

Original Research Article

Mental health problems during COVID-19 lockdown among adults in Ernakulam district, Kerala

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ABSTRACT

Background: The global pandemic due to SARS-CoV-2 virus, has affected people's lives in many ways. Lockdown implemented worldwide has resulted in restriction of life inside the home, suspending all non-essential outdoor activities, losing jobs, and even not meeting the dear ones. The out-patient and in-patient services at all health facilities have been affected significantly. This unprecedented calamity could potentially cause or exacerbate various mental disorders. The main objective of the study was to evaluate the prevalence of mental health issues in people aged 18 years and above due to COVID-19 lockdown.

Methods: A cross sectional study was done during the lockdown period, including a total of 640 individuals aged 18 years and above. A semi-structured, pre-validated, standard questionnaire in Google form format was used to collect the data. Data were entered in Microsoft excel and was analyzed using SPSS ver16.

Results: Fear of infection with SARS-CoV-2 was seen in 13.9% of the study population, more among females (15.38%) and in those aged 30 years and above (21.17%) which was statistically significant ($p < 0.05$). Prevalence of self-reported feeling of depression was among 56.9% of the participants, with females reporting more than males (45.26%). In those below 30 years of age, 45.22% reported to be feeling depressed, showing a statistically significant association. Experiencing financial crisis and difficulty in availing essential needs during lockdown were also significant contributing factors of self-reported depression ($p < 0.05$).

Conclusions: Mental health has been considerably affected by lockdown-related stress. Hence, mental health support services and reassurance and awareness on COVID-19 need to be strengthened among the general population.

Keywords: Mental health, COVID-19, Lockdown

INTRODUCTION

The SARS-COV-2 virus pandemic outbreak started in December 2019 from Wuhan has become a global threat. Due to continuous mutations in the virus several countries are experiencing multiple waves of the pandemic. The governments from most countries have implemented several mitigation measures such as social distancing, isolation, quarantine, and lockdown to contain the spread of the SARS-COV-2 virus. Citizens are prohibited from leaving their homes except for the healthcare workers and frontline workers involved with other emergency

services. COVID-19 has resulted in a major economic downturn, international stock market slowness, overburdening of the health system, poor people starvation, and many employees are left jobless.

Mental health is an integral part of overall wellbeing is more than just the absence of mental disorders. It helps individuals to cope with stressors in life and to remain in harmony. One out of five people living in conflict-affected areas suffers from depression, anxiety, post-traumatic disorders, bipolar disorder, or schizophrenia. However, for most people, this improves over time.¹

Apart from the major medico-socio-economic crisis, the pandemic has led to it; it has been acknowledged that the mitigation measure has led to a rise in mental health issues in people.² Vulnerable individuals may be at increased risk of developing stress-related mental health problems in the current situation. The vulnerable group being children, older age groups, front-line workers, and people with mental health problems. With the imminent threat of getting infected, the problems arising from the governmental restrictions, and the uncertainty about how and when people will return to their normal routine, this situation is challenging for many.

Lockdown restrictions have aggravated feelings of fear, anger, guilt, and panic and can precipitate many forms of mental distress. An increase in the number of suicides, domestic violence substance abuse has also been reported from various parts of the country. In a systemic review by Xiong et al the prevalence of mental health problems among the general population during the COVID-19 pandemic were as follows: anxiety (6.33-50.9%), depression (14.6-48.3%), post-traumatic stress disorder (7-53.8%), psychological distress (34.42-38%) and stress (8.1-81.9%).³ Singh et al in the systematic review found that there has been a significant impact of COVID-19 on the psychological well-being in India. Adverse outcomes were stress (61%), psychological distress (43%), anxiety (34%), depression (33%), and sleep disturbances (27%).⁴

As there is an apparent dearth of similar studies in the population chosen, with the background as mentioned above, the present study was conducted to evaluate the mental health issues among people aged 18 and above of Ernakulam district in Kerala during the COVID-19 pandemic and the lockdown restrictions. Features suggesting anxiety and depression related to COVID-19 pandemic and lockdown restrictions were evaluated among the participants.

METHODS

A cross-sectional study was conducted among people aged 18 years and above of Ernakulam district, Kerala, from 1st April 2020 to 30th April 2020, which was during the first lockdown imposed in Kerala due to the SARS-CoV-2 infection. The sample size was 640, considering the prevalence of people experiencing sleep disturbance to be 27%, with allowable error of 13% and 95% confidence.⁴ Data was collected using a validated semi-structured questionnaire in the Google form format and was shared among WhatsApp groups. People with mental disabilities and those from outside Ernakulam district were excluded from the study.

The questionnaire collected details on socio demographic characteristics and mental health aspects related to lockdown due to COVID-19 pandemic. Data obtained were entered in Microsoft excel and was analyzed in SPSS Ver16. Chi square test was done to find the associations between categorical variables.

RESULTS

A total of 640 individuals participated in the study. Majority of the participants were females (52.8%) and about 86% were less than 30 years of age. It could be due to the reason that young people are well versed in technology and hence would have responded to the questionnaire. Place of residence of 53.1% were in the urban area, and 46.9% belonged to the rural setting. The majority of the respondents were students (64%), may be because they are more active among the social media groups (Table 1).

Table 1: Socio-demographic characteristics of study participants.

| Socio-demographic variables | Frequency (N) | Percentage (%) |
|-----------------------------|---------------|----------------|
| Gender | | |
| Male | 302 | 47.2 |
| Female | 338 | 52.8 |
| Age group (years) | | |
| <30 | 555 | 86.7 |
| ≥ 30 | 85 | 13.3 |
| Residence | | |
| Rural | 300 | 46.9 |
| Urban | 340 | 53.1 |
| Occupation | | |
| Employed in public sector | 38 | 5.9 |
| Employed in private sector | 113 | 17.6 |
| Business | 18 | 2.8 |
| Daily wage worker | 5 | 0.8 |
| Homemaker | 15 | 2.3 |
| Retired | 16 | 2.5 |
| Unemployed | 25 | 4 |
| Students | 410 | 64 |

Anxiety and depressive features related to COVID-19 pandemic and lockdown were assessed among the participants. Fear of being infected with COVID-19 was seen in 13.9% of study participants. Among those respondents whose family members were part of the essential service sector, 27.3% worried about their dear ones contracting the infection. Frequent hand washing or using sanitizers more often was seen in 13.6% of the study group. Watching, listening or reading the COVID-19 daily updates through electronic or print media were stress full for 45.7% of the study participants.

Feeling apathetic towards everything around and day to day activities was present in 56.9%, and self-reported depression or hopelessness was present in 43.3%. Sleep pattern was also seen altered in the study group, with 55.9% of them having trouble falling asleep or sleeping for more hours than usual. Change in appetite was reported by 41.9% of the study population. Thoughts of self-harm were reported in 9.5% and 34.4% got into

quarrel with their family members. Of the 5 features of depression evaluated, 3 or more features were present in 162 (25.3%) participants.

To alleviate their mental stress during the lockdown period, most resorted to listening music or using social media (Figure 1 and 2).

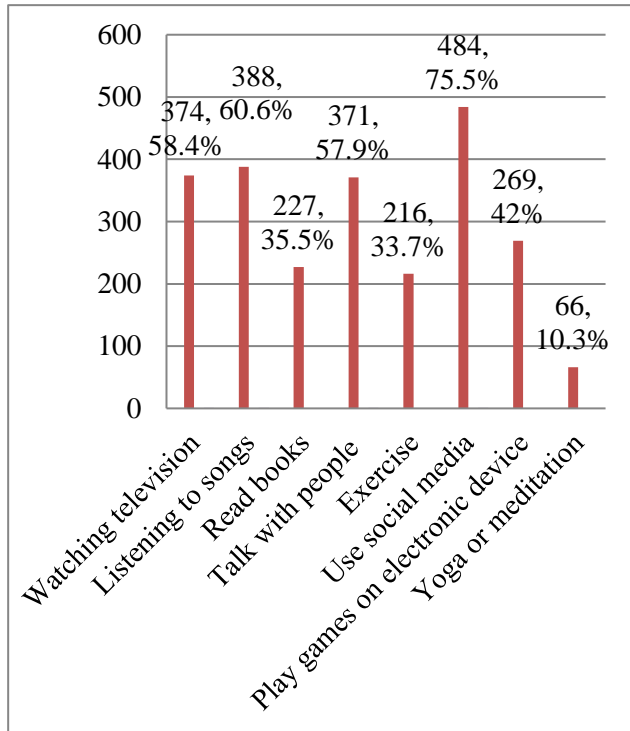


Figure 1: Engagement in stress-relieving activities.

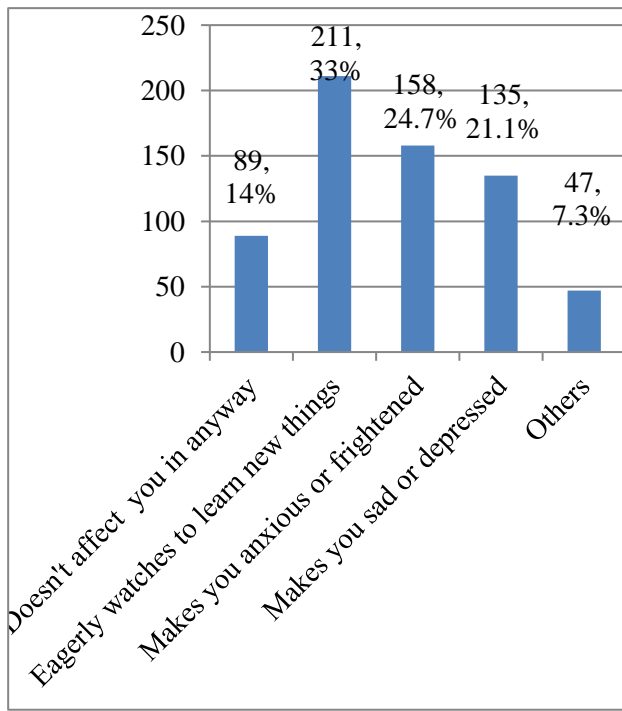


Figure 2: Response to COVID-19 related news.

Fear of getting infected with COVID-19 was more among those aged 30 years and above (21.17%), while self-reported depression was seen more in the age group <30 years of age (45.22%). Both these were found to be having statistically significant difference. The females were more fearful of contracting the infection (15.38%) and also reported feeling depressed (45.26%) more than their counterpart. But the difference was not statistically significant (Table 2 and 3).

Table 2: Association of age group and gender with fear of getting infection.

| Variables | Fear of getting infected with SARS-CoV-2 virus | | P value |
|-------------------|--|-----|---------|
| | Yes | No | |
| Age group (years) | | | |
| <30 | 72 | 483 | 0.04 |
| ≥30 | 18 | 67 | |
| Gender | | | |
| Male | 38 | 264 | 0.3 |
| Female | 52 | 286 | |

Table 3: Association of age group and gender with self-reported depression.

| Variables | Self-reported depression | | P value |
|-------------------|--------------------------|-----|---------|
| | Yes | No | |
| Age group (years) | | | |
| <30 | 251 | 304 | 0.01 |
| ≥30 | 26 | 59 | |
| Gender | | | |
| Male | 124 | 178 | 0.28 |
| Female | 153 | 185 | |

Table 4: Constraints due to lockdown and their association with self-reported depression.

| Constraints due to lockdown | Self-reported depression | | P value |
|------------------------------------|--------------------------|-----|---------|
| | Yes | No | |
| Current status of working, (n=197) | | | |
| Working from home | 30 | 32 | 0.115 |
| Going to the workplace daily | 24 | 27 | |
| Going to the workplace randomly | 10 | 29 | |
| Not working due to lockdown | 20 | 25 | |
| Self-reported financial crisis | | | |
| Yes | 81 | 60 | 0.0001 |
| No | 196 | 303 | |
| Difficulty in getting daily needs | | | |
| Yes | 68 | 55 | 0.003 |
| No | 209 | 308 | |

Due to the lockdown imposed, among the working group, 62 (31.5%) study participants were doing their jobs being at home. Those who attended work daily (51, 25.9%) belonged to the essential service sectors. Due to the COVID-19 restrictions, 45 (22.8 %) study participants could not attend their regular work. Financial crisis were faced by 141 (22 %) of the respondents, due to either salary cut imposed by their employers or they belonged to the daily wage earners. As the nearby shops were closed and there were travel restrictions, 123 (19.2%) of the respondents had difficulty procuring daily needs. Self-reported depression was significantly associated with financial crisis and difficulty in procuring daily needs ($p < 0.05$). Substance abuse was reported by 68 (10.6%) participants (Table 4).

DISCUSSION

COVID-19 pandemic and the consequent lockdown has affected the lives of billion populations in India. It has given rise to new challenges and aggravated the pre-existing ones. It has widened the gap between the rich and the poor and brought out the hidden mental health challenges of the community.

In the present study, we evaluated the psychological distress among the general population with a particular focus on features of anxiety and depression as a mental health challenge. Factors that aggravate the anxiety and those which alleviate it were searched for among the study participants. The role of gender as a factor was assessed, and the difference in the prevalence of anxiety was not significant. This is similar to a study conducted by Hou et al in China, where the prevalence of anxiety was 21.21% among males and 14.04% among females, and the difference was not significant.⁵

Age as a potential influence on anxiety was looked upon, and in contrast to our study, most studies conclude that the younger age group being more vulnerable.^{6,7} This can be because of the unequal representation in each age group in our study, and the younger individuals stay connected through various social media outlets. And as far as the occupational status is considered, unprecedented job losses and front-line workers were found to have a mental health problem related to pandemic.^{8,9}

Fear for themselves or their family members falling ill due to COVID-19 was seen in the population under study. It is said that fear of disease can aggravate or precipitate a mental illness. Regardless of exposure, people may experience fear and anxiety regarding falling sick or dying, helplessness, or blame people who are ill, potentially triggering a mental breakdown.¹⁰

The prevalence of self-reported depression or hopelessness was 56.9% from our study, which was found to be significantly associated with difficulty in getting their daily needs and the financial crisis

experienced during lockdown period ($p < 0.05$). Studies show that long quarantine period, cessation of community services, financial insecurities related to unemployment, and collapse of work industries can intensify negative emotions.^{11,12}

Alteration in sleep patterns, eating habits, and thoughts of self-harm regarded as warning signs of poor mental health were also found in our study population.¹³

Depressive features, out of the five evaluated, three or more were present in 25.3% of the participants. This suggests that lockdown restriction have had a negative impact on their mental health status, which needs to be addressed.

CONCLUSION

COVID-19 and lockdown has significantly affected the mental health status in the study population. Self-reported depression and anxiety of getting infected was quite high among them. Mental health support services and reassurance and awareness on COVID -19 need to be strengthened among the general population.

Recognizing the need the governments in both state and national level are now appreciating and driving the need for mental health awareness and mental health services. Tele consultations through e-Sanjeevani platforms have now bridged the gap of access to services by promoting tele-psychiatry services. Utilization of these platforms and speeding awareness during these hard times remains to be the main challenge.

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