**Fonds de recherche
Société et culture
Québec**

Rapport de recherche

PROGRAMME ACTIONS CONCERTÉES

Développer et évaluer une intervention "Tableau de bord du bien-être" afin d'améliorer les connaissances, la recherche d'aide et la prestation de services en matière de santé mentale parmi les étudiant.es universitaires vulnérables

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Part A: Research Context

1. Problem Space

This Programme Actions Concertées research project was funded by the Fonds de recherche du Québec – Société et culture (FRQSC) in partnership with the ministère de l'Éducation du Québec. It falls within the *programme de recherche sur la perseverance et reussite scolaries, thematique : santé mentale au postsecondaire*. It responded to research need VI: *"Student retention and educational success, and complementary services in adult education, vocational training and higher education."* Additional acknowledgements are presented in Appendix A.

There is an urgent need to improve the delivery of mental health services to university students (Linden et al., 2018). Participation rates in post-secondary education continue to rise across demographic groups, and university students are highly distressed (ACHA-NCHA-II, 2016). Although traditional psychological interventions effectively reduce distress in students (Dawson et al., 2020), rates of formal help-seeking are low among this population (Findlay & Sunderland, 2014). This result suggests that the mental health service needs of many students are unmet. The fact that any student's mental health need would go unmet is a missed opportunity because university campuses offer a full spectrum of services ranging from drop-in relaxation sessions to psychiatric care. Our action research project addressed the need to understand, explain, and transform the promotion of help-seeking on university campuses.

2. Objectives Pursued

Three objectives that unfolded across three phases were pursued. Objective 1, Phase 1: Identify patterns of distress across the academic year, including for vulnerable subgroups of students. Objective 2, Phase 2: Translate this knowledge into an interactive intervention to improve help-seeking. Objective 3, Phase 3: Evaluate the success of this intervention.

The research team, which includes knowledge users, participated in the implementation of these phases. Our team developed and evaluated a low-intensity intervention that delivered information about campus resources matched to students' sources of stress to promote help-seeking. The intervention aimed to increase help-seeking by improving students' mental health literacy. If students learn to identify and manage their needs and seek help when they are distressed, their mental health, well-being, and academic success will be enhanced. More generally, they will build psychosocial resources that foster resilience to support their future well-being and success.

The development of the intervention was guided by youth help-seeking (Radez et al., 2021; Westberg et al., 2022) and youth mental health literacy theoretical models (Newcomb-Anjo, 2019) and analysis of data previously collected at Concordia University. Youth models are elaborations of general help-seeking and mental health literacy models. They share many of the same components, but youth models also incorporate developmental stages into our understanding of the help-seeking process and identify youth-specific barriers to help-seeking, including low mental health literacy. The main differences between global models and youth-specific models are 1) the inclusion of developmental expectations for self-reliance and the need for autonomy that accompanies the transition to adulthood and that may work against seeking help from others, and 2) still-maturing understandings of the self and emotional experiences that may make it difficult for younger students to know when they need to seek help. These facets of youth-specific models correspond with the theory of emerging adulthood (Arnett et al., 2014; Crumb et al., 2021; Ishikawa et al., 2022; Nauphal et al., 2023). An integrated version of youth help-seeking models is presented at the end of this section, on page 6.

Phase 1. Data previously collected from 1004 undergraduate students surveyed at 16 time points across the academic year were analyzed to identify key points at which to deliver the

intervention. Average distress patterns across the academic year and risk group differences were explored (Fang et al., submitted). Based on the results, we engaged in Phase 2 of the project, the development of the intervention. Three key time points for the delivery of the intervention were identified.

Time 1: The intervention was delivered at the start of the year because our analysis showed that some groups of students start the year with elevated stress levels. Risk factors for elevated distress included the following experiences and identities: having a previous mental health problem diagnosis, experiencing more negative life events in the past year, experiencing sexual violence or harassment in the past year, being younger, identifying as a woman, gender minority, or visible minority, lower childhood socioeconomic status, and greater current financial strain.

Time 2: Next, the intervention was delivered halfway through the semester because our analysis showed that distress increased at the fastest rate across the first 6 weeks of the semester.

Time 3: Finally, the intervention was delivered again at the end of the semester because our analysis showed that distress levels remained high until the winter break. The general pattern repeated across the winter semester.

Phase 2. Although there were group differences in levels of distress in September, there were no reliable group differences in the patterns of change that followed across the year. Therefore, the intervention was designed for any student experiencing elevated distress. In doing so, the intervention was relevant to any student who belonged to a risk group and was also distressed at that time and to other students who did not identify with a risk group but were experiencing elevated distress.
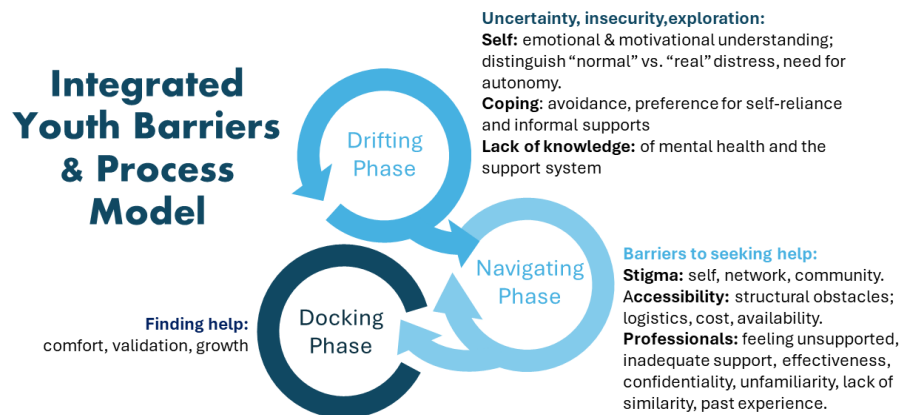
At each time point, participants were prompted to reflect on the general or typical or average pattern of distress for Concordia students, patterns that deviated from the average, and their levels of stress. Next, participants were asked to identify the source(s) of their stress. For each

source of stress selected, students were presented with a brief list of campus resources matched to the type of stress and were given the opportunity to download a flyer that included a complete list of resources with contact information. These materials were developed in collaboration with a group of undergraduate students involved with campus services and/or who had lived experience with mental health challenges. Intervention images are presented in Appendix B.

3. Research Questions

Phase 3. This report presents the results of the initial global evaluation of the intervention. Two central research questions were posed to address two central aims proposed in the grant application:

1) Will a low-intensity intervention that promotes self-reflection and delivers information about campus resources matched to students' sources of stress promote help-seeking for mental health problems? Analyses addressing this question targeted the first Phase 3 aim, which was to determine the effectiveness of the intervention.

2) What services are being used, and what barriers limit help-seeking? Analyses addressing this question targeted the second Phase 3 aim: to identify whose service needs are not being met and why.

Integrated Youth Barriers & Process Model

Drifting Phase

Navigating Phase

Docking Phase

Uncertainty, insecurity, exploration:
Self: emotional & motivational understanding; distinguish "normal" vs. "real" distress, need for autonomy.
Coping: avoidance, preference for self-reliance and informal supports
Lack of knowledge: of mental health and the support system

Barriers to seeking help:
Stigma: self, network, community.
Accessibility: structural obstacles; logistics, cost, availability.
Professionals: feeling unsupported, inadequate support, effectiveness, confidentiality, unfamiliarity, lack of similarity, past experience.

Finding help: comfort, validation, growth

Based on: Westberg, K.H., Nyholm, M., Nygren, J.M., & Svedberg, P. (2022). Mental health problems among young people—A scoping review of help-seeking. *International Journal of Environmental Research and Public Health, 19.* Radez, J., Reardon, T., Creswell, C., Lawrence, P. J., Evdoka-Burton, G., & Waite, P. (2021). Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies. *European child & adolescent psychiatry, 30,* 183-211.

Part B: Methodology

The Office of Institutional Planning and Analysis at Concordia University conducted recruitment for the intervention study. In the second week of the Fall 2022 semester, 4000 invitation emails were sent to a random sample of undergraduate students equally stratified by year of study and faculty, inviting them to participate in a study about student well-being and use of campus services. The recruitment email is presented in Appendix C.

A link to the first survey was included in the invitation email. Half of the recruitment emails included a link to a version of the survey that included the intervention materials. The other half of the recruitment emails included a link to a version of the survey that did not include the intervention materials. A total sample of 593 participants completed the first survey in September. (Intervention Group = 302; Control Group = 291). For the analyses presented in this report, we excluded 31 participants over the age of 29 years. That is, we selected participants within the emerging adulthood period of the life course (ages 18-29), consistent with the integrated youth process and barriers model of help-seeking presented in Part A. Thus, the analytic sample consisted of 562 participants (Intervention Group = 284; Control Group = 278). Demographic characteristics for the sample are presented in Appendix C.

Additional surveys were sent directly to participants at the middle and end of the fall semester. In the winter semester, all participants received the same survey, which included the intervention materials. They received these surveys at the start, middle, and end of the winter semester. A follow-up survey was also sent in May 2023, after the academic year had ended. Survey completion rates across the study period are presented in Appendix D.

A consent form was presented at the start of each survey. Participants who completed the surveys received compensation in the form of a 20$ Amazon.ca gift card emailed directly to them

after each survey and draws for 50$ Amazon.ca gift cards were also held after each survey. The September consent form is presented in Appendix E.

In the middle and end-of-semester surveys, participants were asked to indicate which campus resources they used over the past 6 weeks. They were also asked to indicate whether they were feeling stressed and had sought help for their distress. Levels of distress were also assessed with measures of depressive symptoms (Center for Epidemiologic Studies Depression Scale (CES-D); Radloff, 1977) and anxiety symptoms (Generalized Anxiety Disorder Scale (GAD-7) Spitzer et al., 2006). Items in the depressive and anxiety symptoms measures are presented in Appendix F.

Updates to the Methodology

In our proposal, we originally framed our intervention design around global help-seeking models. However, two review articles synthesizing the youth-specific literature and describing youth-specific models were published after our proposal was submitted (Radez et al., 2021; Westberg et al., 2022). As described in the previous section, unlike general models, youth models account for developmental stages. Moreover, they characterize help-seeking at this transitional stage as a process. As such, they were especially relevant to the development of the intervention. A full description of how this elaborated theoretical approach informed Phases 2 and 3 appears in Appendix H: Methodological Decision-Making.

Data Analysis

For the initial global evaluation of the intervention (Phase 3), descriptive data analyses and those assessing group differences between the Intervention and Control groups were conducted. The updated theoretical approach also informed our data analytic approach. A full description of the decisions taken for each set of analyses also appears in Appendix H: Methodological Decision-Making.

Part C: Main Results

1. Main Results

Research Question 1:
Will a low-intensity intervention that promotes self-reflection and delivers information about campus resources matched to students' sources of stress promote help-seeking for mental health?

Aligned with the integrated youth barriers and process help-seeking model depicted in Part A of this report, participants were classified into 4 hierarchical help-seeking groups based on a combination of their distress levels (depressive and anxiety symptom levels), self-reported subjective levels of stress, and help-seeking.

(1) *Low need*: low distress scores, not subjectively stressed, not seeking help.

(2) *Drifters:* elevated distress scores, not subjectively stressed, not seeking help.

(3) *Navigators:* subjectively stressed, not seeking help.

(4) *Dockers:* subjectively stressed, seeking help.

We examined whether receiving the intervention would shift participants among the help-seeking groups. That is, we assessed whether the intervention facilitated the help-seeking *process* depicted in the integrated model.

Comparing the control and intervention groups to each other in the fall, results approaching statistical significance suggested that proportionately more students than expected in the intervention group (40.6%, *n* = 84) moved help-seeking categorisations from the middle (T2) to the end of the semester (T3), compared with the control group (32.4%, *n* = 57), $\chi^2(1) = 2.75$, *p* = .098. Looking across the year, however, there were no significant overall differences in the proportion of participants within each help-seeking group within the intervention group. Although the intervention appears to have impacted the help-seeking process within the intervention group to

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some extent in the fall by prompting changes in group status, there was no overall group-level "net gain" or "forward progress" in the help-seeking process.

Forward progress was found for the control group, however. Control group participants were considered a waitlist control group in the fall semester (T1-3) and only received the intervention in the winter semester (T4-T6). We found that the proportion of participants in the *Drifters* help-seeking group significantly dropped from 21.4% (*n* = 31) at the middle of the fall semester (T2, not receiving the intervention) to 11.7% *(n* = 17) at the end of the winter semester (T6, after receiving the intervention). Anecdotally, across all time points, about 5% more students in the intervention group reported being *Dockers*, i.e., being stressed and seeking help, compared to the control group.

Taken together, these results address Phase 3, aim 1, which was to determine the effectiveness of the intervention. The results suggest that the current intervention may serve as a catalyst for change in prompting some students, particularly those at the lower levels of the hierarchical help-seeking model, to engage with the unfolding help-seeking process. Group comparisons are presented in the following Table 1.

Table 1

Frequency of Participants Across Help-Seeking Groups Within the Intervention and Control Conditions and Pairwise Comparisons Across Time Points

Time point	Drifters		Navigators		Dockers	
	Intervention % (*n*)	Control % (*n*)	Intervention % (*n*)	Control % (*n*)	Intervention % (*n*)	Control % (*n*)
Fall mid-semester (T2)	24.8% (40)	21.4% (31)	24.2% (39)	29.0% (42)	25.5% (41)	20.7% (30) [a]
Fall end semester (T3)	22.4% (36)	17.9% (26)	28.0% (45)	29.7% (43)	28.0% (45)	24.1% (35) [a,b]
Winter mid-semester (T5)	19.3% (31)	15.2% (22)	25.5% (41)	24.8% (36)	31.7% (51)	27.6% (40) [a,b]
Winter end semester (T6)	18.6% (30)	11.7% (17)	27.3% (44)	31.7% (46)	28.0% (45)	26.2% (38) [b]

Note. Significant differences across time points within each help-seeking group and condition (intervention and control), as found using pairwise comparisons in Cochran's *Q* test, are indicated by superscript letters. Time points with different superscript letters have a significantly different frequency of participants.

Research Question 2:
What services are being used and what barriers limit help-seeking?

Analyses addressing this question targeted the second Phase 3 aim, which was to identify whose service needs are not being met. Two sets of descriptive analyses address this question. The first centers on rates of campus service use. At the mid-point of the fall semester (T2), participants were asked to report on their campus service use since the start of the semester. Of the 499 students who participated at T2, 47.7% (n = 238 students) reported using one or more campus services. Of these, 23.2% (n = 116) reported using one service, 11.8% (n = 59) used 2 services, and 12.6% (n = 63) used 3 to 5 services. Only 4.6% of students reported using Counselling and Psychological Services (Individual Services, Groups, Workshops). The most commonly used on-campus programs and offices were as follows: Concordia Student Union (CSU) resources (11.6%, n = 58); Financial Aid and Awards Office (11%, n = 55); Access Centre for Students with Disabilities (10.8%, n = 54); Student Food Programs (10.4%, n = 52); and the Student Success Centre, Learning Services, Career and Advising Services (9.6%, n = 48). These results suggest that more students seek assistance for needs other than mental health needs, e.g., financial or academic. Table 2 below presents frequencies for service use at the midpoint of the semester across programs.

Table 2

Percentage of Resources Accessed in the Fall mid-semester (Time 2)

Resources	%	*n*
Access Centre for Students with Disabilities	**10.8**	54
Advising and Supervision	6	30
Applied Psychology Centre	.6	3
Black Perspectives Office	.4	2
Campus Security	4.8	24
Centre for Gender Advocacy	.6	3
Concordia Students Nightline	.2	1
Concordia Student Parents Centre (CUSP)	.6	3
Connect Concordia	1.2	6
Counselling and Psychological Services (Individual Services, Groups, Workshops)	4.6	23
CSU Resources, Dental & Health Plan, Mental Health & Wellness, Recovery & Wellness Community Center, Housing and Job Board (HOJO)	**11.6**	58
Equity, Diversity, and Inclusion Office	0	0
Exams Office	3.4	17
Financial Aid & Awards Office	11	55
Health Promotion Services (e.g., nutrition, sleep, mental health, physical activity, stress management, sexual health, smoking cessation, critical thinking, alcohol use)	2.6	13
International Students' Office	4.6	23
Multi-Faith and Spirituality Centre	.2	1
Ombuds & Office of Rights and Responsibilities	.2	1
Otsenhákta Indigenous Student Centre	.2	1
Peer Wellness Ambassadors	0	0
Queer Concordia	1	5
Sexual Assault Resource Centre	.4	2
Student Advocacy Office	.4	2
Student Food Programs, Student Emergency and Food Fund Programs, Concordia Food Groups, Hive Free Lunch, Le Frigo Vert, The People's Potato	**10.4**	52
Student Success Centre, Learning Services, Career and Advising Services	**9.6**	48
Zen Dens Wellness Programming	4.8	24
Another	1	5

The second descriptive analysis aimed to identify the reasons why students who are distressed fail to seek help. To answer this question, content analysis was performed on students' open-ended responses to the question: *If you were distressed and did not seek help, why didn't you seek help?* In the middle of the fall semester (T2), 120 participants (61 control, 59 intervention) responded to the question. At the end of the semester (T3), 98 participants (51 control, 47 intervention) responded. A codebook was developed based on the integrated youth barriers and process model presented in Part A. Eighteen codes were identified (see Table 3). The four most common barriers reported were split between the *Drifter* and *Navigator* phases of help-seeking, supporting the process aspect of the model.

Drifters most frequently cited mental health literacy (24.7%) and preference for self-reliance/need for autonomy (18.8%) as reasons for not seeking help. That is, they cited reasons internal to the self. The mental health literacy code encompassed several facets related to knowledge, or lack thereof, about mental health and mental health services (i.e., not knowing where to find help and/or whom to talk to). This included the inability to verbalize the need for help, to talk about mental health difficulties, and difficulty understanding or identifying mental health symptoms. Preference for self-reliance/need for autonomy was defined as choosing not to seek help due to a desire to cope on their own or having expectations that the problem would improve on its own.

Navigators most frequently cited logistical factors (27.5%) and structural barriers (18.1%), or reasons external to the self. Logistical factors encompassed a lack of time to seek or receive help and the potential for it to interfere with other activities (e.g., schoolwork). Structural barriers included the cost of professional help, availability of professional help (i.e., limited availability and long waiting times), and accessibility reasons (e.g., transport). Overall, frequencies were similar across time points and between the control and intervention groups.

Table 3

Code Frequencies Assessing Barriers to Help-Seeking Across Time Points and Conditions

Code	Middle of Fall (T2)			End of Semester (T3)		
	Control	Intervention	Total	Control	Intervention	Total
Mental health literacy	13	14	27	13	14	27
Severity is low	6	3	9	2	6	8
Self-reliance & autonomy	7	12	19	11	11	22
Concerns about professional help	4	2	6	5	5	10
Characteristics of MH professional	0	0	0	0	0	0
Preference for informal support	1	3	4	0	0	0
Stigma	5	5	10	2	1	3
Emotional / motivational factors	1	3	4	1	4	5
Past experiences	3	4	7	0	1	1
Anticipated Consequences of seeking help	1	2	3	2	2	4
Structural barriers	9	9	18	5	7	12
Logistical factors	15	17	32	14	14	28
Fear of burdening others	3	2	5	2	0	2
Inadequate support services	1	1	2	0	0	0
Miscommunication	3	1	4	0	0	0
Family beliefs	1	0	1	0	0	0
I don't know	1	1	2	1	0	1
Blank	8	10	18	6	16	22
Other	9	2	11	0	2	2
Uncodeable	0	0	0	1	0	1

Taken together, low rates of help-seeking for mental health problems on campus at the point at which distress peaks, on average, and the reasons given for not seeking help suggest that the needs of many students are not being met.

2. Impacts and Implications

In sum, the first objective of the proposed project was achieved in Phase 1 by identifying when in the academic year the help-seeking intervention was needed, who was at risk for elevated distress and, importantly, when they were at risk. The second objective was achieved in Phase 2 by the subsequent development of an evidence-based intervention with interactive self-reflective components in collaboration with a team of students with involvement in support services and/or lived experience with mental health challenges. The third objective of the proposed project was achieved in Phase 3 via a global evaluation of the effectiveness of the intervention and identification of whose needs are not being met and why.

The result of this theoretically and empirically informed work has practical implications for the development of tools to facilitate knowledge and use of campus resources, especially for students who are distressed. To promote the greatest uptake in services on post-secondary campuses, communication tools should target multiple youth-specific barriers to help-seeking in an integrated fashion. In doing so, the needs of all students who are distressed and at different points in the help-seeking process can be better met, including those whose identity or life experiences place them at risk for elevated distress. Although program offerings are comprehensive, their delivery is often not integrated. If students do not know about campus supports, do not know how to access them, or are reluctant to access them, they will not serve their intended purpose.

Thinking more broadly about campus service use, results of other recent research in our laboratory show that students derive many psychological and social benefits from participating in a

range of campus activities (Villemaire-Krajden & Barker, accepted). Although extracurricular activity participation differs from using campus services, there is overlap. One of the benefits of participation in extracurricular activities is social connection. In another study, we found that feeling a greater connection to campus helped students manage academic stress, which in turn, promoted well-being (Fang et al., submitted). In another study, we found that a greater connection to campus facilitated the help-seeking process by strengthening intentions to seek help among students who had previously experienced sexual violence or harassment (Lane & Barker, in preparation). Thus, interventions that effectively inform students of the whole range of pertinent campus programming may have generalized benefits for building social connections, which could facilitate help-seeking when students are distressed. The fact that the greatest proportion of participants in the current study reported using programs run by their peers through the student union also supports this assertion.

3. Contributions to Knowledge

The main advancement of knowledge derived from the current work is the demonstration that interventions can be developed to move students further along in the help-seeking process. These interventions should be guided by the youth barriers and process model of help-seeking. Youth-specific help-seeking models acknowledge the importance of developmental stages for understanding help-seeking (Radez et al., 2021; Westberg et al., 2022). The post-secondary experience coincides with the transition to adulthood for traditionally aged students. This stage of development is hallmarked by exploration and development of the self and desire for increased autonomy and self-reliance (Arnett et al., 2014; Crumb et al., 2021; Ishikawa et al., 2022; Nauphal et al., 2023). These factors may limit help-seeking for some students but provide opportunities for positive exploration and resilience building for others. To adequately support students in seeking help, interventions should target self-reflection and understanding, improve mental health literacy,

build on the need for autonomy, and address structural and logistical barriers by pointing students in the right direction for where to seek help and fostering social integration. Information about services and programs should be accessible, comprehensive, and customizable to promote the best outcomes for the most students.

Part D: Possible Actions

1. **Key Messages**

We need to shift our thinking about the role of higher education in society. Specifically, when we think about funding post-secondary institutions, we need to think about funding not only academic programs, certificates, and career tracks but whole persons. Students are simultaneously navigating a full range of life experiences and challenges (Turkoglu et al., submitted). Given that Canada holds the enviable status of being one of the most highly educated countries in the world (OECD, 2020), post-secondary institutions are ideally positioned to promote mental health help-seeking and resilience building more generally at the population level. The fact that any student's mental health need would go unmet is a missed opportunity because post-secondary campuses already offer a full range of services. Moreover, there may not be another time in the lives of individuals when they have comprehensive access to a full range of programs and services in a single institution. Integrating prevention and intervention approaches by funding accessible, targeted, and effective communication that promotes program uptake will benefit students in the short term while they are on campus and in the longer term in the occupational and social roles they will eventually fill.

2. Limitations

There are several limitations related to our sample and design that should be considered when applying the results. First, the 2020/2021 data that informed the development of the intervention was conducted at the height of the global COVID-19 pandemic. The Concordia University campus was essentially closed, and all courses and services were delivered online. Although the overall pattern of distress across the academic year corresponds with our previous findings, it is difficult to know for certain how the patterns were impacted by the remote learning academic context and wider public health restrictions in place at the time.

Next, although we based the timing of the intervention on analyses of the previously collected data showing that distress levels rise across the first 6 weeks of the semester and then remain high until the winter break, it is possible that the measurement period may not have been frequent enough to capture the full help-seeking process. Intensive repeated measures designs, like daily diary methods, may be more sensitive to the process.

Additionally, although the intervention prompted participants to reflect on their levels of stress, we did not directly assess whether the intervention promotes growth or change in self-understanding. For example, mindfulness, a practice of being aware of internal experiences and the external environment, may help with recognizing when symptoms are escalating (Michalak et al., 2012). Fischer (2022) found that students who reported more symptoms of depression and increased levels of mindfulness reported greater intentions to seek professional help.

As well, the analytic sample for the intervention study only included students in the emerging adulthood age range (18-29 years). This was appropriate given our use of youth models of help-seeking to inform the intervention development and the fact that most post-secondary students fall within this age range (95% of the recruited sample). That said, we cannot make claims about what types of help-seeking interventions may serve older students with different needs, which is a growing demographic on post-secondary campuses as more people return to higher education (Statistics Canada, 2023).

Similarly, future studies should oversample proportionately small groups on campus to better understand their specific experiences. Although our study relied on a large representative sample of university students with strong retention across waves, group sizes for minority groups were too small in some cases to allow some multi-group comparisons, for example, for service use because service use itself was low.

Part E: New Research Avenues

In addition to addressing the methodological limitations outlined in Part D of this report, future research aimed at designing and evaluating interventions to promote help-seeking on post-secondary campuses should involve students in the intervention design process, including those with lived experience, as was the case with this intervention. Although not yet fully analyzed, a preliminary review of the satisfaction, acceptability, and engagement questions included in our May follow-up survey suggests that the intervention materials were received positively. However, it also suggests that few participants engaged in the final step of the intervention, downloading and saving the flyer with the full list of resources for future reference. After receiving an abbreviated list of resources customized to their self-identified stressors, relatively few students took the final step to click on the link and download the comprehensive list of resources that included website links and contact information. This may have been one of the factors limiting the intervention's effectiveness, i.e., effect sizes. A next step could be to hold focus groups with a broad cross-section of students to better understand why most did not download the flyers and participatory-action research to co-design new versions of the intervention to improve the uptake of future interventions and ultimately help more students access the services they need.

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Appendix A: Acknowledgements

Project History

The Programme Actions Concertées intervention research project described in the current report grew out of an existing project. The foundational project was initiated by Gaya Arasaratnam in her role as Director of Concordia University's Campus Wellness and Support Services (Ms. Arasaratnam now holds a similar position at the University of British Columbia - Okanagan). Ms. Arasaratnam initiated what we refer to as the *Emotions Calendar Project* to inform programming decisions in her office. She convened the administrator, practitioner, and researcher team to design a data collection protocol that would span the academic year and identify points in the semester when interventions would be most useful. In addition to principal investigator Erin Barker (Concordia University), team members include practicing psychologist, Debora Rabinovich (Concordia University and private practice), university researchers Roisin O'Connor (Concordia University), Alexandra Panaccio (Concordia University), and Marina Doucerain (Université du Québec à Montréal), and public health official Cat Tuong Nguyen, Ministère de la Santé et des Services sociaux du Québec.

Data were collected from approximately 1000 students across the 2020/2021 and 2021/2022 academic years. Both cohorts were surveyed 16 times across their respective academic years. Both data collections were funded by Ms. Arasaratnam's office at Concordia University. Analysis of the 2020/2021 data was funded by the current grant in Phase 1 and informed the design of the intervention study in Phase 2.

Administrative contributions to the *Emotions Calendar Project* were made by Doris Edmond (Campus Wellness and Support Services), Wendy Ing (Concordia's Office of Institutional Planning and Analysis), and research assistants Victoria Lane and Amanda Marlandis.

The intervention study described in the current report would not have been possible without Gaya's leadership in initiating the *Emotions Calendar Project* and the coordinated contributions of the research and administrative teams.

Current Report

Additional acknowledgements are needed for the intervention study's development and preparation of the current report. As a post-doctoral fellow funded by the current grant, Dr. Shichen Fang completed the Phase 1 analysis of the *Emotions Calendar Project* 2020/2021 data that informed the design of the intervention study in Phase 2. Dr. Fang now holds a tenure-track faculty position in the Department of Psychology at the University of Lethbridge, Alberta.

Dr. Jessica Mettler led the intervention analyses presented in the current report and contributed to its writing (Phase3). Dr. Mettler was awarded post-doctoral funding from the FRQ-SC to contribute to all aspects of the *Emotions Calendar Project*. She has brought valuable expertise in educational intervention research to the project.

Chelsea Cuffaro contributed to the literature review and content analysis presented in the current report. She also conducted preliminary analyses on the fall intervention data as part of her Honours thesis in the Department of Psychology at Concordia University. Starting in September, she will enter the master's program in Counselling Psychology in the Faculty of Education at McGill University.

The project outcomes described in the current report would not have been realized without the contributions of these trainees. In turn, the Programme Actions Concertées intervention research project has made major contributions to the career development of these three trainees, each at different stages of their careers.

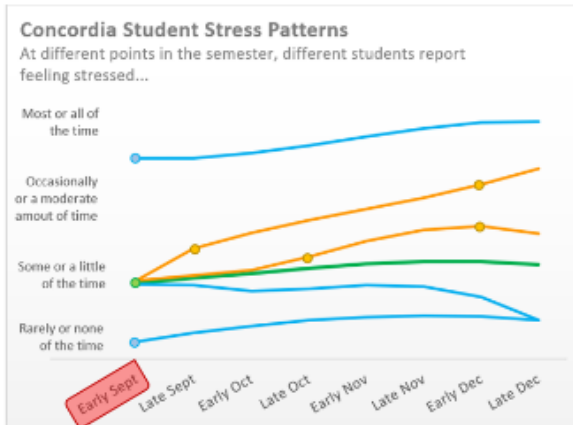**Concordia University's Territorial Acknowledgement**

It is also important to acknowledge where this work is conducted. We would like to acknowledge that Concordia University is located on unceded Indigenous lands. The Kanien'kehá:ka Nation is recognized as the custodians of the lands and waters on which we gather today. Tiohtià:ke/Montréal is historically known as a gathering place for many First Nations. Today, it is home to a diverse population of Indigenous and other peoples. We respect the continued connections with the past, present and future in our ongoing relationships with Indigenous and other peoples within the Montreal community.

Nous aimerions reconnaître que l'Université Concordia est située en territoire autochtone, lequel n'a jamais été cédé. Je reconnais/Nous reconnaissons la nation Kanien'kehá: ka comme gardienne des terres et des eaux sur lesquelles nous nous réunissons aujourd'hui. Tiohtià:ke / Montréal est historiquement connu comme un lieu de rassemblement pour de nombreuses Premières Nations, et aujourd'hui, une population autochtone diversifiée, ainsi que d'autres peuples, y résident. C'est dans le respect des liens avec le passé, le présent et l'avenir que nous reconnaissons les relations continues entre les Peuples Autochtones et autres personnes de la communauté montréalaise.

https://www.concordia.ca/indigenous/resources/territorial-acknowledgement.html

Appendix B: Intervention Images

Reflection Prompt: Start of Semester

Concordia Student Stress Patterns
At different points in the semester, different students report feeling stressed…

At the start of the semester – where we are now – many students feel stressed a little or some of the time. This is where the green line starts.

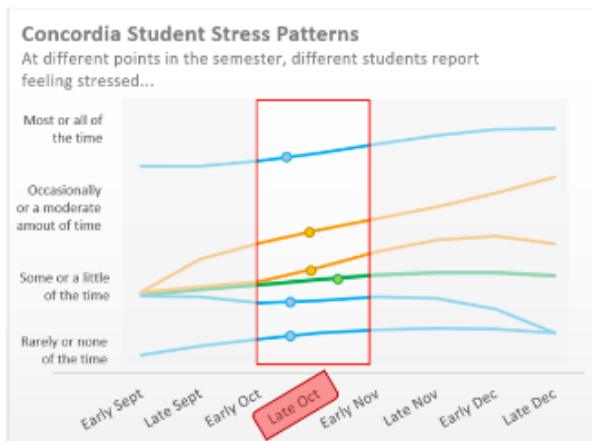Other students start with higher or lower levels of stress depending on their unique situation, including the courses they're taking, which year they are in, their personal background, and recent experiences that are unique to them. The blue lines show these higher and lower patterns.

Looking ahead, some students experience steady increases in stress across the semester. Others experience jumps in stress around mid-terms and finals. The orange lines show these patterns.

Take a moment to reflect on how you're feeling at this point in the semester.

1

Reflection Prompt: Middle of Semester

Concordia Student Stress Patterns
At different points in the semester, different students report feeling stressed…

In the middle of the semester – where we are now – some students begin to experience increases or jumps in stress and begin feeling stressed occasionally or moderately. The orange lines show these patterns.

Other students continue to feel stressed only a little or some of the time. The green line shows this pattern.

Other students who started with higher or lower levels of stress may maintain those levels of stress or start to increase as well. The blue lines show these higher and lower patterns.

Take a moment to reflect on how you're feeling at this point in the semester.

2

Reflection Questions

Compared to other Concordia students, how would you rate your current level of stress on a scale of 0 to 10? Use the slider bar to indicate how you feel.

0 = **A lot lower** levels of stress (far below the green line)
5 = **Average** levels of stress (at the green line)
10 = **A lot higher** levels of stress (far above the green line)

0 —————————————— 5 —————————————— 10

Compared to how you usually feel, how would you rate your current level of stress? Use the slider bar to indicate how you feel.

0 = **A lot less** stressed than usual
5 = **My usual** amount of stress
10 = **A lot more** stressed than usual

0 —————————————— 5 —————————————— 10

Self-identification of Sources of Stress

Resources

If you are feeling stressed in any way, think about what is causing you to feel stressed. Below we list common domains of stress for university students. Please indicate which domains of stress are affecting you. You can choose more than one domain. For each domain that you choose, you will be presented with programs and services on campus that you can access to help you manage your stress. You'll be able to save the lists of resources for future reference.

- [ ] I'm not feeling stressed
- [ ] Academics
- [ ] Finances
- [ ] Social and relationships
- [ ] Physical health
- [ ] Stress management
- [ ] Mental health
- [ ] Discrimination, harassment, and/or assault
- [ ] Self, identity, and/or community
- [ ] Local, national, and/or world events
- [ ] Concerns about the future (i.e. careers, family, the environment)
- [ ] Other sources of stress [   ]

Example of Matched Resources: Brief List and Downloadable Flyer

Below are lists of resources for each domain of stress previously selected.
Click on the active links to download a flier with more details on each resource centre!

Resources - Academics

- Student Success Centre
- Access Centre for Students with Disabilities
- Student Advocacy Office
- Career and Planning Services (CAPS)
- Ombuds and Office of Rights and Responsibilities

- Resources - Academic

Appendix C: Recruitment Email

Dear Student,

Welcome to the 2022-2023 academic year at Concordia University!

You have been randomly selected to participate in an online research study focused on the well-being of Concordia students. This study is being conducted by Concordia Campus Wellness and Support Services in collaboration with the Centre for Research in Human Development (CRDH) at Concordia.

Your participation will help identify key points in the academic year when students experience greater levels of stress. Your feedback will inform Concordia and other universities about the campus programs and services student use to manage stress and support their well-being and success.

If you choose to participate you will complete:
- 1 background questionnaire now, so that we know a little more about you;
- 6 shorter "check-in" surveys in October, November, January, February, April, and May to see how you managed from the start to the end of each semester.

It is often easiest to complete a survey as soon as you receive the invitation. You may receive up to three reminder emails, as well as text messages and phone calls.

You will receive a total of $90 in Amazon gift cards for completing all of the surveys).
Payments will be made in four instalments:
- $20 at the end of September
- $20 at the end of December
- $20 at the end of January
- $30 in May, after the final survey

We will also hold draws for 5 $50 Amazon gift cards at each of these time points.

If you DO NOT want to participate, please reply to this email with the subject line "Do Not Wish to Participate" and you will not be sent any other reminders.

If you DO want to participate, please click on the following link to volunteer. More details about the surveys and how we protect your confidentiality are provided in the online consent form at the start of the survey:
<insert link>

This study has been approved by the Concordia University Research Ethics Review Board.

Should you have questions about the surveys or how the data will be used, please contact the research team by email at Wellbeing.project@concordia.ca.

Thank you for your participation.

Dr. Erin Barker
Associate Professor, Department of Psychology
Centre for Research in Human Development
Concordia University
514-848-2424 ext. 2209

Appendix D: Sample Demographic Information

		Control		Intervention	
		n	%	*n*	%
Gender Identity	Cisgender Man	96	34.5	103	36.3
	Cisgender Woman	159	57.2	147	51.8
	Other/multiple identities	19	7	28	10
	Prefer not to answer	4	1.4	6	2.1
Sexual Orientation	Heterosexual	174	62.6	180	63.4
	Other/multiple identities	96	35	93	33
	Prefer not to answer	8	2.9	11	3.9
Visible Minority Status Identification	No, I do not identify as belonging to a visible minority group.	174	62.6	168	59.2
	Yes, I identify as belonging to a visible minority group.	75	27.0	92	32.4
	I identify as belonging to more than one visible minority group.	8	2.9	7	2.5
	I identify both as belonging to one or more visible minority group and as Caucasian or white.	20	7.2	15	5.3
Student Status	1st year undergraduate	89	32.0	100	35.2
	2nd year undergraduate	59	21.2	68	23.9
	3rd year undergraduate	77	27.7	63	22.2
	4th year undergraduate	45	16.2	44	15.5
	5th year or more undergraduate	8	2.9	9	3.2
Faculty	Arts and Science	77	27.7	63	22.2
	Engineering and Computer Science	76	27.3	90	31.7
	Fine Arts	62	22.3	52	18.3
	John Molson School of Business	63	22.7	79	27.8
International Student	No	219	78.8	233	82
	Yes	59	21.2	51	18

		Control		Intervention	
		n	%	*n*	%
Mother's Education	Less than high school	5	1.8	10	3.5
	Completed high school	40	14.4	43	15.1
	Completed CEGEP or other college diploma	52	18.7	63	22.2
	Completed a university bachelor's degree	114	41.0	108	38.0
	Completed a university master's degree	49	17.6	39	13.7
	Completed a doctorate or professional degree (PhD, MD, LLB)	16	5.8	18	6.3
	Does not apply to me	2	0.7	3	1.1
Father's Education	Less than high school	11	4.0	20	7.0
	Completed high school	46	16.5	47	16.5
	Completed CEGEP or other college diploma	46	16.5	34	12.0
	Completed a university bachelor's degree	94	33.8	93	32.7
	Completed a university master's degree	55	19.8	61	21.5
	Completed a doctorate or professional degree (PhD, MD, LLB)	19	6.8	24	8.5
	Does not apply to me	7	2.5	5	1.8

Appendix E: Participation Rates

	Fall Semester			Winter Semester			
	Start September	Middle Mid-October	End Late November	Start January	Middle Late February	End Beginning of April	End of May
	T1	T2	T3	T4	T5	T6	T7
Intervention Group	284	245	220	216	197	199	192
Control Group	278	226	202	202	183	189	189

INFORMATION AND CONSENT FORM

Study Title:
Concordia Student Well-Being Project

Researcher:
Dr. Erin Barker
Associate Professor, Psychology

Researcher's Contact Information:
Dr. Erin Barker
Mailing address: 7141 Sherbrooke West, PY-146, H4B 1R6
Phone number: 514-848-2424 ext. 2209
E-mail address: erin.barker@concordia.ca

Source of funding for the study:
Fonds de recherche du Québec - Société et Culture

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A.   PURPOSE
The purpose of the research is to map Concordia students' well-being and use of campus resources across one academic year. University students are likely to experience stress across the academic year that may lower their well-being. The study findings will allow us to improve the delivery of campus student support programs.

B.   PROCEDURES
If you participate, you will be asked to complete a series of surveys that include multiple questionnaires during the course of one academic year starting in Fall 2022. These include one longer survey in September and 6 shorter surveys across the full academic year. Reminders to complete the surveys will be sent via email, text message, and by phone. Up to 3 reminders may be sent for each survey (one email, one text, one phone call) to encourage you to complete the surveys.

The expected schedule for the upcoming surveys is:
1. First survey: September 2022
2. Check in surveys:
    1.   Mid-October
    2.   End of November
    3.   Early January
    4.   Mid-February
    5.   Early April
3. Wrap up survey: Early May

The following factors will be assessed in the surveys:

- **Background information** (contact information and demographic information like gender and ethnic identities, languages spoken, family income, etc.)
- **COVID-19 experiences** (e.g., having to move, job losses, worry, coping)
- **Life history and stressors** (e.g., checklists of stressful life events and circumstances including financial stress, abuse, and loss)
- **Personality** (e.g., rating scales of optimism, extraversion, perfectionism, etc.)
- **Health and health behaviours** (e.g., rating scales of alcohol use, cold symptoms, etc.)
- **Academics** (e.g., rating scales of academic demands, performance, stress, engagement, etc.)
- **Social integration** (e.g., rating scales of feelings of integration, loneliness, and size and quality of social network, etc.)
- **Well-being and mental health** (e.g., rating scales of depressed mood, anxiety, satisfaction with life, etc.)
- **Use of campus programming** (e.g., academic supports, student club participation).

Participating in this study will take approximately **45 minutes for the first survey and 15 minutes for each of the six short surveys.** Over the course of the entire year, **it will take between 2 and 3 hours to complete all surveys.** You will be compensated up to $90 for your participation.

C. RISKS AND BENEFITS

You might face certain risks by participating in this research. The risks associated with participation in this study are minimal. You might experience some mild discomfort for a brief period of time associated with the completion of questions that are sensitive or personal in nature.

Potential benefits include positive emotions arising from reflecting upon your experiences as a university student and learning about campus resources and programming.

D. CONFIDENTIALITY

We will gather the following information as part of this research: Your demographic information and responses to surveys.

We will not allow anyone to access the information, except people directly involved in conducting the research, and except as described in this form. We will only use the information for the purposes of the research described in this form.

The information gathered will be coded. That means that the information you provide will be identified by a code. The researcher will have a list that links the code to your name.

We will protect the information by storing it on a secure server while the study is being conducted. Survey program security features meet those required by federal funding agencies. Data will then be downloaded onto a password-protected university-maintained server. Your data will be assembled in a password-protected master database containing only your coded identification number and no personal identifying information (e.g., no name, student ID, no contact information, etc.). The file linking the coded identification number to your identifying information will be kept in a different password-protected file.

We intend to publish the results of the research. However, it will not be possible to identify you in the published results.

We will destroy the information 5 years after the last publication has been published.

If you have questions about confidentiality, please contact the project research staff at:
Wellbeing.project@concordia.ca

F.   CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time. You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information, you must tell the researcher within 30 days after the last survey is completed or before June 30th 2023. We will then destroy/delete your data from our data files. If you do not notify us within 30 days we will use your data in all future data analyses as planned and will maintain confidentiality as described in section D.

We will tell you if we learn of anything that could affect your decision to stay in the research.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

Compensation: In total, you will receive $90 in the form of Amazon gift cards sent directly to your email address if all 7 surveys are completed by their respective deadlines during the academic year.
Payments will be made in four instalments:

- $20 at the end of September (For the first background survey)
- $20 at the end of December (For the October and November check-in surveys)
- $20 at the end of February (For the January and February check-in surveys)
- $30 in May, after the final survey (For the April check-in and May wrap-up surveys)

We will also hold draws for 5 $50 Amazon gift cards at each of these time points.
If you withdraw before the end of the research, you will receive compensation for any surveys you have previously completed. To make sure that research money is being spent properly, auditors from Concordia or outside will have access to a coded list of participants and the amounts of compensation each received. It will not be possible to identify you from this list.

We will not be able to offer you compensation if you are injured in this research. However, you are not giving up any legal right to compensation by signing this form.

If you have questions about how to withdraw from the study or your compensation, please contact the project research staff at:

Wellbeing.project@concordia.ca

If you have questions about the **scientific or scholarly** aspects of this research, please contact the researcher. Their contact information is on page 1.

If you have questions about your participation in the study (e.g., confidentiality, how to withdraw from the study or your compensation), please contact the project research staff at:

Wellbeing.project@concordia.ca

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

G. PARTICIPANT'S DECLARATION

I have read and understood this form. I have had the chance to ask questions and any questions have been answered. I agree to participate in this research under the conditions described.

Name	

Today's Date	

I have read and understood the information above. I was provided contact information in the case that I have questions. I agree to participate in this research under the conditions described in the consent form.

- o   Agree
- o   Do not agree

Center for Epidemiologic Studies Depression Scale (CES-D-20)

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.

Response Options:

   0 = Rarely or none if the time (less than 1 day)

   1 = Some or a little of the time (1-2 days)

   2 = Occasionally or a moderate amount of the time (3-4 days)

   3 = Most or all of the time (5-7 days)

Please indicate on how many days DURING THE PAST 2 WEEKS you felt or behaved the following ways:

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not "get going."

Note: items 4, 8, 12, and 16 are reverse-coded.

Generalized Anxiety Disorder Symptoms (GAD-7)

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A Brief Measure for Assessing Generalized Anxiety Disorder. *Archives of Internal Medicine*, 166 (10), 1092.doi:10.1001/archinte.166.10.1092

Over the LAST 2 WEEKS, how often have you been bothered by any of the following problems?

Response options:

- Not at all
- On several days
- More than half of days
- Nearly every day

1. Feeling nervous, anxious or on edge

2. Not being able to stop or control worrying

3. Worrying too much about different things

4. Trouble relaxing

5. Being so restless it is hard to sit still

6. Becoming easily annoyed or irritable

7. Feeling afraid as if something awful might happen

Appendix H: Methodological Decision-Making

This appendix provides a detailed account of the scientific reasoning applied to methodological decisions made throughout the project. The writing of this appendix is informed by Open Science principles aimed at increasing transparency about these decisions. In a pre-registration document, researchers outline procedures for and decisions to be taken in the future throughout the execution of a research study. After the study is executed, they describe the ways in which the procedures aligned with or differed from the initial plan, the decisions taken, and the rationale for those decisions. Similarly, in this case, a full description of decisions taken by the expert research team is provided to enhance transparency about the project and confidence in the reported results. Decisions were aimed at optimizing the development phase (Phase 2) and evaluation phase (Phase 3) of the intervention to meet the central aims of the proposed research.

The research project was proposed to unfold in three phases. Phase 1 involved the analysis of data previously collected at Concordia University. In the funding application, it was explicitly proposed that the results from the Phase 1 data analysis would be used to inform the development of the intervention in Phase 2. The Phase 1 data had not previously been analyzed, and funds were requested for postdoctoral salary to conduct the Phase 1 analysis. That is, in addition to being informed by theory and the existing relevant empirical literature, we would capitalize on the availability of this recently collected data to develop a help-seeking intervention based on empirical evidence regarding patterns of change in distress derived from the exact population that the intervention would be developed for and tested on. This was an innovative feature of the proposal.

The results of Phase 1 would be used to inform two decisions about the intervention in Phase 2. First was the timing of the intervention. The research question to be answered was: *When in the semester would it be best to inform students about programs and services that could help*

them manage their distress? This question centered on determining the average pattern of change

or typical trajectory of distress across the academic year in a representative sample of

undergraduate students attending Concordia University. [We also proposed examining trajectories

of help-seeking across the year but deferred that analysis to Phase 3 due to the COVID-19

pandemic and the fact that almost all services were delivered online.]

The second decision centered on how to customize the intervention. The research question

was: *How or for whom should the intervention be customized based on identities, demographic*

characteristics, and/or life experiences that confer risk for elevated distress? That is, this question

centered on group differences in patterns of change.

The Phase 1 results regarding question one – intervention timing—showed that distress

increased at the fastest rate across the first 6 weeks of the fall semester, plateaued across the last

6 weeks of the semester, dropped across the winter break, and then the pattern repeated across

the winter semester.

Based on these results, the Phase 2 intervention was delivered at: Time 1 in September, at

the start of the fall semester, ahead of the increase; Time 2 in mid-October, halfway through the fall

semester, at the peak; and Time 3 in late November/early December ahead of the final exam period,

at the end of the plateau. Similarly, in the winter semester, the intervention was delivered in

January, mid-February, and early April.

The results regarding question two – risk group differences in the patterns of distress across

the academic year – showed that the pattern was similar across groups. There were no consistent,

systematic differences in the rates of change across the semester. Where there were reliable

differences was at the start of the academic year, in September. Students who identified with a risk

group reported higher levels of distress at the start of the academic year. These risk groups were:

having a previous mental health problem diagnosis, experiencing more negative life events in the

past year, experiencing sexual violence or harassment in the past year, being younger, identifying as a woman, gender minority, or visible minority, lower childhood socioeconomic status, and greater current financial strain.

With respect to the statistical approach used to model trajectories and group differences, there are several ways that this can be done. Example approaches were proposed in the grant. It was also proposed that the postdoctoral fellow hired would have expertise in developmental models to assess change over time and would decide which approach would be best given the nature of the data that had been collected previously. In consultation with the PI, and after inspection of the data, the postdoctoral fellow who was hired to conduct the analyses determined that piecewise models were appropriate to answer the questions about timing and group differences, given the structure of the data.

The complete Phase 1 results have been submitted for publication and are currently under review. For a status update, please contact the first author of this report.

With these results in hand, Phase 2 decisions about how to format and deliver the intervention were made. The results that addressed the first question clearly indicated when to deliver the intervention. However, it was less clear how to customize the intervention, given that the pattern was the same across risk groups. In the proposal, we wrote that we expected the patterns to differ systematically and therefore proposed that the intervention involve a customized reflection for different risk groups. We initially proposed that participants would be able to select and view the trajectory for their risk group. But, as noted, the results did not support our hypothesis that the trajectories would differ. Subsequently, decisions about how best to format and deliver the intervention, considering our unsupported hypothesis, needed to be made.

The decision was made to make the reflection component generic. The reflection involved a visualization of the average trajectory and individual trajectories that varied from the average. These

individual trajectories were not linked to any one risk group but rather were described more generically as "some students." That way, any student could locate themself wherever they felt was appropriate, regardless of their particular risk status. Participants were then asked to indicate whether they felt their own level of distress at that point in the semester was like their typical levels of distress and that of the typical Concordia student. That is, rather than predetermining the customization of the intervention around risk group status, we focused the intervention on individual self-understanding. In addition to being informed by the empirical results from Phase 1, this decision was also informed by the youth models of help-seeking presented in the main report that show that self-understanding is an important component in the help-seeking process, especially at this developmental stage. That is, this decision was both theoretically and empirically informed.

After reflecting on their own levels of distress, the second part of the intervention involved participants identifying the sources of their stress and receiving a list of campus resources tailored to that source of stress. This part of the intervention corresponds directly to what was proposed. In the funding application we proposed collaborating with various student service offices on the development of resource flyers that would be presented to the participants. We implemented this aspect of the proposal with a group of student service use ambassadors. The creation of the lists of resources was a collaborative effort involving a team of undergraduate and graduate students, all of whom were involved in various campus support services and/or had lived experience with mental health challenges.

The last Phase 2 decision centered on how to deliver the intervention. In the funding application, we proposed creating an interactive website where participants could select their risk group and view the trajectory for that group. But, as noted, the pattern of change did not differ systematically by group. Therefore, we considered other options.

One factor that we considered in this decision was data tracking and linking. In addition to receiving the intervention, participants in the study completed a survey with measures like those administered in the previous Phase 1 data collection. And it was through the survey that they received the intervention. However, there was no guarantee that if we directed participants to an external website, they would return to the survey. Furthermore, there would be no way to link the survey responses to website use. We could track website traffic in general but not link website use to a given participant. Thus, given that the results of Phase 1 did not support the risk group customization of the self-reflection component of the intervention, it was decided to prioritize data linking and tracking and embed the intervention in the actual survey. The interactive nature of the intervention was maintained in that participants were asked to reflect on their own levels of distress relative to the illustrated trajectories depicted at each time point and select their sources of stress to receive a customized list of resources (see Appendix H).

In sum, the first objective of the proposed project was achieved in Phase 1 by identifying when in the academic year the help-seeking intervention was needed, who was at risk for elevated distress and, importantly, when they were at risk. The second objective was achieved by the subsequent development of an evidence-based intervention with interactive self-reflective components in collaboration with a team of students with involvement in support services and/or lived experience with mental health challenges.

The third objective of the proposed project was achieved in Phase 3 via a global evaluation of the intervention. The body of the report focuses on the results of the global evaluation. The design of the study follows what was proposed. In the fall semester, a random half of the recruited participants received the intervention embedded in the survey. The other half, the control group, did not receive the intervention. In the winter semester, both groups received the intervention. This allowed us to compare the intervention group to the control group on help-seeking in the fall and

compare the control group to themselves from fall to winter. These are the key comparisons proposed in the grant.

With respect to the statistical approach used to examine intervention effectiveness, there are several ways that this can be done. Example approaches were proposed in the grant. The approach used for the global evaluation was informed by youth help-seeking models as well as expertise in program evaluation brought to the team by a new postdoctoral fellow funded by the FRQ-SC who conducted the analyses. In the analysis, we examined effectiveness based on levels of distress rather than risk group differences. This approach accounts for all students who are distressed, including those whose identity or life experiences confer risk. These analyses address the first Phase 3 aim to determine the effectiveness of the intervention.

To address the second Phase 3 aim, we conducted descriptive analyses of program and service use and content analysis of the reasons why some participants who were distressed did not seek help. These two descriptive analyses address the aim of identifying whose needs are not being met. These results tell us that the needs of many distressed students are not being met. Mental health service use was low, and many students reported not seeking help despite feeling subjectively or objectively distressed. In the current report we present data about service use and barriers collected in the fall semester. Analyses of patterns in both domains across the year are ongoing.

An additional methodological decision was made to add a seventh wave of data collection and include measures of satisfaction and acceptability to further inform our understanding of engagement with the intervention. This idea was brought to the team by the new postdoctoral fellow. This was not included in the grant proposal and the results are not included in this report because analysis in this vein is still underway.

Now that the main objectives and aims have been achieved, it is worth noting that our understanding of the effectiveness of the intervention will be further enhanced by additional analyses that will capitalize on the decision to embed the intervention in the survey, thereby linking participants' reports of well-being and distress and personal characteristics directly to their engagement with the intervention. These types of analyses will deepen our understanding of the intervention's effectiveness in ways that would not have been possible had the intervention been presented on an external website, as will the inclusion of the satisfaction and acceptability component.

In sum, the decisions made across Phases 1, 2, and 3 addressed the proposed objectives, allowing us to meet the central aims of the grant as specified and will allow us to continue to advance knowledge about how best to deliver help-seeking interventions to post-secondary students. Readers of this report with additional questions about our decision process, the unfolding of the project relative to the funding proposal, or our results can contact the principal investigator.