

Psychological Morbidity among People in Quarantine

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Abstract

Keywords

- ▶ COVID-19
- ▶ psychological morbidity
- ▶ quarantine

Objective This study aimed to evaluate psychological distress of persons in quarantine and compare the same with a group of persons, who are currently in lockdown.

Methodology Forty-four persons in quarantine and 45 subjects currently in lockdown were evaluated on Depression Anxiety Stress Scale II.

Results About three-fourth (77.3%) of the participants in the quarantine group and one-third (37.8%) in the comparator group had depression. About one fourth (22.7%) in the quarantine group and one-third (35.6%) in the lockdown group had anxiety.

Conclusion The present study suggests that lockdown and being in quarantine are associated with significantly higher psychiatric morbidity, especially anxiety.

Introduction

In the past two decades, several epidemics such as severe acute respiratory syndrome and Middle-East respiratory syndrome that emerged as threat to public life and were associated with psychological morbidity.^{1–4} Currently, coronavirus disease 2019 (COVID–19) reported being a serious threat to people's physical and psychological health. It is expected to be associated with more physical and psychological problems because of being highly contagious with the possibility of causing severe respiratory disease, and an understanding of its adverse effects on the human psyche; on March 11, 2020, it was declared as a worldwide pandemic (WHO, 2020).⁵ COVID-19 has affected 213 countries with a more than 14,348,858 lakh confirmed cases and 603,691 confirmed death. Extraordinary measures have been taken to prevent the contagion and limit its outbreak. However, available reports suggest that COVID-19 pandemic has affected the lives of millions of people, and has led to a global,

multilevel, and demanding stress–coping–adjustment process. India has taken relentless measure as an effort to overcome this pandemic and imposed lockdown since March 25, 2020, in fighting the pandemic. A wide fragment of world's population is primarily restricted to their homes, owing to nationwide lockdowns, socially disconnected from society, colleagues, workplace, and even extended family members. This certainly has added to the stress, burden, and has affected the quality of life of every individual. COVID-19 has a substantial psychological impact on every individual's life and has undoubtedly changed the way we live.⁶ In such a situation, understanding the psychological manifestation of such crisis on human being becomes the primal concern for the mental health professional. There are a few numbers of studies which evaluated the impact of quarantine on mental health. All the studies reported a higher rate of psychological distress among the quarantined people in comparison to those who were not quarantined.⁶ The studies

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reported higher rate of psychological symptoms,⁷ emotional disturbance,⁸ depression,⁹ stress,¹⁰ low mood,¹¹ irritability,¹¹ sleep disturbances,¹¹ posttraumatic stress disorders,¹² emotional exhaustion,¹³ and anger outbursts¹⁴; irritability¹¹ and anxiety stand out as a higher prevalence.¹¹ However, none of the study has evaluated the level of psychological morbidity among the people who were homebound due to lockdown in comparison with the quarantined people. Accordingly, the present study aimed to compare the psychological impact of self-quarantine and social isolation due to lockdown on adults during COVID-19 pandemic.

Methodology

The study included 89 participants recruited by purposive sampling, divided into two groups, that is, Group-I (44 subjects quarantined for suspected COVID-19 infection or due to having in close contact with persons with COVID-19 infection or having a travel history) and Group-II (45 subjects, who were homebound due to the lockdown). Approval from the ethical committee was sought before initiation of the study. Verbal and electronic consent (i.e., the participants were provided information about the study through WhatsApp and were asked to give their consent, whether they want to participate, by answering with “yes” or “no”) were taken from participants prior to enrollment. Participants were given liberty to terminate their participation anytime they desired. The confidentiality of the information was assured and maintained. To be included in the study, the participants were required to be ≥ 18 years of age and able to read English/Hindi. First, the participants were approached telephonically and explained about the survey. Those who agreed to participate and provided verbal consent were further sent the survey link generated by using

Google form. The survey was designed in such a way that one response could be possible with one mobile. Besides the basic demographic data, the participants were asked to complete the Depression Anxiety Stress Scale (DASS II). Assessments were done after ~2 weeks of quarantine. The survey was conducted from Mid-April to Mid-May.

Depression Anxiety Stress Scale (DASS II): This scale comprises 21 items. The scale has three subdomains including the depression (seven items), anxiety (seven items), and stress (seven items). The item of the scale is rated on a 4-point Likert scale from 0 to 3 (never a problem–almost always a problem). The higher the scale, the higher the level of depression, anxiety, and stress. The total score is calculated by summing the scores for each subscale. The severity of the scale is graded as normal (0–4 for depression, 0–3 for anxiety, and 0–7 for stress), mild (5–6 for depression, 4–5 for anxiety, and 8–9 for stress), moderate (7–10 for depression, 6–7 for anxiety, and 10–12 for stress), severe (11–13 for depression, 8–9 for anxiety, and 13–14 for stress), and extremely severe (>14 for depression, >10 for anxiety, and >17 for stress).¹⁵

Statistical Analysis

Data were analyzed by using Statistical Package for Social Sciences, version 14 (SPSS-14) for Windows. Descriptive statistics, Pearson's correlation analysis and *t*-test, were used to analyze the data.

Results

The study sample comprised 44 people in quarantine group and 45 people in the control group, that is, homebound due to lockdown. The demographic profile of both the study groups is given in ►Table 1.

Table 1 Sociodemographic profile of the study sample

	Group-I (n = 44) Frequency (%)/ mean (SD)	Group-II (n = 45) Frequency (%) /mean (SD)	Chi-square/ <i>t</i> -test (p-value)
Age group (y)			
24–31	11 (25.0%)	30 (66.7%)	16.65 (< 0.001)
32–41	21 (47.7%)	12 (26.7%)	
41–48	12 (27.3%)	3 (6.7%)	
Age (y)	35.6 (6.1)	30.7 (5.2)	4.072 (< 0.001)
Gender			
Male	22 (50.0%)	22 (48.9%)	0.011 (0.917)
Female	22 (50.0%)	23 (51.1%)	
Education			
Graduate	24 (54.5%)	19 (42.2%)	1.353 (0.245)
Postgraduate	20 (45.5%)	26 (57.8%)	
Marital status			
Single	10 (22.7%)	22 (48.9%)	6.612 (0.10)
Married	34 (77.3%)	23 (51.1%)	

Abbreviation: SD, standard deviation.

Compared with the lockdown group, significantly higher proportion of the participants belonging to the quarantine group had depression, anxiety, and stress. Compared with the lockdown group, the mean scores for depression, anxiety, and stress were also higher for those belonging to the quarantine group (– Table 2).

Discussion

The psychological impact of the pandemic is being felt by everyone on the globe. The same is evident in the present study too. About three-fourth of those who were under quarantine and about one-third of those in the lockdown reported depression. In terms of anxiety, in the quarantine group, almost everyone (97.7%) and about two-thirds of the participants in the lockdown group reported anxiety. In terms of severity, in the quarantine group, half of the participants reported at least a moderate level of depression, and 6.8% reported severe depression. In terms of anxiety, more than 90% reported at least a moderate level of anxiety, with ~60% having severe to extremely severe anxiety. Higher prevalence of depression and anxiety among the participants under quarantine, when compared with those facing lockdown is supported by the existing literature.¹⁶⁻¹⁸ Further, when these prevalence rates for both groups are compared with the data reported for the National Mental Health Survey,¹⁹ it can be said that the prevalence rates among those under quarantine are significantly higher than the general population. These findings suggest that being under lockdown is also associated with adverse psychological outcome when compared with the normal situation. However, being in quarantine is much worse, psychologically. Socialization, responsibilities, and life expectations are few social factors that play

a huge role in how we act or perceive a present situation in life. When these aspects of life are threatened or challenged, these can lead to significant emotional turmoil, as is evident from the present study. The higher prevalence of psychological morbidity can be attributed to the confinement at one place. Additional factors which possibly contribute to psychological distress include isolation, stigma, fear of unknown, and fear of death.^{18,20} Accordingly, there is a need to focus on the psychological needs of patients in quarantine and general public, who are facing lockdown. Besides, preparing for medical emergency, the Government should also plan to address the psychological needs of people. There is a need to develop, self-help groups, and counseling manuals which can be used by less trained people to address the psychological needs of the public at large. The present study was limited by the cross-sectional study design. The sample size was small. The other variables which can influence the findings, such as knowledge and attitude toward the COVID-19, social support, history of physical or psychological disorders in the past, cultural aspects, etc., were not evaluated. Future studies must attempt to overcome these limitations.

Conclusion

To conclude, the present study suggests that lockdown and being in quarantine are associated with significantly higher psychiatric morbidity, especially anxiety. The prevalence of depression is also significantly higher in both the groups, compared with that reported in earlier studies conducted among people from the general population. In terms of overall negative psychological impact, being in quarantine has significantly higher negative psychological impact compared with the lockdown situation. These findings suggest that

Table 2 Scores on Depression Anxiety Stress Scale

Variables	Quarantine (N = 44)	Lockdown (N = 45)	Chi-square/t-test (p-value)
Depression			
Normal	10 (22.7%)	28 (62.2%)	33.479 (< 0.001)
Mild	9 (20.5%)	16 (35.6%)	
Moderate	22 (50%)	0	
Severe	3 (6.8%)	1(2.2%)	
Depression			
Present	34 (77.3)	17 (37.8)	14.184 (< 0.001)
Absent	10 (22.7)	28 (62.2)	
Mean score	13.7 (5.1)	8.6 (3.4)	5.591 (< 0.001)
Anxiety			
Normal	1 (2.3%)	11 (24.4%)	18.113 (0.001)
Mild	10 (22.7%)	11 (24.4%)	
Moderate	19 (43.2%)	21 (46.7%)	
Severe	12 (27.3%)	1 (2.2%)	
Extremely severe	2 (4.5%)	1 (2.2%)	
Mean score	22.7 (5.7)	18.8 (5.6)	3.244 (0.002)
Total score	51.7 (9.4)	37.1 (9.0)	8.782 (< 0.001)

there is a need to develop large-scale psychological intervention services for people facing quarantine and the lockdown.

Conflict of Interest

None declared.

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