COVID-19 lockdown: Online survey of psychosocial factors of adolescents

Deoshree Akhouri, Maria Madiha, Jameel Ahmed
Departments of Psychiatry and Pharmacology, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

Address for correspondence:
Dr. Deoshree Akhouri, Associate Professor and Clinical Psychologist, Department of Psychiatry, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh, India. E-mail: drdeoshreekhouri@gmail.com

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Background: The coronavirus pandemic has affected more than 14 million people in the world. Adults are somehow able to manage their stress created by the most fearful disease. However, it is the children and adolescents who are most affected by COVID-19 lockdown. Aim: This study aimed to assess the effect of COVID-19 lockdown on adolescent’s psychosocial factors. Materials and Methods: Using the Google Form link, a questionnaire was developed and an online survey was conducted. This online questionnaire consisted of 40 items assessing personal, social, academic, and family domains related to adolescents. Results: A total of 223 responses were obtained. The results indicate that 6.5% of adolescents experience extreme level of anxiousness, 29.8% become little irritable and angry, affecting their personal/emotional domain. About 12.6% of the adolescents are uncomfortable with social distancing and 48.4% of them greatly miss their friends; 38.1% miss their school and 28.8% are unable to clear their doubts through online teaching. Mathematics was the most uncomfortable subject for them to deal with 49.8%. About 79% of adolescents suffer mildly from family distress, 43.3% (extremely) are eagerly waiting for the lockdown to end. Conclusion: Among all four domains, the family domain was the most affected due to COVID-19 lockdown, followed by social, academic, and personal domains.

Keywords: Academic, adolescents, COVID-19, family domain, lockdown, online survey, psychosocial factors

The end of 2019 brought a drastic change in the dynamics of society with the eruption of coronavirus (COVID-19) in Wuhan, China. Terms such as social distancing, isolation, and lockdown became a part of day-to-day conversations. Symptoms include coughing, fever, tiredness, and difficulty in breathing (severe cases). The World Health Organization (WHO) declared it as a pandemic in January 2020, affecting more than 14 million people and still counting in the world. Since then, to combat the disease, the entire world is on lockdown; no social gathering, no traveling, only work from home, etc., In the absence of vaccine or medication, complete lockdown seemed to be an only option to fight with COVID-19. The WHO has provided safety guidelines for general public: washing hands, sanitizing, maintaining social distance, and immediate checkup if have any of the symptoms. India followed these guidelines and implemented the lockdown for the entire country as well.[1-4] During this pandemic, the development of anxiety and depression is quite common among the population. In a study in West Bengal, it was found that about 71.8% of people of West Bengal are worried and 24.7% are depressed because of the rapid spread of coronavirus.[5] An online questionnaire-based survey of medical undergraduate students observed that 23.2% had depression, 20.7% had anxiety, and 13.0% had stress.[6]
Adults are somehow able to manage their stress created by the most fearful disease. They are gradually accepting the fact that coronavirus is going to be around for a long time. It is the children and adolescents who are most devastated. No outing, no school routines, and no mingling with friends have created a sense of worthlessness in them. It is important to explain and make them understand what lockdown actually is and how to tackle with it. With lockdown, they are spending all of their time at home and this time requires proper monitoring. Their social, personal, and academic domains are severely impacted.

Personal domain basically includes individual’s comfort with lockdown, sleeping and eating patterns, emotional stability, irritability, and aggression. Social domain covers the socialization process, mingling with friends, use of social media, etc. Due to lockdown, schools and colleges are also closed and this has impacted the school and academic routine of the students. Family domain seems to be the most affected one; how adolescents are spending time at home, with who do they spend their time, etc., which is significant to address. Parents are taking every step possible to help their children deal with the current situation, helping them manage their time from pleasurable indoor activities to academic assignments, etc., This stressful time calls for the need to divert our attention toward children and adolescents and how they are coping with COVID-19 lockdown.

Various researches have been done over the last few months on the impact of COVID-19, whether it is on physical health or mental, general public to special populations (health care workers), but none of the study focuses on the psychosocial impact of COVID-19 on adolescents. This study is the first of its kind, especially on the Indian population. The present study aims at assessing the personal, social, emotional, and family domains affected by COVID-19 lockdown among adolescents.

**MATERIALS AND METHODS**

**Sample**
A total of 223 adolescents responded through an online survey. Those meeting inclusion and exclusion criteria were taken for the study.

**Inclusion criteria**
Adolescents of 10–19 years of age, both genders, know English and with access of Internet along with written informed consent from the guardians of adolescents (through their e-mail ids) were included in the study.

**Exclusion criteria**
Adolescents not falling under the age range and not given written informed consent were excluded.

**Tool used**

**Self-prepared sociodemographic datasheet**
This self-prepared sociodemographic datasheet contained questions about age, gender, class, residence, family type, number of siblings, etc.

**Questionnaire on COVID-19 amid lockdown for adolescents**
A 40-item, self-prepared questionnaire was made to meet the purpose of the present study. The questionnaire is divided into four domains: personal/emotional domain, social domain, academic domain, and family domain. Questions are answered on a Likert-type scale: rated as 0 = not at all, 1 = little, 2 = moderately, 3 = mostly, and 4 = extremely. Minimum score is 0 on all domains. Few questions are based on the preference of adolescents and are not included in the scoring pattern as described below.

- Personal/emotional domain consists of 17 items, 1 item was of adolescent's preference. On personal domain, maximum score is 64, average at 12.8. Scores below average were considered as not facing any problem (<13), whereas scores above average were rated as mild (14–24), moderate (25–37), severe (38–50), and very severe (51–64).
- Social domain comprised seven items, with a maximum score of 28 and an average of 5.6. Scores below 6 were considered not facing any problem, whereas scores above 6 were rated as mild (7–13), moderate (14–20), and severe (21–28).
- Academic domain had two preference type items and seven Likert-type. The maximum score was 28 and average was taken as 5.6. Scoring was similar to that of social domain.
- Family domain encompasses seven items and one preference type. The maximum score was 24 and the average was set at 4.8. Scores below 5 were considered as not facing any problem, whereas scores 5 were rated as mild (6–12), moderate (13–18), and severe (19–24).

**Procedure**
The study was approved by the institutional ethical committee. With the help of Google Form link, an online survey was conducted which was circulated through different social medias – WhatsApp, E-mail, Instagram, Facebook, etc., The participants were given the option of “willingness to participate.” It took about 15–20 min to complete it. The responses were recorded from May 1, 2020 to June 30, 2020. A total of 223 responses were recorded, of which 8 were not falling under the age range, therefore, they were excluded. At the end of the questionnaire, authors’ e-mail id and phone numbers were mentioned to be used if they needed further assistance, such as telecounseling.
Statistical analysis
For statistical analysis, the percentage was calculated to see the effect of COVID-19 lockdown on different psychosocial domains of adolescent life.

RESULTS

Table 1 shows the sociodemographic details of all the respondents.

Table 2 shows the responses on personal/emotional domain impacted by COVID-19 lockdown.

Figure 1 shows the overall level of impairment on personal/emotional domain of adolescents.

Figure 2 shows the response on question, “with whom are you most angry with?”

Table 3 shows percentage of adolescent’s responses on social domain, affected by coronavirus lockdown.

Table 4 shows the academic domain reportedly impacted by COVID-19 nationwide lockdown.

Figure 4 shows the mild level of academic impairment (45%) due to lockdown. About 40% of adolescents showed a moderate level of impairment in their academics and its related concern. About 6% were found to have severe impairment, whereas 9% reported no impairment at all.

Figure 5 shows responses on the type of subject preferred by adolescents.

Table 5 shows responses on family domain that is affected by coronavirus.

Figure 6 shows that about 79% have mild impairment in their family lives, followed by 13% moderate level of impairment. Only 1% suffered severely due to lockdown.

Table 1: Sociodemographic details of the participants

| Variables               | Characteristics | Number of respondents (n=215), n (%) |
|-------------------------|-----------------|------------------------------------|
| Age (years)             |                 |                                    |
| 10-13                   |                 | 48 (22.32)                         |
| 14-16                   |                 | 77 (35.81)                         |
| 17-19                   |                 | 90 (41.87)                         |
| Sex                     |                 |                                    |
| Girls                   |                 | 127 (59.06)                        |
| Boys                    |                 | 88 (40.94)                         |
| Class                   |                 |                                    |
| Middle school           |                 | 45 (20.94)                         |
| High school             |                 | 72 (33.4)                          |
| Secondary school        |                 | 67 (31.16)                         |
| Graduation              |                 | 31 (14.41)                         |
| Residence               |                 |                                    |
| Rural                   |                 | 44 (20.5)                          |
| Semi urban              |                 | 40 (18.6)                          |
| Urban                   |                 | 131 (60.9)                         |
| Family type             |                 |                                    |
| Nuclear                 |                 | 136 (63.3)                         |
| Joint                   |                 | 75 (34.9)                          |
| Extended                |                 | 4 (1.9)                            |
| Number of family members|                 |                                    |
| 0-10                    |                 | 200 (93.02)                        |
| 11-20                   |                 | 11 (5.1)                           |
| 21-30                   |                 | 4 (1.88)                           |
| Number of siblings      |                 |                                    |
| 0-5                     |                 | 203 (94.41)                        |
| 6-10                    |                 | 11 (5.11)                          |
| 11-15                   |                 | 1 (0.48)                           |
| Ordinal position        |                 |                                    |
| Only child              |                 | 13 (6.04)                          |
| First                   |                 | 92 (42.5)                          |
| Second                  |                 | 54 (25.11)                         |
| Middle                  |                 | 21 (9.75)                          |
| Fourth                  |                 | 14 (6.52)                          |
| Fifth                   |                 | 15 (6.98)                          |
| Youngest                |                 | 5 (2.34)                           |
| Online teaching facilities|               |                                    |
| Android smart phone     |                 | 168 (78.1)                         |
| Laptops                 |                 | 39 (18.1)                          |
| Desktops                |                 | 4 (1.9)                            |
| Tablets                 |                 | 4 (1.9)                            |
Table 2: Percentage of adolescent’s responses on personal/emotional domain

| Question                                                                 | Not at all | Little | Moderately | Mostly | Extremely |
|-------------------------------------------------------------------------|------------|--------|------------|--------|-----------|
| Are you comfortable in the current lockdown situation?                  | 18.1       | 22.8   | 29.8       | 19.5   | 9.8       |
| Do you feel anxious in current lockdown situation?                      | 22.8       | 37.7   | 16.3       | 12.1   | 6.5       |
| Do you feel loneliness in current lockdown situation?                   | 40.5       | 31.6   | 11.2       | 10.2   | 6.5       |
| Do you feel changes in your sleeping pattern (too much/too little) in    | 20         | 30.7   | 13.5       | 19.1   | 16.7      |
| current lockdown situation?                                             |            |        |            |        |           |
| Do you feel significant increase/decrease in your appetite?             | 23.7       | 27.9   | 17.7       | 20     | 10.7      |
| Do you feel need for repeated medical check-ups without known medical   | 74         | 11.6   | 7.4        | 6      | 0.9       |
| cause (coughing, fever, breathlessness)?                                |            |        |            |        |           |
| Do you fear of infection (COVID-19)?                                    | 31.2       | 33     | 13         | 9.3    | 13.5      |
| Are you spending more time playing video games than before?             | 39.1       | 26     | 11.6       | 14     | 9.3       |
| Do you feel more irritable and angry than before in current situation?  | 34.4       | 29.8   | 14         | 14.9   | 7         |
| Do you feel isolated due to lockdown?                                   | 31.2       | 27.9   | 15.8       | 17.7   | 7.4       |
| Do you feel your hand washing habits have increased?                    | 4.2        | 17.2   | 13         | 37.7   | 27.9      |
| Do you have trouble concentrating?                                     | 32.1       | 30.2   | 17.7       | 13.5   | 6.5       |
| Do you feel fatigue or loss of energy most of the time?                 | 39.1       | 30.7   | 11.2       | 15.8   | 3.3       |
| Are you eagerly waiting for lockdown to end?                            | 5.6        | 12.1   | 14.9       | 24.2   | 43.3      |
| Do you feel that any type of substance reduce your tension?             | 92.6       | 3.3    | 1.9        | 1.4    | 0.9       |
| Do you feel you are losing your confidence?                             | 54.9       | 21.9   | 10.2       | 9.3    | 3.7       |

Table 3: Percentage of responses of adolescents on social domain

| Question                                                                 | Not at all | Little | Moderately | Mostly | Extremely |
|-------------------------------------------------------------------------|------------|--------|------------|--------|-----------|
| Are you feeling comfortable with social distancing?                      | 12.6       | 24.7   | 19.5       | 23.7   | 19.5      |
| Are you spending more time on social sites (FB, Twitter, Instagram, YouTube, News Paper, Channels, etc.) for getting update about the current situation? | 17.2       | 20     | 19.5       | 22.8   | 20.5      |
| Do you miss your friends?                                               | 7          | 10.7   | 11.6       | 22.3   | 48.4      |
| Are you bored due to restrictions to go out (playground)?               | 13         | 21.4   | 18.1       | 21.4   | 26        |
| Do you fear of losing your friends?                                     | 48.8       | 17.2   | 7.9        | 13.5   | 12.6      |
| Do you feel your self-esteem has reduced in current lockdown situation?  | 49.8       | 25.6   | 11.2       | 8.4    | 5.1       |
| Have you opened your account on YouTube, TikTok, Vigo, Likee, etc.       | 65.5       | 15.3   | 6.5        | 8.4    | 4.2       |

Table 4: The percentage of responses on academic domain

| Question                                                                 | Not at all | Little | Moderately | Mostly | Extremely |
|-------------------------------------------------------------------------|------------|--------|------------|--------|-----------|
| Are you making time for studies?                                        | 8.4        | 25.6   | 28.4       | 29.8   | 7.9       |
| Have you completed home assignments provided by school?                 | 33         | 16.7   | 17.2       | 36.3   | 16.7      |
| Do you miss going to school?                                            | 10.2       | 11.6   | 14         | 26     | 38.1      |
| Do you follow academic routine set by your parents during lockdown?     | 20.9       | 20.5   | 24.2       | 22.8   | 11.6      |
| Do you feel your academic performance will reduce after lockdown?       | 29.8       | 26     | 21.9       | 12.6   | 9.8       |
| Are you comfortable with online teaching?                               | 34.9       | 28.8   | 18.1       | 14     | 4.2       |
| Are your academic doubts being cleared from online teaching?           | 28.8       | 27.4   | 21.4       | 15.3   | 7         |

However, 7% of adolescents faced no problems in their family living.

Figure 7 shows adolescent’s response to the question, “with whom do you spend most of your time?”

**DISCUSSION**

The present study was undertaken when people were trying their best to cope with the most unforeseen situation of all time. The data were collected through Google Forms, from May 1, 2020 to June 30, 2020. Since more than a month to lockdown has taken place, it is bound to affect children and adolescents negatively. Hence, the current study was designed.

The obtained results indicate that the COVID-19 lockdown had a negative effect on the psychosocial well-being of adolescents. From the obtained results, it is obvious that mild form of psychosocial disturbance is found in all areas of well-being, followed by moderate levels as well. The personal/emotional domain shows that most adolescents feel anxious, irritable, and angry due to constantly being at home and not going anywhere [Table 2]. Around 28%
of these adolescents are found to be most angry with their siblings [Figure 2].

Since they are at home all the time, they take all the precautionary measures provided by the health agencies; they feel they do not require repeated medical checkups, are experiencing an increase in handwashing habits, and believe that use of any form of substance is not needed for reducing their anxiety, aggression, etc., Majority (43.3%) are eagerly waiting for the lockdown to end. Overall, 44% and 33% are mildly and moderately, respectively, affected by lockdown, while 16% seem to be doing perfectly fine [Figure 1]. Constant support of family members...
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Table 5: The percentage of responses on family domain

| Question                                                                 | Not at all | Little | Moderately | Mostly | Extremely |
|--------------------------------------------------------------------------|-----------|--------|------------|--------|----------|
| Do you enjoy with your family members in the current lockdown situation?  | 4.7       | 13     | 20         | 33.5   | 28.8     |
| Have you been spending time in helping your family in chores?             | 4.7       | 14.9   | 27.4       | 33.5   | 19.5     |
| Are you being forced to help at home?                                    | 51.6      | 25.1   | 7.9        | 10.2   | 5.1      |
| Do your parents argue more than usual?                                   | 46.5      | 30.2   | 12.6       | 6.5    | 4.2      |
| Have you witnessed domestic violence at home during lockdown?            | 74.9      | 33     | 3.7        | 4.7    | 3.7      |
| Do your siblings support you?                                            | 11.2      | 23.7   | 21.9       | 26     | 17.2     |

Figure 7: Responses to questions “With whom do you spend most of your time?”

Social life of adolescents mainly comprises their friend circle. Table 3 shows that even with this lockdown, the adolescents are making effort of being in touch with their friends through social media; do not fear of losing them despite of being bored. The thought that they would be influenced by different media platforms such as opening accounts on YouTube and TikTok. has been found quite low (65.5%; not at all). The mild and moderate levels of impairment [Figure 3] do explain that lockdown due to coronavirus has led to significant stress on social life of these adolescents. Similar results were found for academic domain [Table 4]; maximum of the population are facing difficulty in keeping up with their academic requirements and are unable to deal with online classes efficiently. They miss their school, day-to-day home assignments, etc., However, routine set-up by their parents proves to be beneficial for them [Figure 4], express that about 45% and 40% of adolescents suffer mildly and moderately, respectively, in their academic fields and are facing difficulty in tackling their doubts.

Family domain exclusively focused on how adolescents deal with their family dynamics, whether it is nuclear, joint, or extended family. Adolescents are happy in spending time at home, enjoying with their family members [Table 5], especially their siblings [Figure 7]. Amid lockdown, 57% suffered from mild form of impairment in their family life. On the other hand, 39% did not face any family problems. Throughout the study, it was noticed that all of these adolescents are locked in with their family members – from parents to grandparents as well as extended family. A high level of mild impairment indicates that family support is most important in times of crisis. This impairment could be attributed to spending most of their time in the same environment and following the same rules by force, creating pressure and stress among them.

Every child has different experiences to COVID-19 lockdown, depending on various contributing factors, such as their age, family type, and siblings. [Table 1]. Constant restrictions, being locked in the house, no sight of schools being opened, etc., may create a sense of anxiety and depression in them. Making an inquiry about these is essential for mental health professionals. Providing telecounseling seems to be only option for mental health professionals to be in touch with the psychologically suffering crowd. Various psychologists, special educators have come up with different strategies to help not only normal children but also help children with special needs.[7]

CONCLUSION

The current results indicate that the COVID-19 lockdown has led to the development of psychosocial disturbances in adolescents, though the majority have adjusted to the stressful event. The psychosocial impact on adolescents is especially on family and social domain. It is possible that this impact will be long lasting, leaving a significant mark on them. This requires an attempt from mental health professionals to take into consideration as to how they can contribute in handling the current situation and preparing children for uncertain lockdown.

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Conflicts of interest
There are no conflicts of interest.
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