

# Covid-19 Pandemic Related Perceived Stress and Coronavirus Anxiety Levels Among the Students of North East India: A Statistical Analysis

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**Abstract** - The purpose of the study is to find out the level of Covid-19 Pandemic Related Perceived Stress and Coronavirus Anxiety level among Higher Secondary School, Graduate and Post Graduate students of North East India during the 2<sup>nd</sup> wave of the Covid-19 pandemic, 124 students from North-East participated in the study 52 Males and 72 Females, Pandemic –Related Perceived Stress Scale and Coronavirus Anxiety Scales were used to assess the students, the scales were disseminated randomly where online tools such as Google forms was utilized through the internet. As the data acquired did not follow normal distribution Non-parametric tests were used on the data acquired, surprisingly results showed that Pandemic related perceived stress and Coronavirus Anxiety is very low among students of North East, and significant differences between males and females students did not exist.

**Key Words:** Covid-19, Students, North-East India, Pandemic Stress, Statistics,

## 1.INTRODUCTION

North-East India is the easternmost place in India, It includes the states of Arunachal Pradesh, Assam, Mizoram, Manipur, Meghalaya, Nagaland, Tripura, and Sikkim It is also often called by the inhabitants as the “Seven Sisters or Eight Sisters” sometimes excluding Sikkim from it, the region shares an international border with China in the North, Myanmar in the East, Bangladesh in the South West, Nepal and Bhutan in the West, it is a dynamic place with diverse and rich cultures. (North Eastern Council 2012)

As the 2<sup>nd</sup> wave of the Covid-19 pandemic hits India, North East India has also been dealt the full brunt of it, as it is less developed in terms of medical facilities, personnel, transportation infrastructure and communication facilities as compared to Central India, Covid-19 had caused havoc in the region, during the peak of the 2<sup>nd</sup> wave Tripura, Manipur, Meghalaya, Manipur, Nagaland and Sikkim all saw a death rate of 1% and higher (Economic Times May 29, 2021), and in some places of the North East such as Sikkim ,Meghalaya Manipur and Tripura it was even higher than the National average death rate of 1.14%, as of 23<sup>rd</sup> September 2021 total death toll in North East stands at 10,774 as shown by Government of India website , “mygov.in/covid-19”.

## 2.RATIONALE OF THE STUDY

As mentioned above the 2<sup>nd</sup> wave of the Coronavirus pandemic caused havoc in all states of North East India and the one group that is highly impacted is the students, as they had to shift all classes through online mode and as News outlets and Social medias constantly showed the damage caused by Covid-19 during the peak and as most business from top to bottom, street vendors to super markets had taken an economical hit which directly impacts the income and financial situation of many students, it was of utmost importance to look into the levels of Covid-19 pandemic stress and Coronavirus Anxiety among High School, Higher Secondary School, Graduate and Post Graduate students of North East India during the 2<sup>nd</sup> wave of the Covid-19 pandemic.

## 3.OBJECTIVES OF THE STUDY

- 1.To find out the Pandemic-Related Perceived Stress among the students of North East India
- 2.To find out the Coronavirus Anxiety level among students of North East India
- 3.To find out if significant differences between males and females is present among the students of North East India
- 4.To find out if significant correlation is present between Pandemic-Related Perceived Stress and Coronavirus Anxiety

## 4.HYPOTHESIS

- 1.The Pandemic-Related Perceived Stress level amongst the students of North East India will be high
2. The coronavirus anxiety level amongst the student of North East India will be high
3. Significant differences between males and females will be present where females will have significantly higher scores in pandemic stress level and coronavirus anxiety level.
4. High correlation between pandemic stress levels and coronavirus anxiety will be present.

### 5.METHODOLOGY OF THE STUDY

Quantitative research methods were utilized where objective measurements was done and the statistical data were collected through questionnaires, and analysed through computational techniques.

### 6.SAMPLE OF THE STUDY

124 students in total, 39 Higher Secondary School, 57 Graduate and 28 Post Graduate students from North-East participated in the study 52 Males and 72 Females, the questionnaire was disseminated online/internet using Google Forms and students from North East participated randomly in the study, stratified random sampling method was used.

### 7.TOOLS USED

1. Coronavirus Anxiety Scale (CAS) a brief mental health screener to identify probable cases of dysfunctional anxiety associated with the COVID-19 crisis developed by Sherman A Lee

2. Pandemic-Related Perceived Stress Scale of COVID-19 developed by Adalberto Campo-Arias et al, assess the mental stress level related to the Covid-19 pandemic.

### 8.STATISTICAL TREATMENT OF DATA

As the data acquired did not follow normal distribution Non-parametric test such as Mann Whitney U was used to find out the differences between the two groups of males and females and Spearman’s correlation was also used to find out the correlation between the two variables of Pandemic-Related Perceived Stress and Coronavirus Anxiety Scale, descriptive statistics and group statistics was also acquired to find out the scores or levels.

### 9.ANALYSIS AND INTERPRETATION

The findings of the present study and their interpretations are presented in the following in accordance with the objectives.

**Objective 1 and 2:** To find out the Pandemic-Related Perceived Stress level and Coronavirus Anxiety level among the students of North East India

The overall Pandemic-Related Perceived Stress level and Coronavirus Anxiety level among the students of North East India is presented in Table-1

**Table-1:** Descriptive Statistics

	N	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Pandemic-Related Perceived Stress Total	127	3.0	29.0	15.929	.4709
Coronavirus Anxiety Total	127	.0	15.0	1.472	.2573
Valid N (listwise)	127				

Table-1 revealed that the Pandemic-Related Perceived Stress level and Coronavirus Anxiety level is surprisingly low with an average of 15.92 from a possible total of 40 in Pandemic-Related Perceived Stress level and only 1.47 in Coronavirus Anxiety level from a possible total of 20, therefore hypothesis 1 and 2 is rejected.

**Table-2:** Group Statistics of students in terms of gender, male and female in Pandemic-Related Perceived Stress level.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Pandemic-Related Perceived Stress Total	Male	52	16.192	5.3027	.7354
	Female	72	15.694	5.3488	.6304

**Table 3:** Group Statistics of students in terms of gender, male and female in Coronavirus Anxiety level.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Coronavirus Anxiety Total	Male	52	1.481	2.8110	.3898
	Female	72	1.236	2.6082	.3074

**Table 2 and 3** revealed males and females also possess low Pandemic Related Perceived Stress level and Coronavirus Anxiety level

**Objective 3:** To find out if significant differences between males and females is present among the students of North East India

**Table-4 and 5:** The difference between males and females in the variables of Pandemic-Related Perceived Stress levels and Coronavirus Anxiety level assessed through Mann Whitney U test is presented.

**Table 4**

	Pandemic-Related Perceived Stress	Coronavirus Anxiety
Mann-Whitney U	1773.000	1868.000
Wilcoxon W	4401.000	4496.000
Z	-.502	-.023
Asymp. Sig. (2-tailed)	.615	.982

a. Grouping Variable: Gender

**Table 5**

	Gender	N	Mean Rank	Sum of Ranks
Pandemic-Related Perceived Stress	Male	52	64.40	3349.00
	Female	72	61.13	4401.00
	Total	124		
Coronavirus Anxiety	Male	52	62.58	3254.00
	Female	72	62.44	4496.00
	Total	124		

**Table-4 and 5** shows the Mann Whitney U test results which tells us that no significant differences are present in terms of gender, male and female at .05 level of confidence, therefore we reject Hypothesis 3.

**Objective 4:** To find out if significant correlation is present between Pandemic-Related Perceived Stress and Coronavirus Anxiety.

**Table-6:** The correlation between pandemic related perceived stress and coronavirus anxiety.

			Pandemic-Related Perceived Stress	Coronavirus Anxiety
Spearman's rho	Pandemic-Related Perceived Stress	Correlation Coefficient	1.000	.349**
		Sig. (2-tailed)	.	.000
		N	127	127
Coronavirus Anxiety	Coronavirus Anxiety	Correlation Coefficient	.349**	1.000
		Sig. (2-tailed)	.000	.
		N	127	127

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

**Table 6** shows low significant positive correlation .349\*\*, which means that the relationship between pandemic related perceived stress and coronavirus anxiety do exist, but it's quite low, therefore we reject hypothesis 4 which assumes high correlation between pandemic stress levels and coronavirus anxiety to be present.

**10. MAJOR FINDINGS**

From the present study, it has been found that Pandemic-Related Perceived Stress and Coronavirus Anxiety is quite low among the students of North East India during the peak of the 2<sup>nd</sup> wave, these could be due to many factors, one reason could be the fact that the younger population do not suffer as much or not as vulnerable as compared to individuals who are

much older or who had pre-existing medical conditions (Bhopal S, et al, 2021), knowledge or education of such facts among the younger population might cause a sense of invincibility from the disease and lower stress and anxiety related to the disease.

Another factor could be the cultural landscape or diversity of North East India , North East India is made up of many tribal communities and ethnicity, which tends to be more collective in nature, The eight sister states of North East India which consists of Nagaland, Manipur, Assam, Meghalaya, Tripura, Arunachal Pradesh, Mizoram and Sikkim have been sharing a kind of bond of being different from the rest of India in terms of their culture, language, food, lifestyle and education and the societies present in North East India seems to be more collective than other parts of India, several studies have shown that collectivist cultures tend to fare much better in Covid-19 response than individualistic cultures, collectivism also positively predicts mask usage during the COVID-19 pandemic (Lu J et al, 2021), Individualism was positively correlated with COVID-19 prevalence, case fatality rates; whereas measures of collectivism were negatively correlated with these parameters mentioned as well. ( Rajkumar, R.et al 2021). Another factor could be simple ignorance to the dangers of Covid-19 and the tremendous havoc that it can cause to the body and mental health of an individual, as some parts of North East India still lack communication infrastructure and education level is still quite low (Babar A , 2019).

**11. CONCLUSIONS**

The present study tried to find out the pandemic related stress level and coronavirus anxiety among the students of North East India, 124 students 52 Males and 72 Females, participated in the study and were assessed using the Pandemic Related Perceived Stress Scale and Coronavirus Anxiety Scale , student's class or education ranged from Higher Secondary School, Graduate and Post Graduate standard , results revealed that Pandemic Related Perceived Stress and Coronavirus Anxiety is quite low among the students of North East India during the peak of the 2<sup>nd</sup> wave, which is a surprising outcome, as covid-19 caused major disruption to everyday life especially to students, results also showed no significant differences between males and females, results also showed low positive significant relationship between pandemic related stress level and coronavirus anxiety.

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## BIOGRAPHIES



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