Psychiatry Research

Short communication

COVID-19 as a traumatic stressor is an indicator of mental health symptomatology

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ABSTRACT

The mental health impacts of the COVID-19 pandemic are gaining attention. While many are experiencing increased stress due to COVID-19, some perceive the pandemic as traumatic. This preliminary study identified respondents who endorsed a COVID-19-related trauma as their most stressful traumatic experience (i.e., index trauma). We analyzed data from an online Canadian survey (May-July 2020; $N = 1,018$). Nearly 3% of participants endorsed a COVID-19-related index trauma. These individuals had increased posttraumatic stress, anxiety, and depressive symptoms compared to the remaining sample. Results may inform targeted screening to identify those who may be at greater risk for COVID-19-related mental health sequelae.

There is accumulating research outlining the detrimental mental health impacts of the COVID-19 pandemic. A systematic review revealed elevated posttraumatic stress (PTS), depressive, and anxiety symptoms among COVID-19 patients, healthcare workers, and the general population, and poorer psychological wellbeing compared to before the pandemic (Vindegaard and Benros, 2020). Society is faced with elevated stress associated with several aspects of the pandemic, including the threat of contracting COVID-19, looming uncertainty regarding COVID-19 prognoses and the longevity of the pandemic, shortages of medical resources, unfamiliar public health measures (e.g., quarantine), and financial loss, among others (Pfefferbaum and North, 2020). For some, the pandemic may even be perceived as traumatic, which may pose a greater risk for mental health sequelae. This preliminary study identified the proportion of individuals who endorsed COVID-19 as their index trauma (most stressful lifetime trauma) and examined differences in sample characteristics and mental health symptoms between those who endorsed COVID-19 as their index trauma and those who did not.

We analyzed data from an online Canadian survey (COVID Survey Canada; May-July 2020) examining mental health during the COVID-19 pandemic. The survey (~30-45 minutes; including 13 validated scales) was administered to a convenience sample (N=1,260) of Canadian residents and/or citizens, aged 18 years and older, who have internet access, and can read and understand English. Participants were recruited via online platforms (e.g., academic listservs, social media). The University of Manitoba Research Ethics Board provided approval and all participants provided consent. 186 participants were excluded due to completing the entire survey in less than 10 minutes (suggestive of invalid responding) and 56 were excluded from the current study due to missing data pertaining to trauma exposure. See Supplemental Table for a complete list of the questionnaires included in the survey.

Participants self-reported lifetime trauma exposure. Those who endorsed trauma were asked whether their most stressful trauma was: 1) related to the COVID-19 pandemic (e.g., death of someone close to you from COVID-19, major stressful life changes due to COVID-19), 2) acquiring COVID-19, 3) related to any other serious illness, 4) any other trauma. We dichotomized this to reflect any COVID-19-related index trauma (options 1 & 2) compared to the remaining sample (options 3 & 4); those who did not endorse any trauma exposure were also categorized with those endorsing options 3 & 4. We included the entire sample in analyses, as opposed to only those who endorsed trauma exposure, considering all participants have been exposed to the pandemic. Participants self-reported sociodemographic characteristics and COVID-19-related factors (e.g., got tested for COVID-19), and completed several validated self-report mental health symptom measures including the Perceived Stress Scale (Cohen et al., 1983), the Primary Care Posttraumatic Stress Disorder Screen for DSM-5 (Prins et al., 2016), and the

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Table 1

Sample characteristics of those who endorsed COVID-19 as their index trauma compared to the remaining sample.

	COVID-19 as index trauma	Remaining sample	
n(%)	28 (2.8)	990 (97.2)	Chi-square
Sociodemographic characteristics			
Sex			1.59
Male	9 (32.1)	214 (22.1)	
Female	19 (67.9)	755 (77.9)	
Age			5.14
18-29	14 (50.0)	297 (30.0)	
30-49	9 (32.1)	449 (45.4)	
50+	5 (17.9)	244 (24.6)	
Marital status			2.64
Married/common law	14 (50.0)	598 (60.5)	
Widowed/separated/ divorced	–	71 (7.2)	
Never married	13 (46.4)	320 (32.4)	
Race			1.41
White	21 (75.0)	809 (83.5)	
Non-white	7 (25.0)	160 (16.5)	
Education			3.10
High school or less	–	121 (12.2)	
Undergraduate degree/ college	21 (75.0)	594 (60.1)	
Masters or doctoral degree	6 (21.4)	274 (27.7)	
Household income			6.20*
<$50,000	6 (21.4)	187 (19.3)	
$50,000-99,999	16 (57.1)	358 (36.9)	
$100,000+	6 (21.4)	425 (43.8)	
Impact of COVID-19 on income			3.98
Decreased	15 (53.6)	373 (37.9)	
Stayed the same	11 (39.3)	571 (58.0)	
Increased	–	41 (4.2)	
Applied for EI due to loss of income from COVID-19	9 (32.1)	129 (13.0)	8.47**
Laid off from your job because of COVID-19	11 (39.3)	137 (13.8)	14.19***
COVID-19-related factors			Chi-square
Got tested for COVID-19	10 (35.7)	89 (9.0)	22.12***
Know someone who tested positive for COVID-19	10 (35.7)	265 (26.8)	1.11
Someone close to you tested positive for COVID-19	9 (32.1)	126 (12.7)	8.92**
Positive screens on mental health measures	*n*(%)		Chi-square
Moderate/high perceived stress	25 (89.3)	745 (75.6)	2.78
Posttraumatic stress	18 (64.3)	403 (40.8)	6.20*
Anxiety	17 (65.4)	295 (30.9)	13.92***
Depression	13 (50.0)	228 (23.8)	9.37**
Mean number of mental health symptoms	*M*(*SD*)		*t*-statistic
Perceived stress (range: 0-40)	21.96 (6.02)	19.29 (7.74)	-1.81
Posttraumatic stress (range: 0-5)	2.86 (1.51)	1.98 (2.03)	-2.99**
Anxiety (0-6)	2.81 (1.55)	1.99 (1.88)	-2.19*
Depression (0-6)	2.50 (1.70)	1.67 (1.76)	-2.39*

Note. – = cell size < 5
* $p<$ .05
** $p<$ .01
*** $p<$ .001

4-item Patient Health Questionnaire (Lowe et al., 2010). Chi-square analyses and independent samples t-tests examined differences in sociodemographic, COVID-19-related, and mental health correlates between those who endorsed a COVID-19-related index trauma and those who did not.

Nearly 3% of the sample (*n*=28) endorsed a COVID-19-related index trauma. Groups significantly differed in household income, with those endorsing a COVID-19 index trauma reporting lower income (<$50,000: 21.4% vs. 19.3%, $50,000-99,999: 57.1% vs. 36.9%, $100,000+: 21.4%

vs. 43.8%). A larger proportion of these individuals applied for employment insurance (EI; 32.1% vs. 13.0%) and were laid off from their job (39.3% vs. 13.8%) due to COVID-19, compared to those who did not endorse a COVID-19 index trauma. These individuals were also more likely to have been tested for COVID-19 (35.7% vs. 9.0%) and to have someone close to them who tested positive for COVID-19 (32.1% vs. 12.7%). Those who reported a COVID-19 index trauma endorsed higher rates of clinically significant PTS (64.3% vs. 40.8%), anxiety (65.4% vs. 30.9%), and depressive (50.0% vs. 23.8%) symptoms compared to those who did not (see Table 1).

Though the literature examining COVID-19 mental health impacts is growing, to our knowledge, this is the first study to identify individuals who report COVID-19-related experiences as their most stressful lifetime trauma, and the associated sociodemographic, COVID-19-related, and mental health correlates. Results highlight that those who perceive COVID-19 as their worst trauma are experiencing greater PTS, anxiety, and depressive symptoms compared to others. In addition, those experiencing financial stressors (e.g., lower income, requiring EI, experiencing job loss) and closer proximity to COVID (e.g., knowing someone close to you who tested positive, personally requiring a COVID test) may be more likely to perceive the pandemic as traumatic. Limitations of this study include the use of a convenience sample, which precluded the calculation of a response rate, reliance on self-report measures, and a cross-sectional design, which inhibits causal and temporal inferences from being made. Further, data were collected early on in the pandemic, and results may vary as the pandemic continues to progress. Nonetheless, results highlight that individuals' perception of the pandemic as traumatic may have important mental health implications. Findings may inform targeted screening and intervention strategies to mitigate COVID-19 mental health impacts. For example, asking individuals whether they perceive the pandemic as their most stressful trauma could help identify those at elevated risk of mental health sequelae.

Declaration of Competing Interest

None.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.psychres.2021.113936.

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