

Stress and Anxiety among the Tribal Undergraduate Students of Odisha during Covid-19 Pandemic

Nilamani Maharana¹, Dr. Rupashree Goswami^{2*}

ABSTRACT

The COVID-19 outbreak, which happened at the end of 2019 had a severe impact on people. While much has been made of the massive physical destruction it has caused, but the psychological impact should not be underestimated. The main purpose of this study is to explore the stress and anxiety level of tribal Undergraduate college students of Odisha during the covid-19 pandemic. We conducted an online as well as offline questionnaire survey of tribal undergraduate students by using the "Covid-19 Student Stress Questionnaire" (CSSQ) and the "Anxiety Questionnaire" (AQ). The data were collected by using some social media apps such as; WhatsApp and messenger and some data were collected using paper and pen. The present study was conducted on a sample of 204 (N=204) tribal undergraduate students of Odisha, where male members are 54 % (N=110) and female members are 46 % (N=94). The mean age of the students is 20.17. The data were also collected data from three streams such as; Arts (N=80), Science (N=67), and commerce (N=57). The data were gathered through a stratified random sampling method. Here we will apply different statistical tests such as descriptive and inferential statistics to find out the result by using the recent version of SPSS software. According to the previous literature, the covid-19 stress is significantly correlated to anxiety. Males and Females did not differ significantly in stress and anxiety. To validate this study, the major findings will be examined in terms of gender and stream of the tribal undergraduate students of Odisha in this covid-19 pandemic. Mental health specialists may be able to help the policymakers and other authorities in overcoming the psychological concerns associated with Covid-19.

Keywords: Covid-19, Stress, Anxiety, Tribal Undergraduate students, pandemic

The continuous outbreak of a respiratory ailment dubbed Corona virus Disease 2019 is the most recent threat to global health (Covid-19). In December 2019, Covid-19 was recognised (Fauci, et.al. 2020). The current SARSCoV2 (corona virus illness 2019; formerly 2019nCoV) outbreak, which began in Hubei Province of the People's Republic of China, has spread to many other nations (Velavan & Meyer, 2020). Viruses are constantly evolving, and this may result in the emergence of a new variant or strain, of the virus. Scientists all over the world are tracking changes in the virus that causes COVID-19. Their

¹Ph.D Scholar, G.M. University, Sambalpur, India

²Assistant Professor, G M University, Sambalpur, India

*Corresponding Author

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findings are assisting the researchers in determining if some COVID-19 variants spread more quickly than others, how they influence our health, and how effective different vaccines are made against them. The World Health Organization proclaimed the Corona virus Disease 2019 (COVID-19) to be extreme health, economic, and social emergency in March 2020 (World Health Organization, 2020). The World Health Organization (WHO) declared COVID-19; a pandemic as the confirmed cases approach 200 000 patients, with over 8000 deaths expected in over 160 countries (Spinelli, & Pellino, 2020). On January 30, 2020; the first COVID-19 positive case was announced in India (Kerala). India is currently experiencing an explosive surge in COVID-19 cases. India had 37, 1363 active cases; 34,371,845 recovered cases and 48, 3178 death cases and 1,49,66,81,156 vaccinated as of January 07, 2022 (MoHFW, 2022). The Indian government in collaboration with state governments, has launched many efforts to combat the disease's spread. Several variants of corona virus have been identified such as the Delta variant (B.1.617.2), which is the most dreaded variant (Hendaus, & Jomha, 2021) and recently, a new variant is found namely 'Omicron'. The 'Omicron variant' is linked to a significant propensity to resist the prior infection immunity (Pulliam et.al, 2021). When an infected person coughs, sneezes, speaks, sings, or breathes, the virus spreads in microscopic liquid particles from his/her mouth or nose. The majority of those infected with the virus will have mild to moderate respiratory symptoms and will recover without the need for medical attention. Some, on the other hand, became critically unwell and required medical assistance. Serious sickness is more likely to strike the elderly persons and those underlying some medical disorders such as cardiovascular disease, diabetes, chronic respiratory disease, or cancer. COVID-19 can make anyone sick and cause him or her to get very ill or die at any age. Being thoroughly informed about the disease and how it spreads; is the best strategy to avoid and slow down the transmission. So, people should stay at least 1 metre away from others, wear a well-fitted mask, and wash hands or use an alcohol-based rub periodically to protect themselves and others from infection and it is important to get vaccinated when the time comes.

In India, there are 437 tribes, and 62 of them are from Odisha. According to the 2011 Census, Odisha's tribal population is estimated to be nine million people. This accounts for 22.19 per cent of the state's total population (Odisha's total population is predicted to be 41,947,358). Both integration and exclusion from the country's prevailing development paradigm have caused challenges for the tribal people. According to the Merriam-Webster dictionary, in their revised version (March 7, 2022) Tribal means; "a social group composed chiefly of numerous families, clans, or generations having a shared ancestry and language". We have found that 62 scheduled tribes in Odisha speak as many as 74 dialects. The Tribes of Odisha have a diverse ethos, ideologies, worldviews, value orientations, and cultural heritages. Nomadic food gatherers and hunters are on one end of the scale, while experts settled the agriculturists and horticulturists on the other end. As a result, the tribal areas of Odisha offer a socioeconomic landscape that is exceedingly diversified.

In many aspects of life, today's college students are under a lot of stress and anxiety (Dunkel-Schetter & Lobel, 1990). Stress occurs, when a person's obligations exceed his available resources. When stress is severe and prolonged, it can affect the academic performance, a student's capacity to participate in and contribute to campus life, and the likelihood of substance addiction and other potentially dangerous activities (Richlin-Klonsky & Hoe, 2003). The research shows that the Covid-19 issue has a significant influence on mental health, including stress and anxiety (Wang, et.al 2020).

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Due to the outbreak of COVID-19, educational institutions were forced to close, causing an unparalleled impact on education. Teachers are instructed to use online learning platforms to teach during the lockdown period (Abidah et al. 2020). Such learning platforms are Google meet, zoom, Cisco WebEx etc. Through online lectures, teleconferencing, digital open books, online examinations, and interactivity in virtual worlds, COVID-19 caused a digital revolution in higher education (Strielkowski, 2020). Poor and disenfranchised students were frequently discriminated against the online teaching-learning process (Kapasia et al, 2020). The closure of educational institutions during the lockdown period affected the education system and the teaching-learning process. In this crisis period, it is critical to understand the teaching-learning process to design effective interventions for the smooth operation of teaching and learning (India Today, 2020). The tribal students faced many problems in the covid-19 situation such as internet connectivity, poor communication, and unavailability of Smartphone etc.

It is a well-known reality that stress has spread its wings over all aspects of human existence, one of which is education (Kaiser, et al 1982). Stress and anxiety are becoming more common and more likely to develop among undergraduate students transitioning from high school to university (Nurmina, N., et al, 2021). Since the onset of the COVID-19 pandemic, there has been an increase in mental health disorders among the general public and health care providers (Wright, et.al, 2021). During this pandemic, students from rural places and marginalised groups faced great hurdles in their studies. The poor students have been experiencing melancholy and anxiety, as well as bad internet connectivity and an unfavourable study environment at home (Nanigopal, et.al, 2020). According to a recent study, Covid-19 has resulted in a significant increase in the prevalence of anxiety and depression among ordinary Chinese adults (Li, J., Yang, 2020). Due to the abrupt change in learning style, the tribal students who have recently returned to school have experienced stress and anxiety. As a result, the government's education department, colleges, and universities should pay close attention to the psychological state of college students during the pandemic and take appropriate steps to assist them.

At present, while there are many studies held on the mental health of college students during the covid-19 pandemic, some significant investigations have been done on the stress and anxiety of college-going students (Singh et.al, 2020). During the Covid-19 pandemic, we found fewer studies on tribal students in India, so we were interested to study in this context. In this study, a cross-sectional survey was conducted to explore the psychological stress and anxiety among the tribal undergraduate students, to facilitate the provision by the education department, colleges and universities for more accurate psychological intervention.

The objective of the present study is; to determine the stress and anxiety among tribal undergraduate students of Odisha during the covid-19 pandemic.

Hypotheses

Numerous studies have shown that the students' stress and anxiety symptoms may negatively affect their mental health as well as their physical health (Son, C., et.al 2020; Kretchy I.A., et.al, 2014). It is found that many studies have been conducted on students' stress and anxiety in this current scenario (Husky, M. M., et.al, 2020; Lee, A. M., et.al., 2007; Bakioğlu, F., et.al., 2021). However, no studies have explored that stress and anxiety affect the tribal student during this Covid-19 pandemic. As we know, Odisha is a tribal-prone state so the researcher is interested to conduct this study. Therefore, the present study is guided by the following research hypotheses.

Many researchers have found that the public's mental health was harmed during the COVID-19 pandemic all over the world (Ahmad et al., 2020; Hamouche, 2020; Roy et al., 2020; Y. Wang et al., 2020b; C. Wang et al., 2020a; Wang & Zhao, 2020; Zhang & Ma, 2020). C. Wang et al. (2020a) discovered moderate to severe anxiety, depression, and stress levels in the general population, particularly among females, students, and those with poor self-rated health status or underlying physical illness. Some research found that gender and its association with covid-19 pandemic (Lawal, A.M., et.al 2022; Shikima et. al,2022). Nevertheless, no research has been conducted on the gender of stress and anxiety among tribal undergraduate students during the Covid-19 epidemic. Hence, we proposed hypothesis 'H1'.

H1: Gender significantly influences the stress among tribal undergraduate students during the covid-19 pandemic.

Numerous studies have found that anxiety is the most common reaction to the covid-19 pandemic (Nakhostin-Ansari A et.al, 2020; Liyanage, S., et.al 2021; Savitsky. B., et.al, 2020). In the early phases of the covid-19 pandemic in Poland, a repeated cross-sectional survey was conducted to examine university students' stress, depression, anxiety, and suicidality (Debowska. A., et.al.,2020), But no research found that the anxiety-related tribal undergraduate students and its relation to gender during the pandemic. Hence, the following hypothesis (H2) is proposed.

H2: The anxiety among tribal undergraduate students is significantly influenced by gender during the covid-19 pandemic.

In a study, college students' stress and health during the covid-19 pandemic are affected by academic workload, separation from school and fears of contagion (Yang. C, et.al, 2021). Many studies found that medical students' mental health effects by anxiety (Abdulghani, H. M., et.al, 2020; Jennings, M. L. 2009; Greenberg N., et.al, 2020). Again, we also did not find any research relating stream with stress and tribal undergraduate students during covid-19 pandemics, hence we purposed the following hypothesis H3.

H3: The stream significantly influences the stress among tribal undergraduate students during the covid-19 pandemic.

In a study, anxiety affects demographic factors among Kenyan high school students (Osborn, T.L., 2020), We also found that numerous studies relating to anxiety and different type of students such as medical, engineering, etc. (McNeil, D.W, et al.2000; Nakhostin-Ansari, A, et.al.,2020). An empirical study found that general anxiety affects school-going tribal students in Tripura (Saha, H. (2015). For that reason, the following hypothesis H4 we proposed.

H4: The anxiety among tribal undergraduate students is significantly influenced by the stream during the covid-19 pandemic.

Stress and anxiety are positively correlated during covid-19 pandemics (Mosheva, M., et.al, 2020; Khademian, F., et.al, 2021; Radwan, E., 2021). We know that technology was a coping tool during the covid-19 pandemic (Garfin., D.R, 2020). Constant stress become the new normal of the current scenario (Hoyt, L.T. et.al 2021) Much research conducted relating to stress and anxiety (Misra, R 2000; Zhan et.al. 2021). But less research was found about stress and anxiety (Sharma, V.K, 2021) concerning tribal undergraduate students in the context of Odisha. Hence, the following Hypothesis (H5) is proposed.

H5: There is no significant relationship between stress and anxiety among the tribal undergraduate students.

METHODS AND MATERIALS

Participants and Procedure

In this study, the data were collected from an online survey among the undergraduate tribal students of Odisha, India. The data were collected by online as well as offline mode. The online data were collected via 'WhatsApp', 'Messenger' and 'Gmail' by using Google Forms and offline data were collected by pen and paper. All incoming students received an e-mail and WhatsApp message inviting them to take part in the online survey during the 2020-21 and 2021-22 academic years. Before beginning the survey, participants were described regarding the study and their consent were obtained. We have selected this study only as a sample here for the tribal undergraduate students of Odisha. The major part of the data collected in this study was from the Kalinga Institute of Social Sciences (KISS), Bhubaneswar and which is a tribal Deemed to be a University. In addition, the data were collected from other tribal areas of Odisha. The present study was conducted on a sample of 204 (N=204) tribal undergraduate students of Odisha.

Instruments

- 1. COVID-19 Student Stress Questionnaire:** Originally, the Covid-19 student Stress Questionnaire was developed by Maria Clelia Zurlo, Maria Francesca Cattaneo Della Volta and Federica Vallone in the year 2020. During the COVID-19 pandemic lockdown, the COVID-19 Student Stress Questionnaire (CSSQ) was created specifically to measure University students' perceived stress. It consists of seven items on a five-point Likert scale ranging from zero (not at all stressful) to four (Extremely stressful). Each item was created to address various domains that could have been affected by the COVID-19 pandemic lockdown and as a result, could have been perceived as the sources of stress (e.g., risk of contagion; social isolation; relationships with relatives; relationships with colleagues; relationships with professors; academic studying; couple's relationship, intimacy, and sexual life). The scale assigns a score to Global Stress that ranges from 0 to 28.
- 2. Test Anxiety Questionnaire:** Nist and Diehl developed the 'Test Anxiety Questionnaire' in the year 1990. This is a short questionnaire for determining if students experience a mild or severe case of test anxiety. The scale consists of 10 questions related to anxiety. The Test Anxiety Questionnaire consists of a five-point Likert scale ranging from one to five. One is indicated 'Never' and five is indicated 'Always'. The overall scores will range from 10 to 50. A low score (10 to 20) indicates low anxiety. A score of 20 to 35 indicates while we have certain test anxiety characteristics, our level of stress and tension is generally healthy. Scores above 35 indicate that we are suffering from an abnormal level of test anxiety. In this way, we should assess the cause of the distress and identify the strategies for compensation.

RESULTS AND DISCUSSION

The major goal of this study was to determine the level of stress and anxiety experienced by tribal undergraduate students of Odisha during the Covid-19 outbreak. To find out the result we have taken the help of SPSS. We statistically analysed the data by finding out Mean, SD, 't-Test, One-way ANOVA and correlation. The results are given below. Microsoft Excel was used to enter and code the data collected from both online and offline surveys. The Scores obtained through the administration of the questionnaires were subjected to statistical analysis such as descriptive and inferential statistics with the help of IBM SPSS-20.

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Table No: 01- Mean age, Total Number (N) of students and SD of the sample.

Mean age	N	Std. Deviation
20.17	204	1.659

The table No. 01 shows the mean age, total number of sample and standard deviation. The mean age of the undergraduate tribal students is 20.17, the total number of sample is 204 and the standard deviation is 1.659.

Table No: 02 Gender and Stream cross-tabulation of Tribal Undergraduate students of Odisha.

GENDER * STREAM CROSS-TABULATION						
			STREAM			Total
			ARTS	SCIENCE	COMMERECE	
GENDER	Male	Count	40	37	33	110
		% of Total	19.6%	18.1%	16.2%	53.9%
	Female	Count	40	30	24	94
		% of Total	19.6%	14.7%	11.8%	46.1%
Total		Count	80	67	57	204
		% of Total	39.2%	32.8%	27.9%	100.0%

Table No.2 shows the gender and stream in a cross-tabulation format. The gender is related to male and female whereas the stream is related to three types such as 'Arts', 'Science', and 'Commerce' respectively. Where the male is 110 which is 53.9 %, Female is 94 which is 46.1%. In-stream; 39.2% is arts (80), 32.8% in science (67) and commerce (57) is 27.9 %. Finally, the following bar diagram represents the pictorial format of the sample.

Figure: 1 The bar diagram show that mean of stream and gender

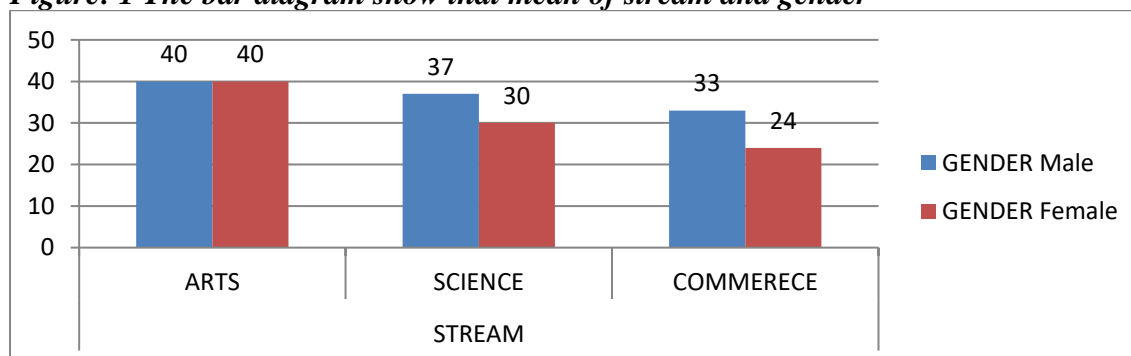


Table No: 03 Mean, SD, t value, df, Significance, and Std Error of Mean value of Covid stress among the Undergraduate students of Male and female.

Variable	Gender	Mean	SD	t	df	Sig. (2-Tailed)	Std Error Of Mean
COVID STRESS	Male	13.79	6.501	4.287	202	.000	.620
	Female	17.6	5.978				

It can be seen in the above table that, the covid-19 stress affects both gender that is male and female. Here the value of 't' is 4.287 with the df 202. The result is significant in 2-tailed. The critical value of t (202) at $\alpha=.05$ is 1.645. The obtained value of 't'= 4.287 is higher than the critical value. The mean of male (13.79) and female (17.6) differ significantly. Here the

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covid stress is high in female tribal students than the male. Hence, the H1 was accepted. Here we have found that the covid 19 stress had a great impact on the mental health of tribal undergraduate students and they are worried about their future.

Table No: 04: Mean, SD, t value, df, Significance, and Std Error of Mean value of Anxiety among the Undergraduate students of Male and female.

Variable	GENDER	N	Mean	SD	t	df	Sig. (2-Tailed)	Std Error of Mean
Anxiety	Male	110	25.16	7.961	1.034	202	.302	.758
	Female	94	26.55	11.162				

Here, the table-4 shows that the anxiety affects both male and female tribal under graduate students. Here, the t value is 1.034 with the degree of freedom 202. The result is significant in two tailed and not significant in 1-tailed test. The critical value of t (202) at $\alpha=.05$ is 1.645. The obtained value of 't' is 1.034, Somehow the obtained value is less than the critical value. Here, we have found that the Anxiety level less affects the tribal undergraduate students. Here, the mean value of anxiety is higher in the female group than in the male group.

Table No: 05 ANOVA Value of Stream and Covid-19 Stress among the Undergraduate tribal students.

Source	Sum of Squares	df	Mean Square	F	Sig.
Between groups	399.835	2	199.918	4.870	.009
Within Groups	8250.988	201	41.050		
Total	8650.824	203			

Table-5 shows that the values of sum of squares, df, mean square and the F ratio, which reveal a significant difference in covid-19 stress among the tribal under graduate students. For that reason, the covid-19 was affecting the mental health of tribal pupils as well as people around the world. Therefore, the hypothesis “The stream significantly influences the stress among tribal undergraduate students during covid-19 pandemic” was accepted.

Table No: 06 ANOVA values of Stream and Anxiety among the tribal undergraduate students

Source	Sum of Squares	df	Mean Square	F	Sig.
Between groups	70.974	2	35.487	.385	.681
Within Groups	18505.183	201	92.066		
Total	18576.157	203			

Table-6 shows the value of sum of square, df, mean square and F ratio of the stream and anxiety level among the tribal undergraduate students. The table shows that there is a significant difference among three streams of the tribal undergraduate students at 0.01 levels. Therefore, the hypothesis “The anxiety among tribal undergraduate students is significantly influenced by stream during covid-19 pandemic” was accepted. Here we found that the anxiety level of the tribal students is high in the covid-19 scenario.

Table No: 07 Correlation between Covid-19 stress and Anxiety

Variables	'r' Value
Covid-19 Stress and Anxiety	.477**
** Correlation is significant at the 0.01 level (2-tailed).	

The table 07 shows the 'r' value. There is a positive correlation between covid-19 stress and anxiety among the tribal undergraduate students of Odisha. Here we found that the covid-19 affects the stress and anxiety. The 'r' value is .477 that is positive correlation. The table also represents the significant relationship at the 0.01 level. Therefore, the hypothesis "There is no significant relationship between stress and anxiety among the tribal undergraduate students" was rejected at 0.05 levels.

CONCLUSION

This work is the first systematic review on the dominance of stress and anxiety in the general population following the COVID-19 pandemic. This study has followed the appropriate methods of primary data analysis for examining the stress and anxiety among the tribal undergraduate students of Odisha during the COVID-19 pandemic. The articles used in this study were all cross-sectional. According to our analysis, the prevalence of stress and anxiety because of the pandemic in tribal undergraduate students, the correlation is positive and the result is .477.

While one of the survey's main goals was to narrow down the potential correlates of stress and anxiety, all of the potential sources of concern mentioned in the survey had a substantial positive link with stress and anxiety levels. In this context, the students focused on their academic performance, stress on success, postgraduate planning, sleep quality, financial thoughts, relationships with friends, relationships with family, overall health, body image and self-esteem. While stress and anxiety scores were compared to the gender and the streams of Odisha's tribal undergraduate students. Stress and anxiety were positively correlated. The result reveals that Covid-19 stress and anxiety are significantly correlated. Across cultures, the students report significant levels of academic-related stress and anxiety, according to the present narrative review. The result also additionally reveals that the covid-19 stress and anxiety are high in female tribal undergraduate students. These students should also be encouraged to cope with their stress and anxiety.

COVID-19's fast proliferation has caused anxiety in people throughout the world, leading to mental health problems in individuals. Stereotyping and prejudice have resulted because of this (Lima et.al. 2019). Evidence suggests that the individuals may experience the symptoms of psychosis, anxiety, trauma, suicidal thoughts, and panic attack (WHO, 2020). Covid-19 has also been proven to improve the mental health outcomes such as anxiety, sadness, and post-traumatic stress symptoms in recent researches (Ahmed et.al.2020).

The study's most important conclusion is that the tribal undergraduate students in Odisha had high levels of anxiety and stress during the COVID-19 pandemic, and they require help and guidance to effectively handle the stress and anxiety in uncommon situations. We may also conclude that if tribal students worry too much about their health, the level of stress may increase, which may be an additional source of anxiety. College and university tribal students can choose some of the recommended strategies to improve their skills to cope with stress and anxiety during the pandemic.

Limitations

The research has some limits, even though despite the fact that it has made significant contributions and can be used by the government and other organisations to combat the negative psychological consequences of the Covid-19 pandemic. First, the sample size in some tribal groups was tiny, which is one of its weaknesses. Second, the researcher used online Google forms to collect data, which made it harder for a larger group of tribal students to participate, including those without access to the internet or a reliable network, especially those who come from less affluent backgrounds.

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Conflict of Interest

There are no conflicts of interest that we are aware of it.

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