

Lockdown: A focus on emotions and coping in adolescents

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ABSTRACT

Background: The COVID lockdown is a time of difficulty and stress for many adolescents as they have to cope with physical restrictions, disruption of routine academic activity and handle health concerns. This study was done to explore the psychological effects and coping strategies during lockdown in middle and late adolescents in India

Materials and Methods: socio demographic details and information regarding thoughts, emotions, physical problems, impact on mental health, and coping behaviors was obtained by use of an online questionnaire which was designed for the purpose. The cross-sectional survey method adopted was approved by the hospital ethics committee.

Results: Most of the participants were female and were mostly from Chennai and studying in school or college. Most participants described their emotions as happy. Many described an increase in social media and online game engagement. Lack of social connection was the most identified worry, followed by fear of infection and worries regarding postponed exams.

Conclusion: Social media use has shown a significant increase in the initial lockdown and long term effects of lockdown related behaviors on emotions, social connections, mental and physical health of adolescents needs to be studied.

Keywords: COVID-19, lockdown, coping, emotion, adolescents

Running title: Coping in adolescents during lockdown

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INTRODUCTION

The COVID lockdown has changed the lives of adolescents and young adults this year. The online class routine has become a way of life due to social distancing measures¹. The lack of social support has been an important factor that causes psychological distress amongst young people^{2,3}. The strict restrictions on outdoor physical activities such as games or sports and limited access to nature and access only to the virtual world have been a great deal of stress to children. A rise in domestic violence, an increase in gaming behavior, internet usage, excessive TV watching were observed amongst college students during the lockdown period⁴. Keeping all these developments in mind this pilot research was conceived to explore the psychological effects and coping strategies during lockdown in middle and late adolescents in India.

Aim & objectives

To study the psychological impact of lockdown in middle and late adolescents by evaluating the cognitions and coping behaviors of the study population.

MATERIALS AND METHODS

Procedure: This pilot study was approved by the Kauvery hospital ethics committee. An online survey was created with a 12-item semi-structured questionnaire on a secure platform compatible with survey studies. The questionnaire was reviewed by a panel of experts that included eminent psychiatrists, clinical psychologist, and psychiatric social workers. The survey link was

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distributed online through various platforms such as WhatsApp groups and Facebook pages to reach a wide variety of participants and was active from 1 pm on April 21, 2020 till 5 pm on April 29, 2020. The link directed individuals to the questionnaire where the nature of the study and method of consent was explained. Consent was indicated through the submission of their response. They were informed about the purpose of the study and that their responses are confidential.

Participants: Consenting English speaking middle & late adolescents aged (14 - 20years) as per WHO definition were included for the study⁵. The survey used convenient sampling, seeking responses only from this age group. A total of 507 responses were received and 461 respondents' data were used based on completed forms and those fulfilling eligibility criteria.

Measures: The first 6 questions of the survey were demographics followed by 6 questions addressing thoughts, emotions, physical problems, impact on mental health, and coping behaviors. Demographic questions obtained data regarding age, gender, education, place of stay, people they are staying with, and the number of days of social distancing. Dichotomous questions were asked, and responses were taken as 'Yes' or 'No' for the presence of coping behaviors, emotional impact, physical problems, negative cognitions, and impact on productivity. Time spent on each coping behavior was also probed on a 3-point scale (1 = less than 1 hr; 2 = 1 to 2 hrs; and 3 = more than 2 hrs.). Furthermore, levels of each emotion and physical problems were queried and answers were recorded on a 5-point Likert scale (1 = Not at all; 2 = Rarely; 3 = Sometimes; 4 = Often; and 5 = Always). Lastly, productivity, positive mental health impact, and negative mental health impact levels were obtained using a 10-point scale (1 = very less to 10 = very high).

Statistical Analysis: Statistical Package for the Social Sciences (SPSS) version 24 was used to conduct all quantitative analysis⁶. The collected raw data from 507 participants had to be prepared before the evaluation. First, the descriptive data were obtained for all variables to examine the nature of the missing data and outliers.

Some responses were removed if missing values were high. Outliers were insignificant, hence retained. After data preparation, a preliminary analysis was done to check if any confounding variables existed in the demographics and to find descriptive statistics of questions. Spearman's correlation tests were also performed.

RESULTS

Sociodemographic data

The responses from 461 subjects were garnered and descriptive and correlational analysis was done. The preliminary analysis of the socio-demographic items revealed that 85.0% of the participants were female were mostly from Chennai (87.6%) and remaining from other districts and states in India (12.4%). The ages 14 to 16yrs being salient (mean age - 15.91 yrs; SD - 1.908), the education level was correspondent of 9th grade (13.7%), 10th grade (31.5%), 11th grade (18.0%), and 12th grade (16.9%). The rest reported pursuing a degree or a professional course (19.7%). Almost all of them were staying with their family (98.3%) while the remaining were staying with relatives or friends.

Mood & Cognition

Happiness was reported by the majority of the study population (Table 1). The next most common emotion expressed was boredom. The study sample experienced a happy emotional state the most often, followed by boredom. Irritability, sadness, and anxiety were also noted in the sample. Cognitions were mainly anxious, related to uncertainty about the future, fear of direct exposure to the virus, and frustration because of exam postponement (Table 1). Furthermore, nearly 60 - 70 % acknowledged no significant impact on mental health or productivity or physical health due to lockdown. Correlation analysis (Table 2) indicated that productivity was significantly positively correlated with a happy or relaxed mood ($r = 0.248, p < 0.01$). The positive impact had a significant positive correlation with negative impact ($r = .457, p < 0.01$), i.e., positive impact scores increased with an increase in negative impact scores.

Table 1: Distribution of negative cognitions and emotions amongst study sample

Items	Frequency (%)
Cognitions	
a Fears of infection for yourself or a loved one	64.2
b Uncertainty about future	66.2
c Lack of in-person contact with classmates, friends, and peers	69.6
d Concern of postponed exams or other study-related work	63.8
e Lack of personal space at home	36
f Family financial loss	37.5
Emotions	
a Stressed/Frustrated/ Irritable / Angry	57.9
b Bored	82.2
c Anxious/ worried/ helpless	40.8
d Sad/low/lonely/hopeless	38
e Happy/ Relaxed/calm	85.7

Table 2: Correlational Statistics

	1	2	3	4	5	6	7	8	9	10	11
1	--										
2	-.037	--									
3	.127**	-.040	--								
4	.111*	.001	.457**	--							
5	.116*	-.035	.143**	.376**	--						
6	-.097*	-.065	.127**	.188**	.330**	--					
7	.118*	.012	.126**	.361**	.604**	.252**	--				
8	.108*	-.034	.146**	.417**	.662**	.278**	.629**	--			
9	-.047	.051	-.038	-.234**	-.392**	-.242**	-.339**	-.419**	--		
10	.082	.046	.169**	.257**	.359**	.190**	.380**	.307**	-.187**	--	
11	-.169**	-.062	-.009	-.136**	-.233**	-.177**	-.188**	-.132**	.248**	-.215**	--

* $p < 0.05$; ** $p < 0.01$

Note. 1 Age; 2 = Days of social distancing; 3 = Positive Impact; 4 = Negative Impact; 5 = Stress; 6 =Boredom; 7 = Anxious mood; 8 = Sadness; 9 = Happy/Relaxed; 10 = Physical Problems; 11 = productivity.

Table 3: Distribution of Coping Behaviors amongst study sample

Items	Frequency (%)
Exercising	70.9
Games	85
Social media	62
Communicating with friends/peers	93.9
Communicating with family /relatives	79.6
Spending time with your family	96.1
Studying	72.7
Other activities/ Hobbies	88.7
Sleeping more	73.3
Eating more	53.8
Disruption of daily activities through postponement	54.2
Family dispute	41.2
Self-injurious behaviors	7.6
Substance use	1.8

Coping Behaviors

Table 3 highlights the coping behaviors ranging from excessive social media (YouTube and Instagram) & phone use (mobile games), spending time with family, chatting with friends, and pursuing hobbies (such as listening to music and cooking). Online gaming, schoolwork, and excessive sleep also topped the list. The participants noted that the activities that they spent more time on (more than 2 hours in a day) were watching news/movies/series with family and playing mobile/online games.

Amongst the young adults, 70.1% acknowledged no significant impact on mental health while 29.1% mentioned having a significant impact. The impact on physical health was present for 37.7% and non-existent for 61.4% of the sample. No change in productivity was witnessed in 70.3% of the participants, and some difference in 28.2%. With regards to the rate of productivity (mean = 6.04, SD = 2.201), 46.1% contended to a high level of productivity (7 to 10), 41.5% were moderately productive (4 to 6), and 12.4% had low productivity (1 to 3). Productivity was positively correlated to 'happy/relaxed' mood ($r = 0.248$, $p < 0.01$).

DISCUSSION

These findings in young adults in the initial phase of lockdown are noteworthy. Happiness has been reported by the majority and concurs with the twitter study ⁷, and the major difference is that our study was done in the middle and late adolescent population. Despite the existence of fearful or worried cognitions, nearly 87.5%

of the participants experienced a happy or relaxed state of mind more frequently than any other emotion making it the most common mood amongst adolescents during the lockdown in comparison to boredom, stress, anxiety, and sadness. No school/exams or studying may have been a huge contributing factor to this happiness. A similar survey focusing on 13 and 14yr old children reported that they were much more relaxed after the lockdown ⁸. Lack of social connection was the most identified worry, followed by fear of infection and worries regarding postponed exams. This is understandable given the age of the sample studied and their need to be connected to their peers. Therefore, the perceived loss of social support when it is needed ⁹ may have produced results as in the present study. The presence of fear of infection is consistent with previous findings ^{10,11}. An unexpected phenomenon was unveiled in moods since the lockdown began. Studies have reported that a higher age group reported more stress, sadness, and anxiety scores, while in the younger ages' education caused an increase in boredom. Although the participants noticed changes in mood and thoughts, only 29.1% felt that their mental health was affected. The higher positive impact reported in our study could be explained based on the age of the individual and some studies state that the ability to regulate emotions improves with age, and older individuals retain more positive information than negative ¹². Children with comorbid psychopathology or emotional disorders are known to express unexplained physical distress ¹³. Our survey did not screen for any comorbid psychopathology and this could be explored in the future.

A news report described similar coping behaviors of children during the pandemic as found in our study and used subjective measures¹⁴. The positive outcomes of excessive social media use are seen and studies by Widnall et al.⁸ claim lower levels of anxiety amongst adolescents with increased social media use. The use of certain platforms such as YouTube plays a significant role in the outcome¹⁵ explaining exactly similar access to YouTube and other social media platforms' findings in this study. The amount of time spent playing online games also points towards social network seeking behavior¹⁶. Listening to music was the hobby that most adolescents spent time on, which is a factor assisting in emotion regulation¹⁷. The results show the trends of social media usage among adolescents during lockdown and its related social distancing measures.

Limitations

This study was an online survey during the pandemic so respondent responses may vary depending on the

timing and perceived stress related to lockdown. A face-to-face interview using a structured questionnaire with adolescents could have improved the fidelity of the study. This study is cross-sectional, and a prospective assessment over different timelines during the lockdown could have tested these associations more robustly.

Conclusions & Future Directions

This exploratory pilot Indian study is the largest known online survey to gauge mental health and coping behaviors during the lockdown in the adolescent population. A prospective longitudinal assessment can indicate if happiness remained as the most consistent finding in the majority of the individuals. Social media use has shown a significant increase in the initial lockdown and effects of both sanctioned internet use due to online schooling and excessive social media use longitudinally on the mental and physical health of adolescents will be beneficial.

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ANNEXURE: Survey Questionnaire

1.a. During the lockdown are you engaging in any Exercising (Yoga, walking, aerobics, dancing, weightlifting or any other forms)

7 Online games

8 Board games

9 Other games

If yes, how much time do you spend on this activity (Yoga, walking, aerobics, dancing, weightlifting or any other forms)

1.c. During the lockdown are you engaging in Browsing / blogging / making videos or other contents through social media

1.b. During the lockdown are you engaging in playing any Games

If yes, how much time do you spend on this activity – (Browsing / blogging / making videos or other contents through social media)

If yes, how much time do you spend on this activity (playing games)

1 Indoor games

1 Twitter

2 Outdoor games

2 Facebook

3 Group games

3 Instagram

4 Solitary games

4 Snapchat

5 Computer games

5 Tik-tok

6 Mobile games

6 YouTube

7 Others

1.d. During the lockdown are you communicating with friends and peers

If yes, how much time do you spend on this activity – (communicating with friends and peers)

- 1 Phone call
- 2 Video call
- 3 Chatting – social media (WhatsApp, google hangouts, skype etc.)

1.e. During the lockdown are you communicating with family (who do not live with you currently) and relatives

If yes, how much time do you spend on this activity – (communicating with family (who do not live with you currently) and relatives)

- 1 Phone call
- 2 Video call
- 3 Chatting – social media (WhatsApp, google hangouts, skype etc.)

1.f. During the lockdown are you spending time with your family

If yes, how much time do you spend with your family?

- 1 Watching news/ movies/ web-series
- 2 Playing board games/video games /online games
- 3 Doing/helping in household chores like cleaning/ de-cluttering etc
- 4 Talking or discussing about covid-19 or other matters
- 5 Others

1.g. During the lockdown are you studying

If yes, how much time do you spend on studying

- 1 Related to schoolwork
- 2 Not related to schoolwork

1.h. During the lockdown are you engaging in other activities

If yes, how much time do you spend engaging in other activities

- 1 Reading books

2 Listening to music

3 Cooking

4 Gardening

5 Taking up new hobby

6 Restarting old hobby

7 Others

2 Since the lockdown started, have you been thinking/ worried about any of the following issues

a Fears of infection for yourself or for loved one

b Uncertainty about future/ worried about future/ worried about when can you step-out from your home/ Prolonged duration of the lockdown

c Lack of in-person contact with classmates, friends, and peers (such as hanging out with them in school, public places, or partying with them)

d Concern of postponed exams or other study related work

e Lack of personal space at home

f Family financial loss

3 Since the lockdown started, have you been dealing with any of these feelings?

a Stressed/ Frustrated/ Irritable / Angry

If yes, (Stressed/ Frustrated/ Irritable / Angry) how often you feel this way:

b Bored

If yes, (Bored) how often you feel this way:

c Anxious/ worried/ helpless

If yes, (Anxious/ worried/ helpless) how often you feel this way

d Sad/low/lonely/hopeless

If yes, (Sad/low/lonely/hopeless), how often you feel this way

e Happy/ Relaxed/calm

If yes, (Happy/ Relaxed/calm) how often you feel this way

f Physical problems (such as tiredness, body aches, sleeplessness, decreased appetite, headaches,

pains or other issues)

If yes, (Physical problems) how often you feel this way

- 4 Have you been able to maintain a routine and be productive during the lock down?

If yes, on a scale of 1-10 rate your productivity level with 1 being very low and 10 being very high)

- 5 During the lock down have you been engaging in any of the following behaviours

- a Sleeping more
- b Sleeping less
- c Eating more

d Eating less

e Postponing activities or pending work

f Increased arguments/ fights with your parents or siblings

g Self-harm behaviours (Punching the wall, scratching self, etc)

h Drinking alcohol

i Smoking cigarettes

j Taking drugs

- 6 Has social distancing affected your Mental health?

a If yes, has it affected you Positively?

b If yes, has it affected you Negatively?