ORIGINAL ARTICLE

Stress, Anxiety Triggers and Mental Health Care Needs Among General Public Under Lockdown During COVID-19 Pandemic: a Cross-Sectional Study in India

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Abstract

The outbreak of novel corona virus (COVID-19) pandemic possesses the potential to arise an unprecedented growth of mental health care needs among the general population. The present study aims to understand the knowledge of possible symptoms, stress and anxiety triggers and mental health care needs related to COVID-19 pandemic among the general population of India. A web-based cross-sectional survey was conducted across India. In order to conduct the survey, an online survey tool (semi-structured questionnaire) was prepared using google forms. Apart from having an informed consent, the survey tool comprised 42-item questions addressing the background characters of the participants and the pertinent issues related to the study. Snowball sampling technique was adopted in the study, and the questionnaire was sent to the contacts of the surveyors. All the participants were further requested to forward the tool in their respective contacts. A total 284 respondents were covered under the survey. More than 50% of participants reported having some professional loss in the current pandemic lockdown phase and 74% of the respondents reported having stress about their business or employment in the coming times. Majority (77%) of respondents agreed on the importance of professional mental help but 40% reported not likely to take professional help if they experience extreme stress and anxiety due to COVID-19. The educated people realise the significance of mental health care needs but majority of them decline to take a professional help even after realising the extreme anxiety. It is imperative for the government to amplify the awareness programmes addressing the mental health care needs and its importance during the COVID-19 pandemic.

Keywords COVID-19 pandemic · Awareness · Stress · Anxiety · Mental health

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Background

The primary known origin of the novel coronavirus (2019-nCoV) has been in the city of Wuhan of central Hubei province of China (WHO, 2020a). The clustered invasion of initial cases was reported on December 31, 2019, and soon on January 7, 2020, and Chinese authorities confirmed the new type of coronavirus (2019-nCoV) (WHO, 2020b). After the confirmed oozing of contaminated cases across many countries, the WHO declared COVID-19 to be a public health emergency of international concern (WHO, 2020c). Eventually, the widespread outbreak of the coronavirus disease has reached the level of a pandemic, putting across an unprecedented challenge among the people of the globe.

The COVID-19 pandemic has inflicted serious challenges to the various sectors of the global economy, transportation, employment, etc. and posed a detrimental effect on people's lives. It is evident from the studies of previous epidemic that their impacts are far greater than mere having mortality and morbidity. The severe acute respiratory syndrome (SARS), 2003 (Ko, et al., 2006; Peng et al., 2010), and novel influenza (H1N1), 2009 (Yeung et al., 2017), in the past have shown a considerable impact on the people's mental health which are likely to be followed during this current pandemic too. Such epidemics and pandemics possess the potential to inflict psychological problems in the community such as post-traumatic stress disorders, psychological distress, depression and anxiety (Shultz et al., 2015). Evidence from various studies has shown that COVID-19 pandemic has shown considerable impact on the psychological wellbeing of the population. According to a study from China, more than half of the respondents reported being affected psychologically due to the COVID-19 pandemic (Wang et al., 2020). The individuals who were quarantined or isolated also portrayed the signs of anxiety, anger and post-traumatic stress (Brook et al., 2020).

There has been extensive research on various aspects related to COVID-19 spread, preventive solutions and plausible treatment options but very limited studies exist exhibiting insight from people's life addressing mental health challenges during the time of COVID-19 lockdown phase in India. Since March 22, 2020, the Government of India has implemented the world's largest lockdown, and even during that phase, people were affected with the fear of contamination and rising mortality cases (Shah et al., 2020). During this time, it becomes imperative to understand the mental health care needs of the general public. Hence, this study attempts to understand the related knowledge of possible symptoms, stress and anxiety triggers and mental health care needs during COVID-19 pandemic among the general population of India.

Methods

A web-based cross-sectional survey was conducted across India. In order to conduct the survey and ascertain the pertinent issues of the study, an online survey tool (semi-structured questionnaire) was prepared using google forms. Apart from having an informed consent, the survey tool comprised 42-item questions addressing the background characters of the participants and the knowledge of possible symptoms, stress and anxiety triggers and related mental health care needs during the unprecedented times of COVID-19 pandemic. The background characteristics mainly included age, gender, place of residence, the total number of family members, number of earning family members, type of living

arrangement, religion, marital status, education and occupation. To assess the knowledge of COVID-19 symptoms, the WHO was asked and defined symptoms which are divided into three sections, i.e., most common, less common and serious symptoms (WHO, 2020d). There were 12 questions related to the stress and anxiety that were added to the tool and 5 questions on mental health were incorporated.

Snowball sampling technique was adopted in the study, and the questionnaire was sent to the contacts of the surveyors. All the participants were further requested to forward the tool in their respective contacts. A total 284 respondents were covered under the survey.

In order to take the survey, it was imperative for the respondents to understand English and have a smartphone/tablet/laptop with an internet connection. Those who did not possess such traits were excluded from the survey. The survey tool was spread across the targeted population from May 22, 2020, to May 31, 2020, i.e. for 10 days.

Statistical Analysis

The data captured through an online survey was coded, validated and analysed using the software Statistical Package for Social Sciences (SPSS) 24 (IBM). Descriptive statistical methods were used to summarise results as frequencies and percentages for categorical variables.

Results

Background Characteristics

An online survey was conducted to address the knowledge of possible symptoms and related mental health care needs during the COVID-19 pandemic in India. A total 284 Indian residents participated in the study. The mean age of the respondents was 35.21 years. Among participants, 56% (158) were males and 44% (126) were females. The majority of the respondents (92%) reported their place of residence as urban, and almost 96% were graduate and above. Thirty percent of respondents reported they were staying in a rented living arrangement (Table 1).

Awareness Pertaining to Possible Symptoms of COVID-19

According to the WHO, the possible symptoms of COVID-19 range between the most common, less common and serious symptoms. An overwhelming percentage of respondents reported the right awareness about the possible symptoms of the novel coronavirus. However, out of the most common symptoms of COVID-19, almost 28% of participants reported tiredness not to be a symptom of COVID-19. Of the less common symptoms, 60% of respondents replied that diarrhoea was not a symptom, and almost 40% denied ache and pains to be a symptom of coronavirus. Approximately 38% denied chest pains to be a serious symptom of COVID-19 (Table 2).

Table 1 Distribution of respondents according to their background characteristics, India 2020

Background characteristics	Percentage	Number
Age (in years)		
<29	27.1	77
30–39	46.1	131
40–49	17.3	49
>50	9.5	27
Sex		
Male	55.6	158
Female	44.4	126
Residence		
Urban	92.6	263
Rural	7.4	21
Family size		
1	4.6	13
2	8.8	25
3	14.1	40
4	35.6	101
5	20.8	59
6 or more	16.2	46
Earning member in family		
1	36.6	104
2	45.1	128
3	11.3	32
4 or more	7.0	20
Type of living arrangement		
Permanent	70.8	201
Rented	29.2	83
Religion		
Hindu	76.1	216
Muslim	5.6	16
Sikh	7.4	21
Christian	6.7	19
Others	4.2	12
Marital status		
Currently married	58.5	166
Never married	38.4	109
Others	3.2	9
Education		
<Graduate	4.2	12
Graduate	33.8	96
Masters and above	62.0	176
Occupation		
Salaried government	17.6	50
Salaried private	48.9	139
Business	7.0	20
Unemployed	26.4	75
Total	100	284

Table 2 Distribution of respondents according to their knowledge pertaining to COVID-19 symptoms, India 2020

Possible symptoms of COVID-19	Percentage	Number
Most common		
Fever		
No	6.3	18
Yes	93.7	266
Dry cough		
No	10.2	29
Yes	89.8	255
Tiredness		
No	28.5	81
Yes	71.5	203
Less common		
Sore throat		
No	15.5	44
Yes	84.5	240
Ache and pains		
No	39.4	112
Yes	60.6	172
Diarrhoea		
No	60.6	172
Yes	39.4	112
Headache		
No	39.4	112
Yes	60.6	172
Loss of taste and smell		
No	39.8	113
Yes	60.2	171
Serious symptom		
Difficulty in breathing		
No	8.1	23
Yes	91.9	261
Chest pain		
No	37.7	107
Yes	62.3	177
Total	100	284

Lifestyle Habits During the COVID-19 Lockdown

Results from Table 3 depict that almost one-fourth of the respondents did not do physical work out in the last 2 months preceding the survey. More than one-fourth of respondents reported difficulty sleeping in the last 2 months due to excessive thinking about COVID-19. Almost 9% of respondents reported they took sleep of around 4 to 5 h a day only.

Table 3 Distribution of respondents according to their lifestyle variables during the lockdown phase of COVID-19 pandemic in the last 2 months preceding the survey, India 2020

Lifestyle variables	Percentage	Number
Physical workout in last 2 months		
Alternate days	27.8	79
Never	24.6	70
Everyday	29.6	84
Once a week	18.0	51
Change in consumption of cigarette or alcohol in last 2 months		
Increased	4.2	12
Decreased	16.9	48
No change	6.7	19
Don't consume cigarette or alcohol	72.2	205
Faced difficulty in sleeping due to COVID-19 thoughts in last 2 months		
No	71.1	202
Yes	28.9	82
Hours of sleep in a day in last 2 months		
4–5 h	8.5	24
5–7 h	55.6	158
8 or more hours	35.9	102
Total	100	284

Stress and Anxiety Triggers During the COVID-19 Pandemic

Professional Stressors During the Lockdown

Table 4 depicts that almost 15% of participants reported they continued going to their workplace during the lockdown in the last 2 months. More than 50% of participants reported having some professional loss in the current pandemic lockdown phase. A total of 13% of participants reported the loss of jobs, and 25% had experienced a reduction in salary. About 14% of participants reported a loss in business. An overwhelming percentage (74%) of participants admitted stress pertaining to their business or employment in the coming times. More than 39% of respondents were having a pending EMI to the bank.

Contamination Stressors

A considerable percentage (80%) of respondents admitted stress or fear of contaminating themselves or their family members when they start going to their workplace. The majority of the respondents agreed that they are having the anxiety of contamination for themselves and their family members even after following the protective measures. Almost 28% of participants reported they feel the need to sanitise their hands ten or more times in a day, and almost 48% admitted they feel like sanitising hands 5 to 10 times a day. About 42% of participants reported having a COVID-19-positive case in their locality, and almost 24% reported experience of anxiety every day, and 57% reported having anxiety sometimes regarding anyone in the locality getting infected with COVID-19.

Table 4 Distribution of respondents according to the type of stress and anxiety they experienced during COVID-19 pandemic, India 2020

Stress and anxiety during COVID-19 pandemic	Percentage	N
Professional stressors		
Place of work in last 2 months		
Continued going to work	14.8	42
Work from home	85.2	242
Experienced professional loss		
Loss of job	13.0	37
Loss in business	14.1	40
Reduction in salary	25.0	71
None	47.9	136
Stress about employment or business in the coming times		
No	26.1	74
Yes	73.9	210
Loan or pending EMI		
No	60.6	172
Yes	39.4	112
Contamination stressors		
Stress or fear about self or family members going back to the workplace		
No	19.7	56
Yes	80.3	228
Anxiety about self or family getting infected with COVID-19 virus even after following the protective measures		
No	22.9	65
Yes	77.1	219
Number of times in a day feel the need to use hand sanitiser or wash hands		
10 or more times	28.5	81
5 to 10 times	47.9	136
Less than 5 times	23.6	67
Existence of COVID-19 positive in locality		
No	57.7	164
Yes	42.3	120
Frequency of anxiety regarding anyone in locality getting infected with COVID-19		
Everyday	23.6	67
Sometimes	57.4	163
Never	19.0	54
Information media stressors		
If Installed any application related to COVID-19 and frequency of visiting application		
More than once every day	12.3	35
Once everyday	32.7	93
Once a week	21.5	61
Not installed any application	33.5	95
Frequency of checking the number of cases in city, state or country		
Every day	69.0	196
Every 2 days	15.1	43
Once a week	12.3	35

Table 4 (continued)

Stress and anxiety during COVID-19 pandemic	Percentage	N
Once in 2 weeks	3.5	10
Anxiety after checking the rising number of cases in country and world		
No	24.6	70
Yes	75.4	214
Total	100	284

Information Media Stressors

A considerable percentage (66%) of participants had installed a mobile application related to COVID-19, and 12% reported checking it every day, whereas 33% reported checking it once every day. The majority of respondents (69%) agreed on every day checking the rising numbers of cases in their city, state or country. Participants (75%) reported that having a check on the rising cases has been a cause of anxiety.

Mental Health During COVID-19

As shown in Table 5, almost half of the participants had a period in the last 2 months experiencing most of the day being sad, empty or depressed, which lasted several days or longer. A total of 77% agreed on 'if professional help is beneficial in taking care of mental health during COVID-19'. However, 40% reported they are not likely to take professional help if they feel extreme stress and anxiety during the current pandemic. In another contrast, 90% of the participants agreed on suggesting to take professional help to people who feel extreme anxiety due to COVID-19. About 27% of participants reported searching for information related to coping with stress and anxiety in the last 2 months.

Discussion

The countries with an evident history of experiencing pandemics in the past have cases with affected not only physical health but also state of mental health and wellbeing (Shigemura et al., 2020). The sudden influx of sensational news from various sources aggravates the hype and foster rumours among the masses. This potentially inflicts the mental pressure, societal rejection, discrimination and stigmatisation among the affected individuals (Rubin and Wessely, 2020). Currently, the entire world is confronting the unprecedented challenge of COVID-19 and India not being an exception is under the world's largest lockdown since March 22, 2020. Though the government has systematically started uplifting the lockdown, the number of cases will continue to rise and expected mental wellbeing of people will remain questionable.

The present study highlights that majority of respondents correctly identified the symptoms of the novel coronavirus as 93% of participants reported fever to be a symptom and almost 90% agreed on dry cough to be a symptom. However, a considerable percentage of participants depicted unawareness regarding many symptoms such as diarrhoea (60%), ache and pains (40%), tiredness (28%) and serious symptom like chest pain

Table 5 Distribution of respondents according to their mental healthcare needs

Mental health	Percentage	N
Had a period of time lasting several days or longer when most of the day felt sad, empty or depressed during the last 2 months		
No	50.4	143
Yes	49.6	141
Professional help is beneficial in maintaining proper mental health during current COVID-19 pandemic		
No	22.5	64
Yes	77.5	220
Likelihood of taking professional help if feel extreme stress and anxiety related to COVID-19 pandemic		
Not likely	40.1	114
Somewhat likely	45.4	129
Very likely	14.4	41
Will suggest people to take professional help if they feel extreme stress and anxiety due to COVID-19 pandemic		
No	9.9	28
Yes	90.1	256
Ever tried to search for information related to coping with stress and anxiety in the last 2 months		
No	72.9	207
Yes	27.1	77
Total	100	284

(38%). This could also be the reason of some deficiency in the awareness programmes as well as the existence of immense unauthentic information sources. Literature suggests that during an epidemic, the information imparted to the public from diverse social media is chaotic and this could lead to acceptance of information from an unauthentic source which is further propagated into their known channels leading to communication inequality (Lin et al., 2014). Studies also suggest that adequate knowledge pertaining to the epidemic has been instrumental in better practices and clear communication along with updated information has been beneficial in the adoption of precautionary services (Lau et al., 2009; Leung et al., 2004).

A majority of participants (52%) in the study reported having some professional loss. An overwhelming percentage (74%) of participants reported being stressed for their professional engagements in coming times. This could be an apparent reason of economic slowdown and the aggravating stress because of the circumstances of many sectors facing economic hardships.

A continuing phase of pandemic can arise a situation when people exhibit fear of contamination and various socio-economic consequences of pandemic (Taylor, 2019). Majority of respondents in the study also reported similar fears and stress; nearly 80% of respondents reported stress of contamination for themselves as well as for their family members. Almost 42% of respondents reported the existence of COVID-19-positive case in their locality, and 24% reported the feeling of every day continued stress. During the time of pandemic, it becomes essential to address such mental health difficulties, especially for the pandemics like COVID-19 which is exponentially increasing from a long time and any vaccine for its cure has not come in existence so far.

In continuation to addressing the stress issues the respondents were asked about their perceived mental health, perception about mental health and practice. Almost 50% of the respondents reported being sad, empty, or depressed, which lasted several days or longer. A majority of respondent agreed that professional help for mental health during COVID-19 pandemic will be beneficial. However, in contrast a significant percent (40%) were not likely to take any professional help if they conceive extreme anxiety due to COVID-19. Even though majority of respondents were educated, 'graduate and above', the inclination towards taking professional help in the situation of extreme anxiety was found to be low. This could be the reason for attached social stigma to the mental disorders in India as well as the low perceived need for the mental health solutions (Firth et al., 2020, TLLLF, 2018).

The mental health has been conceived as an imperative component of overall health and wellbeing and one of the integral parts of health policies around the globe (WHO, 2013). The Government of India has taken various steps to cater the mental health care needs of its population (MoHFW, 2019), but there has been a dearth of mental health care providers in India, with only two mental health care workers and 0.3 psychiatrist per lakh population (WHO, 2017). In the current challenging times of COVID-19 pandemic, the burden of mental health in India is expected to increase and meeting the needs of mental health will be difficult. During the current pandemic, the availability and accessibility of professional mental health provider at reasonable expenses is a matter of grave concern. Considering the current challenges of India, a wider coverage could be possible if its accessibility could be easier and a doorstep delivery of services either through telephone or internet could be possible.

Limitations

The present study collected the responses from the individuals of population who could understand English and has access to a smart phone/tablet or computer. This restricted the responses from only who possess the above characteristics. Hence, the selection of respondents automatically got restricted to the educated section of society and their responses could vary from the uneducated population.

Conclusion

During the unfortunate COVID-19 pandemic situation, majority of the people displayed awareness pertaining to the possible symptoms of contamination. The study found the existence of stress and anxiety among the majority of the respondents during the current pandemic. The study also indicated that the contamination and the professional hardships have been influential factors for the rising stress and anxiety. The educated people realise the significance of mental health care needs but majority of them decline to take a professional help even after realising the extreme anxiety. Looking at the dire scarcity of mental health care workforce and its conceived importance, it is imperative for the government to take measures on increasing strength of workforce and amplify the awareness programmes addressing the mental health care needs and its importance during the COVID-19 pandemic.

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