

## A Gendered Perspective on Stress and Coping among College and University Students During a Pandemic

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### ABSTRACT

The stress levels and coping strategies of Indian college students during the Covid-19 pandemic was studied using a quantitative approach. This descriptive study, involving a sample of 414 students (200 females and 214 males), revealed that female students experienced higher perceived stress than male students. No significant differences were found between the coping strategies employed by either gender. However, both genders relied more on dysfunctional and emotional coping strategies. The high percentage of stress levels in female students could be attributed to the gender-specific roles prevalent in India. There has also been an escalation in dysfunctional coping strategies like substance abuse which calls for urgent psychological intervention.

**Keywords:** Gender, Perceived Stress, Coping, Covid-19, Pandemic

The Coronavirus pandemic resulted in cataclysmic ramifications on Indian society and its members. Students remain one of the most profoundly affected populations in the country (Dorn et al., 2021). Covid-19 had prompted the closure of about 993 universities and 40,000 colleges, with students being asked to go home and measures being taken to move classes online (Sundar, 2021). These measures were likely to have varying degrees of impact on as many as 37.4 million college and university students (Ministry of Commerce & Industry, 2021). The primary source of these disturbances could be academic stress, decreased motivation and, increasing risk of school dropout, often leading to psychological problems such as anxiety and depression (Pascoe et al., 2020; Bhujade, 2017). It is also reported that four out of five students had to make substantial life changes to accommodate the pandemic situation (Dartlet, 2020). In addition, despite being digital natives, students were not wholly comfortable with an exclusively online learning medium (Muthuprasad, 2021). In a developing country like India, such problems are likely to be magnified manifoldly with insufficient funds and internet connectivity challenges (Gond & Gupta, 2017).

While the reasons may vary, stress is a common reaction during these kinds of times. With its serious implications on mental and physical health (Schneiderman et al., 2005; American

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Psychological Association, 2018), stress is increasing since the emergence of the pandemic (Vinkers et.al., 2020). Our youth, due to various reasons, are particularly vulnerable to its detrimental effects. There is an immediate need to look into the level of stress experienced by our youth, especially the youth in the institutes of higher education. For instance, it has been found that there is a high prevalence of mental health issues among our youth. It is reported that two-thirds of all lifetime mental illnesses begin before 24 years (Kessler et.al., 2007). The suicide rate also remains high among our youth, with a disturbing 43<sup>rd</sup> rank amongst other countries. (Radhakrishnan & Andrade, 2012). In addition, there are reports that the mental health of students in higher education is worse than their out-of-college counterparts even before the emergence of the pandemic (Pedrelli et al., 2015).

Along with understanding the experiences of stress among our college youth, it is important to see what role gender plays in its experience when we consider that gender plays an important role in stress and coping (American Psychological Association, 2012). While studies provide mixed results on gender differences in stress, most studies report that women experience more stress than men (Thawabien & Qausy, 2012; Sarafino, 2002; Hogan et al., 2002). Along with stress, understanding how people cope with the same is also important. Similar to the experience of stress, it seems that there are gender differences in how people cope with stressful experiences (Sinha and G S, 2018; Madhyastha, et.al., 2014). Thus, the present study aimed to understand the level of stress and coping among college students from West Bengal during the Covid pandemic. Specifically, the study aimed at comparing male and female college students on perceived stress and coping strategies.

### ***Hypotheses of the Present Study***

- Male and female college and university students do not differ significantly in their levels of perceived stress.
- Male and female college and university students do not differ significantly in their usage of different coping strategies.
- There is a significant relationship between perceived stress levels and coping strategies adopted by college and university students.

## **METHODOLOGY**

### ***Participants***

The sample for the present study consisted of students pursuing their undergraduate or postgraduate education from universities located in and around Kolkata. 414 students—within the age group of 19-24 years—were recruited from three different streams of education, viz. science, commerce, and humanities. Participants were recruited using purposive snowball sampling method, during the coronavirus pandemic.

### ***Design***

A within-subjects design was used for this descriptive study. The independent variable was the Covid-19 pandemic and the dependent variables were perceived levels of stress and coping strategies.

### ***Inclusion criteria:***

- 19-24 years of age.
- Undergraduate & Postgraduate students from universities.
- Students from Science, Commerce and Humanities streams.

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- Students from all socio-economic strata.
- Students from Kolkata and its outlying districts.
- Only those students who were willing to participate were included in the sample.

### *Exclusion criteria:*

- Students pursuing distance learning courses.

### *Measures*

Online Questionnaire comprising 3 sections,

- 1. General Information Questionnaire:** After taking the informed consent of the participants, they were asked to fill the general information questionnaire. The questionnaire consists of 4 items, namely, age, gender, level of education and stream of studies to collect the demographic information regarding the participants.
- 2. Perceived Stress Scale (PSS-10):** This is a previously validated 10-item scale, developed by Sheldon Cohen (1994) as a self-report questionnaire. Item responses are based on the respondents' thoughts or feelings about each item in the past one month. The responses are taken on a 5-point Likert scale. Psychometric properties of the PSS-10 as verified by Lee (2012) in 12 studies, revealed Cronbach's alpha at  $>.70$ .
- 3. Brief Coping Inventory:** This is a self-report questionnaire designed to measure coping techniques across 14 different subscales: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioral disengagement, Venting, Positive reframing, Planning, Humor, Acceptance, Religion, & Self-blame. It is a 28-item shortened form of the COPE inventory. The Brief COPE consists of the following The Brief-COPE's original report by Carver (1997) indicated acceptable internal consistencies ranging from 0.5 to 0.9.

### *Procedure*

Participants meeting the inclusion criteria were selected using the purposive snowball sampling method. A self-administered questionnaire comprising three sections: General Information Questionnaire, PSS-10 and Brief COPE inventory was utilized for the data collection. Data was collected from 414 University students of Kolkata during the ongoing COVID-19 pandemic. The collected data was anonymized before further analysis and used only for the purposes of research.

### *Statistical analysis of data*

After collection, the data were tabulated across different age levels, genders, and levels of education of the respondents. Testing for normality of the distribution was done, that is, measures of skewness and kurtosis were taken. Goodness of Fit of the demographic variables was tested using the Chi-Square Test to determine consistency of sample data across the hypothesized distribution. Descriptive statistics like percentage, mean and standard deviations were computed. Thereafter, Pearson product moment correlation was applied to test the relationship amongst perceived levels of stress and coping strategies adopted by students. T test (for independent samples) was applied to test whether there could be gender difference on the basis of Perceived Stress levels and coping strategies respectively. IBM SPSS 26 was used to process the data.

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**RESULTS**

*Table 01: Frequency of demographic data of the sample in terms of age (in years), gender, level of education and stream of study.*

Criteria	Categories	Number of cases	Frequency (%) (n=414)
Age (in years)	19	43	10.39%
	20	45	10.87%
	21	72	17.4%
	22	93	22.5%
	23	71	17.15%
	24	90	21.74%
Gender	Female	200	48.31%
	Male	214	51.7%
Level of Education	Under Graduation	216	52.17%
	Post-Graduation	198	47.83%
Stream of Study	Art/Humanities	114	27.54%
	Commerce	95	22.95%
	Science	205	49.28%

Table 01 depicts the typical characteristics of the different categories of the sample population in numerical and percent format. The table dissects the sample into relevant groups that were further used for analysis in the present study.

*Table 02: Difference between the Means and Standard Deviations of Perceived levels of Stress*

Stress Levels	Gender	Number	Mean	Std. Deviation	t-value	Significance
	Male	214	20.67	6.15	3.17*	P<0.01
	Female	200	22.53	5.75		

\*Correlation is significant at the 0.01 level (2-tailed)

Table 02 displays the different mean and standard deviation of perceived levels of stress amongst the two genders. The mean scores of both the genders was compared using an Independent samples t-test. It was found that perceived stress levels of female students were significantly higher in comparison to that of male students. More specifically, on average, female students scored higher (M=22.53, SD=5.75) than males (M=20.67, SD=6.15).

*Table 03: Difference between the Means and Standard Deviations of different Coping Strategies*

Coping Technique	Gender	Mean	Standard Deviation	T-value	Significance
Problem Focused Coping	Male	15.224	3.641	-.127*	*Difference insignificant
	Female	15.275	3.908		
Emotion Focused Coping	Male	23.668	4.683	-.311*	
	Female	23.835	4.827		
Dysfunctional Coping	Male	24.743	6.374	.996*	
	Female	24.18	5.422		

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Table 03 highlights the difference between the means and standard deviations of different coping strategies amongst the two genders. The above table displays the results of the independent samples t-test according to Carver's (1989) categorization of the coping strategies. Hence, through the analysis it was found that there was no significant difference in the coping strategies employed by students of either gender.

**Figure 01: Difference in the coping strategies employed by male or female students**

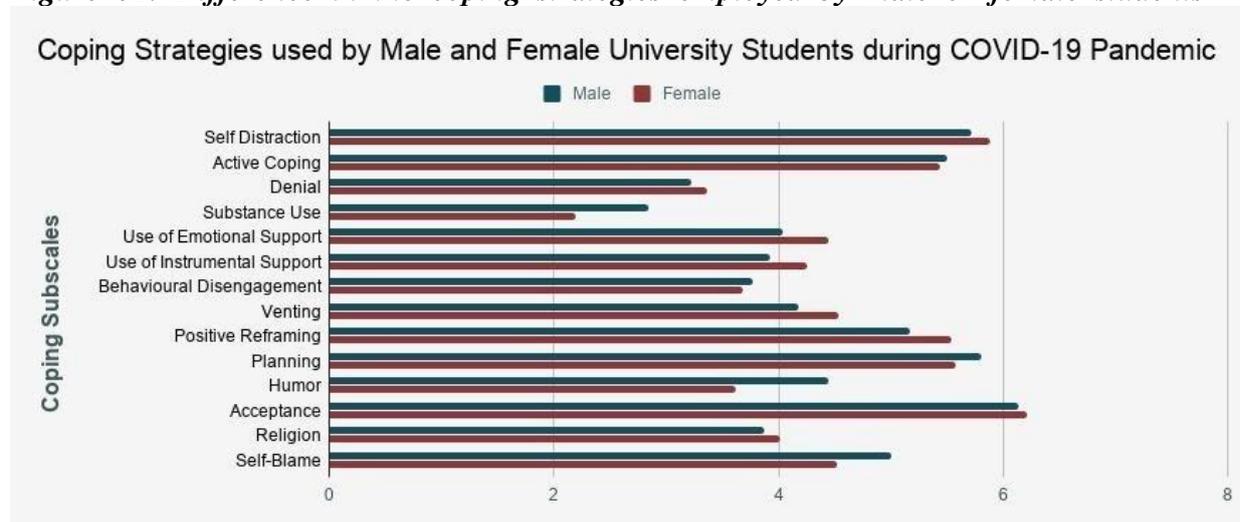


Figure 01 depicts the differences in coping strategies used by male and female students, calculated in percentage and displayed graphically. The findings indicated a slight non-statistical difference between coping strategies and mean scores of males and females. Therefore, there is no significant difference in mean scores of males and females in the three broad categories of coping strategies, as given by Carver (1989).

**Table 04: Relationship between Perceived Stress and Coping Strategies**

		<b>Problem Focused Coping Strategy</b>	<b>Emotion Focused Coping Strategy</b>	<b>Dysfunctional Coping Strategy</b>
Stress	Pearson Correlation	-0.79	-.231**	.544**
	Significant	Not	P<0.01	P<0.01
	N	414	414	414

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 04 shows the correlation between different categories of coping strategies and stress levels of the students. The correlation for the data revealed a significant positive relationship between perceived stress level and emotion focused and dysfunctional coping strategies,  $r = -0.231$  and  $.544$ ,  $n=414$ ,  $p<0.01$ , two tails respectively.

## DISCUSSION

The ongoing novel coronavirus pandemic has had far reaching impacts on the lives of students in India. Lee J. (2020) explained the consequences of COVID 19 pandemic on students in his survey comprising 2111 participants up to age 25 years with a mental illness history in the UK. While 83% said the pandemic had worsened their condition, 26% said

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they were unable to access mental health support due to the suspension of face-to-face services and peer support groups. Many reported that they were not fully comfortable with seeking support online. The present study disclosed that the pandemic continues to be a devastating problem affecting students' mental health and well-being, and that there are significant differences in the perceived stress levels of male and female students.

From the results, it was found that female students perceived significantly higher levels of stress than male students. Although some studies have found that women have lower levels of perceived stress compared to men and consequently display more optimism than men (Sitz and Poche, 2006; Shaikh et al., 2004), a vast majority of previous literature suggests that female students generally report greater levels of perceived stress than their male peers (Abdulghani, Sattar, Ahmad and Akram, 2020; Anbumalar, Dorathy, Jaswanti, Priya, & Reniangelin, 2017). This may be attributed to the fact that women report higher levels of chronic and daily stressors than men (Hogan et.al., 2002; Tamres, Janicki & Helgeson, 2002). Additionally, women face an added number of burdens in daily life as a direct result of their social status and roles relative to men, and these strains can lead to higher stress levels (Nolen-Hoeksema, 1990). A further explanation for the current findings could be that female students are more likely to feel additional stress associated with body image issues, eating disorders and general feelings of low self-esteem (Cohn & Zeichner, 2006; Jakupak et al., 2002). Thus, Hypothesis 1 stating "Male and female college and university students do not differ significantly in their levels of perceived stress" is rejected.

Findings regarding gender and coping strategies revealed no significant differences in the coping strategies used by male and female students during the pandemic. This is consistent with earlier studies done by Donaldson et al., (2002), which found no significant interaction between gender and coping strategies. Another study by Felsten (1998) too reported that no gender disparities were found to be associated with stress and coping for problem-solving or social support seeking. Additionally, Rosario et al. (1988), revealed that, with the exception of women using more social support-seeking, men and women showed no differences in the ways they coped with similar role stressors. Conversely, however, a study by Hampel and Petermann (2006) found that not only did adolescent females show higher levels of perceived interpersonal stress—a trend that seems to continue into adulthood—but they also used more support seeking behavior during stressful social encounters. Hence, Hypothesis 2 which states that "Male and female college and university students do not differ significantly in their usage of different coping strategies" is accepted.

It was revealed, however, that overall, there has been a rise in dysfunctional coping (such as substance abuse) and emotion-focused coping strategies. Previous research in this field suggests that individuals resort to dysfunctional coping strategies when faced with a situation that seems to be out of their control. Given the unprecedented scale of the current pandemic, this is a likely explanation for the rise in the dysfunctional coping among the participants. Gould et al. (2013), in their study revealed that using dysfunctional coping strategies had a significant correlation with a decreased sense of personal accomplishment, higher levels of emotional exhaustion and a greater sense of depersonalization. In another study by (Wang et al., 2007), it was found that the stressful life events are significantly correlated with emotion-focused coping since they are negatively coded. This might be another plausible explanation for the rise in emotion-focused coping among university students. Coping styles like avoidant emotional coping can be significant predictors of complicated grief and severity of Post-Traumatic Stress Disorder (Schnider, Elhai and Gray,

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2007). Additionally, it has been found that persons with a collectivistic orientation tend to utilize more passive or avoidance coping since they have an inclination to view stressors as a threat as opposed to persons with an individualistic orientation who perceive stressors as a challenge (Chun, Moos and Cronkite, 2006). Thus, Hypothesis 3 stating that "There is a significant relationship between perceived stress levels and coping strategies adopted by college and university students" is accepted.

### *Limitations of Present Study*

As found out in the present study, heightened stress levels might encourage students to resort to harmful coping mechanisms that adversely affect their health and academic performance. However, since the perceived stress and coping strategies were measured during the pandemic, it cannot be ascertained whether there was any significant rise or fall in the stress levels from before the pandemic. A longitudinal study might be useful in further exploring this area. Additionally, a response bias might exist considering that self-reported data was used for the study.

### *Directions for Future Research*

We hope that the current findings can be used as a reference for future decision-making and policy making with regard to mental health of students in our country. As found in the present study women experienced significantly more stress, it seems necessary to recognize the reasons behind the same.

## CONCLUSION

The Covid-19 Pandemic has had widespread and long-term consequences on the lives of students in higher education institutions. It significantly increased the stress levels among students in India—with alarming consequences. The present research exposes the grave effect of the pandemic on the students' mental health and psychosocial functioning. This research also adds to the existing and ongoing differences versus similarities debate by highlighting the psychological differences between men and women in perceiving stress. Through this research, we encourage establishing a pedagogical approach that is more friendly and focused towards the psychosocial well-being of students in our country, with special emphasis to the needs of each gender.

The advancement of the world and the enhancement of materialism leads to various mental health problems. Thus, it is essential to focus on positive attributes that develop spirituality and promotes well-being.

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### **Conflict of Interest**

The authors declared no conflict of interest.

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