



Canadian Campus
Wellbeing Survey

Bien-être sur les
campus canadiens

Deployment of the Canadian Campus Wellbeing Survey (CCWS): Saskatchewan – Spring 2021

Final Report for Healthy Campus Saskatchewan

Technical Report Series

October 2021

Kelly Wunderlich, MSc
Michael Fang, MA, MEd
Guy Faulkner, PhD

School of Kinesiology, University of British Columbia, Vancouver, BC



Acknowledgements

Funding:

Provincial deployment of the CCWS in Saskatchewan was supported by Healthy Campus Saskatchewan. With funding support from The Rossy Foundation, the University of British Columbia and the University of Toronto were collaborating partners on the development of the CCWS.

Suggested citation:

Wunderlich, K., Fang, M., Faulkner, G. (2021). Deployment of the Canadian Campus Wellbeing Survey (CCWS): Saskatchewan – Spring 2021. Final Report for Healthy Campus Saskatchewan. CCWS Technical Report Series 2021; 2. Vancouver, BC: The University of British Columbia.

Contact:

Guy Faulkner, PhD
School of Kinesiology, University of British Columbia
Population Physical Activity Lab
Lower Mall Research Station, 337
2259 Lower Mall, Vancouver, BC Canada V6T 1Z4
Email: guy.faulkner@ubc.ca

University of British Columbia

Vancouver, British Columbia

October 2021

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Introduction

Over two million young adults attend post-secondary institutions in Canada. This can be a time of great excitement, independence and growth – but students also face substantial increases in health-risk behaviour, including poor mental health, decreased physical activity, increased substance abuse, poor nutrition, and stress. Now more than ever, we are facing a mental health challenge on Canadian campuses. This is greatly amplified in the extraordinary times we are now living in during the COVID-19 pandemic. Like K-12 schools, the post-secondary setting should be considered critical for health promotion. There are subsidized facilities, programs and staffing commonly available to support students increasingly through online delivery. In other words, we can intervene.

To develop or evaluate interventions at the post-secondary level, a mechanism is first required to assess the health and wellbeing of students. Collected data can be used to guide decisions about where institutional priority should be placed in terms of programs and policies, and for ongoing evaluation of those decisions. This was the motivation for creating the Canadian health and wellbeing measurement system, known as the Canadian Campus Wellbeing Survey/le sondage Bien-être sur les Campus Canadiens (CCWS-BECC – www.ccws-becc.ca; Faulkner et al., 2019).

The CCWS includes validated and reliable measures of positive mental health, and multiple risk and protective factors including school connectedness, social and emotional skills, academic performance, safety, sleep, exercise, food security, and substance use. The student level survey is a modular design with a 20-minute core CCWS survey. A technical report describing the results of the development process and the survey itself (including the francophone version) is available at www.ccws-becc.ca. The surveillance infrastructure is housed at the University of British Columbia in collaboration with the Student Experience Evaluation and Research Unit of the UBC Office of the Vice-President, Students. A vital feature of the CCWS is an improved feedback mechanism where institutions have timely access to visual representations of their data and normative references, and the capacity to customize analyses.

The CCWS supports implementation of the 2015 *Okanagan Charter: An International Charter for Health Promoting Universities and Colleges*, which calls on higher education to embed health into everyday operations, business practices and academic mandates, as well as to lead health promotion action and collaboration (Okanagan Charter, 2016). Prioritizing student health by establishing policies and programs based on evidence will assist in placing student wellbeing at the heart of the academic enterprise. Evidence based decisions need to be anchored in meaningful data. Having a Canadian mechanism for assessing the health and wellbeing of post-secondary students is now more important than ever – we need to be able to assess the impact of the disease and its likely long-term repercussions for mental health. Such data will be essential for informing decisions about how best to help our students.

With support from Healthy Campus Saskatchewan (HCSK), the CCWS was implemented at public post-secondary institutions across Saskatchewan in the spring of 2021. This report provides aggregated results from the provincial deployment of the CCWS in Saskatchewan. Institutions received their own data and can compare to the consortium of Saskatchewan institutions, without institutional identification. By transcending institutional boundaries in the name of student wellbeing, institutions will be supported in identifying programs, policies and practices that are effectively improving student wellbeing on one campus – and it provides the rationale and evidence to implement similar practices to other campus and community programs.

Methods

Recruitment

Post-secondary institution partners ($n = 19$) were invited to take part through their involvement with HCSK. Institutions wishing to take part were directed to contact the CCWS team. Some institutions deployed together, meaning that they collected data using the same survey, but had several campuses as part of their cohort file so that they could filter the data.

Data Collection

Institutions were able to deploy the survey during the Spring 2021 term. In total 11 surveys were deployed. The 11 institutions leading each survey deployment most often chose to include several campus locations in their cohort file. This resulted in the survey being sent to students from 16 of the HCSK partner post-secondary institutions overall. Deployment windows ranged from February 8 to June 15, 2021.

The CCWS is administered via the UBC Survey Tool, a cloud database service provisioned by Qualtrics. The steps involved in the deployment process were adapted from the B.C. Student Housing Demand Survey. The institutions were given the choice to deploy the survey using one of two mail-out options: 1) Proxy mail-out using aliased email addresses (institution creates aliased email addresses of students in their sample, and provides them to CCWS who sends out survey email invitations and reminders to students), or 2) self-managed mail-outs (CCWS provides unique survey links to the institutions based on their sample size and institution sends out the survey email invitations and reminders to the students). Both mail-out options ensure that the responses cannot be linked to the students' personal information by the institution or by CCWS. In Saskatchewan, five (45%) of the surveys were deployed using the self-managed mail out option and the remainder used the aliased mail-out option.

CCWS has provided recommendations for institutions to choose their desired sample size based on the size of the institution. Smaller institutions have been recommended to choose a relatively larger proportion of their student population to be surveyed.

Students selected to be invited to the survey were sent an information letter via email, with their unique survey link. The average length of the survey window across institutions was 25.2 days ($SD = 5.8$ days). Students were also sent reminder emails during their survey window, with the number of reminders being chosen by the institution. All participating Saskatchewan institutions sent 3 reminder emails.

Across the 11 surveys, 26,424 students were invited to complete the online survey. A total of 3,553 of these students responded to the survey (13.4%). Out of 3,553 students who responded to the survey, 2,858 students completed the survey (reached the last page of the survey), and the remaining 695 students partially completed the survey. Providing incentives to the students who complete CCWS is optional at an institutional level. Eight of the deployed surveys offered some kind of incentives to complete CCWS, and obtained a higher average response rate of 29.5% (fully and partial finished). Response rates for each survey ranged from 5.0% to 58.5%. Three institutions which did not offer any incentive obtained an average response rate of 13.7% (ranged from 6.3% to 20.5%). These results are in line with CCWS recommendations of having at least three reminders and providing modest incentives (prize draw) for participation. This report includes data from both partial and fully completed surveys.

Measures

Institutional Cohort Variables

Institutions submitted institution-specific cohort variables that were linked to self-report survey responses, including: Subject of Studies, Domestic/International status, Credential Type, Program Start Date, New or returning student, Full-time/part-time status, Program and Faculty of study, Campus attended, Year standing, Cumulative grade point average, and Indigeneity. Some of these cohort variables were not applicable to some institutions.

Student Self-Report Measures

The CCWS includes nine core modules: campus climate/student experience, mental health assets, mental health deficits, health service utilization and help-seeking, physical health/health behaviours, academic achievement, substance use, food security, and sexual health. The students also self-reported demographics. Each are described briefly below. For more details, the survey and development report can be found online (<https://www.ccws-becc.ca/resources>).

1) Campus Climate and Student Experience

Eight items were used to assess campus climate and student experience (e.g., *'I feel that I belong at my institution.'*). Response options were on a 6-point likert-scale from 1 (strongly disagree) to 6 (strongly agree). Two items assessed feelings of safety on campus during the day and at night. The response options ranged from 1 (very safe) to 6 (very unsafe), and we included a 'Not applicable' and 'I don't know' option.

2) Academic Achievement/Experience

Three items were used to assess institutional learning environment (e.g., *'My institution provides a supportive learning environment'*) and one item assessed confidence to overcome academic challenges (*'I am confident that I will be able to finish my degree no matter what challenges I may face'*), each on a 6-point likert-scale from Strongly disagree (1) to Strongly agree (6).

3) Mental Health Assets

Emotional, social and psychological wellbeing were assessed using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007). The WEMWBS consists of 14-items that are all positively worded and relate to the main components (eudaimonic and hedonic) of mental wellbeing. The items are summed to provide a single score ranging from 14 to 70 with higher scores reflecting greater wellbeing. Single scores can also be categorized into groups: low mental wellbeing (<40), average mental wellbeing (41-58), and high mental wellbeing (59-70).

Resilience (control and self-efficacy coping) to overcome challenges were measured using Canadian Community Health Survey (CCHS) questions, on a 5-point likert scale from 1 (poor) to 5 (excellent). Global self-rated mental and physical wellbeing from the CCHS were measured using the same scale.

Social relationships and support were assessed using a 5-item social provisions measure (Statistics Canada, 2021). Each item was scored on a 4-point scale from strongly agree (4) to strongly disagree (1). A cut-off of 15 or higher indicates high levels of social support (Orpana et al., 2019).

4) Mental Health Deficits

To measure symptomology of depression and anxiety, we used the 10-item Kessler Psychological Distress Scale (K10) to yield a global measure of distress that a person had experienced over the past month (Kessler et al., 2002). Higher scores are reflective of more mental distress. Summed scores are categorized into groups: little or no mental distress (<20), mild mental distress (20-24), moderate mental distress (25-29), and severe mental distress (30-50).

The sources of perceived stress and extent of impact on academic progress items are consistent with the 8-items in the 2017 National Survey of Student Experience (<http://nsse.indiana.edu/>), rated as 'as major obstacle' (1), 'a minor obstacle' (2), or 'not an obstacle' (3). Two additional items with potential sources of stress were added due to the COVID-19 pandemic (Concerns about the COVID-19 pandemic; Shift to online classes). Two items assessed suicidal ideation ('*have you ever seriously contemplated suicide?*') and planning ('*have you ever made a plan to seriously attempt suicide?*') over the past 12 months (Response options: yes (1), no (2), prefer not to answer (3)).

The 3-item Loneliness Scale (Hughes et al., 2004) measured perceived loneliness. Higher scores reflected being more lonely.

5) Health Service Utilization and Help Seeking

Knowledge of mental health services and physical health services available on- and off-campus were measured in 4 items, with response options ranging from Strongly agree (1) to Strongly disagree (6). Perceptions of support systems on campus (response options from strongly agree (1) to strongly disagree (6)) and awareness of mental health outreach efforts on campus (Response options: No (0) and Yes (1)) were also asked. Student use of campus health services for primary care (such as routine check-ups with a doctor) was also assessed (Response options: Yes (1)/No (0)). One question assessed help-seeking intentions and we modified response options to include 'professional clinicians', 'I don't know anyone to talk to about this', and 'I prefer not to talk to anyone about this'.

6) Physical Health/Health Behaviours

Sleep

Time to sleep and wake up on weekdays and weekends were assessed using drop-down response options at every half hour. Total sleep on weekdays and weekend days were calculated from these 4-items. Quality of sleep was assessed using 1-item ('*During the past week, how would you rate your sleep quality overall (how well you sleep)?*'), from Very good (1) to Very bad (4).

Physical Activity

Time spent in vigorous and moderate physical activity (average hours/week) were derived from the International Physical Activity Questionnaire (IPAQ; Murphy et al., 2017). Days spent doing muscle strengthening activities was measured using a single item (Yore et al., 2007).

Participation in organized sport (varsity, club/community sports/intramurals/none) over the last year was assessed in 1-item.

Sedentary Behaviour/Screen Time

Three individual questions assessed recreational screen use (watching TV, using computers during leisure), sedentary transportation, and total sitting time (in hours, minutes).

7) Substance Use

Alcohol

Binge drinking over the last month was assessed using one question that asked students to report how many times over the past 30 days they consumed 4 or more (female sex) or 5 or more (male sex) drinks on one occasion. Response options ranged from Daily or almost daily (1) to Not in the past 30 days (6). There were also a 'I don't know' and 'I prefer not to answer' response options available.

Tobacco Use

Tobacco-use (cigarette smoking and e-cigarette use) questions included 5-items from the Canadian Postsecondary Education Alcohol and Drug Use Survey 2018 (CPADS; courtesy of Health Canada).

Cannabis

Previous year and previous month cannabis use were also from the CPADS.

Other Drugs

Three items each assessed whether pain relievers and stimulants were used, prescribed and used for reasons other than their intended use over the past 12 months.

8) Food Security

Six items from the Canadian Community Health Survey (CCHS) Household Food Security Survey Module assessed food security (physical availability of food, economic and physical access to food, food utilization, and stability of these dimensions over time). 'I don't know' and 'I prefer not to answer' response options were included. The 6-items are scored and summed (lower scores indicate greater level of food insecurity), and categorized to determine the level of food insecurity: food secure (0-1), low food security (2-4), very low food security (5-6).

9) Sexual Health

Safe sex practice questions (ever and contraceptive use) were measured in two items. Sexual satisfaction was measured using a single item (rating from Never (1) to Always (5)). A 'prefer not to answer' option was available for all three sexual health questions.

10) Demographic Measures for the Questionnaire

Self-report demographic measures in the CCWS included: age (month and year of birth), ethnicity including Canadian Indigenous group), immigrant status, place of residence, mode and length of commute to campus, cumulative grade, hours of paid employment, gender identity, trans experience, sexual identity, relationship status, disabilities, parent education. Students were also asked if they were currently or recently had been participating in a co-op placement, practicum, residency, or study abroad term. Two questions about whether students were living in the province where their institution is location, and whether their living situation was different than planned due to COVID-19 pandemic, were also included.

11) Additional Questions

Each institution had the opportunity to add up to 5 institution-specific questions. HCSK decided to include the same three questions in all surveys, with the remaining two questions determined by individual institutions. The additional questions selected by HCSK were: During your time as a university/college student, have you experienced any form of non-consensual sexual encounters including, but not limited to, harassment, grabbing, kissing, removal of clothing, or sexual penetration? (Yes or no); If I or a friend

were sexually assaulted, I would know where to go get help at my institution (5-point scale from strongly agree to strongly disagree); and To what extent does your faith, spirituality, or culture give you the strength to face every day difficulties? (4-point scale from A lot to Not at all).

Data Analysis

This report provides aggregated descriptive results of student self-report data. HCSK was also provided access to a Saskatchewan provincial Tableau dashboard whereby core measures could be further explored by institutional cohort and demographic variable filters.

Results

Participants

Institutions

Of the 11 institutions that led a survey deployment, 2 were universities, and 9 were colleges. Most of the institutions included several campus locations (n=41) in their deployment including some from other HCSK post-secondary partner institutions not counted within the participating eleven. This resulted in the survey being sent to students from 16 of the HCSK partner post-secondary institutions overall. Total student enrolment at the 11 institutions ranged from <1000 (n = 3), 1001-4000 students (n = 4), 5001-10000 students (n = 1), 10,001-20,000 students (n = 1), and 20,001-40,000 students (n = 1). The enrolment for one institution was not provided.

Students

Based on the cohort variables submitted by institutions, the majority of the students were domestic (85.5%), full-time (76.6%), returning (73.3%), non-indigenous (81.9%), and enrolled in a bachelors degree program (64.1%; see Table 1). The majority of students had first or second year standing (55.9%), however, not all institutions provided this information.

The sample of respondents was generally a good representation of the cohort of students who were invited to complete the survey (see Table 1). The sample was slightly over-representative of domestic students (cohort: 85.5%, sample: 89.0%), and under-representative of international students (cohort: 13.5%, sample: 10.7%). The students who are new to institutions are slightly over-represented in the sample (cohort: 25.1%, sample: 29.4%). The sample of respondents reflects the composition of the cohort well in terms of indigeneity. The sample was slightly over-representative of full-time students (cohort: 76.6%, sample: 82.6%), and under-representative of part-time students (cohort: 23.4%, sample: 17.1%). When looking at the credential type, the sample of respondents was an overall good representation of the cohort, with slight over-representation of students enrolled in doctorate, development and certificate programs, and a slight under-representation of students enrolled in bachelor's degree.

Table 1. Student demographic characteristics based on institutional cohort variables

	Cohort	Sample		Cohort	Sample
Domestic/ International			Full-Time/ Part-Time		
	N = 26424	N = 3115		N = 26424	N = 3115
	%	%		%	%
Domestic	85.5	89.0	Full-Time	76.6	82.6
International	13.5	10.7	Part-Time	23.4	17.1
Not reported	0.9	0.4	Not reported	0.03	0.03
New to Institution			Credential Type		
	N = 26424	N = 3115		N = 26424	N = 3115
	%	%		%	%
Yes	25.1	29.4	ADGR	0.064	0.289
No	73.3	68.7	APPR	1.135	1.143
Not reported	1.6	1.9	BACH	64.135	50.754
			CERT	8.401	9.663
Indigenous			DEVL	2.687	8.122
	N = 26424	N = 3115	DIPL	7.944	12.520
	%	%	DOCT	2.146	2.568
Yes	16.1	16.0	GRCT	0.314	0.193
No	81.9	74.6	MAST	8.277	7.127
Not reported	2.0	9.3	NONE	2.797	4.270
			OTHR	1.135	2.665
Year Standing			PDCT	0.042	0.064
	N = 26424	N = 3115	SCRT	0.011	
	%	%	Not reported	0.912	0.353
1	34.2	36.9			
2	21.7	19.7			
3	13.6	10.0			
>=4	16.8	13.5			
Not reported	13.8	20.0			

The full list of self-report demographic characteristics for the 3,115 participating students can be found in Table 2. Student mean age was 25.8 years (SD= 8.6 years; median age = 22 years), with the majority of the survey respondents ≤ 24 years (61.8%). The majority of students identified as a woman (70.0%), followed by a man (27.2%), and non-binary (1.5%). A high percentage of students identified as heterosexual/straight (77.3%), and having no trans experience (96.4%). More students reported being single (42.5%) or in a relationship (33.9%). Fifty-nine percent of students identified their cultural background as White, followed by Indigenous peoples of Canada (13.8%), and South Asian (7.1%). Of the

student who self-reported as Indigenous, 97.1% identified as First Nations. The majority of respondents (77.2%) were Canadian born, and 22.4% were born outside of Canada.

Table 2. Student demographic characteristics based on self-report data

Age		Born in Canada		Residence	
N = 2843		N = 2864		N = 2852	
	%		%		%
Under 20	21.42	Yes	77.2	University or college residence	11.0
20-24	40.34	No	22.4	Other on-campus housing	1.6
25-29	13.82	I prefer not to answer	0.4	Off-campus with family	58.2
30-34	9.18			Off campus with friends or roommates	16.0
Over 35	15.23			Off-campus alone	9.4
		Earliest School Year in Canada		I do not have stable housing	0.5
		N = 594		I prefer not to answer	3.4
			%		
		Kindergarten	9.6		
Ethnicity		Grade 1-3	5.2		
N = 2843		Grade 4-8	10.8	Commute	
	%	Grade 9-12	15.7	N = 2489	%
Indigenous peoples of Canada	13.82	Not applicable	58.8	Other	1.9
Indigenous (outside of Canada)	0.04			Vehicle (alone)	36.8
Arab	0.49	Parents Born outside Canada		Vehicle (with others/carpool)	8.1
Black	2.85	N = 2855		Walk	7.0
Chinese	1.93		%	Bicycle	0.9
Filipino	3.41	Yes	27.8	Public transit	10.8
		No	71.3	Not applicable (distance ed., co-op)	34.6
Japanese	0.11	I prefer not to answer	0.9	Commute Time	
Korean	0.35			N = 2480	%
Latin, Central, or South American	1.27			0-30 minutes	54.4
South Asian	7.11	Parent(s)/Guardian(s) Education		31-60 minutes	12.4
Southeast Asian	0.74	N = 2850		Over 60 minutes	5.3
West Asian	0.98		%	Not applicable	27.9
White	59.02	High school or less	25.9		
Mixed Ethnicity	5.38	Completed a college program	27.3		
Other	2.50	Completed a university degree	27.3		
Indigenous Group		Completed a graduate or Other professional degree	11.5		
N = 349		I don't know	4.4		
	%	I prefer not to answer	2.3		
First Nations	97.13	Not applicable	1.3		
Metis	0.0				
Inuit	1.43				
I prefer not to answer	1.43				

Table 2 cont. Student demographic characteristics based on self-report data

Gender		Average Grade		Disability Condition¹	
N = 2855		N = 1801		N = 940	
	%		%		%
Woman	70.0	0-49%	0.22	Physical disability	6.9
Two-Spirit	0.4	50-54% (D)	0.22	Blind/visually impaired	5.0
Non-binary	1.5	55-59% (C-)	1.11	Deaf/hard of hearing	3.1
Man	27.2	60-63% (C)	1.78	Mental health condition	65.3
I prefer not to answer	0.9	64-67% (C+)	4.16	Neurological (learning disability, ASD, Traumatic Brain Injury, ADHD, etc.)	28.2
		68-71% (B-)	8.72	Chronic health condition (Crohn's, HIV, etc.)	11.2
		72-75% (B)	12.49	Another condition not listed above	19.8
		76-79% (B+)	16.55		
		80-84% (A-)	23.15		
		85-89% (A)	18.32		
		90-100% (A+)	9.44		
		I prefer not to answer	3.44		
Trans Experience		Off Campus over the last month in co-op, residency, etc.		Disability Accommodation	
N = 2839		N = 2834		N = 939	
	%		%		%
Yes	1.5	Yes	10.55	Yes	29.5
No	96.4	No	89.45	No	67.3
I prefer not to answer	2.1			I prefer not to answer	3.2
Sexual Orientation		Work Hours per week			
N = 2800		N = 2607			
	%		%		
Heterosexual/Straight	77.3	0	43.1		
Gay/Lesbian	1.4	1-10 hours	18.3		
Bisexual	8.1	11-20 hours	18.7		
Pansexual	1.4	21-30 hours	7.7		
Asexual	0.9	31-40 hours	12.2		
Queer	1.3				
Questioning/Unsure	1.9				
I prefer not to answer	5.8				
Relationship Status		Financial Stress			
N = 2846		N = 2833			
	%		%		
Single	42.5	No financial stress at all	12.6		
In a relationship	33.9	Very little financial stress	19.2		
Married, in a domestic partnership, or engaged	21.0	Some financial stress	32.3		
Divorced or separated	1.9	Quite a bit of financial stress	18.4		
Widowed	0.1	A great deal of financial stress	17.6		

¹A respondent may have more than one disability condition, so the percentages may not add up to 100%.

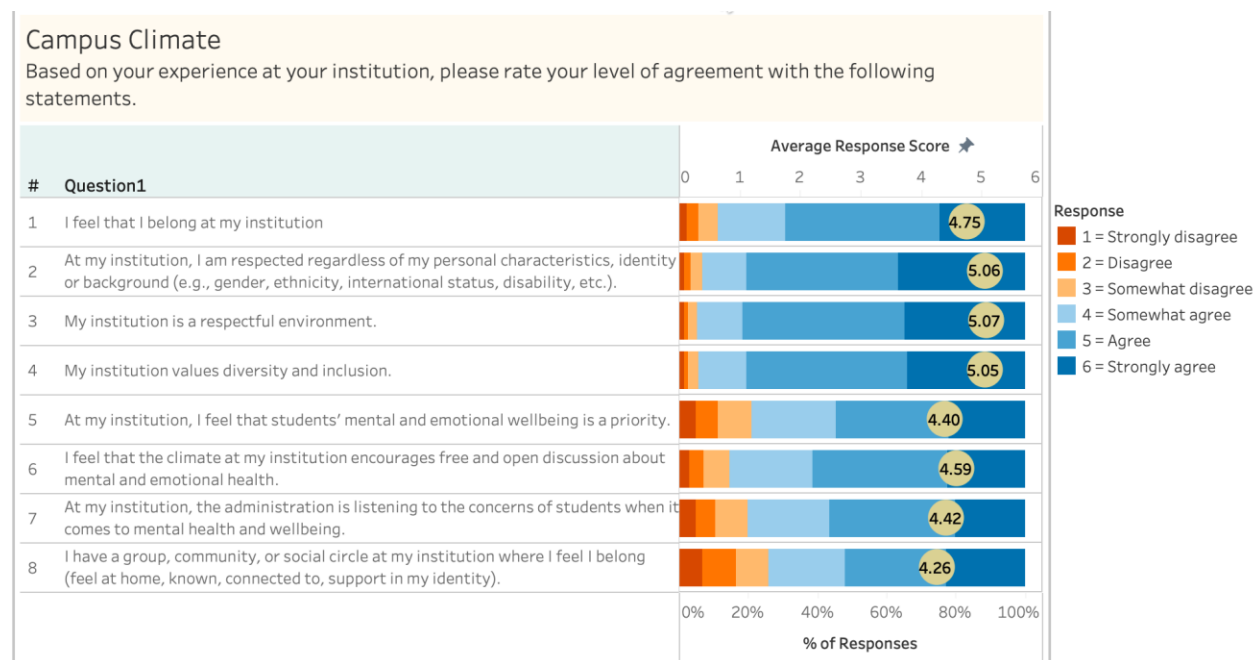
Sixty-six percent of students reported their parent(s)/guardian(s) having completed a college program or higher. Most students (83.5%) reported living off-campus and the most common mode of transportation to commute to campus was by vehicle (alone; 36.8%) followed by public transit (10.8%), with half (54.4%) of those trips taking 30 minutes or less. Fifty-one percent of students self-reported their average cumulative grade as A- or higher. Forty-three percent of students did not have paid employment, and of those who did, the average number of hours they worked per week was 19.4 hours (SD=12.2). The majority of students (69.8%) reported having no disability or ongoing medical condition, and the most common disability reported was a mental health condition (65.3%).

Core Measures for the Questionnaire

1) Campus Climate and Student Experience

Frequency data for campus climate and student experience items can be found in Figure 1. The majority of students reported ‘somewhat agreement’ or higher to all 8-items. Only 1.8% of students reported feeling somewhat to very unsafe on campus during the day, compared to 12% at night.

Figure 1. Response frequencies for campus climate and student experience items



2) Academic Achievement/Experience

Over half of the students agreed or strongly agreed with statements regarding their institution having a supportive learning environment (means ranged from 4.59 to 4.90 across the 4-items; see Figure 2).

Figure 2. Response frequencies for academic achievement and experience



3) Mental Health Assets

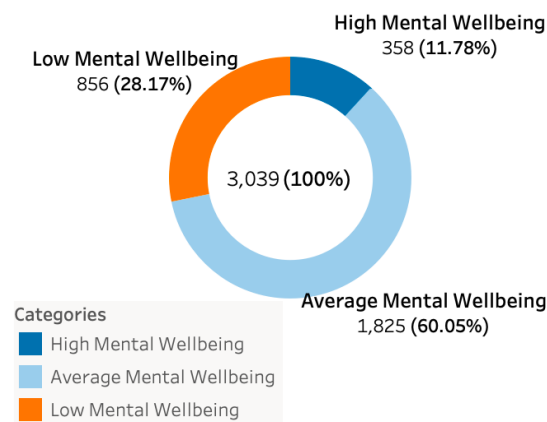
With regards to student resilience, the majority of students reported having a good to excellent ability to handle day-to-day demands (78.6%), and unexpected difficulties (74.7%).

Table 3 displays frequencies and means for all 14-items of the WEMWBS mental wellbeing measure. Students categorized as having high, average and low mental wellbeing were 11.8%, 60.1%, and 28.2%, respectively (see Figure 3).

Table 3. Descriptive statistics for mental wellbeing over than last 2 weeks (14-item Warwick-Edinburgh Mental Wellbeing Scale)

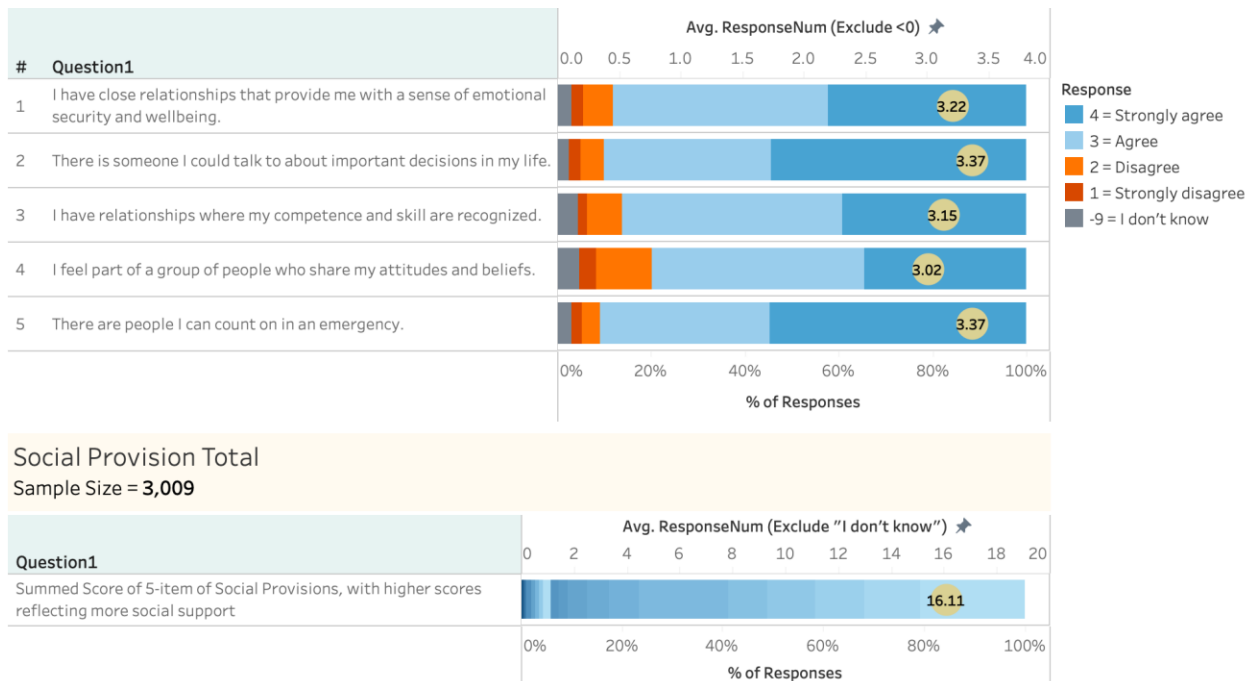
	N	Mean	SD	None of the time = 1	Rarely = 2	Some of the time = 3	Often = 4	All of the time = 5
I've been feeling optimistic about the future.	3037	3.5	0.96	2.3%	12.0%	34.2%	36.9%	14.6%
I've been feeling useful.	3035	3.4	1.00	3.3%	14.4%	34.5%	34.6%	13.1%
I've been feeling relaxed.	3030	2.9	1.04	8.2%	28.3%	36.8%	19.8%	7.0%
I've been feeling interested in other people.	3021	3.2	1.04	5.8%	17.4%	34.3%	32.0%	10.5%
I've had energy to spare.	3029	2.8	1.08	11.2%	29.1%	33.7%	19.4%	6.6%
I've been dealing with problems well.	3035	3.4	0.93	3.3%	12.1%	38.3%	37.0%	9.3%
I've been thinking clearly.	3031	3.4	0.91	2.4%	11.9%	36.2%	39.5%	10.0%
I've been feeling good about myself.	3030	3.3	1.04	5.2%	15.7%	34.2%	32.9%	12.0%
I've been feeling close to other people.	3030	3.1	1.08	7.7%	22.0%	33.1%	28.2%	9.1%
I've been feeling confident.	3028	3.3	1.04	5.3%	16.9%	36.1%	30.2%	11.5%
I've been able to make up my own mind about things.	3034	3.7	0.93	2.2%	8.3%	27.1%	44.7%	17.8%
I've been feeling loved.	3027	3.7	1.00	2.8%	7.6%	27.1%	38.5%	24.0%
I've been interested in new things.	3031	3.5	1.09	4.5%	14.9%	28.2%	34.3%	18.1%
I've been feeling cheerful.	3029	3.3	1.00	4.3%	15.3%	38.2%	31.1%	11.1%

Figure 3. Proportion of students categorized as having high, average or low mental wellbeing (based on summed WEMWBS scores)



The majority of students agreed or strongly agreed with the 5 social provision items (see Figure 4). The average summed score for social provision was 16.1, suggesting that on average students had high levels of social support (Orpana et al., 2019).

Figure 4. Response frequencies and average score for social provisions measure



4) Mental Health

Table 4 displays frequencies and means for all 10-items in the K10 mental wellbeing measure. Twenty-nine percent of students were classified as having either little or no mental distress, followed by mild mental distress (20.4%), and moderate mental distress (19.4%; see Figure 5).

Nearly 32% of students self-reported severe mental distress. Institutional variability for severe mental distress category of students was 11.8% (interquartile range). That is, prevalence of severe mental distress varied between approximately 14% and 38%. There was some variation by type of institution: Rural Colleges (N = 6) - 25.5%; Urban Colleges (N = 5) - 30.3%; Universities (N = 2) - 36.8%.

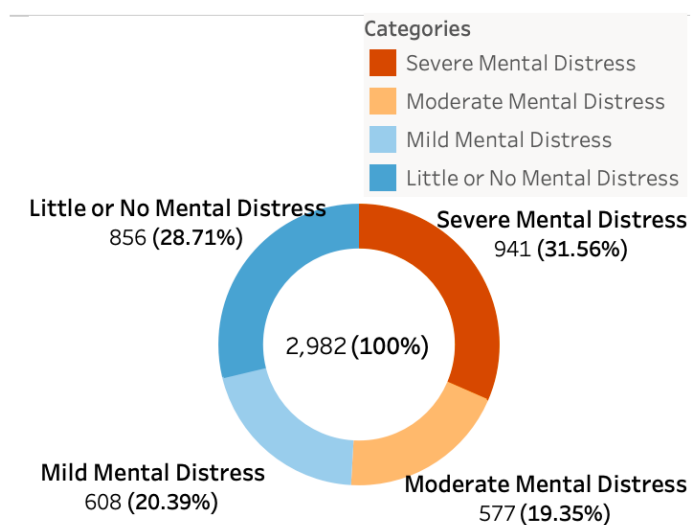
Sixty percent or more of students reported feeling that they lacked companionship, feeling left out, and feeling isolated from other some of the time or often. The mean loneliness score was 5.6 (see figure 7), with a median score of 6. Scores of 3-5 suggest that a participant was not lonely, while scores of 6-9 suggest that a participant feels lonely.

Eleven percent of students reported seriously contemplating suicide over the last 12 months, and 9.5% preferred not to answer. Of those who experienced suicidal ideation, 33.6% reported making a plan for committing suicide, and 8.4% preferred not to answer (see Figure 8).

Table 4. Descriptive statistics for psychological distress over the last 30 days (10-item Kessler Psychological Distress Scale)

	N	Mean	SD	None of the time = 1	A little of the time = 2	Some of the time = 3	Most of the time = 4	All of the time = 5
How often did you feel tired out for no good reason?	2980	3.3	1.08	6.1%	17.4%	34.9%	28.0%	13.6%
How often did you feel nervous?	2977	3.0	1.03	6.9%	24.1%	39.0%	21.9%	8.1%
How often did you feel so nervous that nothing could calm you down?	2977	2.1	1.08	35.8%	28.8%	24.7%	7.7%	3.1%
How often did you feel hopeless?	2976	2.3	1.12	30.8%	29.2%	26.1%	9.8%	4.1%
How often did you feel restless or fidgety?	2979	2.9	1.16	13.3%	26.1%	31.2%	20.1%	9.4%
How often did you feel so restless you could not sit still?	2978	2.3	1.12	30.8%	29.2%	24.7%	11.9%	3.4%
How often did you feel depressed?	2978	2.5	1.16	23.0%	27.9%	29.0%	14.2%	5.9%
How often did you feel that everything was an effort?	2973	2.9	1.15	11.2%	25.7%	31.1%	21.8%	10.2%
How often did you feel so sad that nothing could cheer you up?	2978	2.1	1.08	35.8%	29.0%	23.7%	8.7%	2.8%
How often did you feel worthless?	2976	2.1	1.18	43.3%	23.9%	20.1%	7.8%	5.0%

Figure 5. Proportion of students categorized as having severe, moderate, mild or little/no mental distress (based on summed K10 scores)



Sources of perceived stress and extent of impact on academic progress are displayed in Figure 6. The majority of students rated each source of stress as a minor obstacle or not an obstacle at all.

Figure 6. Response frequencies for sources of perceived stress items

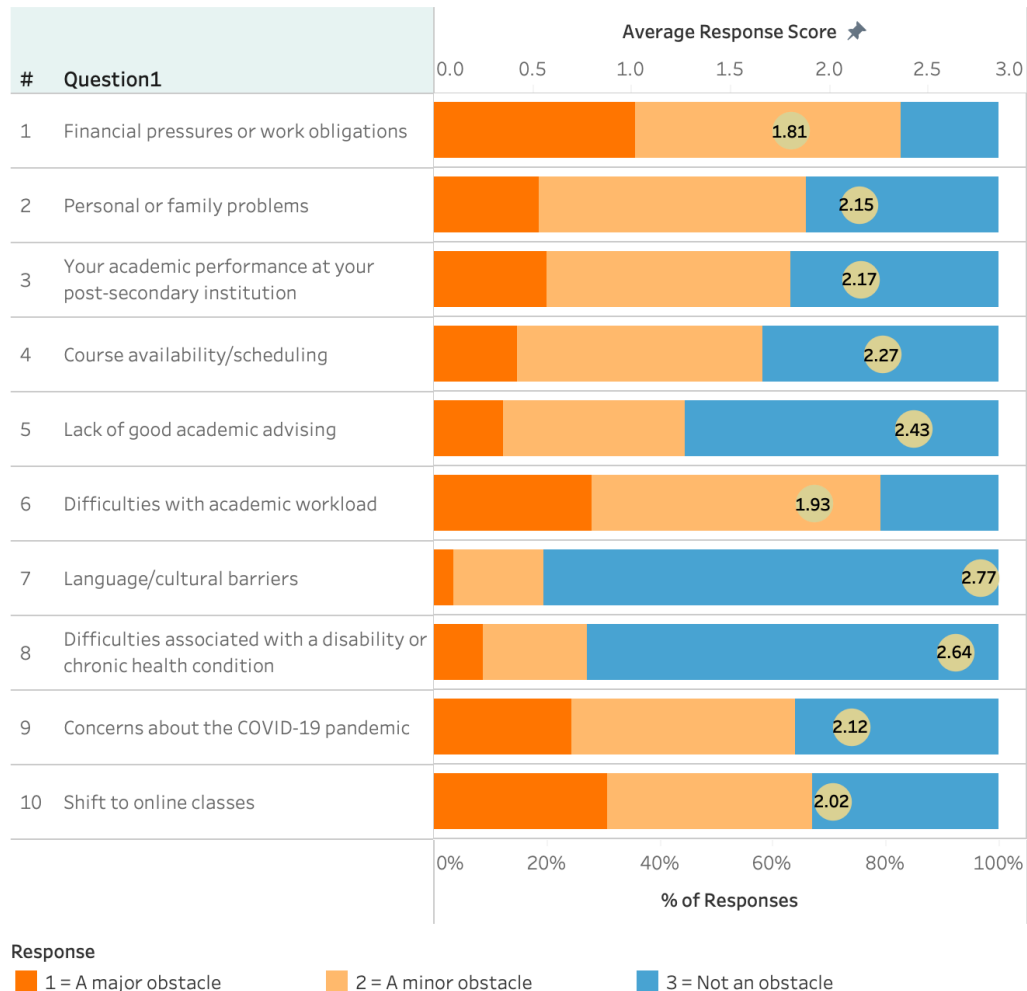


Figure 7. Response frequencies and average score for 3-item loneliness scale

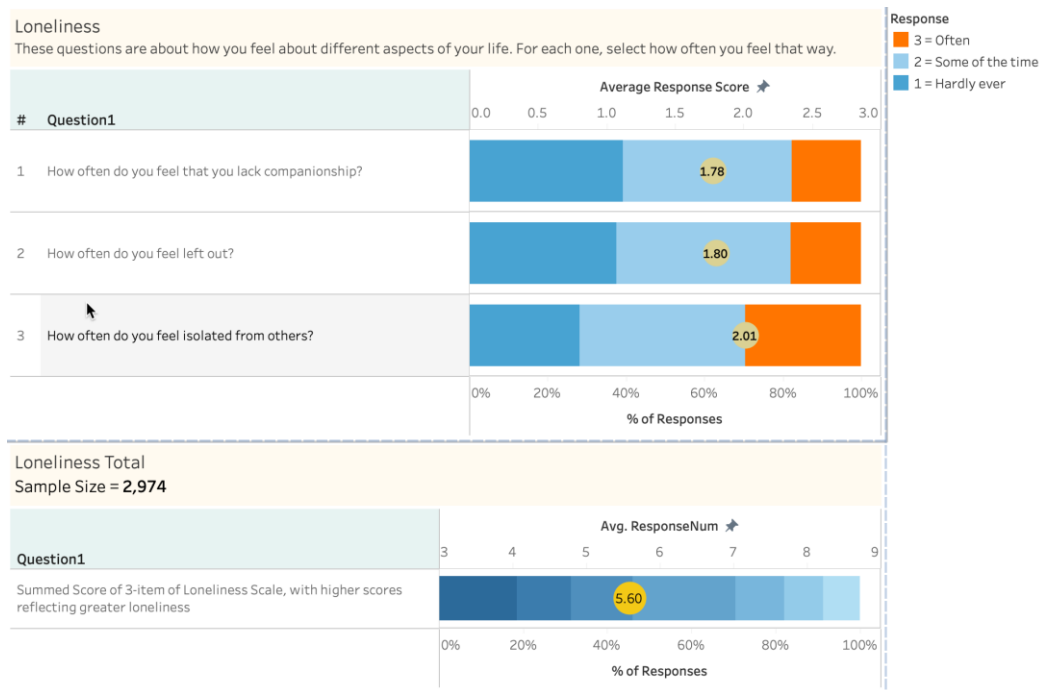
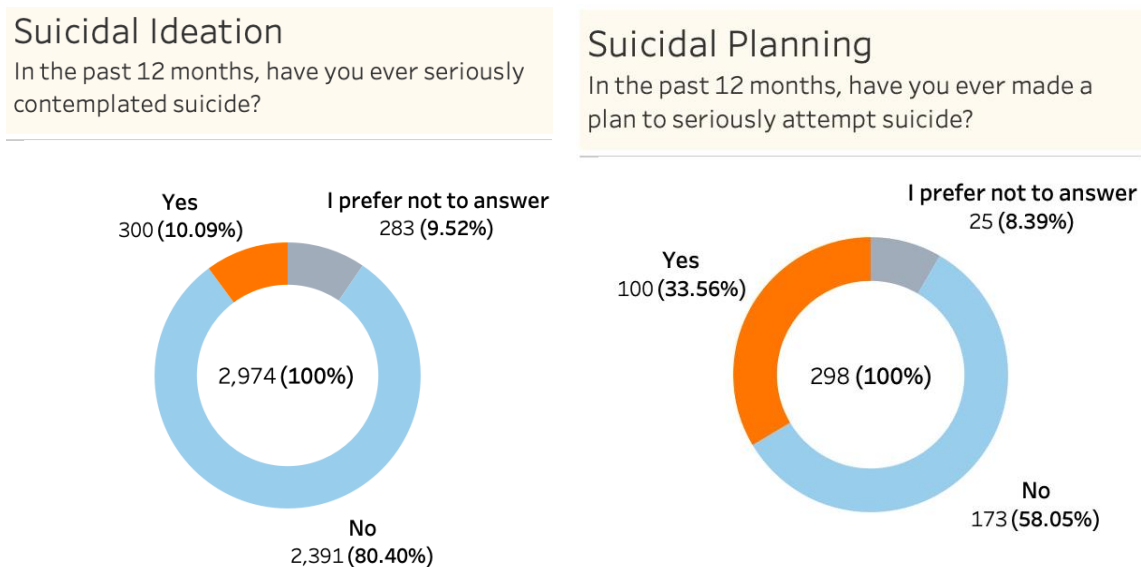


Figure 8. Proportion of students indicating suicidal ideation and planning over the past 12 months

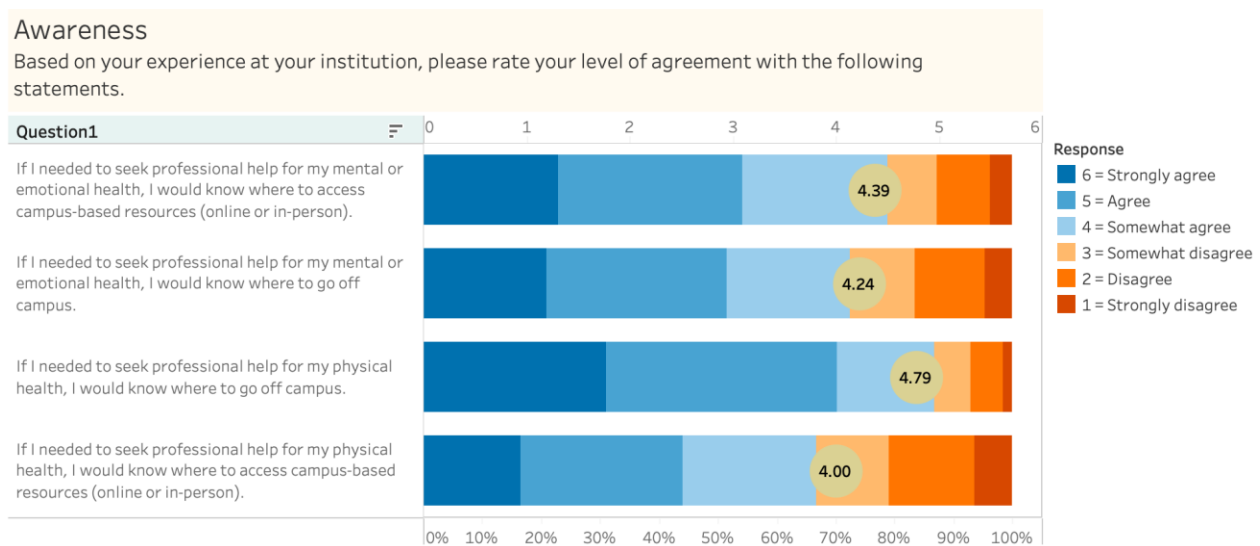


5) Health Service Utilization and Help Seeking

The majority of students somewhat agreed, agreed, or strongly agreed that they knew where to access both campus-based and off-campus resources for mental health (78.7% and 72.6%, respectively), as well as for physical health services (66.8% and 86.7%, respectively). Over half of students (64.8%) somewhat to strongly agreed that there is a good support system on campus for students going through difficult times;

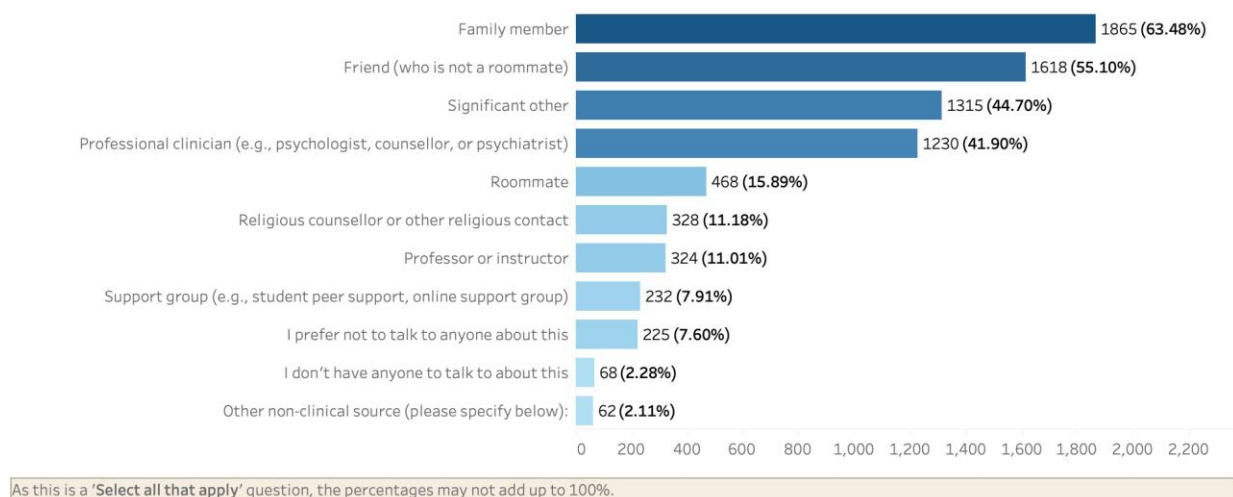
however, 18.7% responded not knowing where to access campus-based resources (see Figure 9). Sixty percent of students reported they were aware of mental health outreach efforts on campus. When asked if they use campus health services for primary care, 10% reported yes.

Figure 9. Response frequencies for health service utilization and help-seeking knowledge on- and off-campus



The majority of respondents (63%) reported that they would talk to a family member if they were experiencing serious emotional distress, followed by a friend who is not a roommate (55%), significant other (45%), and professional clinician (42%). Eight percent of students would prefer not to talk to anyone, and 2% reported not having anyone to talk to (see Figure 10).

Figure 10. Proportion of students who would talk to others if experiencing serious emotional distress

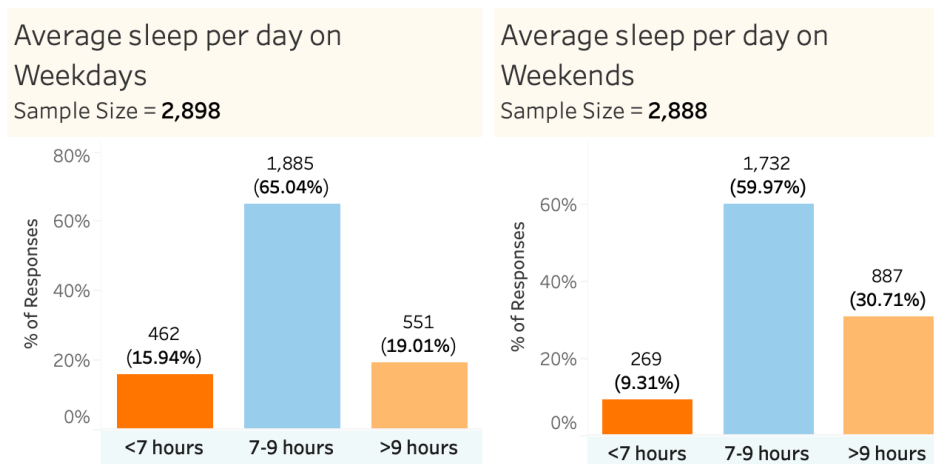


6) Physical Health/Health Behaviours

Sleep

Over half of the students reported sleeping between 7 to 9 hours on weekdays (65%) and weekends (60%), compared to less than 7 hours (16% and 9%, respectively), and more than 9 hours (19% and 31%, respectively; see Figure 11). The average number of hours per day spent sleeping on weekdays and weekends was 8.08 (SD=1.47) and 8.59 (SD=1.53), respectively. Sixty-nine percent of the students rated their overall sleep quality as fairly good or very good.

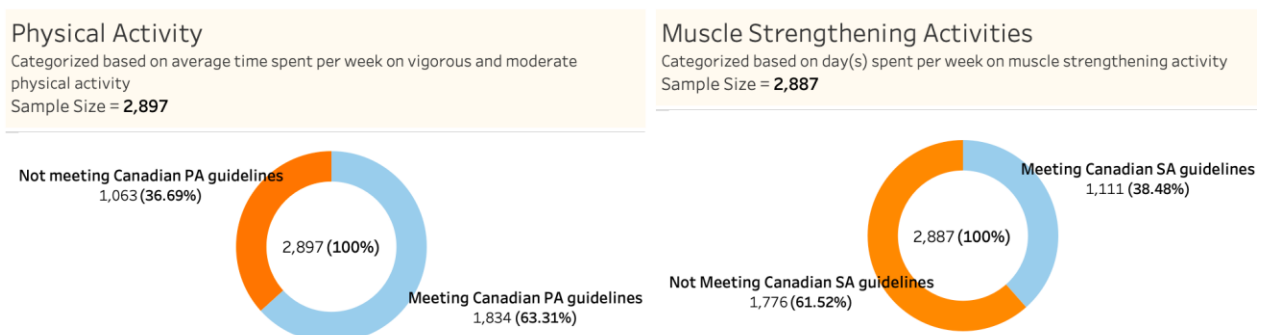
Figure 11. Proportion of students accumulating <7, 7-9, and >9 hours of sleep per night on weekdays and weekends



Physical activity

Regarding physical activity, average time spent participating in moderate and vigorous physical activity per week was 6.57 hours (SD=7.48), and 63% of students were meeting the Canadian physical activity guidelines for moderate to vigorous physical activity, and 38% were meeting Canadian physical activity guidelines for muscle strengthening activities (see Figure 12). Eighty-one percent of students reported that they do not participate in any organized sports.

Figure 12. Proportion of students meeting and not meeting the Canadian Physical Activity Guidelines for Adults (18-64 Years)



Sedentary Behaviour/Screen time

Average recreational screen time per day was 5.08 hours (SD=2.94), with 32% and 40% of students reporting either 0-3 hours or 3-6 hours, respectively (see Figure 13). The average time spent sitting in a vehicle per day was 1.05 hours (SD=1.38), with half of students reporting sedentary transportation of 30 minutes or less (see Figure 14). Just under 58.0% of students reported 8 hours or less of total sitting time per day (Mean = 7.77, SD=3.72).

Figure 13. Proportion of students accumulating 0-3, 3-6, 6-9, and >9 hours of recreational screen time per day

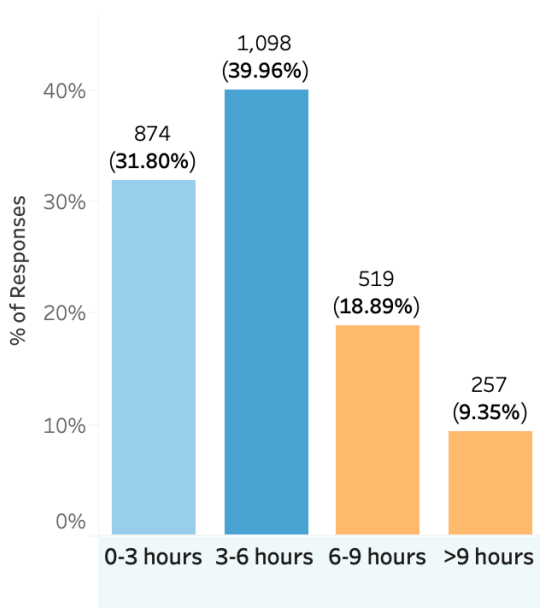
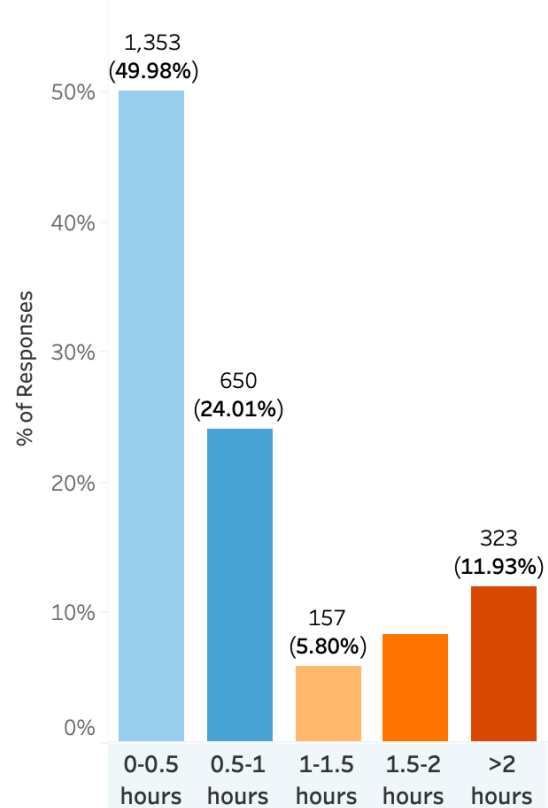


Figure 14. Figure 11. Proportion of students accumulating 0-0.5, 0.5-1, 1-1.5, 1.5-2 and >2 hours of sedentary transportation time per day



7) Substance Use

Alcohol

Over half of students (53.3%) reported not binge drinking in the past 30 days (see Figure 15).

Tobacco Use

The majority of students reported never being a smoker (70.8%), or using an e-cigarette in the past 30 days (81.5%). Frequency of e-cigarette use type is provided in Table 5.

Figure 15. Frequency proportions of students' binge drinking over the past 30 days

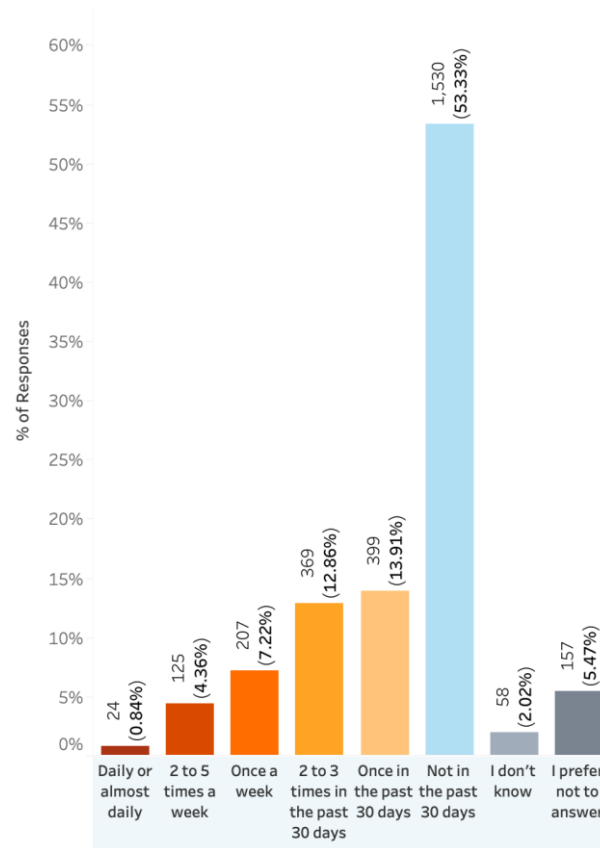


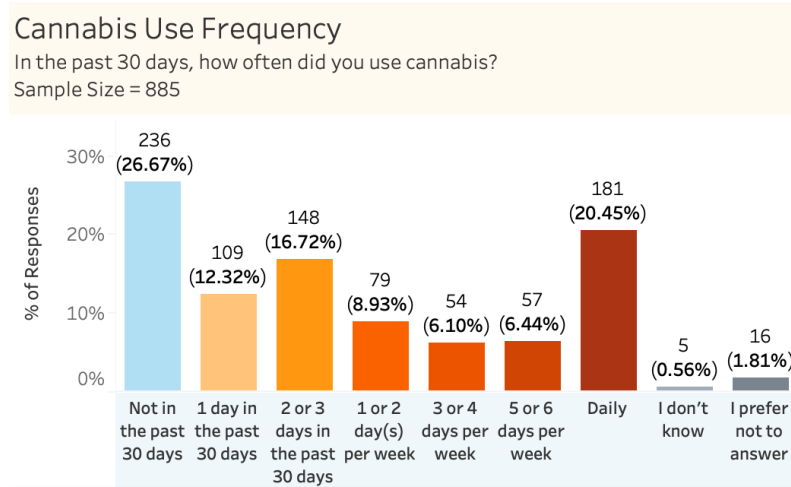
Table 5. Average number of days over the last 30 days a student has vaped by e-cigarette type

E-Cigarette Type	N	Mean	SD
E-liquid with nicotine	267	19.8	11.7
Cannabis/marijuana	117	10.9	10.3
Flavouring (without nicotine)	48	6.5	9.0

Cannabis

About 30% of students reported using cannabis in the past year, with 26.7% of those students reporting not at all in the past month, 1 day in the past month (12.3%), and 2 or 3 days in the past month (16.7%). Over twenty percent of those using cannabis reported being daily users (see Figure 16).

Figure 16. Frequency proportions of students' using cannabis over the past 30 days



Other drugs

Regarding pain reliever drug use, 30.8% of students reported use in the previous year. Twenty-one percent of those who used pain relievers in the past year reported using them for reasons other than pain relief, and 47.9% indicated they were not prescribed (see Table 6).

Regarding stimulant use, only 5.6% of students reported using them in the past 12 months. A quarter of these students reported using them for reasons other than why they are recommended, and over 80% reported that they were prescribed.

Table 6. Descriptive statistics for use, reason for use and prescription of pain relievers and stimulants

		Pain Relievers	Stimulants
Use - In the past 12 months, have you used any pain relievers/stimulants?		N = 2875	N = 2877
	Yes	30.8%	5.6%
	No	66.4%	91.7%
	I don't know	1.4%	1.3%
	I prefer not to answer	1.4%	1.5%
Reason - During the past 12 months, have you used pain relievers for reasons other than for pain relief/ did you use stimulants for reasons other than why they are recommended?		N = 875	N = 161
	Yes	20.1%	24.8%
	No	77.8%	75.2%
	I don't know	1.6%	0.0%
	I prefer not to answer	0.5%	0.0%
Prescription - During the past 12 months, were the pain relievers/stimulants you have used prescribed for you?		N = 878	N = 161
	Yes, they all were prescribed	37.0%	80.1%
	Some were prescribed and others were not	10.6%	3.7%
	No, none were prescribed	46.9%	13.0%
	I don't know	3.1%	1.2%
	I prefer not to answer	2.4%	1.9%

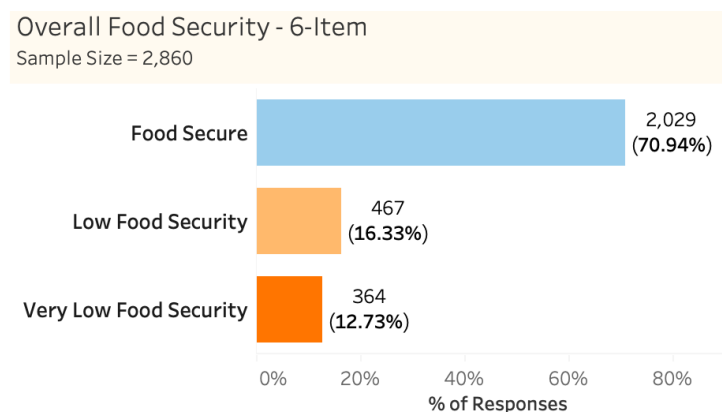
8) Food Security

The majority of students reported it was never true that food did not last (66.8%), and that they couldn't afford to eat balanced meals (61.5%). Over 78% reported that they have not cut the size of or skipped meals because there wasn't enough money for food. Similarly, 75.1% reported no to eating less than they felt they should because there was no money for food, and 79.8% reported no to being hungry and not eating because they couldn't afford food (see Table 7). When summed together, 71% were categorized as food secure, 16% as having low food security, and 13% as having very low food security (see Figure 17).

Table 7. Frequencies for food security questions in the last 12 months (6-item US Household Food Security Survey)

	N	Often true = 1	Sometimes true = 2	Never true = 3	I don't know	I prefer not to answer
The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more.	2857	4.1%	20.8%	66.0%	5.9%	3.3%
I couldn't afford to eat balanced meals.	2856	8.9%	24.0%	61.3%	3.5%	2.2%
	N	Almost every month	Some months but not every month	Only 1 or 2 months	I don't know	No - I have not
How often did you cut the size of your meals or skip meals because there wasn't enough money for food?	2850	6.5%	8.8%	3.9%	2.6%	78.2%

Figure 17. Proportion of students categorized as having very low or low food security or being food secure (based on summed 6-items)



9) Sexual Health

Over half of students reported ever having sexual intercourse (63.6%), 25.4% reported no, and 11.1% preferred not to answer. Of those who reported having sex, just over 44% used protection (see Figure 18). The majority of these students (73.8%) reported always or usually finding satisfaction in their sexual relationship(s) (see Figure 19).

Figure 18. Proportion of students indicating safe sex practices (ever and contraceptive use)

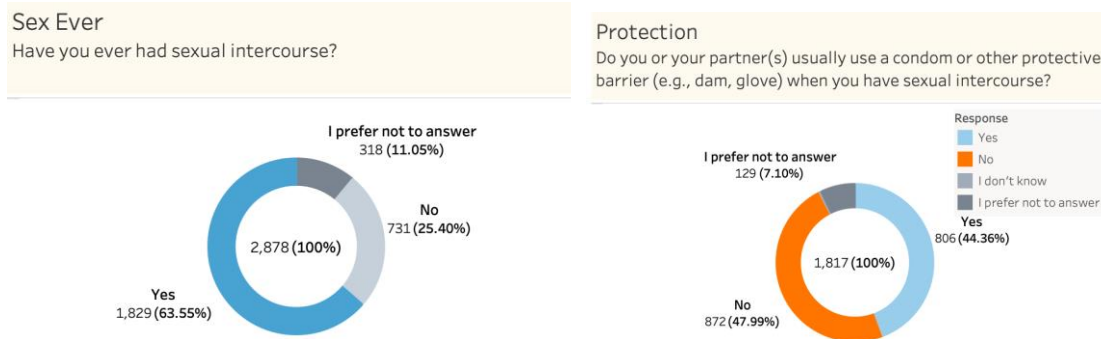
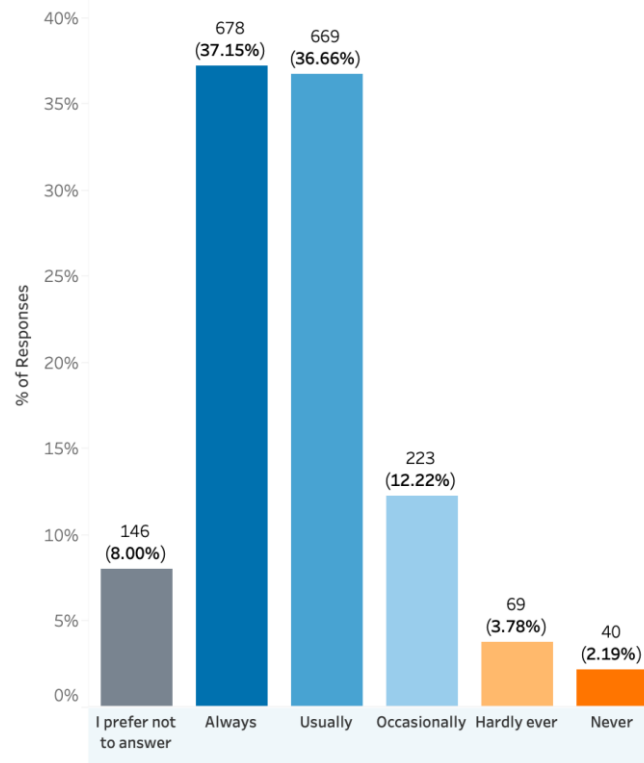


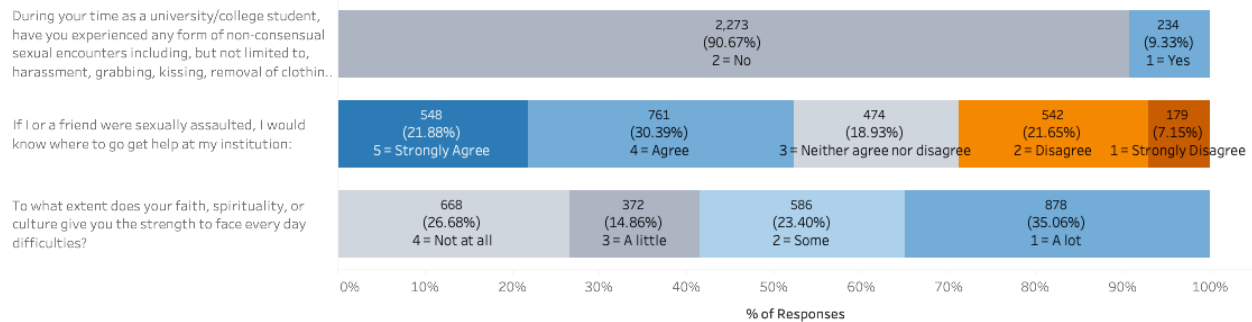
Figure 19. Frequency proportions of students' sexual satisfaction



10) Additional Questions

Responses to the HCSK-specific questions are illustrated below in Figure 20. Just under 10% of respondents reported experiencing a non-consensual sexual encounter while a university or college student. Just over half of students reported knowing where to go get help at their institution if they or a friend were sexually assaulted. Fifty-eight percent of students reported that their faith, spirituality, or culture gives them a lot or some strength to face everyday difficulties.

Figure 20. Response frequencies for HCSK-specific additional questions



Discussion

This report presents aggregated results for the provincial deployment of the Canadian Campus Wellbeing Survey in spring 2021 at 11 post-secondary institutions in Saskatchewan. Access to the provincial Tableau dashboard allows for additional exploration of the data. The data provide institutions and the province with a benchmark for assessing the health and wellbeing of their students in the future during the ongoing recovery from the COVID-19 pandemic.

On March 11, 2020, the World Health Organization characterized the COVID-19 virus outbreak as a global pandemic (World Health Organization, 2020). Canada introduced numerous public health measures, such as physical distancing, limiting community and social gatherings, and maintaining telework arrangements where possible (Government of Canada, 2020a). In response to public health guidelines, most public universities in Canada suspended in-person classes and transitioned to online learning (University Affairs, 2020). These data were collected during the COVID-19 pandemic, when various public health orders were still in place that might impact post-secondary students' health, wellbeing, and experience at the institution. An evaluation is planned for fall of 2021 to explore how institutions are using the CCWS data, and how the data is informing policy and practice at each institution.

Campus Climate and Learning Environment

In terms of aggregated results there are many positives to highlight. In general, the majority of post-secondary students in Saskatchewan report a safe and welcoming campus environment and positive academic experiences. This sample of HCSK post-secondary students feel a sense of belonging at their institution, and report that their place of study provides a respectful environment that values diversity. The majority of students agree that they know where to go both on-campus and off-campus for mental health support and services. Approximately 90% of students report their institution to be providing a supportive learning environment.

Health Enhancing Behaviours

Students are also doing relatively well in terms of participation in health-enhancing behaviours when compared to representative national samples. The majority of students self-report meeting moderate-vigorous physical activity (63.3%) and sleep guidelines (65.0% and 60.0% for weekdays and weekends sleep respectively). This is comparable to national self-reported data where nearly two-thirds of Canadian adults self-reported meeting physical activity guidelines in 2007. It is important to note that using device-based measures of physical activity, only 16% Canadian adults were meeting recommendations in 2017 (Clarke et al., 2019). Sixty-five percent of adults, 18–79 years of age, met sleep duration recommendations, with the average adult sleeping 7.2 hours per night (Chaput et al., 2017). Canadian adults, 18–79 years, are sedentary 9.6 hours per day (excluding sleep time; Centre for Surveillance and Applied Research, 2018) so total sitting time in the current sample is perhaps lower than expected but the CCWS measure likely does not capture all sedentary behaviour.

Less than half of students reported binge drinking in the past month, which is comparatively lower than more than 60% of students who reported heavy drinking in the 2018 Canadian Post-secondary Education Alcohol and Drug use Survey pilot (CPADS; Health Canada, 2018). However, it is higher than the 28.7% of 18-34-year-olds in Canada who reported heavy drinking at least once a month in the past year (Statistics Canada, n.d.), although these differences may be attributed to the different age range and different time periods referred to in the survey items or to fewer opportunities for social drinking during the pandemic.

Smoking behaviour and use of e-cigarettes were comparable to previous data. Rates of never smoking were similar for the CCWS (70.8%) and the National College Health Assessment (73.8%) – a research survey organized by the American College Health Association that was deployed to 58 Canadian post-secondary institutions in the spring of 2019 (American College of Health Association, 2019). Rates of not using e-cigarettes within the past 30 days were comparable between Canadians (81.4%; Reid et al., 2019) and students who completed the CCWS (81.5%).

There was a lower prevalence of cannabis use in the past year compared to CPADS pilot data (Health Canada, 2018b), but also a higher rate of daily use in the past month compared to NCHA results (ACHA, 2019). Fewer CCWS respondents (31%) than participants in the CPADS pilot (39%) reported using cannabis in the past year. Of CCWS participants who used cannabis in the past year, approximately 27% had not used it in the past month. In comparison, 19.7% of students who participated in the NCHA and ever used cannabis had not used it in the last 30 days. Daily use in the past month was much higher for the CCWS (20%) than for the NCHA (3.9%), and for daily use in the past 3 months in the CPADS pilot (8%). The comparisons are limited by the different time frames and items used in different surveys.

Mental Health

There does remain concern about the mental health of post-secondary students. Nearly a third of the sample reported severe mental distress (32%), and low mental wellbeing (28%). While alarming, this high prevalence is not uncommon on the basis of other national surveys with representative sampling. One out of five Canadians reported high psychological distress in 2010 with the highest prevalence of high psychological distress found among the youngest age group (15 to 24 years) at 29.2% (Caron & Liu, 2010). Going further back, using data based on a national probability sample of 7,800 Canadian undergraduate students from 16 universities, thirty percent of the students in the sample reported elevated psychological distress in 2001 (Adlaf et al., 2001). Additionally, these results are comparable to the CCWS cohort from spring 2020 where nearly 29% of students reported severe mental distress, and 27.4%

reported low mental wellbeing (Faulkner et al., 2020). Ten percent of students from Saskatchewan reported seriously contemplating suicide over the last 12 months (an additional 9.5% preferred not to answer). This is slightly lower than the 13% reported in the 2019 NCHA survey in Canada.

On a positive note, most students reported having high levels of social support. The mean social provision score was 16.1, and a score of 15 or above is considered to indicate high levels of social support (Orpana et al., 2019). However, although students reported high levels of social support, they may also have felt lonely. The mean loneliness score was 5.6, with a median score of 6. Scores of 3-5 indicate being lonely, while scores of 6-9 indicate not being lonely. These results are comparable to the Spring 2021 reference group for the NCHA survey (composed of data from American post-secondary students where a random sample was used), where the mean 3-item loneliness score was also 5.6 (American College of Health Association, 2021).

This data confirms that poor mental health is highly prevalent during young adulthood and reinforces the important opportunity for post-secondary institutions to foster mental health and provide ongoing support and services for mental health. Approximately one in five students did not know where to access campus-based mental health support (in person or online) and this might be an area for consideration.

Financial pressure or work obligations remains the most common barrier to academic progress. Related to this, nearly 13% of students were categorized as having very low food security and another 16% as having low food security. This is a comparable prevalence of very low to low food security in the 2021 NCHA data of 33% (NCHA, 2021). Speculatively, more students are studying from home during the CCWS deployment which may contribute to a marginal reduction in food insecurity. Continued advocacy is required for increasing food security for the post-secondary community. The association between food insecurity and poor mental health is well established (Myers, 2020).

Limitations

Caution is required when interpreting the data given the self-report nature of the CCWS and the final response rate which was comparable to the recent 2021 deployment of the NCHA in the United States (13.4% CCWS compared to 13% NCHA). Students completed the CCWS during the COVID-19 pandemic while COVID-19 related restrictions were put in place, and this may have dampened the response rate. Overall, the sample of respondents was generally a good representation of the cohort of students who were invited to complete the survey. There is likely a greater proportion of female respondents in the CCWS cohort than at HCSK post-secondary institutions overall (68.2% versus 70.0% respectively) (http://www.aved.gov.bc.ca/interactive_reporting/welcome.htm). Finally, indicators assessed by the CCWS were generally in line with findings from comparable national datasets. These factors should be considered when considering the representativeness of the data.

Conclusion

We have demonstrated the feasibility of implementing the CCWS at a provincial level and were encouraged by the interest and engagement of HCSK post-secondary institutions in participating in the CCWS. Data collected will serve as a foundation for future deployment and in tracking the health and wellbeing of students over time during recovery from the COVID-19 pandemic. Future research will examine how the data is used by institutions and how it informs their policy, programming and practice initiatives. In time, this will allow for identifying better practices in health promotion at the post-secondary level in Saskatchewan.

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