An SBQ-R assessment of the impact of COVID-19 pandemic on the mental health of young adults in North India

Deepika Rani¹, Kewal Krishan¹, Nilesh Tumram², Utsav Parekh³, Tanuj Kanchan⁴

¹Department of Anthropology, Panjab University, Sector-14, Chandigarh, India; ²Department of Forensic Medicine, Government Medical College, Chandrapur, Maharashtra, India; ³Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences, Rajkot, India; ⁴Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences, Jodhpur, India.

Abstract. Introduction: During the COVID-19 pandemic in India, the increase in the number of suicides was observed in India. Therefore, the present study aims to explore various factors affecting the mental health of an individual and their consequences. Moreover, it has been attempted to assess the suicidal risk in the population of North India by using the Suicidal Behaviors Questionnaire-Revised (SBQ-R). Methodology: The young adults from the North Indian population belonging to the age group of 18 to 35 years (24.93±4.42 years) have been incorporated into the study. A total of 190 responses (102 males and 88 females) were recorded through online mode. The present questionnaire has incorporated the Suicidal Behaviors Questionnaire-Revised (SBQ-R) and some of the parameters taken from the psychology today online survey. The obtained data were processed in the Statistical Product and Service Solutions package (IBM SPSS version 20).

Results: The demographic characteristics of the respondents were described by using frequencies and percentages, means, and standard deviations. Cronbach’s alpha, Kaiser-Meyer-Olkin (KMO), and the Bartlett sphericity were calculated. The mean SBQ-R score was recorded to be 4.62±1.5. Further, during the factor analysis with the principal component method, seven factors have explained the 70.797% of the cumulative variance with an eigenvalue of 1. Conclusions: The SBQ-R assessment revealed a minimal risk of suicidal behavior but the frequency distribution of the parameters taken for the psychological assessment has highlighted that the anxiousness or worriedness has a significant impact on the mental health of the population at risk. Therefore, it is recommended that some precautionary measures, such as online mental health services, should be taken by the health ministry to keep the population healthy.

Key words: COVID-19 pandemic, mental health, suicidal behaviors questionnaire-revised (SBQ-R), suicidality

Introduction

According to the World Health Organization (WHO), mental health is one of the most important aspects of health. WHO has defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Therefore, the definition clearly expresses that the non-appearance of a mental disorder does not depict that the individual is psychologically well sounded (1).

Globally, COVID-19 has influenced the overall health of a human population irrespective of infection. During the covid-19 pandemic, many individuals have lost their jobs and they were compelled to stay at home because only lockdown can control the spread of COVID-19 (2). The sudden prohibitions on the daily
routine work have brought a change in the lifestyle of an individual, which may incorporate the guidelines to stay home, limitations on traveling, taking various precautions, financial crisis, unemployment, social isolation, drop-in social interactions, fear of infection, family disputes, lack of personal space, etc. (3,4,5).

The restrictions during the lockdown have not only aggravated the mental state of individuals with previous mental health problems like depression but also have affected the mental health of the population at risk (6,7). As a consequence, individuals are experiencing anxiety, stress, fear, insomnia, frustration, depression, and so on, which have further lead to an increased number of suicidal cases (8).

The group of people with a prior history of affected mental health is more vulnerable to have suicidal ideation (7). However, studies have claimed that the symptoms of affected mental health are more evident among older individuals (9). Even studies have documented that the number of affected mental health individuals is greater than infected individuals (10). According to the Deputy Commissioner of the Gurugram (Haryana, India) police, the antagonistic impact of the COVID-19 has increased the number of suicides among the population at risk (4). As per the report of Times now digital numerous economic, socio-cultural, and political reasons are responsible for the increased number of suicidal cases (5).

On 12th February 2020, India has reported the first suicide case from the Chittoor District in the State of Andhra Pradesh, India. The news of infection has disturbed the mental health of the individual in such a way that for the sake of the safety of the family, he has first quarantined himself and afterward, has attempted to attack the person whosoever have tried to approach him and finally his fear has instigated him to end his life (11,12). Similarly, the pandemic has forced the educational departments to shut down schools and colleges and to conduct online classes. For this, every student should have access to smart phones. The educational departments have started conducting online classes before checking the availability of smart phones particularly to the students lying under the below poverty line. The students who cannot afford were not able to attend the classes. This has greatly affected their academic performance. According to the World Bank report of 2012, 1 in every 5 Indians is poor (13). These circumstances have prompted many suicidal attempts among the students. India has faced the first case of COVID-19-related student suicide on 2nd June 2020. She was a brilliant student (15-years old) from 10th grade (14,15).

In August 2020, the financial crisis has constrained the five saloon owners from Nagpur city of Maharashtra to end their life (3). In September 2020, a women doctor (39-years-old) from Gurugram city of Haryana, India has ended her life after jumping off the balcony (4). On 14th August 2020, the body of a 40-years-old doctor working in the pediatrics department of AIIMS- New Delhi, India (16,17) was found dead by suicidal hanging. On 4th September 2020, the financial crisis has provoked the entire family with 5 members in New Delhi to commit suicide (18).

Moreover, 240 suicidal cases were reported in the Gurugram city of Haryana from January 1st to August 31st, 2020 (4). Similarly, the Nagpur city of Maharashtra, India has witnessed 293 suicidal cases from January 1st to August 31st, 2020 (3).

In the wake of witnessing endless instances of suicides, the Government of India should have taken some precautionary measures to combat this situation like the Chinese Government who had undertaken online mental health services during the pandemic in February 2020 (19).

The mental health of an individual is determined by a range of socio-economic, biological, and environmental factors (20). Therefore, the present study aims to explore the various factors affecting the mental health of an individual and their consequences, during the period of the COVID-19 pandemic in India. An attempt to assess the suicidal risk among the North India population by using the Suicidal Behaviors Questionnaire-Revised (SBQ-R) has been made.

Material and methods

The present study deals with primary data collection through online mode. The convenient sampling technique was used to accumulate data for the investigation. The study has incorporated young adults belonging to the age group of 18 to 35 years with a mean age of 24.93±4.42 years from the North Indian
population. A questionnaire was specially designed to assess the mental health of an individual and to check the probability of committing suicide. The responses from almost 190 individuals were recorded out of which 102 were males and 88 were females. The purpose of the study was disclosed to each individual before filling the questionnaire and prior consent was also taken. All the COVID uninfected individuals were included in the study whereas the infected individuals were not taken in the present study.

**Limitation of the study:** The questionnaire was designed in a single language i.e., in English only, which means only an English reader or an educated individual can fill this questionnaire.

**Questionnaires used:**

The questionnaire for the present study was designed according to the criteria provided by the National Health Service (NHS). They have covered different aspects of an individual’s life during the assessment such as mental health symptoms and experiences, feelings, thoughts and actions, physical health and wellbeing, housing and financial circumstances, employment and training needs, social and family relationships, culture, and ethnic background, gender and sexuality, use of drugs or alcohol, past experiences, especially of similar problems, issues relevant to your or others’ safety, whether there’s anyone who depends on you, such as a child or elderly relative, strengths and skills, and what helps you best, and hopes and aspirations for the future (21). Similarly, physical activity has been recognized as a tool to improve mental health and well-being (22). Therefore, the present questionnaire has tried to cover all these aspects. For this purpose, the current examination has incorporated some of the parameters of the psychology today online survey (23). They have designed the screening tool to evaluate symptoms related to the mental disorder which they have taken from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (24). Substance Use Disorder, Major Depressive Disorder, Manic Episodes, Bipolar Disorder, Post-Traumatic Stress Disorder, Generalized Anxiety Disorder, Panic Disorder, and Panic Attacks, were assessed by using this screening tool.

Moreover, the study has also used the Suicidal Behaviors Questionnaire-Revised (SBQ-R). The SBQ-R is designed in such a way that it has covered the different dimensions of suicidality (25). It contains four questions or items. The lifetime suicide ideation and/or suicide attempt is evaluated in the first item. The second item assessed the frequency of suicidal ideation over the past twelve months. Whereas the threat of suicide attempts is calculated in the third item, and the self-reported likelihood of suicidal behavior in the future is measured in the fourth item (26).

**Statistical analyses:**

The obtained data was first entered into Microsoft excel 2010 and then processed in the Statistical Product and Service Solutions package (IBM SPSS version 20). The demographic characteristics of the respondents were described by using frequencies and percentages for the qualitative variables while in the case of the quantitative variables, the means and standard deviations were used. Cronbach’s alpha was calculated to find the internal consistency of the questionnaire. Further, to check the adequacy of the sampling, the Kaiser-Meyer-Olkin (KMO) was executed and the Bartlett sphericity test was performed, to test the hypothesis that the obtained correlation matrix is not an identity matrix. The construct validity of the questionnaire was verified by using factor analysis with the principal component method.

**Results**

The demographic details of the studied population i.e., young adults of North India was illustrated in the figures (Figure 1 to Figure 6). Whereas, the scree plot with the eigenvalues was demonstrated in figure 7. Table 1 explains the frequency distribution of the salaried details of the respondent’s family while table 2 represents the frequency distribution of professional details of the population considered under study. The frequency distribution of health-related details of the population is depicted in table 3. Whereas the migration-related details of the studied population are denoted in table 4. The suicidal behaviors assessment of the studied population—based on SBQ-R is
**Figure 1:** Frequency distribution of the marital status of the young adults of the North Indian population.

**Figure 2:** Frequency distribution of the educational qualification of the young adult population of North India.

**Figure 3:** Frequency distribution of the occupation of the respondents from young adults of the North Indian population.
Figure 4: Frequency distribution of the family structure of the respondents from young adults of the North Indian population.

Figure 5: Frequency distribution of the number of family members of the young adults of the North Indian population.

Figure 6: Frequency distribution of the average monthly income of the young adults of the North Indian population.
given in table 5 while the descriptive statistics of the total score of the SBQ-R analysis are represented in table 6. However, table 7 demonstrates the frequency distribution of some other mental health testing parameters. Further, the factor analysis along with factor loadings, eigenvalue, and explanation power of the generated factors are represented in table 8.

The frequency distribution of the marital status of the respondent population is depicted in figure 1. Almost 85.30% of males and 81.80% of females were single among the participants and 12.70% of males and 15.90% of females were married. The participants from the widowed and separated categories have the least (approximately 1%) participation in the current study. Figure 2 illustrates the frequency distribution of the educational qualification of the respondent population. Most of the respondents were graduated (24.50% males and 31.80% females) and post-graduated (31.40% males and 50% females) out of the total respondents. Very few males were undergraduate i.e., 1% were primary qualified and 10.80% were secondary qualified whereas none of the female respondents were undergraduate. The rest of them belong to the higher qualification category (Figure 2). More than 50% of the respondents were students; on the other hand, some of the government (approx. 9% in both males and females), as well as private employees (Approx. 18% in both males and females), have also taken part in the present study (Figure 3). Some of them were indulged in business, homemaking, and agriculture whereas 7.8% of males and 10.2% of female respondents were unemployed (Figure 3).
families were getting salary during the lockdown (Table 1). 84.3% male and 86.4% female respondents were not engaged in any kind of governmental activities during the lockdown. While approximately 10% of the respondents were involved in the health care system and very few of them i.e., around 3% were espoused in the Indian police service and administration (Table 2). 62.7% of males and 65.9% of female respondents were involved in online classes. Out of which approximately 20% were engaged in taking online classes, and 58.44% males and 50.69% females were attending the online classes and on an average 25% of respondents were indirectly involved in online classes i.e., helping their child, siblings, etc. to attend online classes (Table 2). Whereas 39.2% male and 50% female respondents were working from home during the lockdown i.e., they were also using the internet network for their professional work. Approximately 42% of respondents were facing network issues during their working hours and online classes. And on average 24% were not able to manage their time for work or classes while locked at home and were facing social disturbances during classes and work from home (Table 2). 35.3% of males and 27.3% of females were working 4 to 6 hours from home during the lockdown while approximately 17% of the respondents had an average monthly income above 90,000 and 10.20% female respondents had below 10,000 average monthly income. However, the rest of them have an average monthly income between 10,000 and 90,000 (Figure 6).

| Sr. No. | Variables | Male (N = 102) | Female (N = 88) |
|---------|-----------|----------------|-----------------|
| 1.      | Are you a working member of your family | Yes 46 45.1% 32 36.4% | No 56 54.9% 56 63.6% |
| 2.      | The number of working members in your family | One 40 39.2% 30 34.1% | Two 35 34.3% 35 39.8% |
|         |           | Three 18 17.6% 12 13.6% | Four 4 3.9% 8 9.1% |
|         |           | More than 5 5 4.9% 3 3.4% | |
| 3.      | Were all the family members getting a salary during the lockdown | Yes 56 54.9% 61 69.3% | No 46 45.1% 27 30.7% |
| 4.      | If yes, how many of you were getting a salary during the lockdown? | No one 46 45.1% 27 30.7% | One person 27 26.5% 28 31.8% |
|         |           | Two persons 19 18.6% 21 23.9% | Three persons 9 8.8% 8 9.1% |
|         |           | Four persons 1 1.0% 4 4.5% | |

A total of 63.60% of the female respondents and 49% of the male respondents belong to the nuclear family structure whereas 50% of the males and 30.70% of the females were from the joint family systems. And the rest of them were from the extended family system as demonstrated in figure 4. On the other hand, approximately 59.80% of male and 64.80% of female respondents have up to 5 members in their family and approximately 24% of the respondents have 6 to 8 members in their family. While the left one (15.70% males and 11.40% of females) has more than 9 members in their family (Figure 5). Different trends of average monthly income were observed among the male and female respondents (figure 6). 21.60% female and 12.70% male respondents have above 90,000 average monthly incomes. While 18.60% male and 10.20% female respondents have below 10,000 average monthly income. However, the rest of them have an average monthly income between 10,000 and 90,000 (Figure 6).

| Sr. No. | Variables | Male (N = 102) | Female (N = 88) |
|---------|-----------|----------------|-----------------|
| 1.      | Are you a working member of your family | Yes 46 45.1% 32 36.4% | No 56 54.9% 56 63.6% |
| 2.      | The number of working members in your family | One 40 39.2% 30 34.1% | Two 35 34.3% 35 39.8% |
|         |           | Three 18 17.6% 12 13.6% | Four 4 3.9% 8 9.1% |
|         |           | More than 5 5 4.9% 3 3.4% | |
| 3.      | Were all the family members getting a salary during the lockdown | Yes 56 54.9% 61 69.3% | No 46 45.1% 27 30.7% |
| 4.      | If yes, how many of you were getting a salary during the lockdown? | No one 46 45.1% 27 30.7% | One person 27 26.5% 28 31.8% |
|         |           | Two persons 19 18.6% 21 23.9% | Three persons 9 8.8% 8 9.1% |
|         |           | Four persons 1 1.0% 4 4.5% | |
Table 2: Frequency distribution of professional details of the young adults of the North Indian population.

| Sr. No. | Variables                                      | Male (N = 102) |          | Female (N = 88) |          |
|---------|-----------------------------------------------|----------------|----------|-----------------|----------|
|         |                                               | Frequency      | Frequency percent | Frequency | Frequency percent |
| 1.      | Were you engaged in the following activities during the lockdown? | 10 | 9.8% | 9 | 10.2% |
|         | Health care system | 2 | 2.0% | 1 | 1.1% |
|         | Indian Police service | 4 | 3.9% | 2 | 2.3% |
|         | Administration | 86 | 84.3% | 76 | 86.4% |
| 2.      | Were you involved in online classes?           | Yes | 64 | 62.7% | 58 | 65.9% |
|         | No | 46 | 45.1% | 36 | 40.9% |
| 3.      | If yes, what kind of roles you were playing during online classes? | 15 | 19.48% | 16 | 21.92% |
|         | Taking the online classes | 45 | 58.44% | 37 | 50.69% |
|         | Attending the online classes | 17 | 22.08% | 20 | 27.40% |
| 4.      | Did you work from home during the lockdown?    | Yes | 40 | 39.2% | 44 | 50.0% |
|         | No | 62 | 60.8% | 44 | 50.0% |
| 5.      | What were your working hours during a lockdown? | Not working | 26 | 25.5% | 18 | 20.5% |
|         | 1 to 3 hours | 9 | 8.8% | 21 | 23.9% |
|         | 4 to 6 hours | 36 | 35.3% | 24 | 27.3% |
|         | 7 to 9 hours | 18 | 17.6% | 15 | 17.0% |
|         | 10 to 12 hours | 10 | 9.8% | 6 | 6.8% |
|         | Not fixed | 3 | 2.9% | 4 | 4.5% |
| 6.      | What kind of problems you were facing during online classes or work from home? | Network issues | 56 | 42.11% | 56 | 43.08% |
|         | Social disturbance | 28 | 21.05% | 32 | 24.62% |
|         | Time management | 32 | 24.06% | 32 | 24.62% |
|         | Not involved | 8 | 6.02% | 4 | 3.08% |
|         | No issues | 6 | 4.51% | 4 | 3.08% |
|         | Have no proper device for online classes because of financial problems | 2 | 1.50% | 0 | 0% |
|         | Communication gap | 1 | 0.75% | 2 | 1.54% |
|         | Stress | 0 | 0% | 0 | 0% |
| 7.      | How many hours you were spending with your family? | 1 to 3 hours | 8 | 7.8% | 4 | 4.5% |
|         | 4 to 6 hours | 12 | 11.8% | 15 | 17.0% |
|         | 7 to 9 hours | 15 | 14.7% | 10 | 11.4% |
|         | 10 to 12 hours | 30 | 29.4% | 25 | 28.4% |
|         | Whole day (i.e., almost 24 hours) | 37 | 36.3% | 34 | 38.6% |

were working for 7 to 8 hours. However, very few of them were working for more than 10 hours per day (9.8% males and 6.8% females) and less than 3 hours (8.8% and 23.9% males and females respectively) as illustrated in Table 2. 36.3% of male and 38.6% female respondents have spent almost 24 hours with their families during the lockdown period. About 29% have spent 10 to 12 hours with their families. Whereas
Table 3: Frequency distribution of health-related details of the young adults of the North Indian population.

| Sr. No. | Variables                                           | Male (N = 102) | Female (N = 88) |
|---------|-----------------------------------------------------|----------------|-----------------|
|         |                                                     | Frequency      | Frequency       |
|         |                                                     | percent        | percent         |
| 1.      | Which of the following physical activities you were practicing during the lockdown? | Exercise 66    | 33.85%          | 42              | 22.95%          |
|         |                                                     | Yoga 22        | 11.28%          | 25              | 13.66%          |
|         |                                                     | Meditation 24  | 12.31%          | 11              | 6.01%           |
|         |                                                     | Morning or evening walk 42 | 21.54% | 43 | 23.50%          |
|         |                                                     | Household chores 30 | 15.38% | 57 | 31.15%          |
|         |                                                     | None 11        | 5.64%           | 5               | 2.73%           |
| 2.      | Are you taking medicine for any chronic disease?    | Yes 3          | 2.9%            | 10              | 11.4%           |
|         |                                                     | No 99          | 97.1%           | 78              | 88.6%           |
| 3.      | Do you smoke?                                       | Yes 5          | 4.9%            | 1               | 1.1%            |
|         |                                                     | No 97          | 95.1%           | 87              | 98.9%           |
| 4.      | If yes, how frequently do you smoke?                | Never 97       | 95.1%           | 87              | 98.9%           |
|         |                                                     | Once a day 2   | 2.0%            | 1               | 1.1%            |
|         |                                                     | Twice a day 2  | 2.0%            | 0               | 0%              |
|         |                                                     | 3 to 4 times a day 1 | 1.0% | 0 | 0%              |
|         |                                                     | More than 5 times a day 0 | 0% | 0 | 0%              |
| 5.      | Do you consume alcohol?                             | Never 79       | 77.5%           | 78              | 88.6%           |
|         |                                                     | A few times a year 6 | 5.9% | 8 | 9.1%           |
|         |                                                     | A few times a month 14 | 13.7% | 1 | 1.1%           |
|         |                                                     | A few times a week 3 | 2.9% | 1 | 1.1%           |
|         |                                                     | Daily 0        | 0%              | 0               | 0%              |
| 6.      | Do you consume any drugs like cannabis, LSD, PCP, Opioids, etc.? | Never 100 | 98.0% | 87 | 98.9% |
|         |                                                     | A few times a year 0 | 0% | 0 | 0% |
|         |                                                     | A few times a month 0 | 0% | 0 | 0% |
|         |                                                     | A few times a week 1 | 1.0% | 1 | 1.1% |
|         |                                                     | Daily 1        | 1.0%            | 0               | 0%              |
| 7.      | During the lockdown, did you face any difficulty in procuring? | Alcohol 5 | 4.67% | 0 | 0% |
|         |                                                     | Drugs 2        | 1.87%           | 0               | 0%              |
|         |                                                     | Smoke 2        | 1.87%           | 0               | 0%              |
|         |                                                     | None 98        | 91.59%          | 88              | 100%            |

14.7% of males and 11.4% of females have spent 7 to 9 hours with their families and 4 to 6 hours were spent by 11.8% males and 17% females. Very few respondents (i.e., 7.8% males and 4.5% females) have spent 1 to 3 hours with their families (Table 2). During the lockdown, most people have utilized their time for health and physical activities. 33.85% of males and 22.95% of females have opted for exercise whereas 21.54% of males and 23.5% of females have started morning or evening walks. Yoga was chosen by approximately 12% of the respondent population and 12.31% of males and 6.01% of females have started meditation to distract themselves from the pandemic situation. 15.38% of males have started involving in the household chores as depicted in the table (Table 3). Only 2.9% of male and 11.4% female respondents...
were taking medicine for chronic disease. And very few of the respondents (4.9% males and 1.1% females) were smokers. 22.5% of male respondents and 11.4% of female respondents were consuming alcohol. And drugs such as cannabis, LSD, PCP, opioids, etc., were consumed by 2% males and 1.1% females. 91.59% of males and 100% of females did not face any difficulty in procuring alcohol, drugs, etc. during the lockdown (Table 3). Very few of the studied population (19.6% males and 14.8% females) were staying away from their families. And 18.6% of males and 9.1% of females’ families were staying with them. Out of the migrant population, 34.3% of males and 21.6% of females were migrated back to their hometown during the lockdown. During the reverse migration at the time of the pandemic, many difficulties were faced by the respondents during transportation, in getting movement passes, lack of money, fear of infection, etc. The frequencies of these factors are illustrated in the table (Table 4). Approximately 14% of the migrants have fear of infection and around 10% have faced difficulties in getting the movement pass. The quarantine period was also stressful for the respondents (10% males and 3.77% females). 16.57% of males and 5.66% of females did not have enough money for the reverse migration. However, 53.9% of male and 61.4% of female respondents were also concerned about the financial security of the family during the lockdown (Table 4).

The suicidal behaviors assessment of the studied population is represented in Table 5. 90.9% of females and 88.2% of males have never thought about or attempted suicide in the last four months. Similarly, 94.1% of males and 86.4% of females have never told anyone that they were going to commit suicide or that they might do it whereas 93.1% of male and 89.8% of female respondents claimed that they will never be going to commit suicide in future (Table 5). Whereas, the mean SBQ-R score was recorded to be 4.62±1.5. For males, the value of total scores was found to be 4.41±1.21 whereas a 4.86±1.76 value was reported in the case of females as depicted in Table 6.

A total of 55.9% of males and 65.9% of females were anxious, worried, or scared as if something awful

| Table 4: Frequency distribution of the migration-related details of the young adults of the North Indian population. |
|---|---|---|---|
| Sr. No. | Variables | Male (N = 102) | Female (N = 88) |
| | | Frequency | Frequency percent | Frequency | Frequency percent |
| 1. | Are you a migrant/ staying away from your hometown for work? | | |
| | Yes | 20 | 19.6% | 13 | 14.8% |
| | No | 82 | 80.4% | 75 | 85.2% |
| 2. | Is your family staying with you? | | |
| | Yes | 83 | 81.4% | 80 | 90.9% |
| | No | 19 | 18.6% | 8 | 9.1% |
| 3. | Did you migrate back to your hometown during the lockdown? | | |
| | Yes | 35 | 34.3% | 19 | 21.6% |
| | No | 67 | 65.7% | 69 | 78.4% |
| 4. | Difficulties faced by you during your journey to your hometown? | | |
| | Transportation | 30 | 27.75% | 8 | 7.55% |
| | Problems faced during the Quarantine period | 17 | 16.06% | 4 | 3.77% |
| | Fear of infection | 23 | 22.27% | 15 | 14.5% |
| | Permissions/Movement pass | 18 | 17.35% | 11 | 10.38% |
| | Lack of money | 28 | 26.75% | 6 | 5.38% |
| | None | 53 | 51.50% | 62 | 58.49% |
| 5. | Were you concerned about the financial security of the family during the lockdown? | | |
| | Yes | 55 | 53.9% | 54 | 61.4% |
| | Not at all | 47 | 46.1% | 34 | 38.6% |
affected females (90.9%) more than males (65.7%). Out of the many factors, lockdown (~24%) and fear of COVID-19 (~20%) have affected them more as given in the table (Table 7). 63.7% of males and 84.1% of females share their thoughts and feelings like what is happening in their life with someone. Out of which 58.33% males and 47.37% females feel more comfortable in sharing it with their friends. During the period of lockdown, individuals have experienced mood

Table 5: Suicidal behaviors assessment of the studied population based on Suicidal Behaviors Questionnaire-Revised (SBQ-R).

| Sr. No. | Variables                                                                 | Male (N = 102) | Female (N = 88) |
|--------|---------------------------------------------------------------------------|----------------|-----------------|
|        |                                                                           | Frequency      | Frequency percent | Frequency | Frequency percent |
| 1.     | Have you ever have suicidal thoughts about or attempted to commit suicide in the last four months? |                |                  |           |                  |
|        | Never                                                                     | 90             | 88.2%           | 80        | 90.9%            |
|        | It was just a brief passing thought                                       | 9              | 8.8%            | 7         | 8.0%             |
|        | I have had a plan at least once to kill myself but did not try to do it   | 3              | 2.9%            | 1         | 1.1%             |
|        | I have had a plan at least once to kill myself and really wanted to die   | 0              | 0%              | 0         | 0%               |
|        | I have attempted to kill myself but did not want to die                   | 0              | 0%              | 0         | 0%               |
|        | I have attempted to kill myself, and really hoped to die                  | 0              | 0%              | 0         | 0%               |
| 2.     | How often have you thought about killing yourself in the past four months? |                |                  |           |                  |
|        | Never                                                                     | 90             | 88.2%           | 76        | 86.4%            |
|        | Rarely (1 times)                                                          | 6              | 5.9%            | 5         | 5.7%             |
|        | Sometimes (2 times)                                                       | 4              | 3.9%            | 5         | 5.7%             |
|        | Often (3–4 times)                                                         | 1              | 1.0%            | 1         | 1.1%             |
|        | Very often (5 or more times)                                              | 1              | 1.0%            | 1         | 1.1%             |
| 3.     | Have you ever told someone that you were going to commit suicide, or that you might do it? |                |                  |           |                  |
|        | No                                                                        | 96             | 94.1%           | 76        | 86.4%            |
|        | Yes, once, but did not really want to die                                  | 5              | 4.9%            | 6         | 6.8%             |
|        | Yes, once, and really wanted to die                                       | 0              | 0%              | 2         | 2.3%             |
|        | Yes, more than once, but did not want to do it                            | 1              | 1.0%            | 3         | 3.4%             |
|        | Yes, more than once, and really wanted to do it                           | 0              | 0%              | 1         | 1.1%             |
| 4.     | How likely is it that you will attempt suicide someday?                   |                |                  |           |                  |
|        | Never                                                                     | 95             | 93.1%           | 79        | 89.8%            |
|        | No chance at all                                                           | 0              | 0%              | 0         | 0%               |
|        | Rather unlikely                                                           | 0              | 0%              | 0         | 0%               |
|        | Unlikely                                                                  | 7              | 6.9%            | 6         | 6.8%             |
|        | Likely                                                                    | 0              | 0%              | 3         | 3.4%             |
|        | Rather likely                                                             | 0              | 0%              | 0         | 0%               |
|        | Very likely                                                               | 0              | 0%              | 0         | 0%               |
and the factor analysis can be easily performed on the data. Further, all the diagonal values in the anti-image table and the commonality table were greater than 0.5. They also assist with the factor analysis process.

In factor analysis, eigenvalues are used to condense the variance in the correlation matrix where the factor with the largest eigenvalue has the most variance or vice-versa. For instance, if the eigenvalue is 2, it suggests the information of 2 variables or more than 2 variables are covered. The factors having an eigenvalue greater than ‘1’ have been accounting for generating valuable factors. This is because a factor with an eigenvalue of ‘1’ accounts for as much variance as a single variable. Therefore, it is worth keeping them only. Additionally, the valuable factors can be easily identified based on the scree plots (Figure 7). The eigenvalues are depicted on the y-axis in a scree plot and all the factors generated (or principal components) from the analysis are represented on the x-axis. It has a downward slope to it. The number of valuable factors that were generated by the analysis is indicated by the point where the slope of the curve is clearly leveling off.

In the present study, Bartlett’s test of sphericity was statistically significant with an approximated chi-square value of 1212.474 (df = 171, p < 0.001). This indicates that a significant correlation exists, allowing the factor analysis to be performed. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy yielded positive results, with a score of 0.606. It indicates that the sample size is adequate to run the factory analysis. Further, seven factors were generated during the factor analysis from 19 factors with more than 1 eigenvalue that explained a total of 70.797% variance, as illustrated in the scree plot (Figure 7) as well as in Table 6.

Table 6: Descriptive statistics of the Total score of the SBQ-R analysis.

| Statistics       | Total data (N=190) | Males (N=102) | Females (N=88) |
|------------------|--------------------|---------------|----------------|
| Mean             | 4.62               | 4.41          | 4.86           |
| Median           | 4.00               | 4.00          | 4.00           |
| Mode             | 4.00               | 4.00          | 4.00           |
| Standard deviation | 1.50              | 1.21          | 1.76           |
| Minimum          | 4.00               | 4.00          | 4.00           |
| Maximum          | 11.00              | 11.00         | 11.00          |
| Range            | 7.00               | 7.00          | 7.00           |

Cronbach’s alpha was used to measure the internal consistency of the parameters utilized in the questionnaire. The value of Cronbach’s alpha was found to be 0.6. Before applying the factor analysis with the principal component method, the repeated Cronbach’s alpha analysis was conducted and the variables which are responsible for the lowering down of the value of Cronbach’s alpha were removed from the factor analysis and after that, the applicability of the method was confirmed. For the final model, the value of reproduced correlation was reported to be 23.0%, which should be less than 50%. This indicates that the data supports the questionnaire and the factor analysis can be easily performed on the data. Further, all the diagonal values in the anti-image table and the commonality table were greater than 0.5. They also assist with the factor analysis process.

In factor analysis, eigenvalues are used to condense the variance in the correlation matrix where the factor with the largest eigenvalue has the most variance or vice-versa. For instance, if the eigenvalue is 2, it suggests the information of 2 variables or more than 2 variables are covered. The factors having an eigenvalue greater than ‘1’ have been accounting for generating valuable factors. This is because a factor with an eigenvalue of ‘1’ accounts for as much variance as a single variable. Therefore, it is worth keeping them only. Additionally, the valuable factors can be easily identified based on the scree plots (Figure 7). The eigenvalues are depicted on the y-axis in a scree plot and all the factors generated (or principal components) from the analysis are represented on the x-axis. It has a downward slope to it. The number of valuable factors that were generated by the analysis is indicated by the point where the slope of the curve is clearly leveling off.

In the present study, Bartlett’s test of sphericity was statistically significant with an approximated chi-square value of 1212.474 (df = 171, p < 0.001). This indicates that a significant correlation exists, allowing the factor analysis to be performed. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy yielded positive results, with a score of 0.606. It indicates that the sample size is adequate to run the factory analysis. Further, seven factors were generated during the factor analysis from 19 factors with more than 1 eigenvalue that explained a total of 70.797% variance, as illustrated in the scree plot (Figure 7) as well as in Table 6.
Table 7: Frequency distribution of some other mental health testing parameters.

| Sr. No. | Variables                                                                 | Male (N = 102) | Female (N = 88) |
|---------|---------------------------------------------------------------------------|----------------|----------------|
|         |                                                                           | Frequency      | Frequency      |
|         |                                                                           | percent        | percent        |
| 1.      | Were you anxious, worried, or scared, as if something awful might happen? | 57             | 58             |
|         |                                                                           | 55.9%          | 65.9%          |
|         |                                                                           | 45             | 30             |
|         |                                                                           | 44.1%          | 34.1%          |
| 2.      | Have you lost interest in activities that you used to enjoy?               | 51             | 39             |
|         |                                                                           | 50.0%          | 44.3%          |
|         |                                                                           | 51             | 49             |
|         |                                                                           | 50.0%          | 55.7%          |
| 3.      | Did you face the problem of sleeplessness, and/or did not feel well-rested when you woke up during the lockdown? | 52             | 48             |
|         |                                                                           | 51.0%          | 54.5%          |
|         |                                                                           | 50             | 40             |
|         |                                                                           | 49.0%          | 45.5%          |
| 4.      | Do you feel that you have become irritable or get enraged on minor issues | 42             | 36             |
|         |                                                                           | 41.2%          | 40.9%          |
|         |                                                                           | 60             | 58.8%          |
| 5.      | Did you feel sad or worried after listening to the news related to the COVID-19 pandemic? | 67             | 80             |
|         |                                                                           | 65.7%          | 90.9%          |
|         |                                                                           | 35             | 8              |
|         |                                                                           | 34.3%          | 9.1%           |
| 6.      | If yes, which of the following circumstances was annoying you most?        | 25             | 21             |
|         |                                                                           | 23.15%         | 24.14%         |
|         |                                                                           | 21             | 17             |
|         |                                                                           | 19.44%         | 19.54%         |
|         |                                                                           | 19             | 10             |
|         |                                                                           | 17.59%         | 11.49%         |
|         |                                                                           | 20             | 19             |
|         |                                                                           | 18.52%         | 21.84%         |
|         |                                                                           | 3              | 10             |
|         |                                                                           | 2.78%          | 11.49%         |
|         |                                                                           | 11             | 6              |
|         |                                                                           | 10.19%         | 6.90%          |
|         |                                                                           | 5              | 2              |
|         |                                                                           | 4.63%          | 2.30%          |
|         |                                                                           | 4              | 2              |
|         |                                                                           | 3.70%          | 2.30%          |
| 7.      | Do you share your thoughts and feelings like what is happening in your life with someone? | 65             | 74             |
|         |                                                                           | 63.7%          | 84.1%          |
|         |                                                                           | 37             | 14             |
|         |                                                                           | 36.3%          | 15.9%          |

(continued)
| Sr. No. | Variables                                                                 | Male (N = 102) | Female (N = 88) |
|--------|---------------------------------------------------------------------------|----------------|----------------|
|        |                                                                           | Frequency | Frequency percent | Frequency | Frequency percent |
| 8.     | With whom do you share your emotions and thoughts?                        |           |                  |           |                  |
|        | Father                                                                    | 5         | 6.94%            | 5         | 6.57%            |
|        | Mother                                                                    | 13        | 18.06%           | 14        | 18.42%           |
|        | Partner                                                                   | 7         | 9.72%            | 11        | 14.47%           |
|        | Siblings                                                                  | 5         | 6.94%            | 10        | 13.16%           |
|        | Friends                                                                   | 42        | 58.33%           | 36        | 47.37%           |
| 9.     | Have you experienced mood swings during the last four months?             |           |                  |           |                  |
|        | Not at all                                                                | 52        | 51.0%            | 19        | 21.6%            |
|        | Mild                                                                      | 28        | 27.5%            | 28        | 31.8%            |
|        | Moderate                                                                  | 17        | 16.7%            | 25        | 28.4%            |
|        | Severe                                                                    | 5         | 4.9%             | 16        | 18.2%            |
| 10.    | Did you face any panic attacks during the lockdown, and if yes, how frequently? |           |                  |           |                  |
|        | Never                                                                     | 90        | 88.2%            | 66        | 75.0%            |
|        | Several times a day                                                        | 2         | 2.0%             | 1         | 1.1%             |
|        | Once or twice a day                                                        | 2         | 2.0%             | 1         | 1.1%             |
|        | A few times a week                                                         | 5         | 4.9%             | 4         | 4.5%             |
|        | Less than a few times a week                                               | 0         | 0%               | 1         | 1.1%             |
|        | Less than a few times a month                                              | 3         | 2.9%             | 15        | 17.0%            |
| 11.    | Did anybody known to you attempt suicide because of the COVID-19 pandemic? |           |                  |           |                  |
|        | Yes                                                                       | 12        | 11.8%            | 6         | 6.8%             |
|        | No                                                                        | 90        | 88.2%            | 82        | 93.2%            |
| 12.    | Do you think that there is an increase in the number of suicides during the COVID-19 pandemic? |           |                  |           |                  |
|        | Yes                                                                       | 39        | 38.2%            | 54        | 61.4%            |
|        | No idea                                                                   | 63        | 61.8%            | 34        | 38.6%            |
| 13.    | If yes, what were the major reasons behind the suicidal attempts?          |           |                  |           |                  |
|        | Lockdown                                                                  | 33        | 19.41%           | 17        | 11.18%           |
|        | Financial uncertainties                                                    | 44        | 25.88%           | 54        | 35.53%           |
|        | Unemployment                                                               | 37        | 21.76%           | 42        | 27.63%           |
|        | Fear of COVID-19                                                           | 23        | 13.53%           | 21        | 13.82%           |
|        | Limits on Social gatherings                                                | 8         | 4.71%            | 8         | 5.26%            |
|        | Social distancing                                                         | 6         | 3.53%            | 6         | 3.95%            |
|        | Use of preventive measures like masks, sanitizers, etc. in public settings | 3         | 1.76%            | 0         | 0%               |
|        | Reverse migration                                                         | 16        | 9.41%            | 4         | 2.63%            |
Table 8: Table representing the factor analysis along with factor loadings, eigenvalue, and explanation power of the generated factors.

| Number of the factors | Name of the factors                  | Variables cover under the factors | Factor loadings | Eigenvalue | Percentage of Variance | Cumulative percentage |
|-----------------------|--------------------------------------|-----------------------------------|-----------------|------------|------------------------|-----------------------|
| Factor 1              | Addictive behavior                   | Do you smoke?                     | -0.943          | 2.853      | 15.013                 | 15.013                |
|                       |                                      | If yes, how frequently do you     | 0.916           |            |                        |                       |
|                       |                                      | smoke?                            |                 |            |                        |                       |
|                       |                                      | Do you consume any drugs like      | 0.740           |            |                        |                       |
|                       |                                      | cannabis, LSD, PCP, Opioids, etc.?|                 |            |                        |                       |
| Factor 2              | Psychological assessment             | Did you face the problem of       | 0.801          | 2.438      | 12.830                 | 27.843                |
|                       |                                      | sleeplessness, and/or did not feel|                 |            |                        |                       |
|                       |                                      | well-rested when you woke up      |                 |            |                        |                       |
|                       |                                      | during the lockdown?               |                 |            |                        |                       |
|                       |                                      | Do you feel that you have become  | 0.720           |            |                        |                       |
|                       |                                      | irritable or get enraged on minor |                 |            |                        |                       |
|                       |                                      | issues                            |                 |            |                        |                       |
|                       |                                      | Did you feel sad or worried after  | 0.717           |            |                        |                       |
|                       |                                      | listening to the news related to   |                 |            |                        |                       |
|                       |                                      | the COVID-19 pandemic?             |                 |            |                        |                       |
|                       |                                      | Have you lost interest in activities | 0.617           |            |                        |                       |
|                       |                                      | that you used to enjoy?            |                 |            |                        |                       |
| Factor 3              | The financial status of the family   | Monthly income of the family       | 0.857          | 2.260      | 11.897                 | 39.740                |
|                       |                                      | (average)                         |                 |            |                        |                       |
|                       |                                      | If yes, how many of you were       | 0.775           |            |                        |                       |
|                       |                                      | getting a salary during the        |                 |            |                        |                       |
|                       |                                      | lockdown?                         |                 |            |                        |                       |
|                       |                                      | The number of working members in   | 0.637           |            |                        |                       |
|                       |                                      | your family                        |                 |            |                        |                       |
| Factor 4              | Suicidal behavioral assessment       | How often have you thought         | 0.886          | 1.779      | 9.363                  | 49.103                |
|                       |                                      | about killing yourself in the past |                 |            |                        |                       |
|                       |                                      | four months?                       |                 |            |                        |                       |
|                       |                                      | Have you ever told someone that    | 0.721           |            |                        |                       |
|                       |                                      | you were thinking of or wanted to  |                 |            |                        |                       |
|                       |                                      | commit suicide?                    |                 |            |                        |                       |
|                       |                                      | Did you have suicidal thoughts or  | 0.681           |            |                        |                       |
|                       |                                      | attempted to commit suicide in the |                 |            |                        |                       |
|                       |                                      | last four months?                  |                 |            |                        |                       |
| Factor 5              | Family structure                     | The number of family members       | 0.894          | 1.563      | 8.226                  | 57.329                |
|                       |                                      | Structure of the family            | 0.842           |            |                        |                       |
| Factor 6              | The financial contribution of the    | Occupation of the respondent       | 0.859          | 1.502      | 7.907                  | 65.236                |
|                       | respondent                          | Are you a working member of your   | -0.857         |            |                        |                       |
|                       |                                      | family                            |                 |            |                        |                       |
| Factor 7              | Sharing of thoughts                 | With whom do you share your        | -0.879         | 1.057      | 5.561                  | 70.797                |
|                       |                                      | emotions and thoughts?             |                 |            |                        |                       |
|                       |                                      | Do you share your thoughts and     | 0.857           |            |                        |                       |
|                       |                                      | feelings like what is happening in |                 |            |                        |                       |
|                       |                                      | your life with someone?            |                 |            |                        |                       |
It suggests that these 7 factors can improve the explanation power of the model. Addictive behavior, psychological assessment, the financial status of the family, suicidal behavioral assessment, family structure, the financial contribution of the respondent, and sharing of thoughts are among the seven factors. Table 8 illustrates the factor loadings as well as the percentage variance explained by the factors.

Discussion

The impact of COVID-19 on mental health has been extensively studied (3-8). The COVID-19 has affected the daily routine of the individual which may include the instructions to stay home, limitations on traveling, financial crisis, unemployment, social isolation, drop in social interactions, fear of infection, family disputes, lack of personal space, etc. And resulted in anxiety, stress, fear, insomnia, frustration, depression, etc. which have further lead to an increased number of suicides.

The current examination has incorporated the Suicidal Behaviors Questionnaire-Revised (SBQ-R). The reliability and validity of SBQ-R and its use in general population samples have been explored by various authors (26-28). Since it is a self-reported instrument, therefore the normal range for the mean SBQ-R score was given on the questionnaire itself and it was documented to be ranged as 3-18 (25). Further, Osman et al. (26) have validated the questionnaire and have provided the mean SBQ-R cut-off scores. They have given 7 cut-off mean SBQ-R scores in the case of non-suicidal samples (with 93% sensitivity and 95% specificity) and 8 for the clinical (suicidal) samples (with 80% sensitivity and 91% specificity). Similarly, Aloba et al. (27) have given the mean SBQ-R cut-off score of 8 (with 88.2% sensitivity and 87.5% specificity) in the case of students at high risk of suicide while working on the Nigerian population. 4.62±1.5 value of the mean (SD) SBQ-R score was recorded in the present study and the value of total mean (SD) SBQ-R scores for males and females were found to be 4.41±1.21 and 4.86±1.76 respectively. Moreover, Osman et al. (26) have documented higher mean (SD) SBQ-R scores in the case of suicidal groups i.e., 11.18±3.99, and low mean SBQ-R scores for the non-suicidal groups i.e., 5.19±2.20. Whereas, 4.60±3.1 mean (SD) SBQ-R scores were reported by Fitzpatrick et al. (29) and 5.01±3.01 was documented in the case of the Nigerian population (27). The Iranian population has found significantly higher mean (SD) SBQ-R scores in the case of females with 5.79±3.55 mean (SD) SBQ-R scores for the total population (30). Further 10.1±3.6 mean (SD) SBQ-R score was recorded in the case of the Spanish population which is somewhat higher than the other populations and the males and females mean (SD) SBQ-R scores were also found to be higher (9.5±3.6 in males and 10.5±3.6 in females) in the Spanish population (31). Cassidy et al., (32) have provided the mean (SD) SBQ-R scores independently for every item of the SBQ-R while the present study has recorded the frequency percentages of each response of the SBQ-R.

Further, the SBQ-R questionnaire has been utilized in several studies (27, 29, 31), and the internal consistency of the items used in the SBQ-R has been determined using Cronbach’s alpha. However, the present study has calculated the value of Cronbach’s alpha for the whole questionnaire, including the SBQ-R parameters. Out of the seven generated principal factors, the suicidal behavior assessment is the important factor. It has incorporated three items of the SBQ-R questionnaire. The literature does not have a similar study conducted using similar parameters. Therefore, the results of the factor analysis are not comparable with any of the studies. Bartlett’s test of sphericity was calculated in the present study to check whether the variables are unrelated or not and whether the factor analysis applies to the present data or not. The statistically significant chi-square value (chi-sq=1212.474, p < 0.001) indicated good results. Moreover, the value of the Kaiser-Meyer-Olkin (KMO) test has also indicated the same results and the value recorded in the present study was 0.606. Similarly, the value of KMO and Bartlett’s test generated based on the specially designed questionnaire is not comparable. Based on the Kaiser-Meyer-Olkin (KMO) test and Bartlett’s test of sphericity, the factor analysis was performed on the present data. The total of 70.797% variance with an eigenvalue of 1 was explained only by the seven factors.
out of 19 factors including the three-item of SBQ-R. Similarly, the results are not comparable.

Moreover, the present study has taken some of the parameters of the psychology today online survey (23). The parameters taken have covered different aspects of an individual’s life during assessment such as mental health symptoms and experiences, feelings, thoughts and actions, physical health and wellbeing, housing and financial circumstances, employment and training needs, social and family relationships, culture, and ethnic background, gender and sexuality, use of drugs or alcohol, past experiences (especially of similar problems), issues relevant to own or others’ safety, whether there’s anyone who depends on you (such as a child or elderly relative), strengths and skills, and what helps you best, and hopes and aspirations for the future (21,23). Although the SBQ-R assessment shows a low risk of suicidal behavior in the case of the present study but the frequency distribution of some other parameters taken for the psychological assessment has shown how the COVID-19 has affected the mental health of the studied population. The Morbidity and Mortality Weekly Report presented by Czeisler et al. (33) has reported that 24.7% of the US population at risk has started or increased substance use to cope with pandemic-related stress or emotions. Whereas only 4.9% of males and 1.1% of females have smoked and 22.5% of males and 11.3% of females have consumed alcohol to cope with the pandemic-related stress among the present population. However, 25.5% US population have seriously considered suicide in the past 30 days (33) whereas 11.8% of males and 9.1% of females have suicidal thoughts or have attempted suicide in the last four months among the present population. Moreover, anxiety disorder (49.1%), depressive disorder (52.3%), COVID-19 related TSRD (46%), was also quite high among the US population (33). Therefore, the anxiousness or worriedness because of many factors has affected the mental health of the population at risk in a drastic way.

The constant hammering of COVID-19 pandemic news in the news channels, social media, and many other platforms had created nuisance rather than comfort to the mental integrity of the population. Changing trends of the treatment protocol, speed of spread of infection, helplessness for getting timely help had all added fuel to disturb the mindset of an individual. Self-isolation, no physical-social interaction, no travel or leisure activities worsen the already feeble-minded person to succumb to the pressure of such a situation.

Conclusion

The current study has explored the various factors affecting the mental health of an individual during the period of the COVID-19 pandemic. Although, a low risk of suicidal behavior was observed during the SBQ-R assessment. The frequency distribution of the parameters taken for the psychological assessment has shown that the anxiousness or worriedness because of many factors has affected the mental health of the population at risk in a drastic way. Therefore, it is essential to assess the mental health of the population due to situations like the COVID pandemic or any other future such events affecting the population. Similarly, some precautionary measures like online mental health services should be taken by the health ministry to make the population not only physically healthy but also mentally sound and fit.

Acknowledgments: Deepika Rani is supported by a Senior Research Fellowship from University Grants Commission, New Delhi, India, for pursuing her Ph.D. Kewal Krishan is supported by the UGC Centre of Advanced Study (PHASE-II), awarded to the Department of Anthropology, Panjab University, Chandigarh, India.

Authors’ contributions: DR, KK, and TK conceived and conceptualized the idea of writing this paper. DR collected the data under the supervision of KK. DR conducted the analysis and compiled the results. DR, KK, NT, UP and TK wrote the initial draft of the manuscript. DR, KK, NT, UP and TK edited and approved the final version of the manuscript. KK and TK supervised the work.

Conflicts of interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.
References

1. Constitution. Who we are? The World Health Organization. Available: https://www.who.int/about/who-we-are/constitution. 2020. Accessed 12 August 2021.

2. Krishan K, Kanchan T. Lockdown is an effective ‘vaccine’ against COVID-19: A message from India. J Infect Dev Ctries 2020;14(6):545-546.

3. Chakraborty P. Aug sees 38 suicides so far. Are rising Covid-19 cases to blame?. The times of India. Available: https://timesofindia.indiatimes.com/city/nagpur/aug-sees-38-suicides-so-far-are-rising-covid-19-cases-to-blame/articleshow/77554257.cms. 2020. Accessed 10 May 2021.

4. National Herald. Shocking! COVID-19 takes its toll; Gurugram records 240 suicides in just 8 months this year. Available: https://www.nationalheraldindia.com/city/nagpur/aug-sees-38-suicides-so-far-are-rising-covid-19-cases-to-blame/articleshow/77554257.cms. 2020. Accessed 10 May 2021.

5. Times now digital. Amid COVID-19 outbreak, India’s suicide epidemic remains unaddressed—these graphs show how. Available: https://www.timesnownews.com/india/article/amid-covid-19-outbreak-indias-suicide-epidemic-remains-unaddressed-these-graphs-show-how/652188. 2020. Assessed 10 May 2021.

6. Semo BW, Frissa SM. The Mental Health Impact of the COVID-19 Pandemic: Implications for Sub-Saharan Africa. Psychol Res Behav Manag 2020;13:713–720.

7. Thakur V, Jain A. COVID 2019—suicides: A global psychological pandemic. Brain Behav Immun 2020;88:952–953.

8. Griffiths MD, Mamun MA. COVID-19 suicidal behavior among couples and suicide pacts: Case study evidence from press reports. Psychiatry Res 2020;289:113105.

9. Vahia IV, Jeste DV, Reynolds CF. Older Adults and the Mental Health Effects of COVID-19. JAMA 2020;324(22):2253-2254.

10. World Health Organization. Mental health: strengthening our response. Newsroom. Available:https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. 2020. Assessed 10 Sept 2021.

11. National Health Service (NHS). https://www.nhs.uk/us-intl/tests/health/mental-health-assessments/. 2020. Accessed 10 Sept 2021.

12. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th ed. 2013. Arlington VA: American Psychiatric Publishing, 2013.

13. Osman et al. The Suicide Behaviors Questionnaire—Revised (SBQ-R). Stable resource toolkit. Available: https://www.aetnabetterhealth.com/laouisiana/assets/pdf/providers/communications/SDQ-Color.pdf. 1999. Accessed 10 Sept 2021.

14. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, Barrios FX. The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and non-clinical samples. Assessment 2001;8(4):443–54.

15. Lathabhavan R, Griffiths M. First case of student suicide in India due to the COVID-19 education crisis: A brief report and preventive measures. Asian J Psychiatr 2020;53:102202.

16. Haider T. Decomposed body of AIIMS doctor found hanging at his residence. New Delhi. India Today news. Available:https://www.indiatoday.in/india/story/delhi-decomposed-body-of-aiims-doctor-found-hanging-at-his-residence-1711215-2020-08-14. 2020. Accessed 10 May 2021.

17. Joseph JP. Suicides among doctors were too common in India. Then the pandemic came, Science the wire. Available: https://science.thewire.in/health/suicides-among-doctors-common-india-covid-19-pandemic-ima/. 2020. Accessed 10 May 2021.

18. Kapoor C. COVID-19 financial crisis: Indian family commits suicide. Anadolu Agency: 100 years. Available:https://www.aa.com.tr/en/asia-pacific/covid-19-financial-crisis-indian-family-commits-suicide/1963021. 2020. Accessed 8 August 2021.

19. Liu S, Yang L, Zhang C, et al. Online mental health services in China during the COVID-19 outbreak. Lancet Psychiatry 2020;7(4):e17-e18.

20. Haider T. Decomposed body of AIIMS doctor found hanging at his residence. New Delhi. India Today news. Available:https://www.indiatoday.in/india/story/delhi-decomposed-body-of-aiims-doctor-found-hanging-at-his-residence-1711215-2020-08-14. 2020. Accessed 10 May 2021.

21. World Health Organization. Mental health: strengthening our response. Newsroom. Available:https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. 2020. Assessed 10 Sept 2021.

22. Thakur V, Jain A. COVID 2019—suicides: A global psychological pandemic. Brain Behav Immun 2020;88:952–953.

23. Griffiths MD, Mamun MA. COVID-19 suicidal behavior among couples and suicide pacts: Case study evidence from press reports. Psychiatry Res 2020;289:113105.

24. Vahia IV, Jeste DV, Reynolds CF. Older Adults and the Mental Health Effects of COVID-19. JAMA 2020;324(22):2253-2254.

25. World Health Organization. Mental health: strengthening our response. Newsroom. Available:https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. 2020. Assessed 10 Sept 2021.

26. National Health Service (NHS). https://www.nhs.uk/us-intl/tests/health/mental-health-assessments/. 2020. Accessed 10 Sept 2021.

27. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th ed. 2013. Arlington VA: American Psychiatric Publishing, 2013.

28. Osman et al. The Suicide Behaviors Questionnaire—Revised (SBQ-R). Stable resource toolkit. Available: https://www.aetnabetterhealth.com/laouisiana/assets/pdf/providers/communications/SDQ-Color.pdf. 1999. Accessed 10 Sept 2021.

29. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, Barrios FX. The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and non-clinical samples. Assessment 2001;8(4):443–54.

30. World Health Organization. Mental health: strengthening our response. Newsroom. Available:https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. 2020. Assessed 10 Sept 2021.

31. National Health Service (NHS). https://www.nhs.uk/us-intl/tests/health/mental-health-assessments/. 2020. Accessed 10 Sept 2021.

32. Mental health assessment. Psychology Today. Sussex Publishers. LLC. Available: https://www.psychologytoday.com/intl/tests/health/mental-health-assessment. 2020. Accessed 10 Sept 2021.

33. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th ed. 2013. Arlington VA: American Psychiatric Publishing, 2013.

34. Osman et al. The Suicide Behaviors Questionnaire—Revised (SBQ-R). Stable resource toolkit. Available: https://www.aetnabetterhealth.com/laouisiana/assets/pdf/providers/communications/SDQ-Color.pdf. 1999. Accessed 10 Sept 2021.

35. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, Barrios FX. The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and non-clinical samples. Assessment 2001;8(4):443–54.

36. World Health Organization. Mental health: strengthening our response. Newsroom. Available:https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. 2020. Assessed 10 Sept 2021.

37. National Health Service (NHS). https://www.nhs.uk/us-intl/tests/health/mental-health-assessments/. 2020. Accessed 10 Sept 2021.

38. Mental health assessment. Psychology Today. Sussex Publishers. LLC. Available: https://www.psychologytoday.com/intl/tests/health/mental-health-assessment. 2020. Accessed 10 Sept 2021.
28. Cassidy SA, Bradley L, Bowen E, Wigham S, Rodgers J. Measurement properties of tools used to assess suicidality in autistic and general population adults: A systematic review. ClinPsychol Rev 2018;62:56–70.

29. Fitzpatrick KM, Harris C, Drawve G. How bad is it? Suicidality in the middle of the COVID-19 pandemic. Suicide Life Threat Behav 2020;50(6):1241–1249.

30. Amini-Tehrani M, Nasiri M, Jalali T, Sadeghi R, Ghotbi A, Zamanian H. Validation and psychometric properties of Suicide Behaviors Questionnaire-Revised (SBQ-R) in Iran. Asian J Psychiatr 2020;47:101856.

31. Rueda-Jaimes GE, Corzo-Casadiego JD, Moreno-Quijano C, Camacho PA. Validity of the Suicide Behaviors Questionnaire-Revised in patients with short-term suicide risk. Eur J Psychiat 2017;31(4):145-150.

32. Cassidy SA, Bradley L, Cogger-Ward H, et al. Measurement Properties of the Suicidal Behaviour Questionnaire-Revised in Autistic Adults. J Autism Dev Disord 2020;50:3477–3488.

33. Czeisler ME, Lane RI, Petrosky E, et al. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States. Morbidity and Mortality Weekly Report 2020;69(32):1-9.

Correspondence:
Received: 19 December 2021
Accepted: 21 January 2022
Prof. Kewal Krishan, Ph.D., FRAI
Department of Anthropology,
(UGC Centre of Advanced Study)
Panjab University, Sector-14,
Chandigarh, India
E-mail: gargkk@yahoo.com; kewalkrishan@pu.ac.in