute assigned work," "early access to course material," "spaced out assignment deadlines," and "first week meet-and-greet sessions."

Curriculum Consistency

Curriculum consistency is a theme that emerged in 9% of survey responses. Interestingly, many expressed concerns over inconsistencies between their courses and recommended a more standardized approach: "…the most frustrating part is the lack of consistency across all courses. In times of uncertainty, it would be nice to have some consistency with school." Another said, "I think there needs to be 'department check-ins' to make sure all blackboard courses across all departments are designed in the same way."

DISCUSSION AND IMPLICATIONS FOR PRACTICE

The present study surveyed 96 students from the Humber Institute of Technology and

Advanced Learning in Toronto about their experiences with CERL. Participant responses to the open-ended questions painted a bleak picture about their experiences with remote learning, as echoed in other related works (Blankstein et al., 2020; Gillis & Krull, 2020; McDaniel et al., 2020; Means et al., 2020). Means et al. (2020) reported that student satisfaction dropped precipitously after the abrupt transition to fully online course delivery, and McDaniel et al. (2020) found that students were particularly unsatisfied with their experience in the spring 2020 term, when the change was first imposed. . Students' experiences with remote learning were influenced by a number of individual/personal, institutional, and/or course level factors. The current study results confirm that technology is a significant influence on students' experiences with CERL. Specifically, findings identified technology as contributory to challenges with CERL and needing improvement, referring to issues such as computer software compatibility and poor internet connection, reflecting similar findings in related studies (McDaniel et al., 2020; Means et al., 2020; Murphy et al., 2020). For example, McDaniel et al. (2020) found that students felt overwhelmed with the various online platforms used across their courses, some of which were incompatible with their devices. On the other hand, contrary to some other studies (Blankstein et al., 2020; Dennon, 2020b; Gillis & Krull, 2020), the current study did not indicate access to technology as a noteworthy challenge.

By necessity, CERL is completely dependent on technological literacy, functional devices, and stable internet connectivity, which makes access to technology incredibly important for college students, indicating a need for higher education institutions to develop sound technology platforms and find ways of supporting accessibility (Means et al., 2020). Researchers have suggested that people from lower socioeconomic backgrounds, or of racial and ethnic minorities,

are more likely to have technology and internet access problems (Gillis & Krull, 2020; Liu et al., 2020). But interestingly, despite the fact that the college in this study houses demographically-diverse students, including those from marginalized backgrounds, the findings did not reveal any concerns with technology accessibility. At the onset of CERL, the college implemented a laptop loaning and internet access program so that that students were able to access the technology necessary for CERL, which is likely the reason they did not report access-related concerns in this case.

Using varied technologies in productive and innovative ways can foster engaging remote learning experiences, mobilize student support efforts, and provide multiple avenues for communication between students and instructors. At the same time, given the potential for technology pitfalls, it is important for faculty to anticipate and be sympathetic to challenges arising from things like poor internet connection or technological illiteracy. Implementing back-up strategies for when technology fails (Bao, 2020) and not heavily relying on multiple complex technologies for all course tasks (Dennon, 2020a/b) can help to mitigate such concerns.

Learning environment was identified as another significant influence on students' experiences with CERL, in either a challenging or positive manner. Other works have supported the idea that distracting, responsibility-laden, and/or unsafe home environments generate difficulties with CERL (Anderson, 2020; Betancourt, 2020; Blankstein et al., 2020). As Betancourt (2020) stressed time management has been significant struggle for many students attempting to balance difficult family or household pressures with academic responsibilities in a CERL context.

Though less common, research has also found that some students had CERL environments that were safe, positive, or encouraging (Dennon, 2020; Elmer et al., 2020; Means et al., 2020).

For example, Means et al. (2020) found that a small number of students reported that they had adapted quickly and enjoyed it more. Likewise, Elmer et al. (2020) found that some students were affected positively by the crisis, noting a reduced sense of competition and less feelings of missing out as they reportedly would have felt with in-person learning.

Tailoring home learning environments to improve CERL experiences is not always possible or feasible, especially during a pandemic, but an intersectional lens can find various social determinants that can limit students' successful interaction with CERL, which colleges can enact strategies to alleviate. For example, incorporating asynchronous methods gives students the flexibility to access course information at their convenience, which benefits those learning in less than ideal home environments (St. Amour, 2020). Circumstances where learning environments are unsafe can present as more complicated. In such cases, faculty are encouraged to "keep an eye on" students who may present as at-risk, which necessitates faculty training on trauma-informed pedagogy (MacPhee, 2020; McDaniel et al., 2020; O'Keefe et al., 2020; UCI, n.d.). At the same time, CERL can expose the advantages of at-home learning environments for some students, becoming a viable option for future learning; a revelation that may have not come about without the experience of CERL being imposed by the pandemic (Dennon, 2020a; Elmer et al., 2020).

Support was a popular topic of discussion in the findings of this study, as it was in other related studies—which is not surprising considering the increase in student mental health concerns induced by the pandemic and related restrictions (Anderson, 2020; Blankstein et al., 2020; Johnson et al, 2020a; Lorenzetti, 2020; MacPhee, 2020; Murphy et al., 2020; Schwartz, 2020). Schwartz's (2020) review of surveys on college students and mental health demonstrated that 60% of students found it more difficult to access mental health care since the pandemic began, which was echoed

by participants of the current study. Likewise, students in the studies of McDaniel et al. (2020) and Blankstein et al. (2020) disclosed a desire for better mental health support communication and access from their post-secondary institutions.

Evidence suggests that since the start of CERL, more college and university students are experiencing poor well-being and are looking for support; an indication of decreased mental health stigma (Anderson, 2020; Dennon, 2020b) and the imperative of supporting students through this period. Increased efforts are warranted to move traditional support systems online, such as with teletherapy and virtual counselling, and offer student guidance on how and where to access support (Murphy et al., 2020; O'Keefe et al., 2020; Zhai & Du, 2020). Alternatively, developing new CERL-friendly interventions would be beneficial, such as a pre-enrollment self-assessment tool for students to better evaluate their readiness for online learning before enrolling (Lorenzetti, 2020, para. 12). Faculty in particular hold an important position with CERL in being responsive to student needs that can entail anything from connecting students with formal supports or "ungrading" work (Johnson et al., 2020a). Although not found in the current study, in general, marginalized students can experience greater challenges in accessing support, making the development of support initiatives tailored for vulnerable students a priority (Reimers & Schleicher, 2020). A successful outcome for support initiatives is dependent on, (a) faculty training on mental health aid, (b) increased student help-seeking behaviours, and (c) effective communication of available interventions to students (Centre for Innovation in Campus Mental Health, 2020; Dennon, 2020b; MacPhee, 2020).

Student-to-student interaction, or a lack there of, is a concern found in this study, and paralleled in other research (Blankstein et al., 2020; McDaniel et al., 2020; Means et al., 2020;

O'Keefe et al., 2020). O'Keefe et al. (2020) determined that course interactions need to be optimized by implementing online course activities based on student collaboration (p. 31). The self-directed and independent nature of remote learning limits students' ability to organically engage with their peers as they would in-class—whether for academic or social purposes. Such feelings of loneliness are likely intensified with the added limitations of social distancing in other realms of their lives due to the pandemic (MacPhee, 2020). As Dennon (2020b) remarked, "isolation in the era of COVID-19 represents a secondary pandemic" (para. 9). Increasing opportunities for more authentic student-to-student interactions at the institutional and course level can help remedy this drawback. As illustrated by MacPhee (2020), "research shows that supportive relationships and feelings of connectedness to fellow students, family, friends, faculty members and mentors are protective factors that can help lower the risk for suicide and promote emotional well-being" (para. 3). The Wellness Hub at Brock University (2020), NAVI Virtual Assistant at the University of Toronto (2020), and Healthy Minds for Stressful Times at Humber College (2020) are commendable examples of institutional efforts that encourage students to gather and converse virtually. Likewise, taking advantage of breakout discussion rooms or chat tool functions through learning management systems can encourage genuine student-to-student conversations (Means et al., 2020; Shin & Lee, 2020; St. Amour, 2020). Moreover, using synchronous teaching time for exercises/activities (rather than for instructor lecturing) can facilitate enhanced student interaction (Gillis & Krull, 2020; McDaniel et al., 2020; St. Amour, 2020).

It seems as though student CERL experiences are largely dependent on the actions of instructors. Findings of the current study, including the importance of instructor clarity, communication, and compassion, as supported in a number of related papers, attests to this

conclusion (Blankstein et al., 2020; Centre for Innovation in Campus Mental Health, 2020; Fox et al., 2020; MacPhee, 2020; McDaniel et al., 2020; Means et al., 2020; Murphy et al., 2020; O'Keefe et al., 2020; Shin & Lee, 2020). Similar to the current study findings, instructors identifying clear expectations for student performance and interaction norms was noted by both O'Keefe et al. (2020) and Murphy et al. (2020) in their studies on higher education during COVID-19. Student participants in other studies have also advocated for increased instructor communication, including the need for timely performance feedback and email responses, as well as offering opportunities for things like virtual drop-in sessions (MacPhee, 2020; Murphy et al., 2020; O'Keefe et al., 2020; Shin & Lee, 2020).

References to instructor flexibility, attention, and/or empathy are evident in several papers, (Hodges et al., 2020; O'Keefe et al., 2020), similar to the remarks about compassion identified in the current study. As Hodges et al. (2020) summarized, "flexibility with deadlines for assignments within courses, course policies, and institutional policies should be considered" (para. 26). Likewise, Murphy et al. (2020), McDaniel et al. (2020), Means et al. (2020), and O'Keefe et al. (2020) have all recognized "(un)timeliness" (e.g., instructor to student feedback) as a drawback in current student CERL experiences. Students who reported satisfaction with the level and quality of instructor clarity, communication, and compassion were also identified by some studies, but more rarely (McDaniel et al., 2020; Murphy et al., 2020). For example, Murphy et al. (2020) found that depending on the course section surveyed, anywhere from 17.6% to 71% of students said that professors communicated well over email, while between 11.5% and 62.2% reported that professors were flexible with task deadlines. Similarly, McDaniel et al. (2020) found that aside from the need for greater clarity, "a majority of students had faculty who were accommodating

with deadlines and expectations after the emergency transition to remote learning" (p. 17).

Given the pressures placed on instructors delivering CERL, it is unsurprising that many students report issues with communication, clarity, and compassion. An abrupt shift to remote learning left many instructors ill-prepared, unwilling, and untrained to meet the demands of teaching remotely (Hodges et al., 2020; McDaniel et al., 2020; Murphy et al., 2020). Instructors face similar everyday challenges, such as family responsibilities and lack of support, which can prevent them from engaging effectively in CERL (Johnson et al., 2020a; McDaniel et al., 2020; Murphy et al., 2020). And like with their students, many instructors also feel unclear as to what is expected of them with CERL (Hodges et al., 2020; McDaniel et al., 2020; Murphy et al., 2020). As a result of such drawbacks, student CERL experiences may present as more "transactional," which can give way to "unilateral instructor-student interaction" (Shim & Lee, 2020; St. Amour, 2020). At the same time, studies in this area seem more focused on student challenges with CERL and how to improve it, while paying little attention to its positive attributes or advantages. That said, accounts where students are pleased with instructors during CERL can be a rare occurrence. Moreover, although beyond the scope of this paper, it is worth noting that educators often bear the effects of their students' feelings of physical and psychological displacement, so considering their experiences with CERL it is unsurprising that student narratives appear less enthusiastic.

In order to improve instructor clarity, communication, and compassion for CERL, a critical first step would be for institutions to provide tactful guidance and training to instructors for teaching through crises, such as determining compulsory communication criterion and timelines between instructors and students (McDaniel et al., 2020). A number of strategies can also be exercised by instructors to improve students' CERL experiences with them, including employing

compassionate grading schemes, following UDL principles, holding virtual office hours, explaining complex content through synchronous teaching formats, evaluating student comprehension using LMS discussion features, and outlining course communication methods in the syllabus (McDaniel et al., 2020; Murphy et al., 2020; O'Keefe et al., 2020; St. Amour, 2020; Zhai & Du, 2020).

Closely related to instructor clarity, communication, and compassion is the construction and consistency of curriculum. Although in several Canadian colleges, instructors carry autonomy in the design and delivery of courses, this is not the case with all institutions/faculties/programs—or may not be true in the context of CERL—which is why curriculum construction and consistency was addressed separately in this study. Numerous studies have investigated the quality of curriculum in CERL (Bao, 2020; Beachboard, 2020; Centre for Innovation in Campus Mental Health, 2020; Fox et al., 2020; Hodges et al., 2020; McDaniel et al., 2020; Means et al., 2020; O'Keefe et al., 2020; Shin & Lee, 2020; St. Amour, 2020). Overwhelming and inconsistent course design and delivery was a popular topic of discussion in these works, as it was in the current study. For example, Fox et al. (2020) found that students had been most challenged by "the inconsistency between courses… [noting] a wild variation in approach, tools… among their 5 different courses. It was overwhelming and very stressful" (p. 10). Likewise, in a case study of Peking University, Bao (2020) alluded to heavy reading and homework requirements, along with too much dependence on learning through online means as challenging for students undergoing CERL.

Looking more specifically at course delivery, opinions varied about synchronous and asynchronous formats in the present study, as they did in related works (Betancourt, 2020; Hodges et al., 2020; McDaniel et al., 2020; Shin & Lee, 2020; St. Amour, 2020). For example, Hodges et

al. (2020) concluded that asynchronous delivery with optional synchronous integration is optimal, and McDaniel et al. (2020) confirmed that along with the majority of synchronous occurrences, students appreciate some components of asynchrony. As Gillis and Krull (2020) thoughtfully summarized, "an opportunity for synchronous interaction enhances student integration and learning in fully online classes, but requiring frequent synchronous interactions risks creating barriers for students with technology, time, and resource constraints" (p. 285). Like in the present study, positive CERL experiences with curriculum (construction in particular) were reported by some students, including having larger weighted tasks broken down into smaller ones, open-book task completion, formative assessment application, and good use of the LMS (McDaniel et al., 2020; Murphy et al., 2020)

Along with teaching, higher education involves curriculum planning, development, and/or modification for faculties and administrators. With the sudden shift to CERL, these processes have gone into overdrive, with predictably less than optimal results. Evidence suggests that poor student outcomes with CERL draws primarily from disordered learning objectives, instruction format, and evaluation tasks (O'Keefe et al., 2020). According to St. Amour (2020), "Simply moving a lecture-based class (which can be ineffective for some students even when done in person) to an online format is not going to work" (para. 10). Put differently, the "onlinification" of traditional teaching and learning methods is impractical when the learning environment is no longer the classroom (Lee, 2020). Building a consistent curriculum grounded in trauma-formed pedagogy (NOTE 6) is a collective responsibility, especially in the context of CERL, where varied expertise and tools are needed. The design and delivery of CERL curriculum involves an adjustment of course expectations and tasks to reflect consistency and flexibility, such as grading some tasks with a

pass/fail system, providing extensions, and providing blended synchronous and asynchronous teaching formats (Bao, 2020; Blankstein et al., 2020; Centre for Innovation in Campus Mental Health, 2020; Gillis & Krull, 2020; Means et al., 2020). Professional development (e.g., training in [a]synchrony pedagogy) or student needs analysis practices (e.g., conducting a survey), can help acquire the information and develop the expertise and tools necessary for a consistent and well-designed CERL curriculum (McDaniel et al., 2020).

CONCLUSION

Literature thus far confirms a wide variation in student experiences with CERL, likely due to a variety of intersectional factors at the individual, institutional, and course levels (Rothenberg, 2020). Nonetheless, higher education institutions across Canada are encouraged to continue evaluating the CERL experiences of students and faculty, ideally with an assigned CERL taskforce (Reimers & Schleicher, 2020). As evident in pre-pandemic studies, remote learning has always had deficiencies, and as such, while the current study outcomes should be interpreted in a pandemic-specific context, they can still help inform online learning more broadly going forward (Blankstein et al., 2020; Lee, 2020). Put differently, with considerable uncertainty about the future of learning, even after the pandemic ends, it appears sensible for institutions and researchers to continue their efforts in developing and evaluating optimal and sustainable online learning.

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NOTE 1: Synchronous: "is an instructor-led platform that provide real-time teaching or learning process instantly (online) to students. Both the learners and instructors or tutors must be present during the lesson period" (Mohammed, et al., 2017, p. 218).

NOTE 2: Asynchronous: "is a self-placed learning process that can be done even offline with or without the presence of the teacher or students" (Mohammed et al., 2017, p. 218).

NOTE 3: Learning Management System (LMS): "is an application program (system) developed to manage online courses, share learning materials, and permits collaboration between students and students or between students and teachers" (Mohammed et al., 2017, p. 218).

NOTE 4: In 2015, the Okanagan international charter was developed at the International Conference on Health Promoting Universities and Colleges in Kelowna, B.C., urging schools to fuse student wellness into all campus culture dimensions (Baxter, 2020).

NOTE 5: Universal Design Learning (UDL) principles "focus on the design of learning environments that are flexible, inclusive, and student-centred to ensure that all students can access and learn from the course materials, activities, and assignments" (Hodges et al., 2020, para. 16).

NOTE 6: Trauma-Informed Pedagogy is "pedagogical practice that keeps trauma, its prevalence, and how it affects an individual, in mind" (UCI Division of Teaching Excellence and Innovation, 2020, para. 2). Practices follow Universal Design for Learning principles, such as building flexibility into assessments and policies.

Appendix A

Breakdown of programs within each Faculty as reported by study participants

Faculty/Program	Credential	Number (%) (*n*=96)
Faculty of Media and Creative Arts		
• Media Communications 4	Diploma	16
• 3D Animation	Advanced Diploma	5
• Advertising & Graphic Design	Advanced Diploma	3
• Graphic Design	Advanced Diploma	2
• Advertising & Marketing Communication	Diploma	4
• Multimedia Design & Development 2	Diploma	2
• Photography 2	Diploma	3
Faculty of Social and Community Services		
• Social Service Work 3	Diploma	6
• Child & Youth Care 2	Advanced Diploma	4
• Protection, Security, & Investigation	Diploma	4
• Police Foundations 4	Diploma	10
• Community & Justice Services	Diploma	5
Faculty of Business		
• Cosmetics Management 2	Diploma	5
• Fashion Arts & Business 2	Diploma	5
• Financial Services, Business Management	Diploma	6
• Baking & Pastry Arts Management 2	Diploma	4
Faculty of Applied Sciences and Technology		
• Landscape Technician	Diploma	1
• Building Construction Technician	Diploma	3
• Mechanical Engineering Technology 1	Advanced Diploma	4
• Mechanical Engineering Technician	Diploma	2