

## Psycho-behavioural impact of 'Lockdown' due to COVID-19 pandemic in Nepal: An Online Survey

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### Abstract

**Introduction:** Nepal entered into a lockdown mode since 24th March 2020 to control the spread of COVID-19 infection. Our aim was to evaluate the mental and behavioural impact of lockdown due to COVID-19 pandemic on the general public of Nepal in terms of the point prevalence of sadness, anxiety, feelings and relationship issues due to lockdown.

**Material And Method:** It was a web-based cross-sectional survey conducted by using the Survey Monkey platform during 8th April 2020 and 29th April 2020. The link generated was circulated on Whatsapp platforms. Self-designed clinical profile was made to assess different feelings, leisure activities and relationship changes with family members that are not assessed using scale. The survey link was circulated starting from 8th April 2020 and was closed on 29th April 2020.

**Results:** Of the 142 participants about 35.9% reported being sad, 28.2% had anxiety and about 46.5% of the participants felt lonely. Fear of death (60.6%) and getting infected with corona (52.1%) were the most common stress. Most of them were involved in sexual activities (67.6%) and reading books (42.3%) during lockdown. Some (14.8% and 18.3%) reported marked improvement in relationships with parents and children respectively.

**Conclusion:** The present survey suggests that substantial proportion of the population do not report change in relationship despite reporting sadness, loneliness and change in daily activities. Therefore, social relationship and brotherhood need to be advised in addition to minimising emotional distancing during awareness programs related to COVID-19.

**Keywords:** COVID-19, Stress, Relationship changes, Nepal

### INTRODUCTION

COVID-19 Pandemic had affected almost every country in the world and Nepal could not escape from its clutches too. Nepal is a small landlocked country with an estimated population of around 28 million.<sup>1</sup> The current pandemic came as a severe blow to the slowly recovering economic and social strata of the country after the 2015 earthquake.<sup>2</sup> The first case of the [COVID-19 pandemic in Nepal](#) was reported on 24 January 2020 while the second case was confirmed on 23 March 2020 in Kathmandu.<sup>3</sup> To control the further spread of COVID-19 in Nepal, along with most of the countries, it entered into a country-wide lockdown phase since 24 March, 2020 which was

further extended till 7<sup>th</sup> May 2020 (as on 1<sup>st</sup> May 2020).<sup>4</sup>

COVID-19 pandemic has caused significant anxiety and fear in the minds of people. International studies report that the prevalence of mental disorders or mental distress in the form of depression, anxiety and stress is higher than before.<sup>5-7</sup> The negative psychological impact is being reported in general public and health care workers.<sup>6,8-10</sup> The fear of infection, feelings of frustration, and boredom has also been reported.<sup>11,12</sup> One published data from Nepal reported that 25.4% and 7% of study sample had predominant anxiety and depression, in terms of impact of lockdown on general public.<sup>13</sup> Another Nepalese study in healthcare workers found depression and anxiety to be 8% and 38%

respectively.<sup>14</sup> In this background, this study aimed to evaluate the impact of lockdown on the emotions, behaviour, leisure activities and relationship on people in Nepal, facing the pandemic.

## **MATERIAL AND METHOD**

It was an online survey conducted by using the Survey Monkey platform, through which a survey link was generated. The link was circulated among the various social media platforms using the Whatsapp and Facebook. The survey questionnaire was available in English and Nepalese Languages. The link was designed in such a way, that only 1 response can be generated by using one device. The person filling the survey was requested to forward the survey further, to ensure snowball sampling. The survey link was circulated starting from 8<sup>th</sup> of April 2020 i.e., after 10 days of declaration of lockdown, and the survey was closed on 29<sup>th</sup> April 2020. The link was circulated by the snowballing method, with people receiving the message were requested to forward the link to their close contacts in various Whatsapp group, Facebook and Twitter platforms.

The survey questionnaire consisted of the following instruments:

(1) **Demographics and personal characteristics:**

A basic information sheet to include the subject's age, gender, marital status, educational qualifications, current work profile etc.

(2) **Self-designed questionnaire** was used where effect of Lockdown on one's emotions, feelings and various aspects of life, stress due to COVID-19 infection and relationships with family members were assessed.

As this was an online survey, and there was no coercion on the participants, ethical clearance was not obtained for carrying out this survey. Descriptive statistics were applied and the data collected was analysed using SPSS 20.0 version. Pearson's co-relation co-efficient and Spearman's co-relation co-efficient were used to find the association between different variables.

## **RESULT**

During the survey period, 145 responses were received, of which 3 responses were incomplete to large extent and hence were excluded from the final analysis. Of 142(97.93%) responses

analysed, information on all the variables was available, except for the age, which was available for 133 participants only. The median duration of completing the survey was 16<sup>th</sup> day of the lockdown period (Mean: 16.95, standard deviation [SD]:3.17; Range:15<sup>th</sup> day to 35<sup>th</sup> day). The mean age of the participants (133 responses) was 31.64(SD: 7.50) years. About two-third of the participants (68.3%) were males, slightly more than half were married (54.2%), about half had completed graduation (47.9%). Majority of the participants were employed (self-employed/employed in Government sector or private sector) (77.46%). With regard to profession, slightly more than half of the responders (56.3%) were health care workers (HCWs).

**Effect of Lockdown on one's emotions, feelings and various aspects of life (Table-1):**

Slightly or markedly increased sadness was reported by 42.9% of the samples. Similarly, slightly or marked feeling of anxiety (64.1%), irritability (45.8%), frustration (55.6%), loneliness (38.1%) were reported. As high as 55.6% and 38.0% were found to have increased apprehension and fear of death respectively. In addition sleep and appetite was disturbed in 53.5% and 47.9% respectively. The use of social media was found to be markedly increased in 57% while watching movies and playing internet games were markedly increased in 29.6% and 5.6% respectively. Cooking and cleaning were found markedly increased in 45.8% (Table-1).

**Stress due to COVID-19 infection (Table-2):**

Cross sectional assessment of different types stress response in the form of fear, emotional response, feelings, affect and cognitive symptoms were done. It was seen that 52.1% of the respondents feared getting infected more severely with COVID-19 and 45.1% of people reported uncertainty about frequent modification of infection control procedures (Table-2).

**Effect of Lockdown on relationships (Table-3):**

The relationships with different family members were studied on 5 point scale. It was found that most of them (46.5%, 62.7%, 55.6%, 52.1%, 73.2% and 77.5%) reported no change in relationships with family members, spouse/partner, children, parents, neighbours and colleagues respectively. (Table-3)

**Table 1: Effect of Lockdown on one's emotions, feelings and various aspects of life**

	No Change Freq (%)	Slightly Increased Freq (%)	Markedly Increased Freq (%)	Slightly decreased Freq (%)	Markedly decreased Freq (%)	Cann't say Freq (%)
Sadness	51 (35.9%)	54 (38.0%)	7 (4.9%)	14 (9.9%)	4 (2.8%)	12 (8.5%)
Anxiety	40 (28.2%)	77 (54.2%)	14 (9.9%)	5 (3.5%)	3 (2.1%)	3 (2.1%)
Irritability	55 (38.7%)	50 (35.2%)	15 (10.6%)	9 (6.3%)	6 (4.2%)	7 (4.9%)
Frustration	48 (33.8%)	68 (47.9%)	11 (7.7%)	7(4.9%)	5 (3.5%)	3 (2.1%)
Loneliness	66 (46.5%)	39 (27.5%)	15 (10.6%)	10 (7.0%)	10 (7.0%)	2 (1.4%)
Social Connectedness	37 (26.1%)	36 (25.4%)	11 (7.7%)	25 (17.6%)	30 (21.1%)	3 (2.1%)
Social Isolation	36 (25.4%)	46 (32.4%)	38 (26.8%)	11 (7.7%)	8 (5.6%)	3 (2.1%)
Fear and Apprehension	55 (38.7%)	70 (49.3%)	9 (6.3%)	1 (0.7%)	4 (2.8%)	10 (7.0%)
Fear of Death	86 (60.6%)	34 (23.9%)	20 (14.1%)	14 (9.9%)	7 (4.9%)	3 (2.1%)
Sleep	63 (44.4%)	35 (24.6%)	20 (14.1%)	14 (9.9%)	7 (1.4%)	3 (2.1%)
Appetite	72 (50.7%)	42 (29.6%)	13 (9.2%)	11 (7.7%)	2 (1.4%)	2 (1.4%)
Pain	101 (71.1%)	26 (18.3%)	2 (1.4%)	4 (2.8%)	4 (2.8%)	5 (3.5%)
Fatigue	81 (57.0%)	41 (28.9%)	3 (2.1%)	4 (2.8%)	10 (7.0%)	3 (2.1%)
Exercise	55 38.7%)	38 (26.8%)	12 (8.5%)	17 (12.0%)	17 (12.0%)	3 (2.1%)
Substance use, including alcohol	100 (70.4%)	7 (4.9%)	4 (2.8%)	0	21 (14.8%)	10 (7.0%)
Use of social media	19 (13.4%)	38 (26.8%)	81 (57.0%)	2 (1.4%)	2 (1.4%)	0
Faith in God	86 (60.6%)	31 (21.8%)	21 (14.8%)	1 (0.7%)	0	2 (2.1%)
Watching Movies	35 (24.6%)	58 (40.8%)	42 (29.6%)	3 (2.1%)	4 (2.8%)	0
Internet Gaming	77 (54.2%)	35 (24.6%)	23 (5.6%)	2 (1.4%)	2 (1.4%)	3 (2.1%)
Playing indoor games (without using the gadgets)	77 (54.2%)	44 (31.0%)	9 (6.3%)	3 (2.1%)	4 (2.8%)	5 (3.5%)
Sexual Activity	96 (67.6%)	21 (14.8%)	8 (5.6%)	2 (1.4%)	5 (3.5%)	10 (7.0%)
Shopping	37 (26.1%)	11 (7.7%)	1 (0.7%)	22 (15.5%)	68 (47.9%)	3 (2.1%)
Spending	28 (19.7%)	24 (16.9%)	7 (4.9%)	38 (26.8%)	43 (30.3%)	2 (1.4%)
Reading Books	60 (42.3%)	54 (38.0%)	10 (7.0%)	7 (4.9%)	8 (5.6%)	3 (2.1%)
Drawing/Painting	117 (82.4%)	13 (9.2%)	3 (2.1%)	1 (0.7%)	2 (1.4%)	6 (4.2%)
Cooking	48 (33.8%)	65 (45.8%)	27 (19.0%)	0	1 (0.7%)	1 (0.7%)
Cleaning	41 (28.9%)	65 (45.8%)	34 (23.9%)	1 (0.7%)	1 (0.7%)	0

**DISCUSSION:**

As the lockdown was imposed suddenly to control the COVID-19 pandemic, it was suspected that it may lead to psychological impact among the general public. Though there are studies measuring proper psychiatric disorders,<sup>8,15</sup> we aimed to evaluate the impact of lockdown on emotion, behaviour and relationship dimensions, which are often not picked up by structured scales. The survey was initiated after about 2 weeks of the lockdown period and the median duration of completing the survey was 16<sup>th</sup> day of the lockdown period. These findings indicate towards the epidemic of

acute stress disorders, emotional disturbances, sleep disorders, depressive episodes and suicide in future as shown in previous study.<sup>16</sup> Hence, it can be said that lockdown and the COVID-19 pandemic has led to increase in the mental and behavioural morbidity in the general public which is likely to progress more as the number of cases of COVID-19 increase and subsequent extension of lockdown.

**Table 2: Stress due to COVID-19 infection**

Variable	Yes Freq (%)	No Freq (%)	Not applicable Freq (%)
Feared getting infected more severely with Corona Virus	74 (52.1%)	65 (45.8%)	3(2.1%)
Feeling Pessimism or hopelessness	37 (26.1%)	99 (69.7%)	6 (4.2%)
Absence of emotional response - feeling numb/ no happiness or sadness	35 (24.6%)	95 (66.9%)	12 (8.5%)
Feeling exhausted	52 (36.6%)	84 (59.2%)	6 (4.2%)
Reduced awareness or being in a daze/ feeling confused/unable to think clearly	36 (25.4%)	99 (69.7%)	7 (4.9%)
Feeling Detached from others	55 (38.7%)	77 (54.2%)	10 (7.0%)
Always wore mask and protective equipment even in open spaces	70 (49.3%)	68 (47.9%)	4 (2.8%)
Invest majority of free time reading or watching Corona Virus related information	75 (52.8%)	63 (4.4%)	4 (2.8%)
Anxiety when dealing with febrile patients/family members	65 (45.8%)	54 (38.0%)	23 (16.2%)
Avoided Corona Virus related information	26 (18.3%)	112 (78.9%)	4 (2.8%)
Had anxiety/palpitations	31 (21.8%)	108 (76.1%)	3( 2.1%)
Felt irritated/angry on self or others	53 (37.3%)	81 (57.0%)	8 (5.6%)
Had trouble falling asleep/ frequent awakening	35 (24.6%)	103 (72.5%)	4 (2.8%)
Uncertainty about frequent modification of infection control procedures	64 (45.1%)	64 (45.1%)	14 (9.9%)
Poor concentration and felt indecisive	39 (27.5%)	93 (65.5%)	10 (7.0%)
Afraid to go to home because of fear of infecting family	46 (32.4%)	76 (53.5%)	20 (14.1%)
Deteriorating work performance	25 (17.6%)	99 (69.7%)	18 (12.7%)
Reluctant to work or consider resignation after discharge	17 (12.0%)	105 (73.9%)	20 (14.1%)
Depressed mood - feeling low most part of the day	25 (17.6%)	111 (78.2%)	6 (4.2%)
Stigmatization and rejection in neighbourhood because of hospital work/ being kept in quarantined facility	14 (9.9%)	97 (68.3%)	31 (21.8%)

**Table 3: Effect of Lockdown on relationships (N=142)**

Variables*	No Change Freq (%)	Slightly improved Freq (%)	Marked improved Freq (%)	Slightly Worsened Freq (%)	Markedly Worsened Freq (%)
Relationship with family members	66 (46.5%)	33 (23.2%)	18 (12.7%)	21 (14.8%)	4 (2.8%)
Relationship with your spouse/partner	89 (62.7%)	26 (18.3%)	13 (9.2%)	12 (8.5%)	2 (1.4%)
Relationship with children	79 (55.6%)	13 (9.2%)	26 (18.3%)	18 (12.7%)	6(4.2%)
Relationship with parents	74 (52.1%)	34 (23.9%)	21 (14.8%)	12 (8.5%)	1 (0.7%)
Relationship with your neighbours	104 (73.2%)	24 (16.9%)	7 (4.9%)	6 (4.2%)	1 (0.7%)
Relationship with your Office Colleagues	110 (77.5%)	18 (12.7%)	5 (3.5%)	9 (6.3%)	0

In current study, we did not find any change in relationship with family members during lockdown. This explains our social behaviour that encourages emotional support, care and helping hand offered to each other in need. Though social distancing is preached, it does not mean emotional distancing. This eventually is likely to prove useful coping mechanism during the psychological pandemic that is likely to follow in future. We could not access studies regarding relationship changes during lockdown.

Having said so, lockdown has encouraged sedentary lifestyles like watching movies and using social media and internet games. This should be combat by exercise and dietary modifications during awareness programs.

This study had some limitations. Despite attempts to circulate widely in all possible social media platforms, participation was lower than expected, possibly due to poor snowballing effect. More than half of the participants were doctors, and this may not be representative of the whole population. Further, the survey was limited to those, who had access to a smart phone device. Hence, it can be said that the study participants may not be representative of people from various strata/ educational status of the country. However, considering the lockdown situation, this was the possible best methodology to reach to the people to understand the psychological impact.

The higher fear and behavioural changes during the pandemic suggest that while preparing for the medical emergencies, the government should plan to address the threatening psychological morbidity, that may follow, after the lockdown in over.

#### **CONCLUSION:**

The present survey suggests both positive and negative changes in psycho-behavioural impact of COVID-19 pandemic. These findings suggest that there is a need of expanding the mental health services to everyone in the Nepalese society at large on a priority basis to provide psychological first aid. In addition to the treatment, psychoeducation focussed at alleviating COVID-19 related fear should be given. Brotherhood and social support should be encouraged. Methods like Telepsychiatry and

training paramedics can be handy in providing support and treatment to these growing psychological problems in Nepalese population.

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**CONFLICT OF INTEREST:** None

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