

Perceived-stress and Coping Strategies among School and College Students during COVID-19 Lockdown: A Cross Sectional-survey From Tamil Nadu

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ABSTRACT

During SARS Coronavirus disease (SARS COVID-19) lockdown, teaching and learning carried out through digital platforms. Students may experience fear of missing out on social life social isolation, feeling of uncertainty about their future, boredom and lack of academic performance. So, this study aimed to know how perceived-stress and coping strategies impact student mental health during COVID-19 lockdown in Tamil Nadu. In addition, this study attempts to find out the association between perceived stress and coping strategies. In total, 102 students (12-19 Years) participants selected from educational institutes across the various districts in Tamil Nadu. An online survey was conducted by using Non-probability convenience sampling technique method. Participants were invited to fill out the Google forms of socio-demographic form, Perceived Stress Scale (PSS) and Brief Coping inventory questionnaires. SPSS version 22 used to find out the association between perceived stress and coping strategies of school and college going students. Overall mean of PSS was 2.23 and high perceived stress was reported in college going students (2.36). The overall coping strategy mean was 4.79 and high coping mechanisms was found in college going students. School students PSS score (mean: 2.07) was not associate with coping strategies (mean: 4.61) and College students PSS score (Mean: 2.36) was significantly associate with coping strategies (4.93) at 0.05 level. The finding of the study was college students had more perceived stress and coping approaches compare to school students. So, the author recommends that the educational institutions can develop innovative teaching pedagogy and career development programme for Virtual teaching.

Keywords: COVID-19 lockdown, Perceived-Stress, Coping strategies, Pandemic, Students

The SARS- CoV-19 (Sudden Acute Respiratory Syndrome COVID-19) is a virus that can affect the upper respiratory tract. In 2019, COVID-19 influenced China and it is feast unpredictably and quickly all over the globe. So, The World Health Organization (2020) declared Novel Corona Virus Disease (COVID-19) as a lockdown and this infectious virus spreads through droplets from one person to another person”.

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Healthcare professionals of WHO repeated that to take instant actions and scales up response to treat, detect and reduce the spread to save people (WHO, 2020) After a sudden global increase in the number of infected persons, various strict measures were taken by countries to control its spread; a nationwide “lockdown” was one such step. Because of the uncertainty situation COVID-19 is considered as a lockdown. Due to COVID-19 lockdown with high mortality and morbidity effected the psycho-social, financial, and administrative aspects of the residents across the world (WHO, 2020a-6). First COVID-19 case was diagnosed in India on 30th January 2020 and Indian government implemented lockdown with strict precautions on 25th March 2020 in an attempt to control the spread (Majurndar, Biswas & Sahu, 2020). Under the nationwide COVID-19 lockdown, all places of communal gatherings such as eateries, theatres, schools, shopping complexes, educational institutions were closed. Workers and students were inquired to work from home-based to avoid crowding. Since of the instability circumstance people were asked to stay safe at home and avoid social contact (Angeline, Nanthini and Rathnasabapathy, 2020).

The lockdown is not only causing morbidity and mortality in around the world, it is also imposing emotional and psychological consequences on every individual (Duan & Zhu, 2020).

Due to confinements of development and social contacts within the basic circumstance like COVID-19 episode, everybody life has changed. Especially, the closure of the educational institutions leads to an unprecedeted impact on education. Understanding the seriousness of the lockdown, teaching and learning activities moving towards to full Virtual learning or e-learning platform which is an alternate to traditional ‘face-to-face’ classroom in all educational institutions worldwide. During a sudden unprecedeted event, students leave their campus, friends, familiar routines and also facing uncertainty about their future may leads to affect their mental health.

Youngminds (2020) shows that there are 83% youngster's feels existent emotional wellness conditions deteriorated as the consequence of postponement on instructive exercises alongside lack of standard and restricted communal correspondence. During lockdown students face many negative psychological consequences of physical and psychological well-being like isolation, future uncertainty and separation from loved ones which is affect human psyche (Huremovic, 2019). Additionally, the duration of long isolation was significantly related with poorer mental health particularly, the symptoms of post-traumatic, hostile and avoidance behavior. Moreover, several studies are indicated that, more than 10days in quarantine have a high risk factor of post-traumatic stress symptoms than who quarantined in less than 10 days. (Brooks et al. 2020). Further studies have focused that health workers, patients and athletics mental health during COVID-19 lockdown (Uroh,C.C, & Adewunmi,C.M. 2020, Lai.J et al 2020). Contact with others positively associate quality of life (Wirkus,L & Stasiak.K 2018). Lack of contact with friends, episodic loneliness, gaps in institutional support, slow progress and uncertainty about future may lead to psychological consequences (Cohen,J & Kupferschmidt, K. 2020. Guio et al, 2018).

COVID-19 lockdown has changed the functioning of educational institutions like schools and colleges in worldwide. In India, the rapid transfer to virtual teaching and learning radically transformed student's routine life. According to Arenliu & Berxulli (2020), during COVID-19 lockdown 49.4 % students had psychological distress and 11.4% students in severe condition in the sample size of 158 students in Kosova. Undoubtedly, stress is a part

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of student's lives and its effect their coping mechanisms (Pariat, 2014). Student's mental health problems have been increased in the COVID-19 lockdown (Son et al, 2020). Since, extended break from educational activities and learning at home makes a student's psychologically imbalanced. Additionally, home confinement, educational disruptions and technical glitches during virtual classes also impact student's psychological well-being. So, this study was to explore the stress and coping strategies among school and college going students during COVID-19 lockdown.

METHODOLOGY

Objectives

- To measure the level of stress among school and college students during COVID-19 lockdown in Tamil Nadu.
- To assess the coping strategies among the school and college students during COVID-19 lockdown in Tamil Nadu.
- To associate the socio-demographic findings with the measure of perceived stress and coping strategies among school and college students during COVID-19 lockdown.

Sample

The collecting data for investigation were obtained using cross-sectional study, which was circulated during COVID-19 Lockdown in Tamil Nadu. The research was conducted using online questionnaire consisting of 3 sections, Socio-demographic, Perceived stress scale and coping strategies. A total of 102 students completed the survey and majority of the sample were females (68.7%). The sample consisted of 56.7% Undergraduate students and 43.3% students are school students. Participants had to be aged at least 12-19 years and understand English well is the inclusion criteria and students who did not meet these criteria were excluded.

Inclusion criteria

- Willingness of participate in the study
- The age range between 12-19 years.
- Participant should understand English.

Exclusion criteria

- Students who did not match the criteria were not allowed to participate.
- Participants residing in other state than Tamil Nadu were not included in the study.

Domain of the study

The survey accomplished by the participants from 4th June to 26th June, 2021 by using convenience sampling method. Information on basic demographic data with informed consent form and questionnaire were circulated the Google forms through platforms like WhatsApp, Facebook and email. As a result, total of 102 students (12-19 years) were responded from various districts in Tamil Nadu. After getting consent form from the participants their identity and information were kept confidential.

Demographics details of participants

The socio-demographic data of the participants was obtained through open ended questions involving their age, gender, educational level and name of the district. There were more female students (68.7%) than male students (31.3%) participated in the study.

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- Perceived - Stress Scale (PSS):** The Perceived Stress Scale is consisted of ten item (six negatively stated and four positively stated) likert scale (Cohen, Kamarck, and Mermelstein, 1983; Cohen and Williamson, 1988). This scale has been used to assess the current situation of stressful events. The PSS Questions about thoughts and feelings during last month. Items 4, 5, 7 and 8 are reverse scoring. The overall score of the PSS-10 score ranges from 0 to 40 with higher scores indicating higher levels of perceived stress. Validity of cronbach's alpha and co-efficient of internal consistency is 0.85.
- Brief-COPC Strategy Scale (2020):** The 28 item Brief-Cope is self-report questionnaires and it is measure the level of coping stressful events in effective and ineffective ways. Respondent items on 4 point likert- scale from “1- I haven't been doing this at all” to “4- I've been doing this a lot”. Coping means an ability to face the stressful situation in effective way. It is categorized as avoidant and approach coping. Avoidant coping means it is characterized by maladjustment, self-distraction, blaming etc. Approach coping categorized by helping responses to adversity, physical health and emotional response.

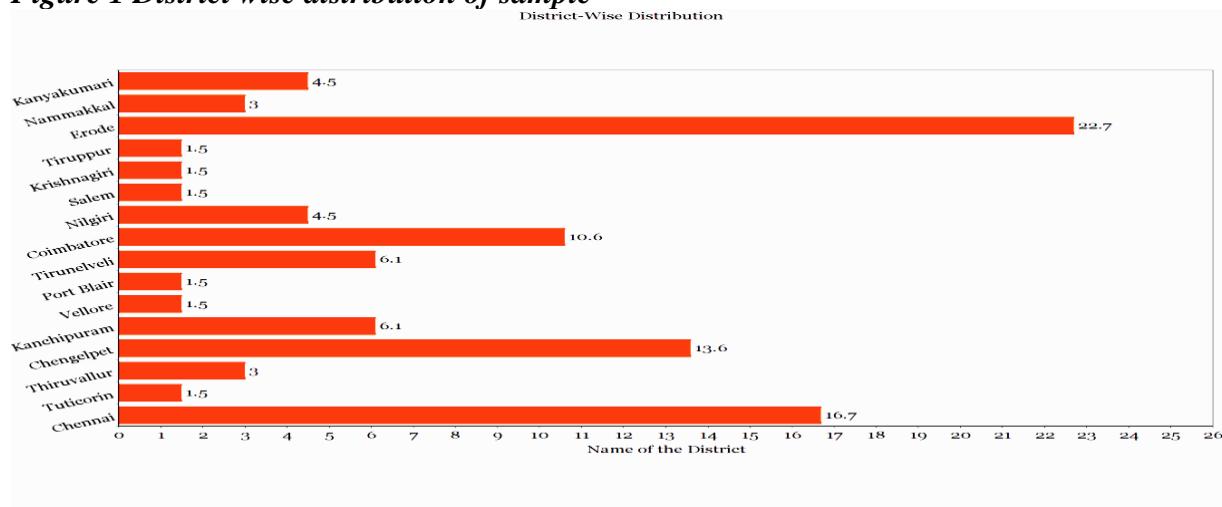
RESULTS AND DISCUSSION

Table 1 Socio-demographic characteristics of the sample

Variables	Participants (N= 102)
Age (years), mean (SD)	2.32 (0.636)
Gender, n (%)	
Female	69.7%
Male	30.3%
Education Level, n (%)	
Secondary School	4.5%
Higher Secondary school	37.9%
Undergraduate	57.6%

Socio-demographic variables are described in Table 1. Most of the participants are female (69.7%) and Male (30.3%). Educational levels were categorized as secondary school (4.5%), higher secondary school (37.9%) and Undergraduate students (57.6%).

Figure 1 District wise distribution of sample



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Figure 1 indicates the responses received by district-wise distribution in which maximum responses received from Erode district (22.7%) in the total number of sample 102 participants.

Table 2 Mean and Standard deviation of Perceived Stress Scale among school and college students

		Mean	Standard Deviation	t value
Perceived stress scale	School students	2.07	0.63	34.14
	College students	2.36	0.41	

The mean value of perceived stress scale of college students clearly indicates that compare to school students college students have more stress during lockdown. Because of uncertainty of the future, not meeting friends, missing their education environment makes the college students have more stress than school students. Majority of participants reported regarding academic performance and class workload have increased during lockdown.

Table 3 Mean and Standard deviation of Coping Strategy among school and college students

		Mean	SD	t value
Coping Strategy	School students	4.61	0.93	43.316
	College students	4.93	0.86	

College students have more coping strategies compare to school students. Coping behaviour of the students increased during lockdown. Furthermore, a school student does not have the ability to face the lockdown consequences because of the level of maturity.

Table 4 Correlation between Perceived stress scale and coping strategy among college students

		PSS College Mean	BC College Mean
PSS College Mean	Pearson Correlation	1	.373*
	Sig. (2-tailed)		.021
BC College Mean	Pearson Correlation	.373*	1
	Sig. (2-tailed)	.021	

*Correlation is significant at the 0.05 level (2-tailed).

Table 5 shows that there is a significant relationship between perceived stress and coping strategy among college students. If the stress level increases coping strategies also increases among college students.

During the lockdown everyone plans about future is dropped and unpredictable. Particularly, students will have an influence of COVID-19 lockdown related transitions on the psychological health (Flesia et al., 2020). The finding of the research indicated that, college students stress level is increased and coping strategies also increased as per previous studies also proved (Denovan et al, 2017). When the participants face stressful problematic situation the coping mechanism will be increase (Martínez et al., 2020). Overall the study highlighted that, the importance of coping strategies increased when the participants facing high

stressful problematic situation during COVID-19 lockdown. Furthermore, compare to school students college students have high level of stress and coping mechanisms during lockdown. According to United Nations Children's Emergency Fund (UNICEF), universally one in each seven children, or 332 million, has lived beneath a lockdown for at slightest nine months, making them helpless to psychological wellbeing. Indian students are no exception. Lack of routine engagement and institutional support, academic workload, separation from classmates, no physical activities, changes in eating and sleeping habits, fear of contagion, and social-media addiction are the factors may increase the students stress level. The results revealed that college students had more perceived stress than school students. Similar studies also supported the results (Deka.K.(2021, Yang.C, Chen.A., & Chen.Y (2021).

CONCLUSION

Human behavior is directly related to their mood. Sudden changes in regular activities may leads to behavior changes. This study indicates that, students are the vulnerable population at high risk of mental health during COVID-19 lockdown. Because mental health is the main factor that affect the student concentrations, academic performance, motivation, self-esteem and social interactions. These are the crucial factors that considered to the path to succeed in higher education. The study found that compare to school students, college students has more stress and coping strategies during COVID-19 lockdown. Without their social group college students experience a kind of separation from their in-group. College is not only providing educating material but also providing opportunity to interact with teachers and their peer group who will give an emotional support.

Implications

It is true that all research work has its importance and utilities. Still, due to some constraints like limited time and resources some of the limitations of the present study are as follows:

1. The cross-sectional nature of this study limited the ability to make a causal conclusion.
2. The data gathering procedures used in this study, as well as the students self-reported opinions affect the tendency to interpret their emotions in certain manner.
3. Convenience sampling using an online platform, limit the generalisability of the findings.

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Conflict of Interest

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