#### DATA SUPPLEMENT

**Title**: Social, Financial and Psychological Stress during an Emerging Pandemic: Observations from a Population Survey in the acute phase of COVID-19

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# 1. Supplemental results

#### A) Loneliness

Scores on the UCLA Loneliness Scale were significantly higher in individuals who were avoiding going out of their home (Z=-2.2, p=0.027), living alone (Z=-4.7, p<0.001), younger than 65 years of age (Z=-6.8, p<0.001), diagnosed with a mental disorder (Z=-13.7, p<0.001), or unemployed (Chi-squared=70.0, p<0.001). There was no significant difference in loneliness based on other social distancing practice, sex or whether one worked from home (p>0.050).

# B) Sex-stratified analyses

In exploratory analyses stratified by biological sex (Supplemental table 1), the following variables were found to be independent predictors of stress changes in females, but not in males: lesser time elapsed since the start of the outbreak, younger age, higher extraversion, conscientiousness and openness to experiences, having a current diagnosis of a mental disorder, having had more than 5 alcoholic drinks in the past week, and spending less time exercising and doing artistic activities. Conversely, the following variables were found to be independent predictors of stress changes in males, but not in females: work involving physical contact with the general public, having traveled in the past 60 days, and spending less time interacting with people virtually. The following variables remained significant independent predictors of higher stress worsening in both sexes: worse COVID-19 symptoms index, shorter sleep durations, lower PSS scores before the outbreak, higher scores on the DOCS - Contamination subscale, higher neuroticism scores on the Big5, lower scores on the BRCS, worse family relationships, and having underage children.

Supplemental table 1. Stress models stratified by sex

	Males					Femal	es			
	-	95.0% CI			95.0% CI					
	n	В	LL	UL	р	n	В	LL	UL	р
Pre-outbreak PSS (Scale from 0 to 40)	1528	222	262	181	.000	3392	442	478	407	.000
Time elapsed since pandemic declaration (7days) Age (10years)	1643	119	294	.049	.168	3715	196	336	056	.006
	1643	140	360	.080	.203	3713	770	960	580	.000
Education level Total family income below 40k (vs above 40k)	1625 1539	.023 508	459 -1.354	.505 .338	.926 .239	3701 3471	286 .306	758 399	.186 1.011	.234 .395
Employment status (vs employed):	1337	500	-1.554	.556	.237	3471	.500	377	1.011	.575
Lost job due to pandemic, unemployed, on leave or student	1643	.530	284	1.344	.202	3715	005	655	.645	.989
Retired	1643	308	963	.347	.357	3715	.248	408	.903	.459
Work involves contact with the general public (vs not)	1594	1.144	.340	1.948	.005	3594	.425	183	1.034	.171
Type of dwelling	1565	215	792	.361	.464	3292	.115	397	.627	.660
Has minor children (vs no minor children) Travelled abroad since January 2020 (vs no travel)	1547	1.557	.786	2.329	.000	3544	.744	.186	1.303	.009
•	1597	.429	094	.951	.108	3362	261	766	.244	.312
C19 Symptoms index (scale from 0 to 30)	1643	.111	.039	.182	.002	3715	.141	.084	.198	.000
DOCS5 (scale from 0 to 20)	1547	.294	.228	.360	.000	3169	.450	.394	.506	.000
Diagnosis of a mental disorder (vs no diagnosis)	1637	.822	.208	1.436	.009	3688	1.901	1.418	2.385	.000
Weekly alcohol consumption (vs no drinks)										
1 to 5 drinks	1643	071	654	.511	.810	3714	.245	244	.733	.326
More than 5 drinks	1643	.142	412	.695	.616	3714	.999	.470	1.528	.000
Weekly cannabis or other drugs use (vs no use)	1632	.288	387	.962	.403	3679	.358	269	.984	.263
Physical condition at risk for COVID-19 (vs no condition at risk )	1639	.210	309	.728	.428	3702	.036	419	.492	.875
Sleep Duration (hours)	1539	393	554	231	.000	3264	583	720	446	.000
Family Relationship (per 10 units; 0-100 scale)	1607	310	410	210	.000	3420	440	520	350	.000
Spent 30min or less (vs more than 30min):										
Outdoor	1633	.237	323	.798	.406	3683	055	545	.436	.826
Exercising	1627	.377	141	.895	.154	3667	.578	.090	1.065	.020
Following C19 news	1626	502	968	036	.035	3669	228	657	.201	.297
Interacting with people in person	1600	.305	151	.761	.190	3600	.166	254	.585	.439
Interacting with people virtually	1617	459	919	.001	.051	3659	.298	137	.733	.179
Doing an artistic activity	1601	.517	066	1.101	.082	3608	.661	.194	1.129	.006

Coefficients parameters for multiple linear regression models in males (Left panel) and females (right panel). B: Unstandardized coefficients (calculated per one unit for continuous variables, except for the time elapsed since the start of the outbreak (calculated for each 7 days), and age and family relationships (per 10 units). CI: confidence interval, LL: lower limit, UL: upper limit, Dimensional Obsessive Compulsive Scale (DOCS), Cohen's Perceived Stress Scale (PSS), † Physical condition at risk for COVID-19: e.g. respiratory, cardiovascular or autoimmune conditions.

# 2. Additional information about the survey

# 1.1 CHERRIES guidelines

In line with the CHERRIES guidelines, the survey data is stored in a secured access database (i.e. on a restricted access password protected server at the Royal Ottawa Mental Health Centre). The usability, decisional three, branching logic, and technical performance were tested with seven individuals prior to its launch. A "Save and Continue" feature was enabled, which placed a cookie on the participant's browser to keep track of survey progress and allowed participants to continue the survey at a later time. Furthermore, to avoid duplicates, distinct entries submitted from the same Internet Protocol address (IP address) within a 12-hour period were automatically marked and excluded from the analyses, but IP addresses were not stored. 26/6,040 (0.4%) duplicate entries identified by matching emails were found. In these cases, the final entry to be kept in the database was selected based first on completeness and then on recency. The mean number of items per page ranged between 4.6 and 6.5 per page depending of the paths followed on the decisional three structure. A completeness check system enabled to document the percentage of the survey completed for each participant.

Some of the CHERRIES recommendations could not be implemented. For instance, participation rate could not be calculated since the survey was freely circulated notably via newsletters and social media, which prevented from the research team to keep track of the number of people who may have seen the survey invitations. Participants were not able to review their responses at the end of the survey. However, they were able to change some of their responses through a "Back Button", except where responses were used as part of branching logic. Not all items had an "N/A" response option, notably to abide by the strict content of the validated questionnaires included. Responses were not forced; to follow guidelines from our research ethics committees, participants were free to skip any question (except age, which was necessary to determine eligibility to complete the survey). However, prompts appeared to warn participants that a response was skipped before moving to the next section.

## 1.2 Optional components

Consent was sought from all respondents to receive invitations to fill out follow-up surveys to monitor dynamic longitudinal changes prospectively across different phases of the outbreak (i.e., on a weekly, biweekly or monthly basis), and/or 3 and 6 months after the end of the outbreak. Respondents also had the option of linking the survey results to provincial health administrative data. Optional consent was also sought to link parent and adolescents survey data across parent-child dyads to enable finer analyses of family dynamics. Finally, respondents had the option of providing their Twitter and/or Facebook handles to help refine and apply new methods based on artificial intelligence to monitor the progression of the impacts of COVID-19 through social media data. Social media data will be collated retrospectively starting six months prior to study enrollment until six months after the end of the outbreak, therefore enabling to investigate changes in social media activity before, during, and after the outbreak. Of the 6040 respondents, 78.9% (4,765) agreed to be invited to do follow-up surveys, 63.0% (3,803) consented for their data to be linked to provincial health administrative data, and 17.7% (1,068) consented for social media linkage. Findings from these optional parts of the survey will be reported in subsequent reports.

# 1.3 Recruitment Strategy

The survey deployment network currently includes: The Royal Ottawa Mental Health Centre, the University of Ottawa Heart Institute, the Ottawa Hospital, the Children's Hospital of Eastern Ontario, Sunnybrook Health Sciences Centre, Southlake Regional Health Centre, and the Centre for Addiction and Mental Health. The survey link was circulated via the participating sites' websites, email lists and newsletters. "Permission to contact" registries from some of the participating hospitals (the Royal Ottawa Mental Health Centre, the University of Ottawa Heart Institute, the Ottawa Hospital, and the Centre for Addiction and Mental Health) and existing pools of research participants were also used to invite patients who consented to be contacted for research. Partnership for the diffusion of the survey was also established with organizations including: Canadian Nurses Association, Canadian Physiotherapy Association, Canadian Association of Occupational Therapists, Ontario Public Health, Ontario Medical Association, Ontario Psychiatric Association, Ontario Society of Occupational Therapists, Canadian Counselling and Psychotherapy Association, Ordre des Psychologues du Québec, Mood Disorders Society of Canada, Canadian Arthritis Patient Alliance, Patients for Patient Safety Canada, the COVID-19 Resources Canada Platform, and Sleep On It! Canada.

## 1.4 Data cleaning and supplemental notes

Based on items content, it was deemed that a minimally informative proportion of the survey was completed after the 83rd item (i.e. "Have you been tested for COVID-19?" Corresponding to a 1/3 completion rate for the survey).

All available data from the participants having reached at least this item were included in the analyses. Survey completion times were calculated for those with at least 75% completion rates and all data points longer than 7 hours were systematically excluded from completion time estimates. For all continuous variables, negative values were excluded and treated as missing data. For time estimates, data points larger than the possible time limit (e.g. 40 hours per day) were systematically excluded and treated as missing data (e.g. habitual number of hours of sleep per night; 29/5037 data points (0.6%)). Extreme improbable values were excluded: number of drinks or cannabis use per week >125 (alcohol: 2 data points, cannabis: 1 data point). The time elapsed since the start of the outbreak was defined by the number of days between the declaration of the pandemic by the World Health Organization and the date at which the survey was completed). All categorical variables included in the multivariate model had at least 10% of cases per category.

# 3. Brief description of primary measures of interest covered in this report

# 3.1 Demographic information

Demographic variables included age, sex, gender, ethnicity, current location and country(ies) of citizenship, employment status, occupation, living arrangements, parental status, level of education, political beliefs, religious practice, and total yearly family income.

## 3.2 COVID-19 testing, perceived threat and concerns

We asked the participants to report on their experiences around COVID-19 testing and diagnoses. They were also asked if they have any symptoms suggesting COVID-19 or other risk factors. An index of the number and severity of symptoms that have been associated with COVID-19 (i.e. C19 Symptoms index) was calculated by summing the severity ratings on a scale from 1:mild, 2:moderate and 3:severe for all symptoms endorsed on a list of 11 symptoms (please see "<u>Detailed survey description</u>" section below). The level of perceived threat related to COVID-19 for one's health, job or business, financial situation or country were rated on a five-point interval scale from very low to very high.

In addition, levels of concerns for several aspects of life, such as access to food or medical services were rated on a scale ranging from "0-Not concerned at all", to 50-Neutral" and "100-Very concerned". Respondents were also asked when they anticipated that the global situation and their personal situation would get back to normal.

# 3.3 Occupational and Financial Impacts

Consequences of the outbreak for school and work were documented, including school closure, working from home, being in contact with the general public, employment termination or salary reduction.

# 3.4 Impacts on Social Life

Rates of homeschooling and global assessment of work/study and family life management in the face of the outbreak were documented. The frequency of interactions, quality of relationships (with family, friends and work colleagues) and degree of connectedness were retrospectively estimated before the outbreak and at the time of the survey (i.e. during the outbreak). Respondents also indicated their adherence to various practices related to social distancing currently being followed at the time of filling out the survey and those who had been used earlier on after the start of the outbreak. To assess subjective feelings of loneliness and social isolation, the UCLA Loneliness Scale was administered (1).

# 4. Detailed Survey description (general adult version)

Text in grey represent items asked based on previous answers. The time scale of the following questionnaires was adjusted to align with the two study time points: i) "before the outbreak" (i.e. in the last month before the outbreak) and ii) "during the outbreak" (i.e. in the last seven days at the time of filling out the survey): Cohen's Perceived Stress Scale (PSS-10), Generalized Anxiety Disorder Scale (GAD-7), Quick Inventory of Depressive Symptomatology- Self Report, short version (QIDS-SR<sub>16</sub>), Dimensional Obsessive Compulsive Scale – Germs and contamination subscale (DOCS), and the Pittsburgh Sleep Quality Index (PSQI).

# Demographics

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Age _____years

If < 12 y.o. - "Thank you for your interest. Unfortunately, you cannot participate in this study."

If < 16 y.o. - Directed to the Adolescent version

Are you currently a resident physician or working as a health care professional or health care administrator?
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If No – Continue to general baseline survey described below

If Yes – Please select which version of the survey you can do

Regular survey for health care workers / administrators (about 20 to 65 minutes)

If selected – Directed towards regular survey (with targeted questions for healthcare staff)

Brief survey for health care workers / administrators (about 15-35 minutes)

If selected - Directed towards Healthcare worker brief version

- Where are you currently living? The house or apartment me or my family rent or own, Rehabilitation centre for youth in difficulty; retirement home, nursing home or long term care facilities, foster family, hospital, temporary accommodation: residence of other family, hotel, rooming/lodging house; camp, other:

  \_\_\_ {if temporary residence Are you living in a temporary residence because of the outbreak? Y/N; If Rehabilitation centre for youth in difficulty; go to Adolescent version}
- Sex assigned at birth: Male, Female
  - If Female: Are you pregnant?
- Gender: Male, Female; Transsexual female to male; Transsexual male to female; Gender-queer; Gender-fluid; Gender non-binary; Other: \_\_\_\_\_
- Religious practice: Y/N {If yes: please specify: \_\_\_\_\_}
- Do you identify as (select all that applies):
  - First Nations (North American Indian)
  - Métis
  - Inuk (Inuit)
  - White
  - South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
  - Chinese
  - Black
  - Filipino
  - Latin American
  - Arab
  - Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)
  - West Asian (e.g., Iranian, Afghan, etc.)
  - Korean
  - Japanese
  - Other specify
- Current country(ies) of citizenship: {list with other:\_\_\_\_}
- Current location: {list with other:\_\_\_\_}
  - If Canada selected: Current Province/Territory
- If your current location is <u>not</u> one of your countries of citizenship, for how long have you been in your current location?: \_\_\_\_ years \_\_\_months \_\_\_days
- Including yourself, how many persons currently live in your dwelling?

- Who is currently living in your dwelling: children, partner, husband/wife, mother, father, stepmother, stepfather, grandchild, brother/sister, other: \_\_\_\_\_
- Do you have any children?

If Yes - {How many children? Ages (How old is your child (in years or months)? Are any of your children in shared custody??}

If has a child between 12-18 years old:

If you think that your child(ren) would be open to fill out the 'adolescent' version of this survey, would you agree for our research team to send you an email with the link to do this survey which you can transfer to your child(ren)? Y/N

If yes (and if address not provided earlier) - Please provide your email address: \_\_\_\_\_ If email entered- If your children agree to take part in this study, do you agree for the research team to link your answers to the answers of your children to enable a better analysis of family situations? If so, in addition to the survey link, we will also email you a unique anonymous "Family" code which your children will be able to enter in their survey in order to link it to yours. Your children will not be able to see your answers and you will not be able to see theirs. The research team will only be able to see that respondent 'X' is the child of respondent 'Y'. Y/N

N.B. If you have any questions about this, please contact us at C19Survey@theroval.ca.

- Are you the primary carer of a person with a disability of chronic illness? Y/N if yes: Is that person currently living: with you? On their own? In a specialized care facility?
- Current residential postal code(s) or equivalent (3 first digits only):
- What type of dwelling do you live in?
  - 01: Single detached house 05: Apartment in a building that has five or more storeys
  - 02: Semi-detached house 06: Apartment in a building that has fewer than five storeys
  - 03: Row house or terrace 08: Mobile home or other movable dwelling
  - 04: Apartment in a flat or Duplex 09: Other Specify
- How many rooms are there in your dwelling (the single unit in which you currently live)?
- Have you completed: high school diploma or equivalency certificate; college, CEGEP or other non-university certificate or diploma; university certificate, diploma or degree (if so below bachelor level, bachelor's degree, Master's degree, professional degree, doctorate degree)
- Occupation In the last month <u>before the outbreak</u>:
  - Retired, Student {If so Did your school close because of the outbreak? In how much time were you meant to obtain degree (e.g. graduating from high school or obtaining a diploma/certificate)? What impacts does the outbreak have on classes and exams? Did you receive any financial support from a scholarship, bursary or fellowship in the current school year? If so, what was the total amount you received?}, Employed, on leave {for medical reasons, for familial reasons, other:\_\_\_\_}, Other:\_\_\_\_\_
  - If employed is selected:
    - Are you a health care worker or health care administrative staff?
    - Self-employed? Job title? Usual number of work hours per week? Shiftwork (e.g. working in the evening or nighttime)? {if so- Is your shiftwork mostly: night shift, evening shift, rotating}; How often would you usually travel out of your country for work? \_\_\_/year
    - Current work status: working from usual workplace, working from home because
      of the pandemic, job has been terminated because of the pandemic, working hours
      were increased/decreased because of the pandemic, salary has been decreased
      because of the pandemic (if so- by how much was your salary decreased (estimate in
      percentage)?
    - Does your work currently involve: Contact (in person) with the general public?
       Contact (in person) with people at high risk for COVID-19 (i.e. elderly, chronic

	illnesses}? Contact (in person) with people who tested positive for COVID-19? Providing essential services (e.g. hospital, public transport, grocery store)?  If yes - {Hospital, Fire Services, Public transport, Police, Grocery Store, Pharmacy
	Gas Station, Public Transport, Other:}
	- If retired is selected:
	- Are you coming back to work (or volunteering) to assist with the outbreak?  - If Yes - Does your work involve: Contact (in person) with the general public? Contact (in person) with people at high risk for COVID-19 {i.e. elderly, chronic illnesses}? Contact (in person) with people who tested positive for COVID-19? Providing essential services (e.g. hospital, public transport, grocery store)?  If employed/student is selected:
	- How would you rate the degree of school/work-related stress you are <u>currently</u>
	experiencing? (0-Very low stress 100 - very high stress)
	- How would you rate the degree of school/work-related stress you have been experiencing in the last month before the outbreak? {0-Very low stress}
	Usual mode of transport (to go to work, do groceries, etc) before the outbreak:
-	[Public transport, driving a car, walking, cycling, other:]
_	Total yearly family income:
_	How would you rate your political beliefs
	{1-5 scale of very left- to very right-wing views, with one 'other', please explain}
- - -	when would you say that the outbreak started in the region where you have been staying for the last month? <i>Approximately</i> { <i>DD/MM/YYYY</i> }  Have you travelled outside of your country of residence since January 30th 2020?  - If YES: When did you return? { <i>DD/MM/YYYY</i> } Where did you go?
-	Has anyone currently living with you travelled outside of the country since January 30th 2020  - If YES: When did they return? {DD/MM/YYYY} Where did they go?
	Since the start of the Outbreak, dDid <u>you</u> have (please select all that applies or leave blank if you prefer not to answer this question) {Mild, Moderate, Severe}
	Fever Cough Difficulty breathing or shortness of breath Sore throat Tiredness
	Aches and pains
	Nasal congestion
	Runny nose
	Sore throat
	Diarrhea COMP 10 (2 10 )
	Other symptoms you think could possibly be related to COVID-19 (Specify):
	For any selected symptom. Still current?

Did anyone living with you have any symptoms that could be linked to COVID-19 (e.g. fever, cough, difficulty breathing, runny nose...) since the start of the outbreak? Y/N/I prefer not to answer this question

\*If yes: Is this person currently awaiting testing? Yes

No, they have already been tested and are awaiting the

results

No, they have already been tested and were negative for COVID-19

No, they have already been tested and were positive for  ${\ensuremath{\mathsf{COVID}}\xspace-19}$ 

I don't know

Did anyone else in your family have any symptoms that could be linked to COVID-19 (e.g. fever, cough, difficulty breathing, runny nose...) since the start of the outbreak? Y/N/I prefer not to answer this question

\*If yes: Is this person awaiting testing? Yes

No
No, they have already been tested and are awaiting the results

No, they have already been tested and were negative for No, they have already been tested and were positive for

Is that person currently staying in hospital? Y/N

- Have you been tested for COVID-19? Y/N

COVID-19

If YES - Were the results: positive, negative, don't know yet?

How long ago did you find out? \_\_months \_\_days

If NO - Have you reached out to health services to get assessed for COVID-19?

If Yes: Have you been told that you cannot be tested? Y/N

If yes: What reason was provided to decline your request to get tested? If No: How long have you been waiting? \_\_months \_\_days

#### If indicated children above:

- For how long have your children been off from school? \_\_\_\_\_ months \_\_\_ days N/A
- Are your children receiving instruction from the school at a distance? Are you or your partner homeschooling?

# If indicated student or working above:

- How is the outbreak affecting how you deal with your work/study and family life?

  0 -Very disruptive 50- Not different from usual 100-Easier than Usual
- Are you currently living with anyone who works at the front-line (e.g. health care staff, first responders, laboratory technician)? Y/N
- Do you have any other relatives working at the front-line? Y/N

Please select all statements that apply to you (currently / Since the start of the outbreak):

- Not going out of the home except if you really do not have a choice (e.g. to go to a medical appointment)
- Avoiding going out from a specific room in the home to avoid contamination from/to other people living in your home
- Not attending public areas
- Avoiding gathering in person with friend or family who do not live with you
- Not using public transportation (e.g. buses, subways, taxis)
- Having food/supplies delivered home or relying on food/supplies stocked in the home instead of running errands
- Wearing a mask (or covering mouth and nose with tissues) when having to leave the home
- Maintaining a 2 meter distance from others
- In mandatory quarantine (isolation imposed by medical staff)

If selected - For how long? \_\_\_\_ days

- How serious do you think a coronavirus infection would be for your health?

{Very high threat, High threat, Moderate threat, Low threat, Very low threat, Don't know}

- What level of threat do you think COVID-19 poses to:

{Very high threat, High threat, Moderate threat, Low threat, Very low threat, Don't know}

- your job or business?
- your country?
- your financial situation?
- How concerned are you about:

{0-Not concerned at all Neutral 100- Very concerned}

- lacking food?
- public services shutting down?
- schools shutting down (or staying closed for an extended period)?
- your children or relatives not coping well with the situation?
- not being able to access medications or medical services?
- Other:\_\_\_\_
- When do you expect the global situation to go back to normal?

{by June 2020, by September 2020, by March 2021, after March 2021, "I have no idea"}

- When do you think your life will get back to normal?

{by June 2020, by September 2020, by March 2021, after March 2021, "I have no idea"}

Did the outbreak overlap with a significant event in your life (e.g. wedding, funeral, break up, graduation...)? Y/N

if yes - Please specify the nature if the event and the consequences:

How frequently were you interacting with your family

Past 7 days? {daily, weekly, monthly, less often than monthly, N/A}

In the last month before the outbreak? {daily, weekly, monthly, less often than monthly N/A }

How would you rate your relationship with your family

Past 7 days? {0-Very difficult/conflictual 50-Neutral 100-Excellent, N/A }

In the last month before the outbreak ? {0-Very difficult/conflictual 50-Neutral 100-Excellent, N/A }

- How frequently were you interacting with your friends

Past 7 days? {daily, weekly, monthly, less often than monthly, N/A }

In the last month before the outbreak ? {daily, weekly, monthly, less often than monthly N/A }

How would you rate your relationship with your friends

Past 7 days? {0-Very difficult/conflictual 50-Neutral 100-Excellent N/A }

In the last month before the outbreak ? {0-Very difficult/conflictual 50-Neutral 100-Excellent N/A }

- How would you rate your relationship with work colleagues?

Past 7 days? {0-Very difficult/conflictual 50-Neutral 100-Excellent N/A }

In the last month before the outbreak? [1-Very difficult/conflictual 50- Neutral 100-

Excellent N/A }

How much do you agree with the following statements: Please select the circle that best describes your opinion on the continuum from 'strongly disagree' to 'strongly agree'.

{ (NA) - (strongly disagree) (neutral) (strongly agree)}

Since the beginning of the outbreak, I have experienced significant levels of support from:

- my family
- friends and acquaintances
- my employer, colleagues
- medical staff and other professionals
- my religious/spiritual community
- strangers
- internet-based communities

Since the beginning of the outbreak, I have reached out to offer help and support to:

- my family
- friends and acquaintances
- my colleagues
- my religious/spiritual community
- strangers
- internet-based communities

Compared to how you felt before the outbreak, to what degree do you currently feel connected to:

{(NA) - 0 (More disconnected) 50 (No Change) 100 (More connected)}

- Family
- Friends
- Work colleagues
- Religious/spiritual community
- Community at large (neighbors, strangers)

In the past 7 days, how much time per day have you been spending:

0 minutes / day 1-30 min / day 31-60 min / day 1-2 hours /day 2-4 hours /day More than 4 hours /day

- Outdoors?
- Doing physical activity?
- Following COVID-19 updates in the media?

If >than 0min: Where do you get your information about COVID-19? {Newspaper, websites, YouTube, reddit, radio, television, social media (e.g. facebook, twitter), talking with other people}

- Watching television, series or movies (excluding the news)
- Playing video games
- Doing an artistic activity (music, drawing, etc)?
- Doing contemplative/spiritual practice (meditation, prayer, etc.)?
- Interacting with other people:
  - o In person:
  - Virtually (e.g. phone, texting, Skype, Facetime etc):
     If >than 0min What virtual communication means are you using? phone, texting, video (e.g. Skype, Zoom, Facetime)
- To what degree have your daily activities been affected by the outbreak in the past 7 days?

{0- Negatively Affected 50- Not Really Affected 100 –Positively Affected}

- How many cigarettes per day were you smoking:

In the past 7 days? in the last month before the outbreak?

If >0 - Are you regularly smoking (please tick all that applies): standard cigarettes, electronic cigarettes (vaping)

- How many alcoholic drinks did you have (Consider a "drink" to be a can or bottle of beer, a glass of wine, one cocktail or a shot of hard liquor (like scotch, gin, or vodka)):

Total number of drinks in the past 7 days? Number of drinks per week in the last month before the outbreak?

- How frequently were you taking cannabis products:

Total number of times in the past 7 days? Number of times per week in the last month before the outbreak?

- How frequently were you taking illicit drugs (e.g. cocaine, amphetamines, mushrooms, ecstasy):

Total number of times in the past 7 days? Number of times per week in the last month before the outbreak?

- Did your overall stress level change since the start of the outbreak?

{0- greatly reduced 50-No change 100- Greatly increased}

- What coping strategy(ies) (i.e. actions or thought process used to try to tone down the impacts of a stressful situation) do you find most helpful to help you go through the current pandemic situation?
- Has your household spending changed since the start of the outbreak?

{Decreased / No change / Increased}

If Increased By how much (in percentage (%))for health? for food? for other expenses?
 (please specify)

In the last 7 days, how much have you been feeling like time seems to {0 - Not at all to 100- Very Much}

- speed up (e.g. hours feel like minutes)
- slow down (e.g. days seem like weeks)

If Yes – Please explain:

• stop (e.g. things seem frozen)

#### Physical health

- Have you ever had any of the following health problems (Please select all that applies): {Type 1-2 diabetes, respiratory disease {Asthma, chronic obstructive pulmonary disease (COPD) or hypoventilation}, Autoimmune disease (e.g. rheumatoid arthritis, lupus, inflammatory bowel disease (IBD), multiple sclerosis (MS), psoriasis), High blood pressure (hypertension), Heart disease or coronary artery disease (e.g., Heart failure, heart attack, myocardial infarction, atrial fibrillation, angina), Cerebrovascular disease (e.g., stroke, cerebral hemorrhage), High cholesterol (hypercholesterolaemia) or triglycerides, Thyroid disease, Severe infection (e.g., pneumonia, mononucleosis (glandular fever), mumps, tuberculosis, hepatitis),cancer, HIV/AIDS Other:); For all selected options: Please indicate which of your health problems are still current}

Has there been any worsening in your physical health since the start of the outbreak? Y/N

Has t	here been any changes in your medications (including changes in dosage) since the start of the
Yes	No N/A
	If Yes - a) Please select all that applies:
	Adding a new medication
	No longer taking a medication
	Because I no longer need it; because it is uneasy/no possible to go to the pharmacy; because of financial constraints; Other:
	Dosage increase
	Dosage decrease
	Because I no longer need it; because it is uneasy/no possible to go to the pharmacy; because of financial constraints; Other:

- Are you currently taking (select all that applies):
- Antihypertensive medications (for ex.: calcium channel blockers, ACE inhibitors, angiotensin II receptor antagonists (ARBs), beta blockers)
- Antidepressant medications (for ex.: Zoloft (sertraline), Celexa (citalopram), Prozac (fluoxetine), Desyrel (trazodone), Lexapro (escitalopram), Cymbalta (duloxetine), <u>Effexor XR (venlafaxine)</u>, <u>Wellbutrin (bupropion)</u>)
- Antianxiety medications, Anxiolytics, Benzodiazepines (for ex: Rivotril (clonazepam), Xanax (alprazolam), Ativan (lorazepam))

b) Did you discuss these changes with your doctor? Y/N

Do you currently have any difficulty: seeing (even when wearing glasses or contact lenses)? hearing (even when using a hearing aid)? walking, using stairs, using your hands or fingers or doing other physical activities? learning, remembering or concentrating?

{Answer choice: No, Sometimes, Often, Always}

If selected current respiratory disease: Have you been using any of the following	In the last month before the outbreak	Past 7 days
Nebulizers Positive airway pressure treatment Inhaled corticosteroids Oral corticosteroids Asthma puffer		

#### Mental health

- Have you ever had a formal diagnosis of (Please select all that applies): {General Anxiety Disorder, Social anxiety disorder, Specific phobia, Panic Disorder, Agoraphobia, Depression, Dysthimia, Seasonal affective disorder, Premenstrual dysphoric disorder, Bipolar Disorder (manic depressive disorder), Obsessive-compulsive or related disorders (e.g., OCD, hoarding, excoriation, trichotillomania), Post-Traumatic Stress Disorder (PTSD), Anorexia, Bulimia, Schizophrenia or other Psychotic Disorder, Personality disorder, Substance Use Disorder, Alcoholism, Substance use disorder (drug addiction), Gambling disorder, Somatoform disorder; Attention-deficit/hyperactivity disorder (ADHD), Other neurocognitive disorders (e.g., Alzheimer's disease, Parkinson's disease, vascular dementia, amnestic disorder). Please specify: For all selected options: Please indicate which of your diagnoses are still current:}
- Have you previously been exposed to a major difficult or stressful event (for example: natural disaster, fire/explosion, transport accident, physical or sexual assault, combat/exposure to a war zone, life-threatening illness or injury...)? Y/N

# Cohen's Perceived Stress Scale (PSS-10)

The 10 item PSS is used to quantify the perception of stress (2). Participants answer from a five-point Likert scale, with total scores ranging from 0-40, where higher scores indicate greater perceived stress (2). The Cronbach  $\alpha$  and test-retest of the PSS-10 were both reported as greater than 0.70 (3).

#### The Quick Inventory of Depressive Symptomatology-Self Report, short version (QIDS-SR<sub>16</sub>)

The QIDS-SR<sub>16</sub> is a questionnaire assessing the nine symptom domains of depression used in the DSM-IV. It contains 16 items for which respondents are asked to rate the severity of symptoms such as sleep disturbances (either reductions or increases in sleep), sadness, appetite and weight changes (either reductions or increases), and restlessness. Scores range from 1-27, with higher scores indicating more severe depression symptoms (4). The minimum clinically important difference for this questionnaire was found to be  $\geq 28.5\%$  ( $\pm 28.7\%$ ; 5). Based on a meta-analysis, the QIDS-SR<sub>16</sub> was found to be unidimensional and to have an internal consistency (Cronbach's  $\alpha$ ) ranging from 0.69 to 0.89 (6). This questionnaire was included due to the low mood that may be associated with the imposed isolation.

#### **Generalized Anxiety Disorder Scale (GAD-7)**

The GAD-7 is a 7 items questionnaire, which is used to screen and assess severity of generalized anxiety disorder. Scores can range from 0-21, with a higher score indicating a greater severity. Internal consistency was found to be excellent (Cronbach  $\alpha=0.92$ ) and test-retest reliability as good (intraclass correlation = 0.83). The GAD-7 was also found to have good sensitivity (89%) and specificity (82%; 7). The minimal clinically important difference on the GAD-7 was estimated at changes of 4 or greater (8). This questionnaire was included since several factors related to the pandemic can cause an increase in anxiety (e.g. isolation, the unknown, change).

#### Dimensional Obsessive-Compulsive Scale (Germs and contamination subscale)

The DOCS is a 20-item measure that measures the four dimensions of obsessive-compulsive symptoms (contamination, responsibility, unacceptable thoughts, symmetry) that have been identified in research (9). Test scores range from 0-80 (0-20 on each subscale). For the purpose of this study, only the contamination subscale, which relates to obsessions and cleaning compulsions, was used. Cronbach's  $\alpha$  for the four subscales were in the good to excellent range (0.83-0.89) and test-retest correlations were considered to be of adequate stability for the total score (r = 0.66) and subscales (r = 0.55-0.66). Factorial validity was supported in both clinical (OCD and other anxiety disorders) and

nonclinical (undergraduate students) samples. The DOCS can distinguish individuals with OCD very well from nonclinical individuals, and quite well from individuals with other anxiety disorders. The DOCS can be used during the pandemic to identify new or pre-existing obsessive-compulsive symptoms exasperated by pandemic-related stress.

# Big Five Personality Inventory, short version

The Big Five Inventory (short version), or BFI-10, is a 10-item questionnaire used to measure the Big Five Dimensions that was adapted from the BFI-44-item scales (10). Each scale (Extraversion, Neuroticism, Openness, Agreeableness, Conscientiousness) is comprised of two items. The four samples tested (US public and private university students, US dog owners, and German students) demonstrated that the BFI-10 scales differ from the BFI-44 scales in their partwhole correlations, with lower correlations for Openness (0.79) and Agreeableness (0.74), and higher ones for Extraversion (0.89), Neuroticism (0.86), and Conscientiousness (0.82). The test-retest stability showed respectable levels of 0.75 overall (0.72 for one US sample and 0.78 for German sample) and there was an average Cronbach's  $\alpha$  of 0.75. The BFI-10 can be useful during the pandemic to measure peoples' personality traits and to observe whether certain traits are related to mental health challenges.

# **Brief Resilient Coping Scale (BRCS)**

The BRCS is a 4-item measure, with scores ranging from 4-20, that aims to identify adaptive tendencies that individuals use to cope with stress (11). Cronbach's  $\alpha$  for the combined samples (men and women diagnosed with rheumatoid arthritis) was 0.69 (ranging from 0.64-0.71). The test-retest reliability was r = 0.71 (p < 0.001). The BRCS is sensitive to changes in cognitive and behavioural resilient coping patterns as demonstrated by changes in BRCS scores after the intervention (p < 0.05). Under the current circumstances of living through a pandemic, this measure can capture the healthy strategies individuals are using to cope with stress that may be caused by new financial concerns, childcare arrangements, adapting to working from home, or caring for elderly family members or those who have compromised immune systems.

#### Sleep

- Have you ever had, a formal diagnosis [being told by a physician] of: {Insomnia, Sleep-related breathing disorder (e.g. Sleep apnea), Restless legs syndrome, Narcolepsy, Nightmare Disorder, Non 24 Sleep Wake Disorder, Delayed Sleep Phase Syndrome, Advanced Sleep Phase Syndrome, Excessive daytime sleepiness or hypersomnia; For all selected options: Which of your diagnoses are still current? }
- How would you assess your sleepiness during a typical day? (By "sleepiness", we mean the strong tendency to doze off): {0- "no sleepiness" to 10 "extremely sleepy"}

# Pittsburgh Sleep Quality Index (PSQI)

The PSQI is a 24-item questionnaire initially developed to assess sleep disturbances related to mood disorders and various clinical populations. It has seven components score with a range of 0-21 points. The questionnaire has been reported to have a high degree of internal consistency (Cronbach's  $\alpha = 0.83$ ), as well as high sensitivity (89.6%) and specificity (86.5%) in distinguishing good and poor sleepers. Test-retest reliability was also found as high (r = 0.85, p < 0.001; 12). This questionnaire has been included because sleep can be influenced by several factors related to the pandemic (e.g. stress), as well as factors related to confinement (e.g. working from home with more flexible hours, family duties, etc.).

	Past 7 days	In the last year
How many times per week did you have bad dreams (negative dreams that do not wake you up)  {/week}  How intense were these bad dreams?  {1 (not intense) 50 (moderately intense) 100 (extremely intense)} how many times per week did you have nightmares (negative dreams that wake up up)  {/week}		

	1
If ≥1 nightmare:	
How intense were these nightmares?	
{0 (not intense) 50 (moderately intense) 10 (extremely intense)}	
What level of distress are your nightmares causing?	
{0 (none) 50 (moderate) 100 (extreme)}	

#### Reduced Morningness-Eveningness Questionnaire (rMEQ)

The rMEQ assesses one's preferred timing for sleeping and waking up, as well as for doing various activities (e.g. intellectual, physical activities). Made with five items, the score can range from 4-25 and are sub-divided into 5 categories ranging from "definitely evening type" to "definitely morning type". The rMEQ correlated strongly with the MEQ (r=0.898, p<0.00001), and its five items (r=0.73, p<0.001), suggesting high reliability (13). A correlation was also found between rMEQ and the acrophase of motor activity (r=-0.34; p<0.001), which suggest good external validity (14). The rMEQ was utilized due to the link between chronotype and mood as well as other behavioural variations, which have most likely been impacted by the pandemic.

If indicated a diagnosis of sleep disordered breathing:

Have you been using any of the following	Past month before the outbreak	Past 7 days
Positive Airway Pressure machine (e.g. CPAP; "breathing machine") Mandibular advancement device Positional therapy Stimulant medication (e.g. modafinil)		

# Subsections for specific subgroups

Health care providers and administrative staff (Based on Demographic section)

Position: Resident Physician, Specialist physician, GP, allied health professional (Audiologist,
Chiropodist/Podiatrist, Chiropractor, Dentist, Dietitian, Massage Therapist, Medical Laboratory Technologist,
Medical Radiation Technologist, Midwife, Nurse, Occupational Therapist, Optician, Optometrist, Pharmacist,
Pharmacy Technician, Physiotherapist, Psychologist, Respiratory Therapist, Speech-Language Pathologist, Other -
Please specify:}, administrative staff {Medical Administrative Assistant, Medical Receptionist, Family Health
Organization Administrator, Health Records Clerk, System Coordinator, Other - Please specify:}
If Resident: "Program year": { PGY1 (postgraduate year 1) to PGY6 (postgraduate year 6)}

#### Principal contact with patients:

inpatient {non-essential; essential; not sure}; outpatient {non-essential; essential; not sure}; both

Discipline: Anatomical Pathology, Anesthesiology, Cardiology, Cardiovascular/Thoracic Surgery, Clinical Immunology/Allergy, Critical Care Medicine, Dermatology, Diagnostic Radiology, Emergency Medicine, Endocrinology/Metabolism, Family Medicine, Gastroenterology, General Internal Medicine, General/Clinical Pathology, Geriatrics, Hematology, Medical Biochemistry, Medical Genetics, Medical Microbiology and Infectious Diseases, Oncology, Nephrology, Neurosurgery, Nuclear Medicine, Obstetrics/Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology, Pediatrics, Physical Medicine and Rehabilitation, Plastic Surgery, Psychiatry, Public Health and Preventive Medicine, Radiation Oncology, Respiratory Medicine/Respirology, Rheumatology, Urology, Other: \_\_\_\_\_

Since the outbreak:

Have you been reallocated to work in a different unit or discipline? Y/N

If Yes - Please specify: \_\_\_\_\_

Have you been using virtual tools to connect with your patients or colleagues (e.g. phone, video): Y/N

If Yes - Please specify:					
How satisfied are you with these tools?	{0 Not at all	50 somewhat	100 Extremely}		
If No – Why (please select all that applies)? {Not relevant for my current work, No/Insufficient resources					
vailable for this. This is not approved in my unit/ho	osnital Lam not	at ease with the	se methods. Other:		

To what degree do you agree with the following statements in relation to your work since the start of the outbreak?:

{Strongly agree, Somewhat agree, Neutral, Somewhat disagree, Strongly Disagree, N/A} - asking for before and after outbreak

Guidelines and instructions from my superiors are clear.

Instructions from my superiors change rapidly and it is difficult to keep track.

There are inconsistencies in instructions from my superiors making it hard to know what I should be doing.

I am receiving too many updates via email.

I have access to adequate personal protective equipment (PPE).

I have sufficient remote access to the information I need (e.g. patient files).

I am concerned I may develop COVID-19.

I am concerned I may pass COVID-19 to my patients/work colleagues.

I am concerned I may pass COVID-19 to my immediate family or others who live with me.

#### **Measure of Moral Distress – Healthcare Professionals (MMD-HP)**

A 27-item self-report questionnaire developed to assess moral distress (15). Participants rate each item on a 5-point Likert scale indicating the frequency of each situation ranging from 0 (never) to 4 (very frequently). For each item, participants also rate how distressing the situation is when or if it occurs (0 = never and 4 = very distressing). The frequency score (f) is multiplied by the distress score (d) to obtain a composite score. An overall MMD-HP score is obtained by summing the composite item scores. Overall scores range from 0 to 432, with higher scores indicating higher levels of moral distress (15). The MMD-HP demonstrates high validity and strong internal consistency (Cronbach's  $\alpha = 0.93$ ; 15). This questionnaire was included to assess the extent to which healthcare professionals have experienced moral distress since the COVID-19 outbreak.

## Rushton Moral Resilience Scale (RMRS, Rushton et al, in preparation)

A 17-item self-report questionnaire developed to assess moral resilience. Participants are required to consider their response to challenging ethical situations in the past 3-months in their professional role. The RMRS consists of 4 subscales including: response to moral adversity, personal Integrity, relational integrity, and moral efficacy. Items are rated on a 4-point Likert scale, ranging from 1 (disagree) to 4 (agree). The total RMRS score can be derived by computing the mean of all 17-items, with higher total scores indicating more resiliency. This questionnaire was included to assess moral resilience as it is an indicator of an individual's capacity to restore their integrity in response to moral complexities, setbacks, or distressing situations (e.g., COVID-19 outbreak). The instrument is currently in the process of validation.

# Individuals with a current diagnosis of a mental/medical illness (based on Physical/Mental health sections)

A) If hospitalized (based on demographic section):

How many other people are sleeping in your hospital room?

This week, if you wanted, could you have:

- received visitors? {Yes, Yes, but only for a short time, No}
- Contacted your family or friends using virtual communications (e.g. via telephone, video camera (e.g. Skype, Zoom, Facetime)? {Yes, Yes, but only for a short time, No}
- Gone outside to take some fresh air: {Yes, Yes, but only for a short time, No}
- How frequently were you interacting with hospital staff

Before the outbreak? {N/A daily, weekly, monthly, less often than monthly} In the last week? {daily, weekly, monthly, less often than monthly}

- How would you rate your relationship with hospital staff

Before the outbreak? {N/A 0-Very difficult/conflictual 50- Neutral 100- Excellent} In the last week? {0-Very difficult/conflictual 50- Neutral 100- Excellent}

- How frequently were you interacting with other patients

Before the outbreak? {N/A daily, weekly, monthly, less often than monthly}

In the last week? {daily, weekly, monthly, less often than monthly}

- How would you rate your relationship with other patients

Before the outbreak?  $\{N/A \ 0\text{-}Very\ difficult/conflictual} \ 50\text{-}\ Neutral} \ 100\text{-}\ Excellent}\}$  In the last week?  $\{0\text{-}Very\ difficult/conflictual} \ 50\text{-}\ Neutral} \ 100\text{-}\ Excellent}\}$ 

#### B) If not hospitalized:

- have you ever stayed in hospital overnight?

If yes - What was the approximate date of: last admission {DD/MM/YYY} discharge {{DD/MM/YYY}}

- How many appointments have you been attending for your <u>physical health</u> in the <u>last 6 months before the outbreak</u> {daily, weekly, every 2 weeks, monthly, 2-5 times, once, none}
- How many appointments have you been attending for your <u>physical health</u> since the <u>start of the outbreak</u>? {daily, weekly, every 2 weeks, monthly, 2-5 times, once, none}

If any - Where these appointments: in person; over the phone; over the internet

- How many appointments have you been attending for your <u>mental health</u> in the <u>last 6 months before the outbreaks</u>? {daily, weekly, every 2 weeks, monthly, 2-5 times, once, none}
- How many appointments have you been attending for your <u>mental health</u> since the <u>start of the outbreak</u>? {daily, weekly, every 2 weeks, monthly, 2-5 times, once, none}

If any - Where these appointments: in person; over the phone; over the internet

- Are you doing anything on your own (not proposed by your doctor, therapist or health care provider) to improve your physical or mental health? Yes/No

If yes – Please describe

Optional additional questionnaires

# Revised Adult Attachment Scale (RAAS)

The RAAS is an 18-item, self-report measure used to assess individual differences in adult attachment style (16). It comprises 3 subscales: Close, which measures the extent to which a person is comfortable with closeness and intimacy; Depend, which measures the extent to which a person is comfortable depending on and trusting in others; and Anxiety, which measures the extent to which a person is concerned about being abandoned or unloved. Each subscale is scored on a scale of 1 (not at all characteristic of me) to 5 (very characteristic of me). The RAAS subscales have demonstrated acceptable to good internal consistency (Cronbach's alphas = 0.77-0.85) and good convergent validity. This scale was included as attachment to close others may change as a result of social distancing, virtual communication, and heightened anxiety during the pandemic.

#### UCLA Loneliness Scale (UCLA L-Scale – Version 3)

The UCLA L-Scale (version 3) was created to evaluate subjective feelings of social isolation and loneliness (1). This questionnaire has 20 items with a possible score range of 20-80, where higher scores indicate a greater degree of loneliness. The UCLA L-Scale has been found to have a good internal consistency (Cronbach  $\alpha$  ranging from 0.89 - 0.94) and test-retest correlation (0.73; 1). Due to the imposed social distancing regulations that accompanied this pandemic, loneliness is likely to occur, which is why this questionnaire was included.

# The Typical Dreams Questionnaire (TDQ)

The TDQ is used to better understand the dimensional structure of dreams. This instrument has previously been validated in a sample of undergraduate students across three Canadian universities (N=1181; 17) and in an online study (N=28,888; 17,18). In addition to the 56 items from the original questionnaire, we added 4 new themes to reflect potential themes and concerns directly associated with the pandemic. The original TDQ measures dream themes over the lifetime, but we have modified it to reflect dream themes in the *past 7 days* to accommodate the temporal structure of our study. The original results of the first TDQ study (17), and follow ups of the translated version in Germany (19) and in China (20) indicate a relative stability of predominant dream themes across ages and cultures. The instrument presents different dream themes and prompts participant to indicate how often they have experienced each of the dream themes on the following scale: 0=never; 1=once; 2=2-3 times; 3=4-10 times; 4=11+ times. Since dreams are influenced by daily life concerns and, in particular so by affectively charged personally significantly events, this questionnaire was included to capture the changes in dream content, specific to the pandemic.

## **Exeter Identity Transition Scales (EXITS)**

An adapted version of the EXITS (21) was used to assess multiple group memberships. Four items measured multiple group memberships before the pandemic, four items measured the maintenance of group memberships since the pandemic, and four items measured the development new group memberships since the pandemic. Items were rated on a seven-point scale with item responses ranging from 1 (do not agree at all) to 7 (agree completely). The original EXITS demonstrated good to excellent internal consistency (Cronbach's  $\alpha=0.85$ -0.94) in a sample of adults recovering from stroke. The EXITS has also shown good convergent validity with another group membership measure. This instrument was included as the maintenance and development of group memberships during the pandemic may be affected by the transition to virtual communication.

# **Interpersonal Reactivity Index (IRI)**

The IRI is a 28-item, self-report instrument designed to assess empathy (22). The IRI consists of four subscales: Perspective Taking, Fantasy, Empathic Concern, and Personal Distress. Each subscale includes seven items rated on a Likert-type scale ranging from 1 (does not describe me well) to 5 (describes me very well). The IRI has demonstrated acceptable internal consistency (Cronbach's alphas = 0.70-0.78) and good test-retest reliability ( $r_{\text{males}}$ = 0.61-0.79,  $r_{\text{females}}$  = 0.62-0.81). Good convergent validity has also been shown by correlations with other validated measures of empathy. The IRI was included because empathy levels may be influenced by factors related to the pandemic (e.g., shared experience of struggle, rise in solidarity).

# Liebowitz Social Anxiety Scale (LSAS)

A 24-item questionnaire developed to assess social anxiety by measuring both fear and avoidance across various situations (23). The LSAS is divided into 2 subscales addressing social interactional (11-items) and performance (13-items) situations (24). Each item depicts a situations and participant's level of fear and avoidance is rated on a 4-point Likert scale. The fear scale ratings range from 0 (no fear) to 3 (severe fear). The avoidance scale ratings are based on the percent of time a situation is avoided and range from 0 (never) to 3 (usually -67 to 100%). The total fear and total avoidance scores are summed to obtain an overall total LSAS score. Higher scores indicate greater presence of social anxiety. The LSAS is a valid measure and demonstrates strong internal consistency (Cronbach's  $\alpha = 0.96$ ; 24). This questionnaire was included to assess the presence of social anxiety in participants prior to the COVID-19 outbreak.

# Peters et al. Delusions Inventory (PDI-21)

A 21-item self-report questionnaire developed to assess delusional symptoms (25). Each item is responded to using a "yes/no" format. The sum of the positive responses on each item provides a total score for a maximum score of 21. Higher scores indicate great delusional symptoms or proneness to paranoid thinking (26). For each item, there are also 3 subscales that measure degree of conviction, preoccupation, and distress. Each subscale is rated on a 5-point Likert scale ranging from 1 (not at all distressing) to 5 (very distressing). The PDI-21 demonstrates adequate internal consistency (Cronbach's  $\alpha = 0.82$ ; 25). The test retest reliability is also high (r = 0.78, p < 0.001; 25). This questionnaire was included to assess delusional symptoms during the current pandemic situation. Delusional ideations are thought to have a strong social component (27) and may be exacerbated by sudden changes in social life, such as social distancing practices during the COVID-19 outbreak.

# Smartphone Addiction Scale (SAS; items 3, 5, 8, 9)

The SAS is a 33-item, self-report measure designed to assess smartphone addiction (28). Items are rated on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Subscale scores are summed to create a total score (range = 33-198), with higher scores indicating a more serious smartphone addiction. The SAS has previously demonstrated excellent internal consistency (Cronbach's  $\alpha$  = 0.97), as well as good concurrent validity. This measure was included because smartphone use may increase as a result of limited activities and in-person interactions during the pandemic.

## Cognitive emotion regulation questionnaire (CERQ)

The CERQ is a 36-item questionnaire, with scores ranging from 4-20, developed to measure cognitive emotion regulation strategies that individuals use in response to a stressful life event (29). It includes nine distinct subscales (self-blame, other-blame, rumination or focus on thought, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, acceptance and refocus on planning). Good factorial validity and high Cronbach's  $\alpha$  reliability coefficients were demonstrated, ranging from 0.75-0.87. Strong relationships were demonstrated between certain cognitive strategies (self-blame, rumination, catastrophizing, positive reappraisal) and symptoms of both depression and anxiety. Test-retest reliabilities of the subscales were considered adequate with values ranging from r = 0.48 to r = 0.65 (p < 0.01). The CERQ can be used during the pandemic to assess emotional problems people are experiencing, how they are coping, and to subsequently develop interventions.

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