

Students Anxiety Experiences during COVID-19 in Nepal

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ABSTRACT

Background

COVID-19 started in China and has spread throughout the world since December 2019. The pandemic has not only brought the risk of morbidity and mortality from infection but also psychological burden.

Objective

To find out the psychological impacts of COVID-19 on students from high schools, colleges and universities in Nepal, along with examining the association between socio-demographic and other related variables and level of anxiety in the students.

Method

This study sampled students from Nepal using convenience sampling and responded to a quantitative questionnaire that included the 7-item Generalized Anxiety Disorder Scale (GAD-7) and other basic information. Finally, 105 respondents were included in the final analysis (100% response rate). Convenient sampling technique was used to gather the sample.

Result

The results indicated that 18.1% of the respondents were experiencing severe anxiety, 22.9% moderate anxiety, and 25.7% mild anxiety. Moreover, females were more prone to anxiety as compared to males. The results of correlation analysis indicated that economic effects, and delays in academic activities, were positively associated with anxiety symptoms ($p < .05$). However, social support was negatively correlated with the level of anxiety ($p < .001$).

Conclusion

It is recommended that the mental health of students should be monitored during public health emergencies, such as this one. This study examines the psychological impacts of COVID-19 among the college students in Nepal.

KEY WORDS

Anxiety, COVID-19, College students, Nepal

INTRODUCTION

The world experienced an onset of a new virus starting late 2019. On the 31 December 2019, the Wuhan Municipal Health Commission in China reported a cluster of cases of pneumonia in Wuhan, Hubei Province, eventually when the novel coronavirus was identified, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which is later called COVID-19. On the 5 January 2020, WHO published their first Disease Outbreak News on the new virus, 7 days after which (i.e. on 13 January); the first case of COVID-19 outside of China was recorded in Thailand. What started out as a regional outbreak in the Wuhan province of China, had spread globally in a matter of weeks and has been declared as a global pandemic as of 11 March 2020.

As of 19 July, 2020, globally, there have been 14,043,176 confirmed cases of COVID-19, including 597,583 deaths.^{1,2} In Nepal, health authorities confirmed the first case of COVID-19 on 24 January, when a student who had returned to Kathmandu from Wuhan, China tested positive to the virus.³ Due to the rapid expansion of the pandemic of COVID-19, education institutions such as schools, colleges and universities have been shut to prevent any transmission of the virus. Following the lockdown in India, Nepal introduced nation-wide lockdown, 2 months after the appearance of the first case and after the second case was confirmed after that educational institutions are completely closed.^{4,5}

Even though, the lockdown has been lifted and the modality of movement has been less strict, the schools, colleges and universities have adopted an online approach to teaching and learning, considering the growing cases in the country. Amidst the uncertainty of the virus and the growing cases, fear, worry, and stress are normal responses threats so it is understandable that people are experiencing fear in the context of the COVID-19 pandemic.^{6,7} Several studies suggest that there have been psychological impact of the epidemic on the general public, patients, medical staff, children, and older adult.⁸ Some studies indicate that large proportions of college students have experienced elevated amounts of stress, yet other sources indicate that many college students have responded to these changes with resilience.⁹

A study in China suggested that younger people reported a considerably higher prevalence of General Anxiety Disorder and depressive symptoms as compared to older people during this pandemic.¹⁰ Similar results were seen in a study conducted in Japan.¹¹ However, not much has been done to study the mental health of students facing this pandemic.¹¹ Hence, this study aimed to examine the psychological impacts of COVID-19 on students and the associated socio-demographic factors.

METHODS

Quantitative cross-sectional descriptive study was done using a questionnaire to get information regarding the psychological impact of COVID-19 on students. The target population comprised of students from various high schools, colleges and universities of Nepal. The respondents were anonymous to ensure the confidentiality and reliability of data. Finally, 105 respondents were included in the final analysis (100% response rate). Convenient sampling technique was used to gather the sample. Respondents answered the predetermined questionnaire bundle via google forms.

The study instrument comprised a structured questionnaire packet that inquired socio-demographic information as well as worries related to COVID-19 and availability of social support, among others. Moreover, the participants responded to the 7-item Generalized Anxiety Disorder Scale (GAD-7).⁸ The scale consists of 7 questions that require approximately 1-2 minutes to administer.¹² Respondents report their symptoms using a Likert rating scale ranging from 0 (not at all) to 3 (almost every day), such that the total score ranges from 0 to 21.8 The GAD-7 is a well validated screening instrument, and it has demonstrated excellent internal consistency. The GAD-7 is a valid and efficient tool for screening for General Anxiety Disorder and assessing its severity in clinical practice and research.¹³

Data were analyzed with IBM SPSS version 23.0. An analysis of descriptive statistics was used to illustrate the demographic and other selected characteristics of the respondents. Non parametric test was used to explore the significant associations between sample characteristics and the anxiety level during the COVID-19 epidemic. Spearman's correlation coefficient, *r*, was used to evaluate the association between COVID-19 related stressors, including economic and daily-life related stressors, as well as stressors related to delays in academic activities, and anxiety level. A two tailed $p < .05$ was considered statistically significant.⁸ All participants voluntarily participated in the study after being informed about the purpose of the study. Confidentiality of the participants was maintained and no identity was revealed.

RESULTS

The socio-demographic part of the survey indicated an average age of 20.95 ± 2.81 years among 105 respondents. The other demographic and selected characteristics of the study population are shown in table 1.

Among the sample of 105 students, more than half i.e. 64 (61%) were females. 72.4% of the respondents were Bachelors students, 18.1% Masters, 8.6% high school students and 1 (approximately 1%) respondent was a student of associate one year degree. 73.3% of the

Table 1. Anxiety among the students about the COVID-19 pandemic.

Items	Total	Level of Anxiety (rounded off percent)				Statistics	p-value
		Normal	Mild	Moderate	Severe		
Gender						823.5a	0.001
Male	41 (39%)	22 (20.9%)	8 (7.6%)	7 (6.7%)	4 (3.8%)		
Female	64 (61%)	13 (12.4%)	19 (18.1%)	17 (16.2%)	15 (14.3%)		
Education						3.258b	0.354
High school	9 (8.6%)	4 (3.8%)	3 (2.9%)	2 (1.9%)	0		
Bachelors	76 (72.4%)	25 (23.8%)	20 (19%)	20 (19%)	11 (10.5%)		
Masters	19 (18.1%)	6 (5.7%)	3 (2.9%)	2 (1.9%)	8 (7.6%)		
Others	1 (1%)	0	1 (1%)	0	0		
Region of residency						869.0a	0.116
Kathmandu Valley	77 (73.3%)	21 (20%)	22 (21%)	20 (19%)	14 (13.3%)		
Outside Kathmandu Valley	28 (26.7%)	14 (13.3%)	5 (4.8%)	4 (3.8%)	5 (4.8%)		
Place of residency						3.723b	0.155
Urban	75 (71.4%)	20 (19%)	24 (22.9%)	16 (15.2%)	15 (14.3%)		
Semi-urban	6 (5.7%)	11 (10.5%)	2 (1.9%)	7 (6.7%)	4 (3.8%)		
Rural	24 (22.9%)	4 (3.8%)	1 (0.95%)	1 (0.95%)	0		
Steady family income						774.5a	0.713
No	19 (18.1%)	8 (7.6%)	0	7 (6.7%)	4 (3.8%)		
Yes	86 (81.9%)	27 (25.7%)	27 (25.7%)	17 (16.2%)	15 (14.3%)		
Live with parents						493.0a	0.794
No	11 (10.5%)	4 (3.8%)	2 (1.9%)	2 (1.9%)	3 (2.9%)		
Yes	94 (89.5%)	31 (29.5%)	25 (23.8%)	22 (21%)	16 (15.2%)		
COVID cases in your area						885.5a	0.493
No	24 (22.9%)	10 (9.5%)	4 (3.8%)	7 (6.7%)	3 (2.9%)		
Yes	81 (77.1%)	25 (23.8%)	23 (21.9%)	17 (16.2%)	16 (15.2%)		

a Mann-Whitney test; b Kruskal-Wallis test

respondents lived in Kathmandu Valley and the rest outside Kathmandu Valley; 71.4% lived in urban areas, 21.9% in semi urban and only 5.7% in rural areas, 89.5% lived with their parents, and 18.1% of the households of students did not have steady income. Most participants (77.1%) lived in areas where there have been people who were infected with COVID-19.

Levels of Anxiety among Students during the Pandemic

Table 2 shows the mental health status or the varying level of anxiety experienced by the students during the outbreak. Of the 105 college students, one-third (33.3%) had no symptoms of anxiety, whereas the proportions of students with mild, moderate, and severe anxiety were 25.7%, 22.9%, and 18.1%, respectively.

Factors Influencing Students' Anxiety during the Pandemic

Table 1 shows the association between the socio-demographic variables of students and the level of anxiety. Gender of the respondents had a significant effect on anxiety, such that females had increased anxiety as compared to the male respondents ($p < 0.005$), whereas other socio-demographic characteristics such as education, region, place of residency, family income, living with

Table 2. Number of students with different anxiety level.

Anxiety level	Frequency	Percent
Normal	35	33.3
Mild	27	25.7
Moderate	24	22.9
Severe	19	18.1
Total	105	100.0

Table 3. Association between gender and anxiety.

Sex	Anxiety		Total	Chi-square	p-value
	Normal	Some level of anxiety			
Male	22 (53.7%)	19 (46.3%)	41	12.50	< 0.001
Female	13 (20.3%)	51 (79.7%)	64		

parents as well as cases identified in their area had no significant effect on anxiety ($p > 0.05$).

Table 3 shows that only 46.3% of the total male respondents had some level of anxiety, whereas 79.7% of the female respondents had at least some level of anxiety. There is a significant association between gender and experienced anxiety ($p < 0.001$).

Table 4. Correlation analysis between the COVID-19 related stressors and students' anxiety during the pandemic.

COVID related stressors	R	P-value
Worry about economic influences	0.280	0.004
Worry about academic delays	0.241	0.013
Influence on daily-life	-0.103	0.295
Social support	-0.362	<0.001

The results of the correlation analysis are shown in table 4. Worry about the economic influences of the epidemic were positively related to the levels of anxiety in students ($r=0.280$, $p<0.05$). Moreover, worry about academic delays ($r=0.241$, $p<0.05$) were also moderately correlated with the level of anxiety among students. In addition, the results suggested a negative association between social support and anxiety among students during the COVID-19 outbreak. ($r=-0.362$, $p<0.001$).

DISCUSSION

Fear and anxiety about a new disease and uncertainty can be overwhelming and cause strong emotions in adults and children. Public health actions, such as social distancing, can make people feel isolated and secluded, increasing stress and anxiety.¹⁷ The main goal of this study was to evaluate the psychological condition of students during this pandemic and explore the factors associated with their anxiety.¹⁸ This survey indicated that 66.7% of the students experienced some level of anxiety. Out of these 105 students, 18.1% experienced severe anxiety, 22.9% experienced moderate anxiety and 25.7% experienced mild anxiety. Contrary to our results, a similar study reported that 21.3%, 2.7% and 0.9% of Chinese college students having mild, moderate and severe anxiety, respectively.⁸ A similar study conducted a US College suggested that most participants (58%) reported at least mild anxiety.⁹

Studies suggest that the anxiety experienced by students about COVID-19 might be related to the effect of the virus on their studies.¹⁴ A similar correlation was seen between worry about academic delays and anxiety in our study. It is also identified that anxiety disorders are more likely to occur and deteriorate in the absence of interpersonal communication⁸ which may have ensued during social distancing and lockdown. The shortage of personal protective equipment such as masks and disinfectants, the overwhelming news headlines, and inaccurate news reports have also added to anxiety and fear.¹⁵ The World Health Organization has suggested minimizing watching, reading or listening to news about COVID-19 and to seek information only from trusted sources as the sudden and near-constant stream of news and reports about an outbreak can cause anyone to feel worried.^{6,7,19}

The results of this study suggest that students' anxiety regarding the pandemic was particularly not associated with their place of residence, whether living with parents, steady source of family income or even COVID cases in their areas. However, a significant association was seen in gender and anxiety, which is different from findings of similar researches conducted in China and Pakistan.^{8,16} This difference indicates that female students experienced more stresses and negative emotions as a result of the pandemic, as compared to the male students.

The results suggested that the COVID-19 related stressors, mainly economic stressors and academic delays, were positively associated with anxiety symptoms in the students during the pandemic. Similarly, in addition to positive association between effects on daily life and anxiety, which is in contrast to our study.⁸ It is plausible to assume that students are worried about paying their tuition fees as well as the delays in their studies caused by onset of this pandemic. In Nepal, the Education and Health Committee of the Parliament directed the schools to not admit students and charge tuition fees until the situation returns to normal and asked the Ministry of Education to ensure that private academic institutions follow the directive. However, defying the government's directives, the guardians reported that the private schools are building pressure on them to pay the fees.¹⁷ Post lockdown, most schools, colleges and universities have shifted to distant/online teaching and learning methods. These measures indeed have had a specific impact on the education as well as on the growth of students.⁸

Lastly, social support was negatively correlated with the anxiety of the students. Social support not only moderates the psychological pressure during these emergencies but also changes the attitude regarding social support and help-seeking methods. This outcome suggests that effective and robust social support is indispensable during public health emergencies.⁸

CONCLUSION

We found that majority (66.7%) of the students have experienced anxiety because of this pandemic. Similarly, females had increased levels of anxiety as compared to males. The COVID-19 related stressors such as economic stressors and academic delays were positively associated with the anxiety among students, whereas social support was negatively correlated with their anxiety. To improve the psychological status of students, it is recommended that governments and organizations collaborate with educational institutions to ensure psychological and social support to the students.

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