The psychological impact of COVID-19 on the college students in Nepal

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ABSTRACT

This article focuses on the psychological impact of COVID-19 and its effect among the Nepali college students. As we know, the pandemic started in China with a few pneumonia-like cases and has spread all over the world since December 2019.The outbreak has not only caused suffering and fatality but also increased psychological stress and panic among people. This study used convenience sampling and web-based quantitative questionnaire that included the 7-item Generalized Anxiety Disorder Scale (GAD-7) and other basic information to identify the psychological impact of the pandemic. The General Anxiety Disorder Scale results indicated that two-third of the college students who responded to the survey had some level of anxiety, ranging from mild to moderate and severe. Associated gender of the respondents had some relation to the anxiety during this pandemic. The correlation analysis results indicated that certain worries related to financial impact of COVID were positively associated with anxiety symptoms (P<0.05). In contrast to this, support from family, friends and society was negatively correlated with the level of anxiety (P<0.001). It shows that social support provides necessary help to college students in dealing with stressors and anxiousness that comes with uncertain situations.

⊞ INTRODUCTION

COVID-19 belongs to a large family of viruses which may cause illness in animals or humans. Corona virus was recognized by the World Health Organization (WHO) as a pandemic on 11th March, 2020. Close contact with infected people or touching contaminated objects or on the surface can easily be transmitted (WHO, 2020) The first case of COVID-19 was found in Nepal when a 32 year old Nepali man returned from Wuhan, China on 23 January 2020, which followed a total shutdown of all the flights along with the whole country going into lockdown from 23 March 2020 (MOHP, 2020). All the economic activities as well as the daily livelihood of people and social gatherings came to a halt. This in turn, resulted in over eight million students inside their homes, keeping them away from classroom education. Over 35,000 schools have been closed since posing a huge risk over the future of education (UNICEF, 2020).

To minimize the gap between students and learning, an online approach has been adopted by most of the schools and colleges across the country, while the schools are closed. Experts have expressed that online classes may affect a further digital divide in the country (Neupane, 2020). Along with this, the increment in cases day-by-day has created fear, stress and worries which have been termed as normal responses by the World Health Organization in the milieu of COVID-19 (WHO, 2020). Studies have suggested that there may have been mental health impacts of the virus, including elevated stress, on the general public on top of specific groups such as patients, medical staff, children, older adults as well as college students (Cao et al., 2020; Perz et al. 2020).

A China based study suggested that young people were reported to have more anxiety and depressive symptoms as compared to older ones during this rampant (Huang & Zhao, 2020). Analogous results have been reported from another study

conducted in Japan (Ueda et al., 2020). A study among college students in Ethiopia advocated that most college students experienced some sort of anxiety or depressive disorder during this situation (Tadesse et al., 2020). Conversely, no enough efforts has been put to study the mental health of students facing this pandemic in Nepal. Hence, this research aims to study the psychological impacts of COVID-19 on students from various colleges in Nepal, along with exploring its association with socio-demographic and other related variables.

METHODOLOGY

Study design

Web-based quantitative questionnaire survey design was used to conduct the survey among the students. One-time cross-sectional method, using a pre-determined questionnaire was used to receive information regarding the psychological impact of COVID-19 on students.

Study population and sample

The targeted 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).

Sampling technique

Convenient sampling technique was used to gather the sample. Respondents answered the predetermined questionnaire bundle via Google Forms.

Tools of data collection

The study instrument comprised a structured questionnaire format that inquired about socio-demographic information such as sex, age, study level, residency and so on as well as the 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). The GAD-7 scale consists of 7 questions that require approximately 1–2 minutes to administer (Mossman, et al., 2017). Similarly, the respondents reported their symptoms using a Liker rating scale ranging from 0

(not at all) to 3 (almost every day), such that the total score ranges from 0 to 21 (Cao et al., 2020). The GAD-7 is a well-validated screening instrument, and has demonstrated excellent internal consistency. The GAD-7 is a valid and efficient tool for screening the General Anxiety Disorder and assessing its severity in clinical practice and research (Spitzer et al., 2006).

Data analysis and interpretation

The obtained data were analyzed with IBM SPSS version 23.0. An analysis of descriptive statistics was conducted to illustrate the demographic and other selected characteristics of the respondents. Non parametric test (Chi-square test) was used to explore the significant associations between sample characteristics and the anxiety level (categorized into no anxiety or some anxiety) during the COVID-19 epidemic. Spearman's correlation coefficient, r, was used to evaluate the association between COVID-19-related stressors, including financial stressors and day to day life, as well as the stressors related to delays in education and learning, and anxiety among the college students. A two-tailed $p<0.05$ was considered statistically significant (Cao et al., 2020).

Ethical considerations

All the participants voluntarily participated in the study after being informed about the purpose of the study. Concealment of the participants were 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. Out of the total samples of 105 students, majority i.e.64 (61%) were females as seen in Table 1. 72.4% 18.1% and 8.6 of the respondents were undergraduate degree, graduate degree and plus two degree respectively along with 1 (approximately 1%) respondent being a student of post graduate one year degree. Majority of the respondents lived inside the capital; with 71.4% living in urban areas and the rest either in sun-urban or rural areas. 89.5% were dependents that were living with their parents or guardians, with majority having a steady family

income. Most participants lived in area where there COVID-19 cases had been identified.

Table 1. Socio-demographic variables of the respondents

Variables		Frequency (n)	Percentage (%)
Sex	Male	41	39.05
	Female	64	60.95
Age Groups	Less than 18	15	14.29
	18 and above	90	85.71
Study level	Plus two	9	8.57
	Undergraduate	76	72.38
	Graduate	19	18.10
	Others (PG Diploma)	1	0.95
Residency	Inside Capital	77	73.33
	Outside Capital	28	26.67
Area of Residency	Urban	75	71.43
	Semi-urban/Rural	30	28.60
Steady Family Income	No	19	18.10
	Yes	86	81.90
Dependent	No	11	10.48
	Yes	94	89.52
COVID-19 cases in your area	No	24	22.86
	Yes	81	77.14

Mental health impact of the pandemic on college students

Table 2 shows the psychological impact or the differing level of anxiety experienced by the students during the outbreak. Of the 105 college students, one-third (33.3%) students had no symptoms of anxiety, whereas the rest i.e. 66.67% or two-third had some level of anxiety ranging from mild to moderate and even severe. Out of the 70 students that experienced anxiety, 38.54% had mild anxiety, 34.29% had moderate and 27.14% had severe anxiety.

Factors influencing students' anxiety during the pandemic

Table 3 shows the association between the socio-demographic variables of students and their anxiety associated with COVID-19. Gender of the respondents had a significant effect on the respondent's anxiousness, where the females had an increased anxiety as compared to the male respondents (P<0.005). On the other hand, other socio-

demographic characteristics such as age group, education, region, place of residency, family income, dependency or living with parents as well as cases identified in their area had no significant effect on anxiety (P>0.05).

Table 2. Proportion of students with varying anxiety

Anxiety	Frequency (n)	Percentage (%)
Normal (No Anxiety)	35	33.33
Some form of Anxiety	70	66.67
Total	105	100
Anxiety Categorization		
Mild	27	38.57
Moderate	24	34.29
Severe	19	27.14
Total	70	100

Table 3. Association between the socio-demographic variables of students and the level of anxiety

Items	Anxiety (rounded off percent)		Statistics	p-value
	No Anxiety	Some Anxiety		
Gender			12.5	<0.001
Male	22 (20.95%)	19 (18.10%)		
Female	13 (12.38%)	51 (48.57%)		
Age group			0.35	0.554
Less than 18	4 (3.81%)	11 (10.48%)		
18 and above	31 (29.52%)	59 (56.19%		
Study level			0.607	0.738
Plus two	4 (3.81%)	5 (4.76%)		
Undergraduate	25 (23.81%)	51 (48.57%)		
Post graduate or similar *	6 (5.71%)	14 (13.33%)		
Residency			4.773	0.116
Inside Capital	21 (20%)	56 (53.33%)		
Outside Capital	14 (13.33%)	14 (13.33%)		
Area of residency			5.25	0.22
Urban	20 (19.05%)	55 (52.3%)		
Semi-urban/rural	15 (14.29%)	15 (14.29%)		
Steady family income			0.803	0.37
No	8 (7.62%)	11 (10.48%)		
Yes	27 (25.71%)	7 (6.67%)		
Dependent			0.051	0.822
No	4 (3.81%)	7 (6.67%)		
Yes	31 (29.52%)	63 (60%)		
COVID cases identified in your area			0.972	0.324
No	10 (9.52%)	14 (13.33%)		
Yes	25 (23.81%)	56 (53.33%)		

*Graduate degrees and post graduate diploma were combined into one category

Correlation between the COVID-19-related stress factors and anxiety among students during the COVID-19 pandemic

The results of the correlation analysis between the stressors related to COVID-19 pandemic and anxiety among the college students are shown in Table 4.

Table 4. Correlation analysis between the COVID-19-related stressors and students' anxiety (no anxiety or some anxiety) during the pandemic

COVID related stress factors	R	P-value
Worry about financial consequences	0.297	0.002
Worry about delays in education and learning	0.152	0.123
Influence of pandemic on day-to-day life	-0.141	0.152
Support from friends, family and society	-0.380	<0.001

The students' worries concerning the financial consequences were caused because of the lockdown that was enforced due to the pandemic were positively related to anxiety in students (r=0.297, P<0.05). In addition, the results also suggested a negative association between psychological support provided by friends, family and their society and general anxiety disorder among students during the COVID-19 outbreak. (r=−0.380, P<0.001).

:: DISCUSSION

The main goal of this study was to evaluate the mental health or the psychological impact of students during this pandemic and explore the factors that might have been associated with their anxiety at this time. The outcomes of this study specified that two-thirds of the college students that participated in the

survey experienced some level of anxiety. Out of these 70 students that were found to have some level of anxiety, 38.54% had mild anxiety, 34.29% had moderate and 27.14% had severe anxiety. The Centers for Disease Control and Prevention in United States suggests that any new disease or uncertainty can be overwhelming and cause strong reactions of panic and worry among adults and children (CDC, 2020). A study on psychological impacts of the pandemic conducted in Ethiopian students suggested that most of the participants (77.2%) were reported to have experienced some psychological impact due to COVID-19 (Tadesse et al., 2020).

Anxiety disorders are more likely to occur and deteriorate in the absence of interpersonal communication or social support, especially among college students (Cao et al., 2020) which may have occurred as a result of social distancing and lockdown. The anxiety disorders might also result in the loss of activeness and productivity in a person resulting to a poor and a difficult life. In any given situation, support; especially psychological support, is said to ease mental health turmoil such as depressive thoughts, fear, anxiousness and worry. Societal support was negatively correlated with the anxiety of the students in a Chinese university in a study by Cao et. al. (2020). Similar findings were seen in this study as well, where support from friends, family as well as society was negatively correlated with experiences of anxiousness among college students. Social support not only moderates the psychological pressure during these emergencies but also changes the attitude regarding social support and help-seeking methods and also calms down a person`s mind to bring in positive thoughts instead of a tangled mind (Cao et al., 2020).

The shortage of Personal Protective Equipment, specifically during the early onset period, combined with the overwhelming news headlines and inaccurate news reports have only added to the anxiety and fear experienced by students (Ayittey et al., 2020). Even the World Health Organization has suggested to reduce watching, reading or listening to news about COVID-19 and to only seek information from reliable sources, mainly because the abrupt and continuous stream of news and reports regarding the outbreak can cause anyone to feel anxious and worried which in return causes even greater harm to

oneself (WHO, 2020). A study in a university in Baoding, China suggested that increases in anxiety and depression were seen after the confinement of due to the onset of the outbreak (Li et al., 2020). The findings of our study indicates that female students experienced more stresses and negative emotions as a result of the pandemic, as compared to the male students which might have been possible due to emotional reasons. This is a similar result across various studies including one conducted in United States and Ethiopia (Browning et al. 2020; Tadesse et al., 2020). The results also suggested positive association between COVID-19 related financial burden and psychological distress and anxiety symptoms in the students. Cao et. al. (2020) that indicated similar results, in addition to positive association between effects on day-to-day life and anxiety, which is in contrast to our study. Students in Nepal as well as across the globe might be worried about paying their tuition fees as well as concerned with the delays in their studies and education caused by this COVID-19 pandemic.

The Education and Health Committee of the Parliament in Nepal had directed the schools not to admit new students or charge tuition fees until the situation returns back to normal. Conversely, defying the government's directives, the guardians reported that pressure has been put on them to pay the fees, especially in case of private schools (Ghimire, 2020). Even though the lockdown modality has loosened a bit, most schools, colleges and universities have shifted to and are following distant schooling methods but the psychological factors associated as well as monetary factors and digital divide might have put more burden on the students.

⊞ CONCLUSIONS

This study intended to find the psychological impact or the mental health situation of college students caused by the unforeseen COVID-19 pandemic. The results of the Generalized Anxiety Disorder (GAD-7) scale found that majority (70 students or two-thirds) of the students have experienced anxiety because of this pandemic, out of which 38.6% experienced mild anxiety, 34.3% experienced moderate and 27.1% experienced severe anxiety. Gender of the student was found to be a factor for experienced anxiousness

among students. The female respondents were found to have increased levels of anxiety as compared to males. The worries related to financial aspect of the pandemic were positively associated with the anxiety among students, whereas collective support from peer groups, family as well as the society was negatively correlated with their anxiety.

In conclusion, a significant amount of students are experiencing anxiety during this situation, not only in Nepal but throughout the world due to various reasons. With the uncertainty that has arisen with the circumstances caused by COVID-19 virus, students require support, help and attention from personal groups as well as the surrounding society, educators and institutions. Psycho-social help must be offered to the students in need, not only from educational institutions but also from governments and related psychological and non-government organizations.

▪▪ DECLARATIONS

Author's contribution
Both authors contributed equally to this work.

Competing interests
The authors declare that they have no competing interests.

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