Mental Health Status of Migrant Nepalese Workers Rescued By Government of Nepal During the Corona Virus Disease -19 Pandemic

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ABSTRACT

Background: The corona virus pandemic rapidly sweeps across the world; it is inducing a considerable degree of depression, stress and anxiety concern in the population at large and among certain groups in particular, such as migrant workers. The aim of the study is to find out mental health status of migrant workers rescued by Nepal Government from different countries during corona virus disease -19 pandemic.

Methods: Cross-sectional descriptive study involving 427 returned migrant workers was conducted using the depression, anxiety and stress scale −21(DASS-21). Association between socio-demographic variables to mental health status was performed using chi-square test and p-value <0.05 was considered as significant level.

Results: Out of 427 participants, 4 % of respondents found to have extremely severe level of stress followed by 1.9 % extremely severe level of depression and 2.3% extremely severe level of anxiety. The association between mental health status and covariates showed that depression, anxiety and stress were associated with the place of residence, educational status of the respondents, and their perception of corona virus disease -19 risk at workplace, and test for COVID-19 after arrival to Nepal.

Conclusions: The study revealed that job loss, visa and employment contract expiry were the main reasons for migrant workers to return Nepal. Nearly one fourth of the respondents had suffered from depression, nearly one third from stress and 17% from anxiety. Necessary psychosocial interventions should be formulated and implemented for addressing the mental health problems of migrant workers during the corona virus disease -19-19 pandemic.

Keywords: Government of Nepal; mental health status; migrant workers

INTRODUCTION

COVID-19 has been widely spread all over the world after it began to spread from Wuhan china.[1] First case of corona was seen in 23 January 2020 in Nepal and country wise lock down began from March 23. [2] Labor migration from Nepal is generally concentrated to gulf countries and Malaysia.[2] Migrant workers are at higher risk of suffering from mental health problems during this pandemic and are returning their home due to job loss, financial crisis, expiry of visa/passport issue date, and fear of COVID-19. [3,4] Government of Nepal had started rescue flight to repatriating migrant workers and other Nepalese from June 12, 2020 after nation-wide lockdown during COVID-19 pandemic.[5] Very limited studies are identified focused on the mental health status of migrant workers. This study has attempted to assess the

mental health status of rescued Nepali migrant workers by the government of Nepal during COVID-19 pandemic.

METHODS

A cross-sectional descriptive study was conducted to collect information from rescued migrant workers resided at six holding centres situated in Kathmandu Valley from June 15th to June 30th, 2020.

Government of Nepal had decided to provide responsibility to COVID-19 Crisis Management Centre (CCMC) to manage the returned migrant workers from different country. They had established holding centre in different places of Kathmandu valley. One of the co-authors working as a health personnel in holding centre requested other health workers working in different

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holding centres for assistance in data collection. Rescued migrant workers returning by air and aged above 18 years were included in the study. Nepalese workers returning from roadway of different entry point of border and those who cannot fill administered questionnaire were excluded. Pre-tested self-administered questionnaire was distributed among the migrant workers to those who can fill the questionnaire. Questionnaires were distributed at six holding centers out of ten. Firstly, volunteers were oriented for data collection by the research team. Volunteers of CCMC were oriented to ensure whether the respondents missed to fill the form and volunteers were mobilized to deal with confusion during data collection. Filled questionnaire were collected in separate envelope and collected by following the precautionary measures. Ethical approval was obtained from intuitional review board of Central Institute of Science and Technology (CiST College) (Ref. No:11/076/077). All participants provided informed written consent before participating in the study.

The sample size was calculated by using the statistical formula of Fisher for calculating sample size.[6] Here, at 95 percent confidence level (i.e., Z=1.96), proportion was assumed to be 0.5, and the allowable error (d) was considered 0.05 (or 5%). Thus, the estimated size (n_o) was 384. The government of Nepal had planned to rescue almost 25000 Nepalese people from different countries.[5] In the second step, the formula for the finite population was used, i.e., $n = n_o \sqrt{(N-n_o)/(N-1)}$. This gave a final sample size of 381. By adding 12% non-response, the total sample size calculated was 427. The data was collected from June 15th to June 30th, 2020. The participants were selected conveniently, till the sample size was fulfilled, for feasibility during the pandemic period.

The Depression, Anxiety and Stress Scale - 21 Items validated Nepali version (DASS-21) which is a set of three self-report scales was used to measure the emotional states of depression, anxiety and stress[7] and Nepali version of scale was also used for the study.[8] Pretesting was done among 40 Nepalese Migrant Workers who had returned initially and were excluded from the main study. Cronbach's alpha computed among Nepali speaking adults of Hong Kong, showed 0.77 for depression, 0.80 for anxiety and 0.82 for stress DASS-subscales.[7] So, this validated instruments (DASS-21) [7, 9] was adopted for the study. Reliability was ensured by pretesting and Coefficient (Cronbach's) alpha also was calculated from pretesting which showed 0.84 for depression and anxiety, 0.92 for stress.

Mental health status was measured by depression, anxiety and stress scale(DASS-21). Final score was calculated by adding the respective score as recommended by author (Tonsing, 2014). Recommended cut-off scores for conventional severity labels (normal, moderate, severe and extremely severe) was calculated by doubeling the added score as follows: for anxiety, 0-7 score was considered as normal, 8-9 as mild, 10-14 as moderate,15-19 as severe and 20+ as extremely severe. For depression: 0-9 was considered as normal, 10-13 as mild, 14-20 as moderate, 21-27 as severe and more than 28 as extremely severe. For stress: 0-14 was considered as normal, 15-18 as mild, 19-25 as moderate 26-33 as severe and more than 34 as extremely severe.[7] All mild moderate, severe and extremely severe anxiety, stress and depression are further categorized in to anxiety, stressed and depressed for bivariate analysis. Association between different socio-demographic variables to mental health status was performed through bivariate analysis using chi-square test and p-value <0.05 was considered as significant level.

RESULTS

The mean age of the total respondents was 31.3(±7.4) years. Majority of the respondents (89.9%) were males, 65.8% belonged to nuclear family, 67.2% were married, and 60.2% belonged to underprivileged ethnic group. Almost thirty seven percentages of the respondents had completed high school certificate, followed by middle school 31.4%, while 3.7% were just literate or had non-formal education. The half of the respondents (49.9%) were from Bagmati Province, least (3.3%) were from Karnali Province followed by Sudurpashchim Province 4.2% (Table 1).

Table 1. Socio- demographic Characteristics of Migrant Workers.		
Variables	**Characteristics**	**Number (%)**
Sex		
	Female	43 (10.1)
	Male	384 (89.9)
Age (in years)	Mean(±SD)	31.3 (±7.4)
Type of family		
	Nuclear	281 (65.8)
	Joint	137 (32.1)
	Extended	9 (2.1)
Marital status		
	Married	287 (67.2)

	Unmarried	132 (30.9)
	Separated	6 (1.4)
	Divorced	2 (0.5)
Ethnicity		
	Underprivileged	256 (60.2)
	Privileged	169 (39.8)
Educational status		
	Literate/non formal	16 (3.7)
	Primary school certificate	69 (16.2)
	Middle school certificate	134 (31.4)
	High school certificate	157 (36.8)
	Higher education	51 (11.9)
Place of residence	Province 1	53 (12.4)
	Province 2	34 (8.0)
	Bagmati Province	213 (49.9)
	Gandaki Province	56 (13.1)
	Lumbini Province	39 (9.1)
	Karnali Province	14 (3.3)
	Sudurpashchim Province	18 (4.2)

The main reason of migrant workers returning to Nepal from the host country was employment contract expiry (24.1%), visa expiry (22.7%) and job loss (22.0%). The least of the respondents (5.6%) returned to Nepal due to fear of COVID-19. Out of 427 migrant workers, 85.2% were unemployed, and majority of the workers were skilled workers (62.3%). About 83% of the workers claimed to work for more than 40 hours per week (Table 2).

The mental health status of majority of the migrant workers was normal. However, 28.1% of the total workers had mild to extremely severe stress, 19.7% had mild to extremely severe depression and 17.1% had mild to extremely severe anxiety (Table 3).

The association between mental health status and covariates showed that depression, anxiety and stress were associated with the place of residence, educational status of the respondents, and their perception of COVID risk at workplace, and test for COVID-19 after arrival to Nepal. The anxiety was also associated with sex (Table 4).

Table 2. Occupational Status.		
Variables	**Characteristics**	**Number (%)**
Main reason of return	Employment Contract expiry	103(24.1)
	Visa expiry	97(22.7)
	Job loss	94(22.0)
	Due to illness	55(12.9)
	Fear of COVID-19	24(5.6)
	Other	54 (12.7)
Current employment status		
	Employed/paid leave	20(4.7)
	Employed/unpaid leave	43(10.1)
	Unemployed	364(85.2)
Type of occupation		
	Skilled	266(62.3)
	Semi Skilled	76(17.8)
	Unskilled	85(19.9)
Working hours (per week)		
	Up to 40 hours	71(16.6)
	More than 40 hours	356(83.4)

Table 3. Mental Health Status of Migrant Workers.					
Status	Normal	Mild	Moderate	Severe	Extremely severe
Stress	307(71.9)	41(9.6)	49(11.5)	13(3.0)	17(4.0)
Depression	343(80.3)	35(8.2)	36(8.4)	5(1.2)	8(1.9)
Anxiety	354(82.9)	25(5.9)	32(7.5)	6(1.4)	10(2.3)

Table 4. Association between Socio-demographic and other Variable to Mental Health Status.

	Depression		Anxiety		Stress	
	Normal	Depressed	Normal	Anxiety	Normal	Stressed
Marital status						
Married	238(80.7)	57(19.3)	246(83.4)	49(16.6)	218(73.9)	77(26.1)
Unmarried	105(79.5)	27(20.5)	108(81.8)	24(18.2)	89(67.4)	43(32.6)
p-value	0.786		0.69		0.169	
Place of residence						
Bagmati Province	157(73.7)	56(26.3)	165(77.5)	48(22.5)	129(60.6)	84(39.4)
Other province	186(86.9)	28(13.1)	189(88.3)	25(11.7)	178(83.2)	36(16.8)
p-value	**0.001**		**0.003**		**<0.001**	
Educational status						
Up to secondary level	188(85.8)	31(14.2)	191(87.2)	28(12.8)	171(78.1)	48(21.9)
Above higher secondary level	155(74.5)	53(25.5)	163(78.4)	45(21.6)	136(65.4)	72(34.6)
p-value	**0.003**		**0.015**		**0.004**	
COVID-19 status						
Perceived risk at work place	92(72.4)	35(27.6)	94(74.0)	33(26.0)	76(59.8)	51(40.2)
No	251(83.7)	49(16.3)	260(86.7)	40(13.3)	231(77.0)	69(23.0)
p-value	**0.008**		**0.002**		**<0.001**	
Infected in host country						
Yes	24(92.3)	2(7.7)	22(84.6)	4(15.4)	23(88.5)	3(11.5)
No	319(79.6)	82(20.4)	332(82.8)	69(17.2)	284(70.8)	117(29.2)
p-value	0.133		0.811		0.07	
Tested COVID at Nepal						
Yes	169(85.4)	29(14.6)	173(87.4)	25(12.6)	161(81.3)	37(18.7)
No	174(76.0)	55(24.0)	181(79.0)	48(21.0)	146(63.8)	83(36.2)
p-value	**0.015**		**0.023**		**<0.001**	

p-value significance at <0.05

DISCUSSION

This study found the mean age of the migrant workers was 31.3(±7.4) years. Nearly 90% of the workers were male. According to labor obtains record for female migrant workers were 8.5% in 2018/19 [2] which was very close to our findings. Most of the (88.8%) workers had returned from golf countries which may be because most of the workers make their work destination to gulf countries.[2] Nearly half of the workers were from Bagmati province and more than one-third of the workers complete their High school certificate before to go for job. Most of Nepalese people went for job if they did not get proper job in Nepal after completing their high school education. Reason for return in Nepal was also

identified. Nearly one-fourth of the respondents were returned Nepal due to employment contract expiry and nearly equal of the workers due to visa expiry and job loss due to closure of company. Most of the job of market, hotel, company and factory have been closed due to the effect of COVID 19 pandemic.[4,10,11] So, more than 80% of the workers were being unemployed and had returned to Nepal. Twenty Nine Percentages of the workers perceived risk of COVID at their workplace at their host country. Six percent of workers were already infected by COVID 19 at their host country and were feared with corona virus disease and return home country. Government of Nepal performed the facility of corona virus test for suspected case. Forty six percentage of the workers test performed after arrival

to Nepal if they got symptoms of disease. If they got tested positive they were sent to hospital for further treatment. So this study could not cover the positive cases. Regarding the safe practice for COVID- 19, almost all respondents maintain social distancing, frequently wash hands for 20 seconds, use alcohol based sanitizer, and use face mask. Similar finding was found at Hong Kong.[12]

This study found the mental health statuses of rescued migrant workers by government of Nepal were assessed by stress, depression and anxiety. Stress among all 427 workers, 9.6% of were suffer from mild, 11.5% were from moderate, 3% from severe and 4% from extremely severe. Work related stress will be the cause of suicide which was found from the study conducted in India.[13] In our study, overall stress was found to be 29.1%.

The present study showed that out of total respondents, 19.7% had mild to extremely severe depression Similar study conducted found that the overall depressive symptom among worker was 20.1%[14, 15] which was similar to our study. Similarly, 5.9% mild, 7.5% reported having moderate anxiety level whereas 2.3 % reported having extremely severe anxiety level. So, overall anxiety among workers was 17.1% in this study. The study conducted in China among workers found that overall anxiety disorder was 35.1%[14] which was almost double as our study. It may be due to originality of disease and higher fatality rate than Nepal. Other study[16] found that 6.3% of the respondents were found to be anxiety group which was quite low as compared to this present study. Study conducted among migrant workers found that 35.9% had depression, 41% had anxiety and 20.5% had stress[9] which is consistent to anxiety level but not in depression and stress. It may be due to different situation and time. In this study, migrant workers were rescued through rescued flight arranged by the Government of Nepal. So, the depression and stress might be low as compared to the other study.

CONCLUSIONS

The results of this study revealed that job loss, visa and employment contract expiry were the main reasons for returned migrant workers. Nearly one third of the workers perceived COVID-19 risk at workplace and some of the workers were infected when they were at host countries. Almost one fourth of the respondents have suffered from depression, nearly one third from stress and 17% from anxiety. The association between mental health status and covariates showed that depression,

anxiety and stress with the place of residence, educational status of the respondents, and their perception of COVID risk at workplace.

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