BRIEF REPORT

Status of mental health and its associated factors among the general populace of India during COVID-19 pandemic

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Abstract

The COVID-19 is an international public health emergency and threatens psychological resilience. Here we assess the general health status of the public in India during the COVID-19 outbreak. A population-based cross-sectional study conducted using a General Health Questionnaire and the relationship between mental health and sociodemographic factors were analyzed. The mean score for the general health of citizens was 24.18. About 40.63% of the elderly and 40.18% of the female population was under severe physiological distress. The prevalence of psychological stress among the general population was higher than expected. Hence, there is a need to intensify awareness about the pandemic and should provide mental health management programs.

KEYWORDS
COVID-19 pandemic, cross-sectional study, GHQ-28, mental health, psychological impact

1 | BACKGROUND

AgencyDuring times of a growing pandemic COVID-19, quarantine, isolation, and social distancing can be mentally distressing to many. Most people end up in financial losses and face unemployment, further intensifying people's negative emotions and fear due to COVID-19 coupled with socially disruptive measures such as lockdowns and quarantines (Zandifar & Badrfam, 2020). Social distancing is harming the mental health of people more than physical health. This may lead to severe psychological and medical conditions, such as post-traumatic stress disorder, depression, anxiety, panic disorders, and behavioral disorders (Zhou, 2020). Early identification of the behavioral effects of a pandemic is critical to set up community measures and responses. In this context, the present study aimed to examine the mental health status of the general population to understand the psychological impact of COVID-19 lockdown on individuals. Besides, the number of factors associated with psychiatric disorders was determined through statistical analysis to identify the high-risk groups. Our study can provide valuable information to experts for preventing and controlling risk factors and planning of mental health care programs.

2 | METHODS

2.1 | Study setting

A cross-sectional survey intended to evaluate the public's psychological response during the lockdown period of COVID-19 by using an online questionnaire. A snowball sampling strategy focused on engaging the general public on an online questionnaire survey utilized. Since the Indian government recommended to avoid direct contact during the lockdown period, potential respondents were electronically invited by existing study respondents. Data collection took place over 6 days (April 26 to May 1, 2020) after one month of declaration of lockdown. Collection of details regarding Sociodemographic characteristics and factors influencing mental General mental health status were done through pre-structured proforma. The inclusion criteria for selecting the study group was aged above 18 years. Sociodemographic data on gender, age, education, residential type in

the past 14 days, marital status, employment status, and current working status and household size were collected from respondents.

2.2 | General health questionnaire-28

The psychological state of the participants was assessed using general health questionnaire-28 (GHQ-28), Which was developed by Goldberg and Hillier (1979). GHQ-28 consists of four sections, each having seven questions related to a physical condition, anxiety, social function, and depression. Each question has four-point Likert-type items that they are scored according to a 0-1-2-3 system. The score of an individual section has ranged between zero to 21, respectively, and the overall rating will be between 0 and 84. As a result, the lower score, better the mental health status, and vice versa. The study group was categorized into with and without psychological distress using a GHQ cut-off of 23 (≤ 23: without a mental disorder, >23: with a mental disorder) (Sterling, 2011).

TABLE 1 Descriptive statistics of the GHQ-28 score and chi-square test results

Sub-groups	N	Score > 23	min	max	Mean	SD	χ^2	P-value
Age (years)								
18-30	208	88 (42.31)	0.0	81.0	23.77	13.18	176.724	.001
31-60	213	90 (42.25)	3.0	63.0	24.25	14.43		
Above 60	32	13 (40.63)	4.0	60.0	26.41	16.32		
Gender								
Male	225	88 (39.11)	0.0	63.0	24.03	13.63	78.513	.055
Female	228	103 (45.18)	0.0	81.0	24.33	14.38		
Residence type								
Urban	316	78 (24.68)	0.0	81.0	22.33	13.39	103.328	.000
Rural	137	113 (82.48)	5.0	65.0	28.39	14.53		
Marital Status								
Single	202	82 (40.59)	0.0	65.0	23.45	12.46	393.241	.000
Married	212	79 (37.26)	0.0	81.0	22.37	13.56		
Divorced	8	2 (25.00)	3.0	26.0	16.00	8.64		
Widow	31	28 (90.32)	12.0	60.0	43.48	13.11		
Education level								
Illiterate	28	22 (78.57)	12.0	60.0	40.36	14.92	460.890	.000
Primary Education	12	8 (66.67)	19.0	46.0	32.33	10.14		
Secondary Education	21	18 (85.71)	20.0	58.0	33.38	11.95		
Diploma	13	8 (61.54)	17.0	49.0	28.92	10.85		
Degree and above	379	135 (35.62)	0.0	81.0	22.06	13.14		
Occupational status								
Business	30	20 (66.67)	7.0	60.0	27.33	14.19	451.409	.000
Government Employee	90	21 (23.33)	3.0	63.0	19.01	12.99		
Private Employee	154	64 (41.56)	0.0	61.0	23.32	12.89		
Home Maker	49	29 (59.18)	0.0	54.0	31.86	15.23		
Student	109	48 (44.04)	3.0	81.0	24.98	14.21		
Unemployed	21	9 (42.86)	11.0	60.0	26.05	13.17		
Family Size (persons)								
1-2	39	10 (25.64)	4.0	81.0	20.21	14.85	288.653	.000
3-4	284	125 (44.01)	0.0	65.0	24.77	14.15		
5-6	96	35 (36.46)	3.0	60.0	22.11	13.05		
>6	34	21 (61.76)	14.0	63.0	29.65	12.50		
Work from Home								
Yes	209	71 (33.97)	0.0	81.0	21.49	13.26	80.710	.039
No	244	120 (49.18)	0.0	65.0	26.48	14.23		
Total	453	191 (42.16)	0	81	24.18	14.00		

2.3 | Statistics

The data were processed using Microsoft Excel and statistically analyzed using SPSS version 21. Descriptive statistical measures like mean, SD, and frequency tables were calculated. Percentages of responses were calculated according to the number of respondents per response to the number of total responses of a question. A Chi-square test used to find out the association of mental health status and various factors under study.

3 | RESULTS

Among 453 participants, 208 (45.92%) and 213 (47.03%) were in the age group of 18 to 30 and 31 to 60, respectively, and 32 (7.06%) participants were above 60. The mean age was 36.52 years old, and half of these individuals were males. Of the study population, 44.59% and 46.80% were unmarried and married, accordingly. The majority of the participants were well educated (Degree and above = 83.66%) and employed (Table 1).

The general mental health status found to be deficient in 191 (42.16%) participants. The overall mean and SD of the public health score was 24.18 ± 14.00, which is slightly higher than the threshold value. The average general health score of different age groups was found in the order of older people (above 60) > mid-age (31-60) > Adults (18-30). While considering gender, the mean score was almost similar for both male (24.33) and female (24.03) groups. However, the prevalence of mental disorders was higher in the female population (Table 1).

A significant statistical difference in mental health between subgroups of residence type, Marital status, education level, occupation status, and the family size was observed. However, there was no significant difference in general mental health between urban and rural populations.

4 | DISCUSSION

The occurrence of psychological stress among the general population was higher than expected. In general, the incidence rate of mental disorder in the present study was higher than the prevalence rate of most of the previous studies conducted using the GHQ-28 method (Shirzadi, Khazaie, & Farhang, 2017; Veisani, Delpisheh, & Mohamadian, 2018). Age has been identified as a significant factor; the prevalence of mental disorders increased with an increase in age. These observations were similar to the study by Qiu et al. (2020). The general health score for males was better than the score for females; in other words, women seem to have a greater vulnerability towards developing mental disorders.

A direct comparison of this study with existing research is challenging; since the research is performed on a limited population during certain social and environmental circumstances (ie, isolation, lockdown, and social distancing). However, the findings of the current study broadly support several recent studies. (Qiu et al., 2020; Sayehmiri, Sarokhani, Bagheri, & Ghanei Gheshlagh, 2019; Shirzadi et al., 2017; Veisani et al., 2018; Zandifar & Badrfam, 2020; Zhou, 2020).

The primary limitation of this study was that the subscales of mental health assessment and outcome variables were not studied and some of the potential variables (such as personal habits, physical limitations, chronic diseases, and history of psychological disorders) were excluded since we focused on the impact of recent events over mental health.

CONFLICT OF INTEREST

No conflict of interest to disclose.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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