Research Article

Psychological Distress Related to COVID-19 Among Nepalese Professionals: An Online Cross-sectional Study

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ABSTRACT

Background: COVID-19 is a highly infectious disease caused by SARS-CoV2 virus. It's psychological distress would be a major obstacle towards social normalcy to pre-COVID era. There were lacks of studies to assess these distresses. The aim of this study was to study psychological distress related to COVID-19 among Nepalese professionals.

Methods: This online cross-sectional survey was conducted from 12th-20th, June-2020. Questionnaires were based on Corona-virus Anxiety Scale (CAS) and Obsession with COVID-19 scale (OCS).

RESULTS

Among 244 participants, majority were in the age group of 20-45 years with male female ratio of 2.1:1. About one third were health workers, 46% were teachers and service holders and remaining were from other professions. Majority of participants had sub-clinical obsessive (83.2%) and sub-clinical anxiety symptoms (69.3%). Law enforcement professionals (30.0%) and journalists 18.2% had highest prevalence of problematic obsessive symptoms. Law enforcement professionals (40%) had highest prevalence of problematic anxiety symptoms followed by health care workers (28.4%). About 35% of participants opted for multiple positive methods to cope with their obsessive and anxiety symptoms. Participants with higher obsession score had higher anxiety symptoms (r=0.592, p=<0.001).

CONCLUSION

Majority of participants only had sub-clinical obsession and anxiety related to COVID. But, health workers, law enforcement and journalism professionals were having problematic symptoms. Thus, efforts need

to be concentrated towards formulation of policies for safe and productive environment for these professionals.

Key words: Anxiety, COVID-19, Corona virus Anxiety Scale, Obsession, Obsession with COVID-19 Scale, Professionals.

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INTRODUCTION

COVID-19 is an abbreviation for Corona Virus Disease 2019. It is caused by a severe acute respiratory syndrome corona virus 2 (SARS- CoV 2). SARS-CoV-2 belongs to family called corona virus which is responsible for the COVID-19 pandemic.[1,2] In the month of December 2019, there was an outbreak of pneumonia of unknown cause in Wuhan, Hubei province in China, with an epidemiological link to the Hunan Seafood Wholesale Market. World Health Organization (WHO) was notified about the disease on 31 Dec 2019 by the Chinese Health Authorities. On January 7, 2020, a novel Corona virus was identified by the Center for Disease Control and Prevention (CDC) from the throat swab sample of a patient, and was subsequently named 2019-nCOV by WHO. WHO declared it a public health emergency of international concern on January 30, despite these efforts, the virus continued to spread and WHO declared it as pandemic on 11 March 2020.[3]

In Nepal, the first case of COVID-19 was tested positive by real-time RT-PCR assay on 23 January 2020. The case is reported to be a 31-year-old male who studies in Wuhan and traveled to Kathmandu from Wuhan.[4] The Government of Nepal issued a national lockdown on 23 March, 2020 and the lockdown continued till the date this article was being prepared (20th June 20, 2020). As on 20th June 2020 total number of cases of COVID-19 worldwide had been 87,86,592 with death toll reaching 4,63,156 whereas total number of cases in Nepal had been 8,274 with total number of death being 22.[5]

Clinical features of COVID-19 can be mild like fatigue, myalgia, fever, dry cough, and dyspnea. It can also have severe manifestations like Acute Respiratory Distress Syndrome (ARDS), septic shock, disseminated intravascular coagulation (DIC), and acute renal failure. Severe manifestations of the disease are usually seen in elderly adult males with chronic co-morbidities like chronic lung diseases, obesity (body mass index >40), liver disease, chronic kidney disease, diabetes mellitus, under immunosuppressant drugs which can weaken the immune functions of these patients.[6,7] COVID-19 pandemic has a close association with anxiety, depression, distress, sleep disturbances, and suicidality.[8-14] Ever increasing number of cases and deaths related to COVID-19 has lead to over thinking about the disease. Attention and reflection on COVID-19 can help people stay safe during the crisis but only if it is reasonable, however too much of disturbing thinking about it can be debilitating and unhealthy.[15]

MATERIALS AND METHODS

This cross-sectional survey was conducted from 12th of June 2020 to 20th of June 2020. Study was conducted online because the country was in the state of national lockdown and it was not possible to do a community-based national sampling survey. Online questionnaires were prepared based on corona anxiety scale (CAS) and Obsession

with COVID-19 scale (OCS).[16,17] Corona anxiety scale is a 5-item scale. It is based on anxiety over the corona virus. It discriminates nicely between persons with and without dysfunctional anxiety using an optimized cut score of ≥ 9 (90% sensitivity and 85% specificity). Results support the CAS as an efficient and valid tool for clinical research and practice.[16] Obsession with COVID-19 scale (OCS) is a 4-item scale. From a psychometric perspective, too much COVID-19 thinking means scores greater than or equal to 7 on the OCS. OCS total scores ≥ 7 classified people as having (sensitivity values of 81% to 93%) or not having (specificity values of 73% to 76%) dysfunctional COVID-19 thinking patterns.[17] Prior permission was taken from the original author for the use of these scales. Google forms were used for the survey. Only those participants who opted yes to participate in consent question were included in the study, and questionnaires were sent via email, Facebook, WhatsApp, Twitter. Questionnaires were also filled after telephone interviews. Only Nepalese professionals were included in the study. The Institutional Review Committee of National Medical College approved our study protocol and procedures before the formal study.

The questionnaire consisted of four parts: Demographics, Corona Anxiety Scale, Obsession with COVID-19 Scale and measures to cope with COVID related anxiety and obsession. Questionnaire included brief description about the study and also a separate question for consent. Respondents who agreed to participate were included in the study. Demographic variables included age, gender, marital status, residency address, profession and religion. These online questionnaires contained five questions on CAS, four on OCS and 1 question with coping measures. Coping measures included positive approaches like talking to friends, parents, relatives; playing games, watching TV, doing yoga and meditation, talking to doctor while negative approaches included were crying, substance use, keeping within oneself.

Statistical Analysis: Microsoft excel was used for data entry and IBM SPSS 21.0 software was used for the analysis of data. Descriptive statistics was calculated to describe the characteristics of the sample and cross-tabulation for the obsession and anxiety related to COVID-19 among the Nepalese professionals. To examine the association obsession and anxiety of the participants with OCS and CAS, binary logistic regression was done to calculate odds ratio with 95% confidence interval and p=0.05.

RESULTS

A total of 244 participants filled the questionnaires online. Among them, majority were in the age group of 20-45 years of age, 209 (85.7%). Whereas 16(6.6%) were below the age of 20 and 18(7.4%) were in the age group of 45-65. Male respondents were 166(68%) of total. More than half were married 132(54.1%). Most of the participants were from Province 2 and Bagmati province, 132(54.1%) and 63(25.8%) respectively. Health care workers (doctors, nurses and lab technicians) comprised of about one third (30.3%) of respondents whereas 112(45.9%) were teachers and service holders and the rest belonged to the professions of business, politics, journalism and law enforcement. Almost 3/4th of the participants were Hindu 181 (74.2%) (Table 1).

Table 1: Demographic characteristics of respondents

Variable	Frequency (n=244)	Percentage
Age (year)		
Below 20	16	6.6%
20-45	209	85.7%
45-65	18	7.4%
Above 65	1	0.4%
Gender		
Male	166	68%
Female	78	32%
Marital status		
Married	132	54.1%
Unmarried	112	45.9%
Residency address		
Province 1	9	3.7%
Province 2	132	54.1%
Bagmati province	63	25.8%
Gandaki province	8	3.3%
province 5	10	4.1%
Karnali province	17	7.0%
Sudurpaschim province	5	2.0%
Ethnicity		
Hindu	181	74.2%
Muslim	31	12.7%
Buddhist	8	3.3%
Christians	5	2.0%
Other	19	7.8%
Profession		
Health care worker	74	30.3%
Teacher and other profession	112	45.9%
Businessman	16	6.6%
Politician	11	4.5%
Journalist	11	4.5%
Law enforcement	20	8.2%

Table 2: Obsession with COVID-19 scale classification according to profession

Profession		Subclinical OCS	Probable dysfunction	Problematic symptoms	Total
1	Health care workers	63	3	8	74
	% within Health care workers	85.1%	4.1%	10.8%	100.0%
2	Teacher and other services	96	4	12	112
	% within Teacher and other services	85.7%	3.6%	10.7%	100.0%
3	Businessmen	13	2	1	16
	% within Businessmen	81.3%	12.5%	6.3%	100.0%
4	politicians	9	1	1	11
	% within Politician	81.8%	9.1%	9.1%	100.0%
5	Journalists	8	1	2	11
	% within Journalist	72.7%	9.1%	18.2%	100.0%
6	Law enforcement services	14	0	6	20
	% within Law enforcement services	70.0%	0.0%	30.0%	100.0%
Total	Participants	203	11	30	244
	% within total participants	83.2%	4.5%	12.3%	100.0%

When the participants were asked about their obsessive symptoms, majority of them reported of having only subclinical obsessive symptoms 203 (83.2%). 11 (4.5%) had probable dysfunction while 30 (12.3%) had problematic symptoms. Participants who were in law enforcement and journalism professions had highest prevalence of obsessive symptoms 30.0% and 18.2% respectively while only 6.3% of business owners had such symptoms as shown in table 2.

Table 3: Corona virus anxiety scale classification according to profession

Profession		Subclinical CAS	Probable dysfunction	Problematic symptoms	Total
1	Health care workers	48	5	21	74
	% within Health care workers	64.9%	6.8%	28.4%	100.0%
2	Teacher and other services	87	9	16	112
	% within Teacher and other services	77.7%	8.0%	14.3%	100.0%
3	Businessmen	11	2	3	16
	% within Businessmen	68.8%	12.5%	18.8%	100.0%

4	politicians	7	2	2	11
	% within Politician	63.6%	18.2%	18.2%	100.0%
5	Journalists	7	3	1	11
	% within Journalist	63.6%	27.3%	9.1%	100.0%
6	Law enforcement services	9	3	8	20
	% within Law	45.0%	15.0%	40.0%	100.0%
	enforcement services				
Total	Participants % within total participants	169 69.3%	24 9.8%	51 20.9%	244 100.0%

Similarly, highest number of participants had sub-clinical anxiety symptoms, 69.3% with law enforcement personal having highest prevalence of problematic symptoms 40% followed by health care workers, 28.4%. (Table 3).

Multiple positive methods to cope with their obsessive and anxiety symptoms were adopted by highest number of participants 85(34.8%). Fair number of the participants, 72(29.5%) reported talking with friends helped them relieve them of these symptoms. Only a small percentage of the participants adopted negative coping methods such as crying, sleeping and keeping to oneself, as presented in table 4.

Table 5: Correlation between anxiety and obsession related to COVID -19 among participants

	Variable	Obsessive symptoms
Anxiety symptoms	Pearson Correlation	.592**
	Sig. (2-tailed)	.000
	n	244

Participants with higher obsession score also had higher anxiety symptoms. The co-relation is significantly positive with (r=0.592, p=<0.001) as shown in table 5.

DISCUSSION

Ever increasing number of cases and deaths related to COVID-19 has forced the implementation of lockdown. Lockdown has devastating effects over all the aspects of normal living. Efforts are being made all over the world to bring back life to normalcy and also to gradually lift the lockdown. In our country Nepal also, efforts are being made for the same. High morale is a must among the professionals for the purpose of bringing back normal life proceedings back to pre COVID era. Psychological distress can be a major setback if not addressed properly. In this study we studied about obsession and anxiety related to COVID-19 among Nepalese professionals and identified associated demographic factors which can be useful for policy makers for formulation of strategies to minimize psychological distress among professionals and boost their morale.

Majority of participants 203 (83.2%) had only subclinical obsessive symptoms related to COVID-19. This is probably because participants had become very familiar with COVID-19 crisis over last few months. Participants who were in law enforcement and

journalism professions had highest prevalence of problematic obsessive symptoms 30.0% and 18.2% respectively. This can be attributed to their involvement in COVID related issues as front liners. Another reason may be increasing number of cases in Nepal among army, police and journalists.

Similarly, highest number of participants had sub-clinical anxiety symptoms, 169 (69.3%). The reason behind this may be better knowledge attitude and practice related to COVID-19 among Nepalese people.[18] Another 75 (30.7%) had probable or problematic situation. Findings of a study done in China also reported moderate to severe anxiety among 28.8% of the participants but they used different assessment scale.[11]A study done in Nepal reported much low prevalence of moderate anxiety among the participants, 9.9%.[19] They also used different anxiety scale. Differences in prevalence of anxiety may be because of different sets of participants. Law enforcement personal had highest prevalence of problematic symptoms 40%, followed by health care workers, 28.4%. This may be because of frequent exposure of army, police and health care workers with suspected and confirmed COVID-19 cases. It can also be attributed to increasing number of cases among these professionals worldwide and in Nepal. Third reason may be because of increased risk of transmission of disease among family members of people of these professions. A systemic review and meta-analysis carried by Pappa S et al.[20] reported prevalence rates of anxiety among health care workers during COVID-19 as 23·2%.

Many of our participants 85(34.8%) adopted multiple positive methods to cope with their obsessive and anxiety symptoms. 72 (29.5%) of the participants reported talking with friends helped them relieve them of these symptoms. Only a small percentage of the participants were involved in negative coping methods such as crying, sleeping and keeping to oneself. It can be concluded that Nepalese professionals have good coping capabilities.

Participants with higher obsession score also had higher anxiety symptoms. The co-relation is significantly positive with. Association between anxiety and obsession is an established fact.[21]

CONCLUSION

Majority of participants had only subclinical obsession and anxiety related to COVID-19. Yet a significant number of participants' especially front liners in the form of Healthcare workers, law enforcement personals and journalists were having problematic symptoms. More similar studies needed to be conducted and efforts need to be concentrated towards formulation of policies for safe and productive environment for these professionals.

Limitations of the study

Limitation of the study is its online nature because of which it lacks complete representativeness. More studies are warranted to investigate psychological distress among Nepalese professionals.

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Abbreviations

- ARDS – Acute Respiratory Distress Syndrome
- CAS – Corona virus Anxiety Scale
- CDC – Centre for Disease Control and Prevention

- COVID-19 – Corona Virus Disease 2019
- OCS – Obsession with COVID-19 Scale
- RT PCR – Reverse Transcription Polymerase Chain Reaction
- SARS CoV2 – Severe Acute Respiratory Syndrome Corona Virus 2
- WHO – World Health Organization

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