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An online cross-sectional study of the psychosocial impact of COVID-19 lockdown on general population of Haryana, India

Abstract

Background: The coronavirus disease 2019 (COVID-19) pandemic has not only posed serious medical challenges but also significant psychological, social, and economic challenges acutely as well as in the long-term. There is evidence that this pandemic has caused intense psychological distress among people which is further likely to get compounded by administrative decision of nationwide lockdown. **Aim:** To determine the psychosocial impact of lockdown due to COVID-19 pandemic on the general population of Haryana, India. **Method:** It was an online cross-sectional study conducted on the general population of Haryana from 15th April to 5th May 2020 using a snowball sampling technique. A pre-tested, self-designed questionnaire comprising three sections, viz. sociodemographic characteristics, general life during lockdown, and psychological impact, was prepared using google forms and the link was sent to the participants through social media. **Results:** A total of 640 participants responded to the survey within the stipulated time. The most common depressive symptoms were insomnia (56%) followed by hopelessness (45%) and irritability (36%). Hypochondriacal preoccupation and obsessional ruminations were present in 87% and 23% of the respondents respectively. Twenty seven per cent of the people experienced autonomic symptoms of anxiety. Fear of death due to COVID (68.4%) and excessive COVID-related information being circulated through news and social media (26.2%) generated maximum stress. They coped with this stress by engaging themselves with television (TV)/social media (57%) and physical exercises (48.4%). Social life followed by professional life was the most affected facet of life. Lockdown had adversely affected the family bond in one per cent of the participants. **Conclusion:** The study concludes that lockdown due to COVID-19 pandemic had an adverse psychosocial impact on the general population of Haryana resulting in a magnitude of psychological issues.

Keywords: COVID-19 pandemic. Psychological Distress. General Population. Depressive Symptoms. Anxiety. Coping

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INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has emerged as a global public health crisis affecting people of all nations, races, and socioeconomic groups. It began as a viral outbreak in Wuhan, China in December 2019,[1] and within a short span of three months it engulfed about 177 countries and got officially declared as global pandemic on 11th March 2020.[2] This pandemic has utterly devastated the social lives, economy, healthcare system, and psychological resilience of people of even the world's most secure countries.[3] The virus is not only detrimental to the physical health but also impacting the mental health of people to a great extent. Reports suggest that this pandemic has caused intense psychological distress among the people all around the world. Various factors such as constant fear of falling ill and dying or losing loved ones to this illness, fears of involuntary hospitalisation and isolation, facing social stigma and discrimination during COVID-19, rumours and overload of information about this illness through social media, persistent worry and concern about family members working as corona warriors, loss of jobs, economic recession, disruption of social lives, and uncertainty about when this pandemic will end and normalcy be restored; when put together or individually are likely to have an adverse psychological and social impact on individuals.[3,4] The psychological impact may manifest in terms of psychological distress, depression, anxiety, anger, or posttraumatic stress symptoms.[5] Though lockdown can be an effective strategy to halt the spread of highly infectious coronavirus yet it is likely to compound the existing adverse psychosocial impact due to COVID-19 on individuals. Children and elderly population may be particularly vulnerable compared to adults. An environment deficient in stimulation and interaction due to closure of schools and modelling the behaviour of anxious parents may

be responsible for generating stress among children apart from the reasons applicable to adults. Likewise reports of high mortality among elderly, comorbid medical illness, difficult access to treatment for preexisting medical illnesses during lockdown are likely to make elderly population more prone to developing psychological issues.[6]

Since the coping strategies and the resources available to each person differ, sometimes dramatically, the effect of lockdown will therefore vary among people and there is no simple formula to predict psychosocial outcomes. Other than the issues related to lockdown, one might, in addition, face psychological distress due to quarantine or isolation which can manifest as loneliness, denial, anxiety, depression, anger, irritability, insomnia, obsessional symptoms, and even suicide in extreme cases. Therefore, this study is an attempt by the authors to understand the psychosocial impact of lockdown due to COVID-19 pandemic on the general public.

Aim and objectives

1. To estimate the magnitude of depressive and anxiety spectrum symptoms among the general population of Haryana, India during lockdown due to COVID-19 pandemic.
2. To determine the characteristics of depressive and anxiety symptoms among the general population of Haryana during lockdown due to COVID-19 pandemic.
3. To determine the impact on general and social life of people of Haryana during lockdown due to COVID-19 pandemic.

MATERIAL AND METHODS

It was a cross-sectional, survey-based study carried out on the general population of Haryana. A snowball sampling technique with convenience sampling was used. An online, pre-tested, semi-structured questionnaire was developed by using google forms, with a consent form attached to it. A pilot testing of the questionnaire was done on 15 persons which included hospital staff as well as general public to validate the questionnaire prior to initiation of study and they were not included in the final analysis.

The link of the questionnaire was sent through WhatsApp, e-mail, and Facebook to the contacts and acquaintances of theinvestigators. The participants were requested to pass on the survey further to as many people as achievable. Request to forward the link was already mentioned in the questionnaire itself as well as a personal appeal for the same was sent along with the link. Thus, the link was rolled out to people apart from the first point of contact and so on. On receiving and clicking the link the participants got auto directed to the informed consent. Those who consented to participate by clicking on 'Yes' in the consent form were directed to fill up the set of several questions arranged in three different sections that appeared sequentially. Section A of the survey had questions pertaining to sociodemographic details, viz. age, gender, marital status, occupation, educational qualification, religion, and health characteristics like history of medical illness and substance abuse. Section B had questions pertaining to effect on general and social life during lockdown. Section C enquired about psychological symptoms in terms of stress, depressive, anxiety, hypochondriacal, and obsessional symptoms. Only the participants aged more than 18 years, able to understand English, with access to the Internet, and those who agreed to participate by clicking 'Yes' were included in the study. Those with a history of pre-existing psychiatric illness or refused to participate in the survey by clicking 'No' were excluded from the study.The data collection was initiated on 15th April 2020 at 11:00 PM Indian Standard Time (IST) and closed on 5th May 2020 at 11:00 PM IST. The participants were assured of the confidentiality of information and anonymous nature of survey by not asking about identifiers.

Statistical analysis

Data was entered into Microsoft Excel 2007 and analysis was performed using Statistical Package for the Social Sciences (SPSS) statistical software version 20.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were applied to calculate mean and standard deviations for continuous variables, and frequency with percentage for ordinal and nominal variables.

RESULTS

A total of 647 participants responded to the online questionnaire within the stipulated time period of 20 days. Three refused to participate in the survey, four reported having preexisting psychiatric illness and were thus excluded from the final analysis resulting in a final sample of 640. More respondents (358) were males constituting 56% of the study sample. Four hundred and twenty nine (67%) study participants were single and 403 (63%) of them hailed from nuclear families. Majority (333; 52%) were either employed or were students (256; 40%). Five hundred and thirty eight (84%) of the participants were staying at home during this lockdown phase. Majority of them were either students who were learning from home (40%) or professionals working from home (28%) during this lockdown (Table 1). A huge number of participants (589; 92%) lived away from their aged parents or grandparents. About one-fourth of the participants suffered from chronic physical illnesses like hypertension, diabetes mellitus, cardiac or respiratory illnesses. Only 13 (two per cent) of the participants and 25 (four per cent) of the family members or relatives had tested positive for COVID-19. Thirty two (five per cent) of the respondents and 45 (seven per cent) of their family members or relatives had ever been quarantined either at home or in some quarantine facility. One hundred and forty one (22%) of the study participants had family members working in healthcare services for COVID-19.

General and social life during lockdown

This domain was centered on the general and social life of respondents during the lockdown period. The main objective was to get an insight into people's perception of the lockdown phase and difficulties faced by them in day-to-day life during this period. Social life was the most affected facet because of the lockdown as reported by 224 (35%) of the participants and professional life was the next most affected as mentioned by 192 (30%) respondents. In half of the participants (320) the lockdown had a neutral effect on their relationship with other

Table 1: Sociodemographic and health characteristic the respondents (n=640)

Mean age (±SD) in years		29.62±11.17
Variables		**n (%)***
Gender	Male	358 (56)
	Female	282 (44)
Educational qualification	Less than 10th standard	25 (4)
	Senior secondary	83 (13)
	Graduate	212 (33)
	Postgraduate	237 (37)
	Higher than postgraduate	83 (13)
Occupation	Unemployed	26 (4)
	Student	256 (40)
	Employed	333 (52)
	Housewife	25 (4)
Monthly income	Less than 10 K	80 (13)
	10 K-50 K	246 (38)
	Above 50 K	314 (49)
Family composition	Nuclear	403 (63)
	Joint	237 (37)
Marital status	Married	211 (33)
	Single**	429 (67)

SD: Standard Deviation
*Percentages have been rounded off
**Single included 65% unmarried and 1% separated and divorced each

family members while six (one per cent) of the respondents acknowledged that the lockdown was harming their bond with family. Even though a large number of the participants (365; 57%) were not getting paid during this lockdown and 256 (40%) of the people felt troubled due to inability to meet their friends or relatives, still nearly three-fourths of the people (474) enjoyed being in lockdown and staying at home partially or fully. One hundred and twenty eight (20%) of the participants found trouble in procuring daily need essential items like fruits, vegetables, and medicines etc. and 256 (40%) were satisfied with the initiatives taken by the government like helpline numbers etc. Four hundred and fifty four (71%) of the respondents wanted to permanently eliminate memories related to COVID-19 from their lives. Two hundred and seventy five (43%) participants believed that the widespread of COVID-19 would probably end in the next three months.

Psychological impact of COVID-19

The aim of this domain was to understand the psychological impact of lockdown due to widespread of COVID-19 on the general public of Haryana.

Though 525 (82%) of the participants in the study had never in their past felt as worse as during COVID-19 yet only 45 (seven per cent) of them felt that their psychological health was significantly worse than usual. This figure, however, soared high when enquired individually for presence of various depressive and anxiety spectrum symptoms.

The most common depressive symptoms reported by people during lockdown was insomnia (358; 56%) followed by hopelessness (288; 45%) and irritability (230; 36%) in that order. While 211 (33%) reported having persistent low mood; 134 (21%) of the people experienced anhedonia as they were not able to enjoy routine day-to-day activities just like before lockdown. The matter of concern is that 45 (seven per cent) of the respondents agreed that suicidal ideas had crossed their minds multiple times since lockdown (Figure 1).

Among anxiety spectrum symptoms, the most common presentation (557; 87%) was hypochondriacal preoccupation that one has already got COVID-19. Somatic symptoms like constant strain in head, vague aches and pains were present in nearly one-third of the participants (198; 31%). One hundred and seventy three (27%) of the subjects had experienced autonomic symptoms of anxiety like palpitation, nausea, sweating, dizziness by the constant reminders of COVID-19. One hundred and forty seven (23%) of the respondents agreed to have obsessional symptoms manifested as repetitive, excessive, and unreasonable thoughts of contacting COVID-19 (Figure 2). Five hundred and forty four (85%) of the respondents whose family members worked in health services at the upfront felt excessively worried and cautious.

When assessed for various reasons causing psychological distress among participants, the fear of falling ill and dying emerged to be the most significant one reported by 438 (68.4%) respondents followed by 168 (26.2%) feeling stressed due to excessive information overload about COVID-19 through social media or news and 166 (25.9%) worried due to constant uncertainty about when this pandemic will end and normalcy be restored (Figure 3).

Watching television and spending time on internet or social media was the most common stress coping mechanism reported by 365 (57%) respondents during lockdown followed by engaging in exercise or yoga/meditation among 310 (48.4%) and 275 (42.9%) respectively (Figure 4).

DISCUSSION

To combat the COVID-19 pandemic before it assumed magnanimous proportions, the honourable Prime Minister of India officially announced imposition of a nationwide lockdown starting from 25th March 2020 based on lessons learnt from countries affected earlier. Since the lockdown was likely to have varying psychosocial impacts on different individuals due to differences in coping mechanisms and resources available to them, therefore, the current study was undertaken to understand the psychological and social impact of lockdown due to COVID-19 on the general public in Haryana. The study was initiated on 22nd day of lockdown (Lockdown 2.0) when the COVID-19 tally of India and Haryana stood at 11,933 and 199 cases respectively, and corresponding mortality figures due to COVID-19 were 392 and 3 respectively.[7]

A total of 640 participants responded to the online questionnaire within the stipulated time period of 20 days. The sociodemographic characteristics of respondents suggest that the majority of them were male, single, well-educated, either employed or students, and hailed from nuclear families.

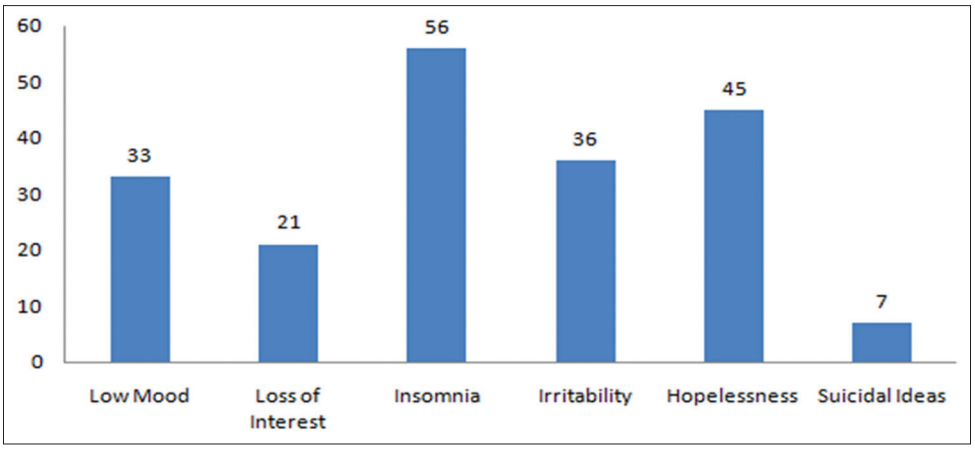


Figure 1: Depressive symptoms during COVID-19 lockdown.

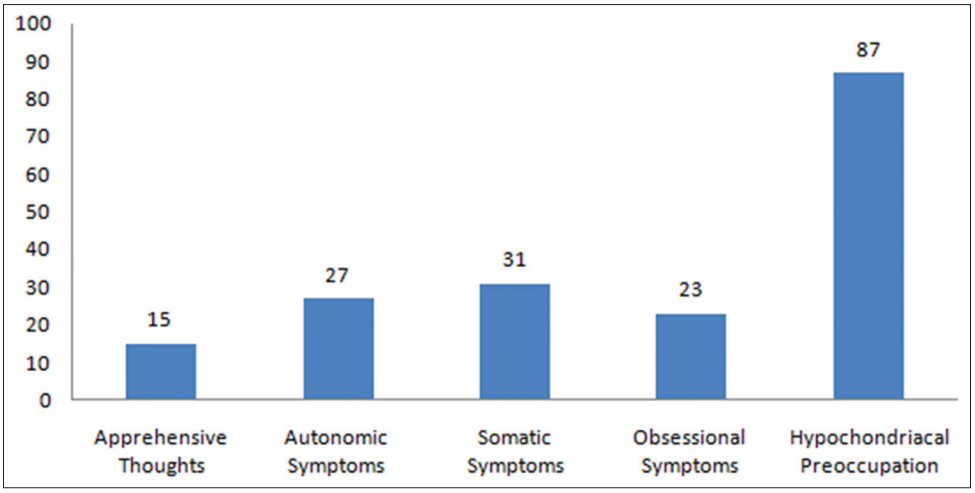


Figure 2: Anxiety symptoms during COVID-19 lockdown.

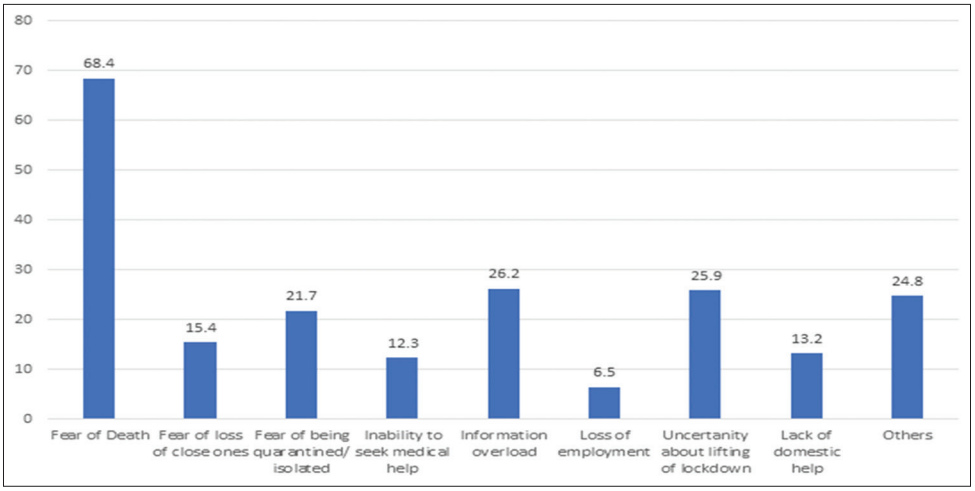


Figure 3: Reasons of stress among respondents during lockdown (multiple responses).

One-fourth of them had comorbid physical illnesses. Five per cent of them had been quarantined and two per cent had been diagnosed to have COVID-19.

Respondents were assessed for the presence of depressive and anxiety symptoms through questions based on the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria.[8] Insomnia (56%) followed by hopelessness (45%) and irritability (36%) were among the top three depressive symptoms reported by respondents. Insomnia in our

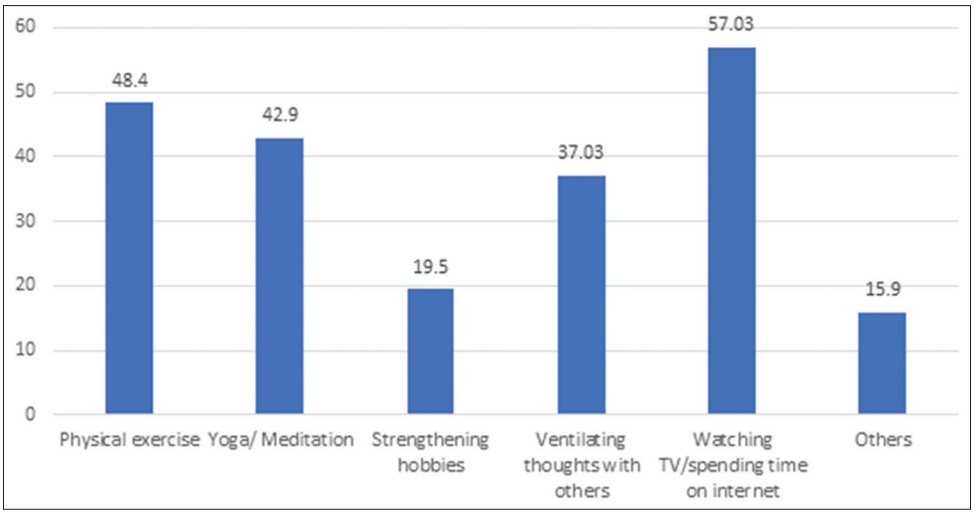


Figure 4: Coping methods used by respondents during lockdown (multiple responses).

study was much higher than the community prevalence of insomnia as well as that reported in a similar study conducted on the general population of West Bengal, India (33.1%).[9] Depressed mood and irritability were reported by 24.7% and 37.1% of the respondents in the West Bengal-based study[9] while the corresponding figures in our study were 33% and 36% respectively. One of the noticeable findings that drew attention was the presence of suicidal ideation in seven per cent of the participants highlighting the need for psychological interventions.

Large number of respondents (87%) had hypochondriacal preoccupation that they had already developed COVID-19. This figure is much higher than reported by participants in a descriptive Indian study wherein 50% of the respondents reported focusing excessively on their bodily sensations and believing that they had developed illness.[10] Obsessional ruminations of contacting COVID-19 were reported in 23% of the respondents as against the figure of 52.1% in a similar West Bengal-based study.[9] Twenty seven per cent of the respondents had autonomic symptoms of anxiety.

Present study finding suggests that social life was the most affected facet during lockdown. As far as the impact of lockdown on the family bond of people was concerned, 313 (49%) respondents felt that it strengthened their bond with other family members, while only six (one per cent) of the participants acknowledged that it harmed their bond with others, particularly spouses, if married. More than half of the people (57%) were not getting paid during this lockdown and 128 (20%) of the participants found difficulty in procuring daily need essential items.

Not only the studies from India but the research across the world is indicative of high level of psychological distress among all sort of populations. A nationwide survey of psychological distress among Chinese people in COVID-19 epidemic revealed that 35% of the respondents experienced psychological distress; with females reporting higher psychological distress than their male counterparts.[11] Though self-reported poor psychological health was found in only seven per cent of the participants in our study, prevalence of depressive and anxiety spectrum symptoms emerged to be much higher and is comparable to the findings of a similar Chinese study among general population.[11] Another Chinese study on undergraduate students has found high anxiety (6.33%) among university students while the corresponding figure of anxiety due to COVID-19 outbreak among Chinese medical students was 24.9%.[12]

An Italian study measuring the impact of COVID-19 pandemic and lockdown measures on mental health among the general population of the country has reported 37% respondents endorsing posttraumatic stress symptoms while 17.3%, 20.8%, 7.3%, 21.8%, and 22.9% respondents had depression, anxiety, insomnia, high perceived stress, and adjustment disorder respectively.[13] The prevalence of anxiety in our participants was comparable to that among respondents from Italy. Insomnia, on the other hand, was markedly higher among respondents of our survey (56%) compared to their Italian counterparts.[13]

In current study, fear of death from COVID-19 was the most common reason for feeling stressed, reported by 68.4% (438) of the study participants. However, in another Indian study, respondents (80%) were more worried about the health of their loved ones over their own.[10] Quite a similar figure of 85% was found in our study, where respondents felt excessively worried and cautious about the health and safety of their loved ones but it was mainly limited to those respondents whose family members worked in health services at the upfront. Excessive information overload about COVID-19 through social media or news was the next major reason for generating stress among study participants (26.2%). When it came to the use of coping strategies, our study had a striking resemblance with the analysis of another Indian study where more than 50% of the respondents reported high engagement with social media and spending time watching movies/shows online to cope with the stress of COVID-19 lockdown.[10] Mental health professionals have recommended use of tactics like engagement in helpful behaviours, relaxation exercises, meditation, problem-solving, mindfulness, engaging in self-care, and participation in pleasant activities to cope with

the psychological concerns during and post-COVID-19 pandemic era.[14]

Limitations

The present study was limited only to the educated participants who could understand English and had access to the Internet thereby limiting the generalisability to the whole population of Haryana. The psychological impact of COVID-19 pandemic on uneducated people or those others who did not consent to participate or could not become part of the study due to any reason might be completely different from the findings of our study. Another limitation of the study was that the response rate which is a crucial measure of survey research could not be estimated. The authors further recommend future research to understand the psychological impact of COVID-19 pandemic into larger population representative of India as well as special populations like migrant labourers, Below Poverty Line (BPL) families, pregnant females, children, corona warriors, and corona survivors.

Conclusion

COVID-19 pandemic has emerged as the scariest of health crises of recent times not only posing serious medical challenges but also significant psychological, social, and economic challenges. The index study concludes that lockdown due to COVID-19 pandemic had an adverse psychosocial impact on the general population of Haryana resulting in a magnitude of psychological issues. The psychosocial impact induced by COVID-19 lockdown needs to be clearly acknowledged as a public health priority by authorities and policy makers who should develop and ensure effective implementation of preventive strategies to deal with the psychological consequences of COVID-19 and impending mental health pandemic. Telepsychiatry consultations and tele-psychotherapy can emerge as saviour in those cases who are unable to access mental health professionals.[15] Further mental health professionals need to be adequately prepared to cater to the needs of people suffering from psychological issues and mental illnesses during as well as post COVID-19 pandemic.[14]

AUTHOR CONTRIBUTIONS

PS: Conceptualisation of research, designing the research, data acquisition, data analysis, data interpretation, critical revision of the manuscript, final approval of manuscript for publication, agree to be accountable for all aspects of work; AM: Conceptualisation of research, designing the research, data acquisition, data interpretation, writing the original draft, final approval of manuscript for publication, agree to be accountable for all aspects of work; SC: Designing the research, data acquisition, data interpretation, writing the original draft, final approval of manuscript for publication, agree to be accountable for all aspects of work; AA: Data acquisition, data analysis, critical revision of the manuscript, final approval of manuscript for publication, agree to be accountable for all aspects of work.

REFERENCES

1. Holshue ML, DeBolt C, Lindquist S, Lofy KH, Wiesman J, Bruce H, *et al*.; Washington State 2019-nCoV Case Investigation Team. First case of 2019 novel coronavirus in the United States. N Engl J Med. 2020;382:929-36.
2. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020 [Internet]. 2020 Mar 11 [cited 2020 Jun 15]. Available from: https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020
3. Bhat BA, Khan S, Manzoor S, Niyaz A, Tak HJ, Anees SUM, *et al*. A study on impact of COVID-19 lockdown on psychological health, economy and social life of people in Kashmir. Int J Sci Healthc Res. 2020;5(2):36-46.
4. Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. Asian J Psychiatr. 2020 Apr 8;51:102083. doi: 10.1016/j.ajp.2020.102083. Epub ahead of print.
5. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, *et al*. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet. 2020;395:912-20.
6. Joseph SJ, Shoib S, SG T, Bhandari SS. Psychological concerns and musculoskeletal pain amidst the COVID-19 lockdown. Open J Psychiatry Allied Sci [serial online]. 2020 Jun 12 [cited 2020 Jun 15]. [Epub ahead of print] Available from: https://www.ojpas.com/get_file.php?id=34136750&vnr=359095
7. Ministry of Health and Family Welfare, Government of India. Covid-19 India [Internet]. 2020 Apr 15 [cited 2020 Apr 15]. Available from: https://www.mohfw.gov.in/
8. World Health Organization. The ICD-10 classifications of mental and behavioural disorders: clinical descriptions and diagnostic guidelines. Geneva: World Health Organization; 1992.
9. Chakraborty K, Chatterjee M. Psychological impact of COVID-19 pandemic on general population in West Bengal: a cross-sectional study. Indian J Psychiatry. 2020;62:266-72.
10. Vijayraghavan P, Singhal D. A descriptive study of Indian general public's psychological responses during COVID-19 pandemic lockdown period in India [Internet]. PsyArXiv; 2020 Apr 13 [cited 2020 Apr 14]. Available from: https://doi.org/10.31234/osf.io/jeksn
11. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. Gen Psychiatr. 2020;33:e100213.
12. Wang C, Zhao H. The impact of COVID-19 on anxiety in Chinese university students. Front Psychol. 2020;11:1168.
13. Rossi R, Socci V, Talevi D, Mensi S, Niolu C, Pacitti F, *et al*. COVID 19 pandemic and lockdown measures impact on mental health among the general population in Italy. An N=18147 web-based survey [Internet]. medRxiv; 2020 Apr 14 [cited 2020 Jun 15]. Available from: https://doi.org/10.1101/2020.04.09.20057802
14. Joseph SJ, Gonçalves AP, Paul A, Bhandari SS. Theoretical orientation of a range of psychological approaches to address mental health concerns during the COVID-19 pandemic. Asian J Psychiatr. 2020 Jun 18;53:102221. doi: 10.1016/j.ajp.2020.102221. Epub ahead of print.
15. De Sousa A, Mohandas E, Javed A. Psychological interventions during COVID-19: challenges for low and middle income countries. Asian J Psychiatr. 2020 Apr 24;51:102128. doi: 10.1016/j.ajp.2020.102128. Epub ahead of print.

Srivastava P, Madan A, Chahal S, Aggarwal A. An online cross-sectional study of the psychosocial impact of COVID-19 lockdown on general population of Haryana, India. Open J Psychiatry Allied Sci. 2021;12:25-30. doi: 10.5958/2394-2061.2021.00007.0. Epub 2020 Aug 5.

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