

An online survey on the psychological impact of the COVID-19 pandemic among internet users in Sri Lanka

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Abstract

Background

The COVID pandemic has been reported to be associated with an increase in the rates of depression, stress, and anxiety among people worldwide.

Aims

We conducted an online survey using the DASS-21 to detect levels of depression, anxiety and stress among internet users in Sri Lanka.

Methods

An open online survey based on a Google form was conducted and the study instruments consisted of questionnaires on socio-demographic details, coping strategies, and the original English and the validated Sinhala versions of the Depression Anxiety and Stress Scale (DASS-21).

Results

We found that the prevalence of depression, anxiety, and stress among internet users in Sri Lanka were higher than those reported during pre-pandemic times. Financial loss ($p < 0.05$) and difficulty in accessing essential items ($p < 0.05$) was associated with depression, stress, and anxiety. Younger age, unemployment, being single and not having children were associated with depression and anxiety ($p < 0.05$), while female gender and working away from home were associated with stress ($p < 0.05$).

Conclusions

Measures that promote wellbeing are important to reduce the probable mental health impact of future lockdowns.

Keywords: depression, anxiety, stress, COVID-19, Sri Lanka

SL J Psychiatry 2023; 14(1): 12-14

Introduction

The pandemic and its containment measures, namely, quarantine, social distancing, self-isolation, and the lockdowns as well as their secondary effects, such as financial losses, homeschooling, etc. have been reported to be associated with detrimental effects on a person's mental well-being, including higher risks of developing depression, anxiety, post-traumatic stress, insomnia, and suicidal behaviours (1). Some studies report a 20% increase in the prevalence of mental illness in the general population since the onset of the pandemic and that the psychological impact of the pandemic is heterogenous, with some populations being more affected than others (2, 3, 4).

We conducted an online survey to assess the extent of the psychological issues in relation to the COVID-19 pandemic among internet users in Sri Lanka.

Methods

An open online survey based on a Google form was conducted from September to December 2020, where an

email link was posted on social media through a commercial survey company. The study instruments consisted of questionnaires on socio-demographic details, coping strategies, and the original English and the validated Sinhala versions of the Depression Anxiety and Stress Scale (DASS-21) (5, 6). The participants were given the opportunity to choose either the English or the Sinhala version of the questionnaire.

The ethical approval was obtained from the Ethics Review Committee of the Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka (approval no: COVID 10/2020).

Internet users who were eighteen years or above, and not working in the health sector, the armed forces, or the police were requested to complete the survey. The Google form was accompanied by an information sheet that contained the hotline of the National Institute of Mental Health and the email address of the corresponding author for the participants to contact in case of any queries.

Results

Of the 10,000 among whom the form was distributed, 639 responded (response rate 6.39%) and 585(92%) of them had completed all the questions. Fifty-five point four per cent of the participants were females, employed (75.2%), married (66.2%) and, resided in the Western Province of the country (75.7%). Out of those who responded 36.9% were aged between 25-44 years. More than half (52.6%) of the participants had children and out of the total, 43.4% had children who engaged in online learning during the pandemic. Eight-point-five per cent of the participants had physical comorbidities, while 6.7% were on treatment for a psychiatric illness. More than half (59.1%), of those who responded had worked from home during the pandemic. Twenty-two-point six per cent had experienced financial losses during the pandemic and 4.1% had difficulties in obtaining food and other essential items due to the lockdowns.

The rates of depression, anxiety, and stress among the study population were 28.9%, 23.4% and 14.1% respectively (Table 1). Depression, anxiety and stress were significantly higher in those who experienced financial losses during the pandemic ($p<0.05$), and those who had difficulties in obtaining food and other essential items ($p<0.05$). Unemployment was associated with higher rates of depression and anxiety ($p<0.05$) while participants who were younger (<35 years), not currently married (i.e., single, divorced, or widowed) and did not have children, who were engaged in online schooling, had higher levels of depression ($p<0.05$). Female participants and those who worked away from home during the pandemic were found to have significantly higher levels of stress ($p<0.05$). Participants with a history of mental illness and those who were worried about their financial status had a significant association with higher scores in the depression and stress sub scales ($p<0.05$).

The majority (71.3%) of the responders were worried about their family members being infected with COVID-19 infection. Other stressors reported included worries about them being infected with COVID-19 (48.9%), around obtaining food and other essential items (28.9%), the financial impact of the pandemic (27.9%) and stressors around home-schooling (20.3%).

The participants reported that spending more time with family (92%), talking with friends and family over the phone (91.9%) and spending more time on social media (90.1%) as the main coping mechanisms during the pandemic. Those who were engaged in physical exercises to cope had lower levels of depression, anxiety and stress compared to those who did not, but the difference was statistically significant only for the anxiety scale ($p<0.05$). Those who utilized overeating as a coping mechanism had significantly higher levels of depression, anxiety and stress ($p<0.05$) than those who did not overeat.

Discussion

The relatively high rates of depression, anxiety and stress in our participants are in keeping with previous findings reported from other countries (7). We found that unemployment, younger age, unmarried status (i.e., single, divorced, separated, or widowed) and financial loss were associated with a higher risk of depression similar to previous studies and that the proportion of participants who were worried about their family's COVID status was greater than those who worried about their health, which is also consistent with previous literature (8).

We postulate that, having children engage in online learning, may have helped to give the family a routine and a structure and provide some form of social engagement, which may explain the lower levels of depression among those who had children engaged in online schooling than those who did not. We are also of the opinion that lower levels of stress among those who worked from home could be attributed to the lower perceived levels of exposure to the infection as opposed to those who had to go out for work.

Limitations

Personal identification details such as the IP address were not collected, therefore it is difficult to know if the same person completed the questionnaire more than once. The survey was conducted among those who used the internet. Depression, anxiety and stress levels and their correlates among those who do not use the internet may be different.

Table 1. Severity of depression, anxiety and stress among the participants

	Normal	Mild	Moderate	Severe	Extremely severe
Depression	438 (74.8%)	69 (11.8%)	57 (9.7%)	13 (2.2%)	8 (1.4%)
Anxiety	477 (81.5%)	53 (9.1%)	27 (4.6%)	11 (1.9%)	17 (2.9%)
Stress	518 (88.5%)	36 (6.2%)	18 (3.1%)	7 (1.2%)	6 (1.0%)

Conclusions

A considerable proportion of online users reported depression, anxiety, and stress during the lockdown. Measures such as effective distribution of essential items, permitting working from home, the continuation of mental health services, and effective public health campaigns promoting physical and mental well-being are important to reduce the mental health impact of future lockdowns.

Statement of contributions

DLUA developed the proposal and prepared the Google form. PSA and YMR conducted the data analysis. All authors approved the final draft.

Conflicting interests

None.

Funding

No funding was received for this study.

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