Research Paper

A Correlational Study on Resilience and Emotional State of College Students During Covid-19 in West Bengal, India

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Abstract:
The coronavirus pandemic has significantly changed everyday life for people across the country, including 320 million students in India who have been directly affected. This present study attempts to gain insights on the fact that, how the levels of emotional state (depression, anxiety, and stress) affect the resilience ability of an individual and how it is associated with gender differences. Accordingly, a group of 476 (241 Female; 235 Male) individuals was selected as samples in this investigation through the purposive sampling technique. RS-25 and DASS-21 were used as tools. Quantitative analyses were done viz. Pearson product-moment correlation coefficient and Independent Sample t-test. The present investigation results indicated that the Resilience and Emotional State of College Students of West Bengal during Covid-19 are moderately negatively correlated. No significant difference was found between male and females college studentsbelonging to the state of West Bengal in terms of resilience, acceptance of self & life, emotional state, depression levels, anxiety levels, and stress levels during COVID-19.While a significant difference was found between males and females in terms of Personal Competence ability during COVID-19, Personal Competence ability is found to be more in females than males. This research will provide an overall idea about college students' resilience ability as well as their emotional state during the global pandemic situation and online education.
Keywords: *Anxiety, Covid-19, Depression, Pandemic, personal Competency, Resilience, Stress.*

I. INTRODUCTION

College life is full of stressful stimuli that can contribute to psychological distress and lower performance levels. At this moment, students' emotional state and mental health are even worse because of the global pandemic situation. The World Health Organization (WHO) on March 11, 2020, has declared the novel coronavirus (COVID-19) outbreak a global pandemic (Dr.Tedros Adhanom Ghebreyesus,2020). Lockdowns were announced in the country on 25th March. The necessary measures that were taken in order to minimize the spreading of COVID-19 affected the entire country and many aspects of the daily lives of the citizens. In mid-March 2020, colleges and universities were closed and lectures and courses were predominantly held online. It is known from previous research examining the consequences of epidemics on physical and psychological health that an epidemic outbreak seriously impactsthe health (of those afflicted with the disease and those avoiding infection). Existing literature on the impact of the COVID-19 pandemic suggests that there are potential drastic psychological consequences in the general population, including college and university students (e.g., increases in the prevalence of depression and anxiety) (Esterwood E, Saeed SA,2020). More people were in self-isolation or lockdowns, similar psychological consequences, as a result of the ongoing COVID-19

pandemic, are conceivable at the population levelthanin most of the previous pandemics.Almost320 million students in India have been directly affected. The National Sample Survey of 2017 to 2018 reported that only 23.8% of Indian households had any type of internet access.

It is important to understand what factors may promote an adequate adjustment, especially in the new normal. In this sense, resilience research has been gaining acceptance as a frameworkfor explaining why some students adapt successfully to college and university life while others face great challenges (Hiester, Nordstrom, and Swenson, 2009).

Resilience refers to the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress (American Psychological Association, 2014).Resilience is developed by unexpected difficult events and changes the life of the individual (Abbema, Bielderman, Greef, Hobbelen, Krijnen, &Schans, 2015). Resilience is a personal ability to adapt to situations and overcome obstacles. The global prevalence of moderate to extremely severe levels is 60.8% for depression, 73% for anxiety, and 62.4% for stress (Bayram N, Bilgel N, 2008; Kulsoom B, Afsar NA, 2015; Haq UL, Dar MA, Aslam IS, Mahmood QK, 2018; Beiter R, Nash R, McCrady M, Rhoades D, Limscomb M et al., 2015; Nadeem M, Ali A, Buzdar MA, 2017; Saeed H, Saleem Z, Ashraf M, et al., 2017; Shamsuddin K, Fadzil F, Ismail WSW, Shah SA, Omar K, et al., 2013.

Some studies have established that resilience is a negative relationship with depression and anxiety (Miller and Chandler, 2002; Nrugham et al., 2010; Wells et al., 2012; Poole et al., 2017; Shapero et al., 2019). Skrove et al. (2012) found that resilience characteristics are related to lower anxiety and depression symptom levels. Smith (2009) found in his research that resilience and positive emotions have a reciprocal relationship. in a meta-analysis, Dray et al. (2017) found that resilience-focused interventions were effective relative to a control in reducing depressive and anxiety symptoms for children and adolescents, particularly if a cognitive-behavioral therapy-based approach is used.

II. REVIEW OF RELATED LITERATURE:

2.1 R. Samer & A. Saada (2018) In their study entitled"The Relationship between Resilience & Mental Health among a Sample of University of Nizwa Students - Sultanate of Oman".This study revealed the relationship between resilience and mental health in light of some variables in a student sample at the University of Nisswa. The sample consisted of 1,000 students, including 403 men and (597) women. The sample random sampling. Two instruments were used: the resilience scale (Connor &Davidson, 2003) and the Arab Mental Health Scale (Abdel-Khalek, 2011). The results indicate a positive correlation between mental health and resilience.

2.2G. Rocio, Molinero, Z. antontonio, G.R. Paula & Rocio (2018) In their study entitled"Optimism and resilience among university students"This study revealed the relationship between optimism and resilience among a sample of university students in Spain.The sample was comprised of 132 students from the University of Cádiz (Spain). Participants were selected by quota sampling from the first to last year of studies. Tools used wereWagnild and Young Resilience Scale (Spanish version adapted by Novella, 2002) and Life Orientation Test (LOT-R Spanish version adapted by Ferrando, Chico &Tous). Statistics used as hierarchical multiple regression analysis and obtained that optimism explained 25% of resilience among university students (R2 = .25, β = .49). No gender and age differences were observed.

2.3A. abbas & K. Farhad (2015) In their study entitled"The Prediction of Mediating Role of Resilience Between Psychological Well-Being and Emotional Intelligence in Students"**.** This study investigated the mediating role of resilience between emotional intelligence and the psychological well-being of high school students. Participants included 405 students, 12 females and 193 males, from Shiraz high schools selectedby a random multi-stage cluster sampling method. The emotional intelligence scale, resilience scale, and psychological well-being scale were used. Results showed that resilience is a predictor of ahealthy psychological state which can play a partial mediating role between emotional intelligence and psychological well-being.

2.4W. Yin, S. Zhi-qin, Z. C. Xiao & M. Jurgen (2020) In their study entitled"The Relationship Between Resilience and Mental Health in Chinese College Students: A Longitudinal Cross-Lagged Analysis". This study identified the relationship between resilience and mental health. The sample was comprised of 314 college students in China, examined in three phases over 4 years. This study revealed insight into the reciprocal relationship of higher levels of resilience predicting lower levels of mental ill-being, and higher levels of positive mental health, and vice versa, and tracked changes in both resilience, mental ill-being, and positive mental health over 4 years.

2.5B. Vanessa, S. Mar, O. Patricia & V. L. Fernando (2021) In their study entitled"Symptoms of Depression, Anxiety, and Stress and Prevalence of Major Depression and Its Predictors in Female University Students". This study determined the levels of depression, anxiety, and stress and the prevalence of depression and associated factors, in Spanish university women. A cross-sectional study was conducted. A random

sampling technique was used. The sample consisted of 871 students from Santiago de Compostela University (mean age 20.7 years, SD = 2.8). Information was collected on sociodemographic and academic characteristics; symptoms of depression, anxiety, and stress; diagnosis of major depression; optimism, resilience, social support, life engagement, and five personality domains, using validated instruments. Resultsshowed that 18.1%, 22.8%, and 13.5% of participants had severe/very severe levels of depression, anxiety, and stress, respectively. A total of 12.9% had major depression. Higher life engagement was associated with a lower risk of depression, while higher levels of neuroticism and openness to experience were associated with greater risk. This study revealed an alarming percentage of female university students who experience major depression and severe/very severe stress.

2.6H. H. shaher, M. A. Hanan, T. Mu'ath& M. H. Ayman (2021) In their study entitled"Depression, anxiety, and stress among undergraduate students during COVID-19 outbreak and "home-quarantine"**.** This study showed the prevalence and predictors of depression, anxiety, and stress among university students in Jordan during "home-quarantine" due to the outbreak of COVID-19. This is a cross-sectional descriptive study.Data were collected from a convenience sample of 1,380 Jordanian university students. A web-based survey was used to collect data from the participants using the DASS-21. The prevalence of depression, anxiety, and stress at different levels was 78.7%, 67.9%, and 58.7%, respectively, which are higher during home quarantine." The mean scores of depression, anxiety, and stress were at moderate levels. Strong correlations were found between depression, stress, and anxiety, with demographic, health-related, and lifestyle variables. Several variables also predicted depression, stress, and anxiety.

2.7F. M. M. Paula, S. Franca, K. Lisa & B. Heide (2021) In their study entitled"Perceptions of Study Conditions and Depressive Symptoms During the COVID-19 Pandemic Among University Studentsin Germany: Results of the International COVID-19 Student Well-Being Study".This study examined university students' perceptions of study conditionsduring the COVID-19 pandemic and investigated associations between study conditionsand depressive symptoms. This is a cross-sectional online survey, conducted in Germany in May 2020at four universities. The sample consisted of 5,021 participants of which 69% were female (mean age: 24 years, SD: 5.1). Tools used were: the CES-D 8 scale for depressive symptoms and self-generated items for perceivedstudy conditions, as well as sociodemographic information.The results showedthat 54% of survey participants felt that the university workload hadsignificantly increased since the COVID-19 pandemic, 48% were worried that they wouldnot be able to successfully complete the academic year and 47% agreed that the change in teaching methods caused significant stress. For depressive symptoms, themean score of the CES-D 8 scale was 9.25. This study provides first insights into perceived study conditions andassociations with depressive symptoms among students during the COVID-19 pandemicin Germany.

2.8 W. Gao, S. Ping & X. Liu (2020) In their study entitled, "Gender differences in depression, anxiety,and stress among college students: A longitudinal study from China".This longitudinal study examined the gender differences in college students' depression, anxiety, and stress over the four academic years, and explored possible anxiety-related factors among first-yearstudents. The sample consisted of 1892 undergraduate students from 15 universities in China, with 898 females and 994 males. The study was done for four years. Tools used was the Depression Anxiety Stress Scale-21 questionnaire. Results revealed: On average, both female and male college students suffered from mild anxiety in the first three years; Female students scored significantly higher in anxiety than males in the first and second years, and there was no significant gender difference in students' average depression and stress levels; A significantly larger proportion of female students experienced anxiety above the normal threshold, whereas a higher percentage of male students endured different degrees of depression; no significant gender differences were found in stress problems; Anxiety had a significant positive correlation with introversion. Female freshmen's anxiety levels were also associated with their body image, drinking habits, and academic performance.

III.AIMS OF THE STUDY

Distress in the emotional state may pose grave threats to students' academic performance and predict their professional development in the future, it is of great significance to identify the influencing factors of college students' psychological distress and also identify the relationship between resilience and emotional state (level of depression, anxiety, and stress) because resilience is one of the very important factors that may promote an adequate adaptation ability.

The aim of the present study is to see the relationship between resilience and the emotional state of college students of West Bengal (India) during this global pandemic (COVID-19) situation and the gender differences associated with the factors of resilience (Personal Competence and Acceptance of Self & Life) and emotional state (Depression levels, Anxiety levels, and stress levels).

IV. OPERATIONALIZATION OF DIFFERENT TERMS

❖ **Resilience:** Psychologists define resilience as the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors. As much as resilience involves "bouncing back" from these difficult experiences, it can also involve profound personal growth. Resilience is one of the very important factors which promote an adequate adaptation ability for adjusting to college life for academic success and higher well-being levels. When college students lack resilience, they can develop depression, anxiety, or other mood disorders. They can even engage in dangerous behaviorsand begin to abuse substances.

❖ **Emotional State:**The state of a person's emotions (especially with regard to pleasure or dejection) is known as the emotional state. Our emotional states are combinations of physiological arousal, psychological appraisal, andsubjective experiences. In this study, we are studying the emotional state by measuring the levels of depression, anxiety, and stress using DASS-21. Maintaining a healthy emotional state is very important for the mental health of a college student or else they develop depression, anxiety, or other mood disorders and can even engage in substance abuse.

❖ **Personal Competence:**Personal competence is the ability of an individual to stay aware of her emotions and manage her behavior and tendencies. Personal competence is made up of self-awareness and self-management. Self-awareness is the ability to recognize your own emotions and their effects on yourself and other people. Self-management builds on your self-awareness, using your own self-control to ensure your emotions don't control you regardless of the situation.

❖ **Acceptance of self and life:** Self-acceptance can be defined as the awareness of one's strengths and weaknesses, the realistic (yet subjective) appraisal of one's talents, capabilities, and general worth, and, feelings of satisfaction with one's self despite deficiencies and regardless of past behaviors and choices. Acceptance of life includes Accepting the reality of life and examining mindfully what is happening within us and finally opening our hearts to whatever we experience.

❖ **Depression:**Depression is more than just sadness. It usually involves feelings of extraordinary sadness and dejection. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide.

❖ **Anxiety:**The American Psychological Association (APA) defines anxiety as "an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure."Anxiety is your body's natural response to stress. It is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure.

❖ **Stress:** Stress can be defined as any type of change that causes physical, emotional, or psychological strain. Stress is body's response to anything that requires attention or action. Stress is a response to an external cause (typically caused by an external trigger.) Some of the more common physical, psychological, and emotional signs of chronic stress include rapid heart rate; elevated blood pressure; feeling overwhelmed; fatigue; difficulty sleeping; poor problem-solving; fear that the stressor won't go away; persistent thoughts about one or more stressors; changes in behavior, including social withdrawal, feelings of sadness, frustration, loss of emotional control, inability to rest, and self-medication.

❖ **Covid-19(GlobalPandemic):**The World Health Organization (WHO) on March 11, 2020, has declared the novel coronavirus (COVID-19) outbreak a global pandemic (Dr.Tedros Adhanom Ghebreyesus,2020). A pandemic is an epidemic of an infectious disease that has spread across a large region, for instance, multiple continents or worldwide, affecting a substantial number of people, and all educational institutions closed since mid-March 2020.

V. OBJECTIVES

Considering the above, the present investigation has the following objectives-
1.   To study the Resilience of the college students in West Bengal during COVID-19.
2.   To study the Emotional State of college students in West Bengal during COVID-19.
3.   To study the gender differences associated with Resilience of the college students in West Bengal during COVID-19.
4.   To study the gender differences associated with the Emotional State of individuals who are college students in West Bengal during COVID-19.
5.   To study the gender differences associated with the factors of resilience (Personal Competence and Acceptance of Self & Life) and emotional state (Depression levels, Anxiety levels, and Stress levels) among the college students in West Bengal during COVID-19.
6.   To study the relationship between resilience and emotional state of college students of West Bengal during this global pandemic (COVID-19) situation.

VI. HYPOTHESIS

H0₁: Resilience of individuals who are college students in West Bengal is not differentially associated with gender difference during COVID-19.

H0₂: The Personal Competence ability of individuals who are college students in West Bengal is not differentially associated with gender differences during COVID-19.

H0₃: The ability to Acceptance of self & Life of individuals who are college students in West Bengal is not differentially associated with gender difference during COVID-19.

H0₄: Emotional state of individuals of college students in West Bengal is not differentially associated with gender differences during COVID-19.

H0₅: Depression Levels of individuals of college students is in West Bengal not differentially associated with gender differences during COVID-19.

H0₆: Anxiety Levels of individualcollege students is in West Bengal not differentially associated with gender differences during COVID-19.

H0₇: Stress Levels of individual college students in West Bengal is not differentially associated with gender difference during COVID-19.

H0₈: There is no relationship between Resilience and the Emotional State of College Students of West Bengal during Covid-19.

VII. SAMPLES

A group of 476 individuals (Female- 241; Male- 235)who are degree college students belonging to the state of West Bengal were selected as samples following the purposive sampling technique.

The inclusion criteria of the participants are as follows-
1.   General degree college student belonging to the state of West Bengal (India).
2.   Educational qualification- Pursuing bachelor's degrees in degree colleges.
3.   Participants were interested and cooperative.
4.   Only students' knowledge with English and Bengali were taken;

The Exclusion criteria of the participants are as follows-
1.   Students other than General degree college (Technical, Management, Medical, etc.) were not included;
2.   Participants with physical and mental illness were excluded;
3.   Students associated with open/distance education.
4.   Students associated with private university were excluded.

VIII. USED TOOLS

8.1. Resilience Scale (RS-25): The Resilience Scale (RS-25), is created by Wagnild and Young (1993), has been widely applied in many studies. The 25-item Resilience Scale is the original resilience measure and considered the "gold standard" for resilience assessments among researchers around the world. It is a highly valid and reliable 25-item measure and measures resilience in any setting. It was first published in 1993 and is the first resilience assessment to measure resilience directly. The RS-25 is a unidimensional scale, using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher total scores represent higher resilience levels. RS-25 is composed of two factors.Factor 1 is composed of 17 items and corresponds to Personal Competence. Factor 2 is composed of 8 items and corresponds to Acceptance of Self and Life. According to the authors, factor 1 measures self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance. And, factor 2, measures adaptability, balance, flexibility, and a balanced perspective of life. Each factorusesa 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The Resilience Scale measures what is going right versus what is going wrong in your life. This scale is conceptualized as a protective personality factor that is associated with healthy development and psychosocial stress resistance.

8.2. Depression Anxiety Stress Scale (DASS-21):DASS, the Depression Anxiety Stress Scale, is made up of 42 self-report items to be completed over five to ten minutes, each reflecting a negative emotional symptom.The Depression Anxiety Stress Scale (DASS) was originally created by Lovibond (1995) and was used for assessing symptoms of depression, anxiety, and stress as outcome variables of daily stressors. Henry and Crawford (2005) verified that DASS-21, the short version of DASS, was reliable and valid for ordinary populations.DASS-21 is composed of three sub-scales, including the depression, anxiety, and stress scale. Each sub-scale has 7 items that use a 4-point Likert scale ranging from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time).This is a set of three self-report scales designed to measure the emotional states of depression, anxiety, and stress. This study measures the level of emotional state by using DASS-21.

8.3. General Health Questionnaire GHQ-28: The GHQ is a self-administered screening test, which is sensitive to the presence of psychiatric disorders in individuals presenting in primary care settings and non-psychiatric clinical settings. The GHQ is not designed to detect symptoms that occur with specific psychiatric

diagnoses such as psychotic disorders, rather, provides a measure of overall psychological health or wellness. In order to assess this, the GHQ focuses on two major classes of phenomena: i) inability to continue to carry out normal "healthy" functions and ii) symptoms of a distressing nature. There are several versions of the GHQ. GHQ-28 is the scale that is administered over here. Translated Bengali version of the scale is used here.GHQ-28 provides four specific subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. It is important to note that these subscales do not necessarily correspond to psychiatric diagnosis nor are the subscales independent of each other.

IX. ADMINISTRATION AND DATA COLLECTION

General information schedule viz; Name, Age, Gender, Address,Educational Qualification, Marital status, Family Type, Socioeconomic status, Number of Earning Member, Family Size,were administered to the selected group of subjects by giving proper instructions. Data were collected through an online survey. GHQ-28 was used to screen the students on overall physical and mental health. Data were collected and properly scrutinized.

X. SCORING AND TABULATION

Scoring was done with the help of the standard scoring key. Tabulation was done for each group and each test separately.

XI. STATISTICAL TREATMENT

SPSS20.0 (IBM Corp; 2011) was used to calculate the descriptive statistics and correlations between resilience (RS-25) and emotional state (DASS-21). Statistics used are Mean, Standard Deviation, Pearson product-moment correlation coefficient, and Independent Sample t-test. For General Information Schedule frequency and percentages were calculated. Mean and SD were calculated for other tests. Comparisons were made by applying t-test. Correlation was also done between Resilience and Emotional State.

XII. RESULT AND INTERPRETATION

The general characteristics data inserted in Table-1 reveals the characteristics features of the subjects under study.

TABLE-1: General characteristic feature of the subject—

GENERAL CHARACTERISTICS	N	%
GENDER		
Male	235	49.36
Female	241	50.64
EDUCATION QUALIFICATION		
1st Year	95	19.95
2nd Year	171	35.92
3rd Year	210	44.11
MARITAL STATUS		
Married	454	95.37
Unmarried	22	4.62
SOCIO-ECONOMIC STATUS		
Lower	101	21.21
Middle	322	67.64
Upper	53	11.13
RESIDENCE		
Rural	196	41.17
Semi-urban	131	27.52
Urban	134	28.15
Metropolitan	15	3.15
FAMILY TYPE		
Nuclear	342	71.84
Joint	128	26.89
Extended	6	1.26
INCOME SOURCE		
Single earning member	341	71.63
Double earning member	122	25.63
Three or more earning member	13	2.73

FIG-1- **FIG-7:**Diagram showing General characteristic feature of the individual of College Students of West Bengal during Covid-19.
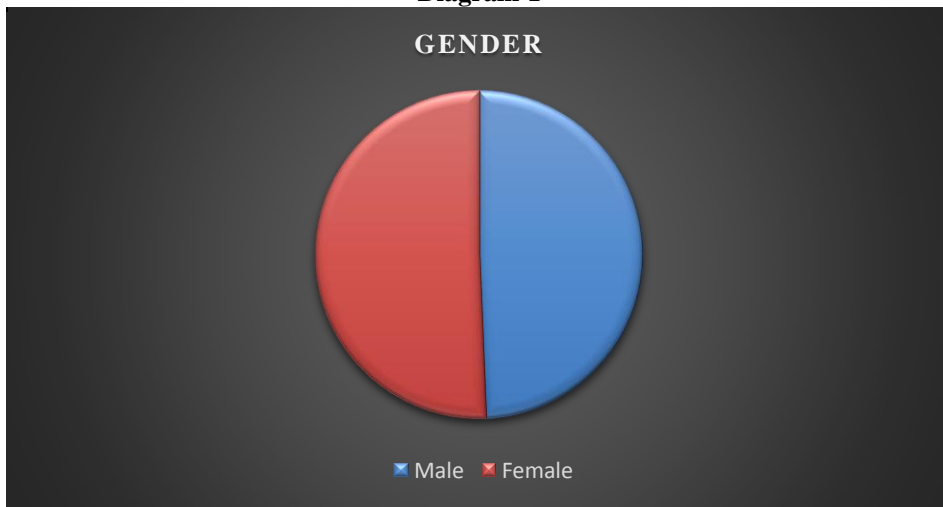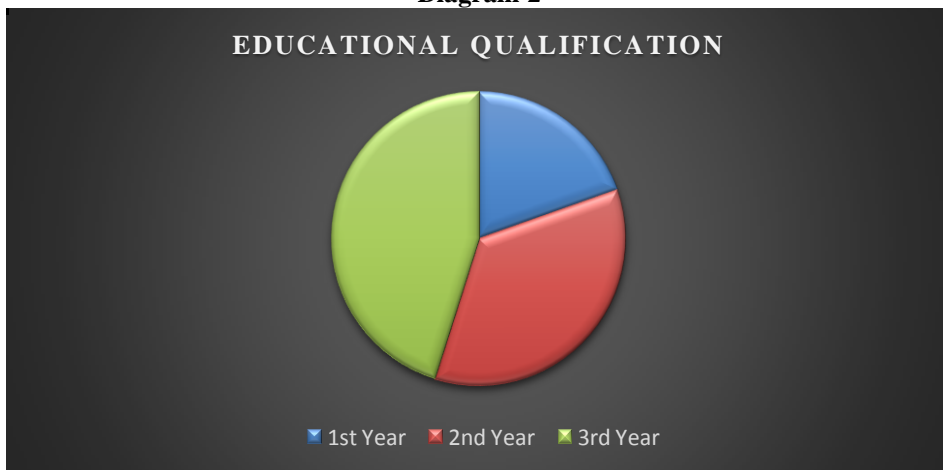
Diagram-1

Diagram-2
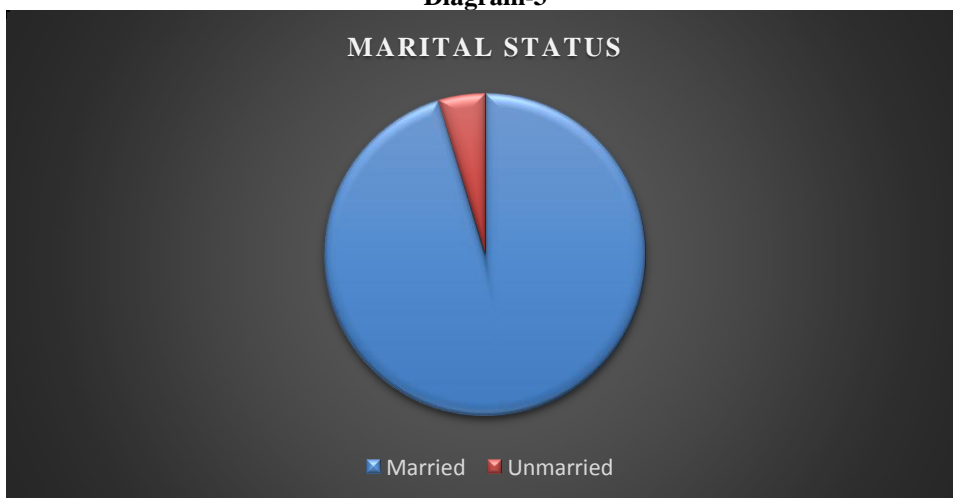

Diagram-3

Diagram-4
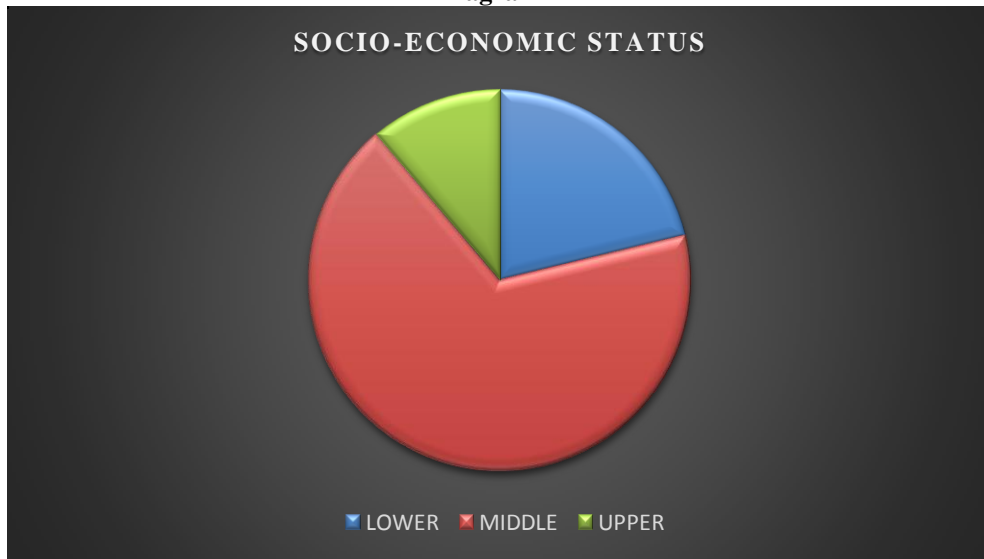
Diagram-5

Diagram-6

Diagram-7

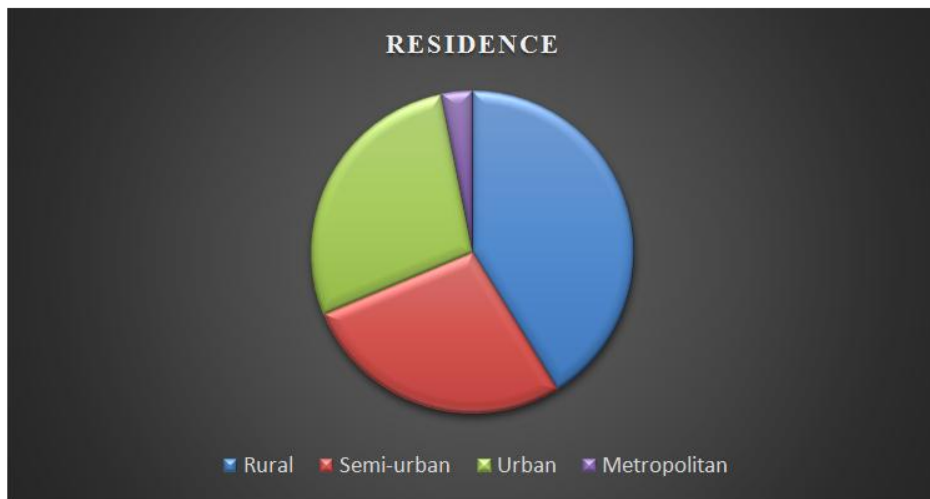INCOME SOURCE

■ Single earning member ■ Double earning member ■ Three or more earning member
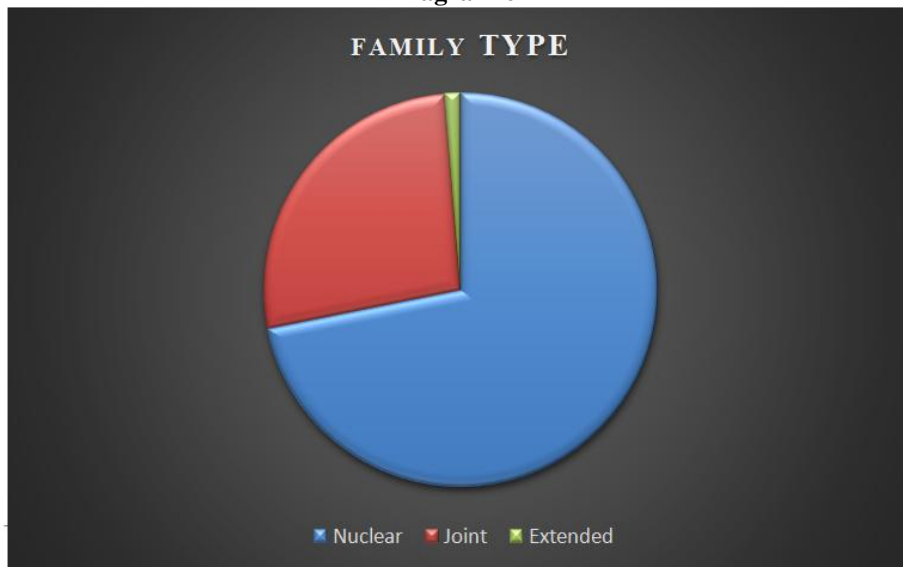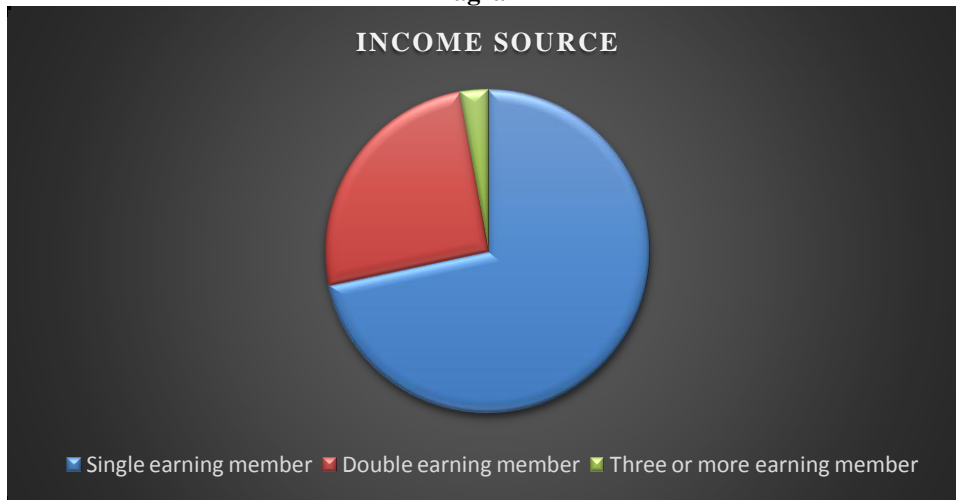
Data inserted in Table-2 reveals the comparative picture between the Resilience score of Male and Femalecollege studentsbelonging to the state of West Bengal during COVID-19. The two-tailed sig. value is 0.165 which is more than 0.05. The **H0₁:** which states "Resilience of individuals who are college students in West Bengal is not differentially associated with gender difference during COVID-19"is accepted.
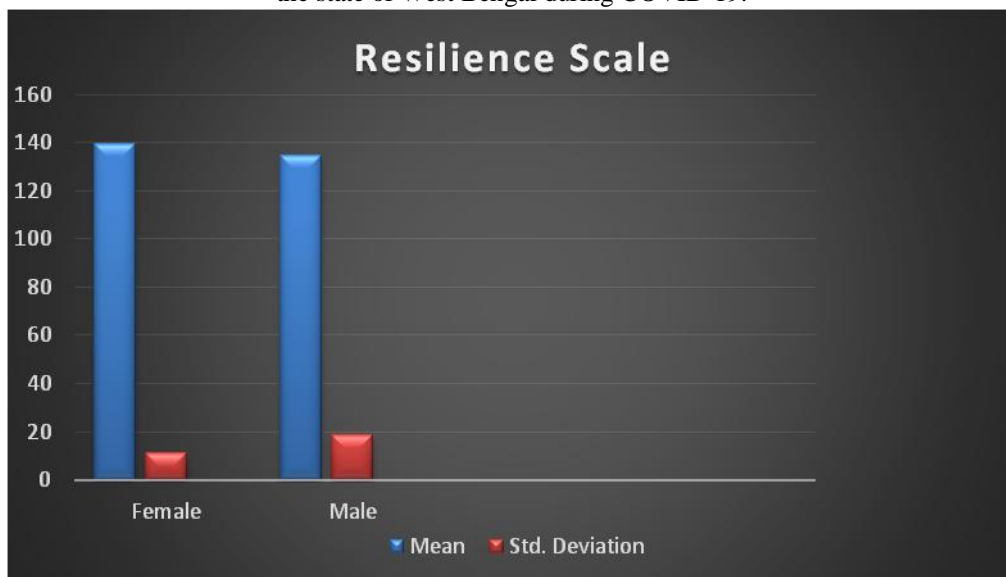
Table-2:

	Gender	N	Mean	Std. Deviation	t-VALUE
Resilience Scale	F	241	139.1951	11.19200	1.404*
	M	235	134.3143	18.68905	

* Difference is insignificant

Diagram-8
Diagram showing comparisons between the Resilience score of Male and Femalecollege studentsbelonging to the state of West Bengal during COVID-19.

Resilience Scale

■ Mean ■ Std. Deviation

Data inserted in Table-3 reveals the comparative picture between the Personal Competence Score (factor1 of Resilience Scale) of Male and Female (who are college students) belonging to the state of West Bengal during COVID-19. The two-tailed sig. value is 0.005 which is less than 0.05. So, the **H0₂:** which states "The Personal Competence ability in individuals who are college students in West Bengal is not differentially associated with gender difference during COVID-19"is rejected. Personal Competence score is more in females than males.
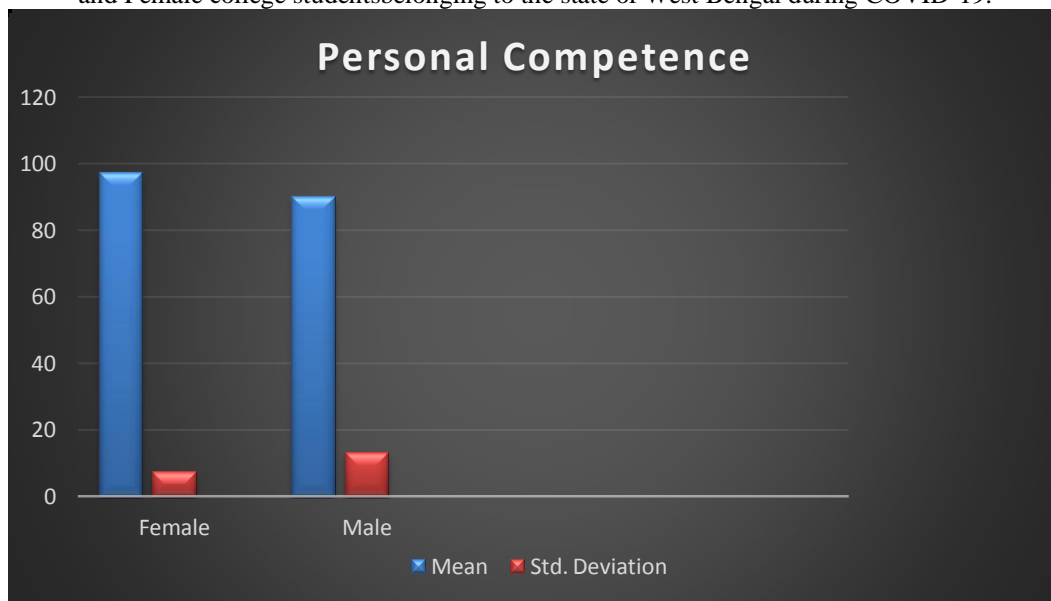
Table-3:

	Gender	N	Mean	Std. Deviation	t-VALUE
Personal Competence	F	241	96.8780	7.01853	2.903*
	M	235	90.0571	12.99761	

* Difference is significant

Diagram-9

Diagram showing comparisons between the Personal Competence Score (factor1 of Resilience Scale) of Male and Female college studentsbelonging to the state of West Bengal during COVID-19.

Data inserted in Table-4 reveals the comparative picture between the Acceptance of self & Life Score (factor2 of Resilience Scale) of Male and Female college studentsbelonging to the state of West Bengal during COVID-19. The two-tailed sig. value is 0.206 which is more than 0.05. So, the **H0₃:** which states "The ability of Acceptance of self & Life of individuals who are college students in West Bengal is not differentially associated with gender difference during COVID-19" is accepted.
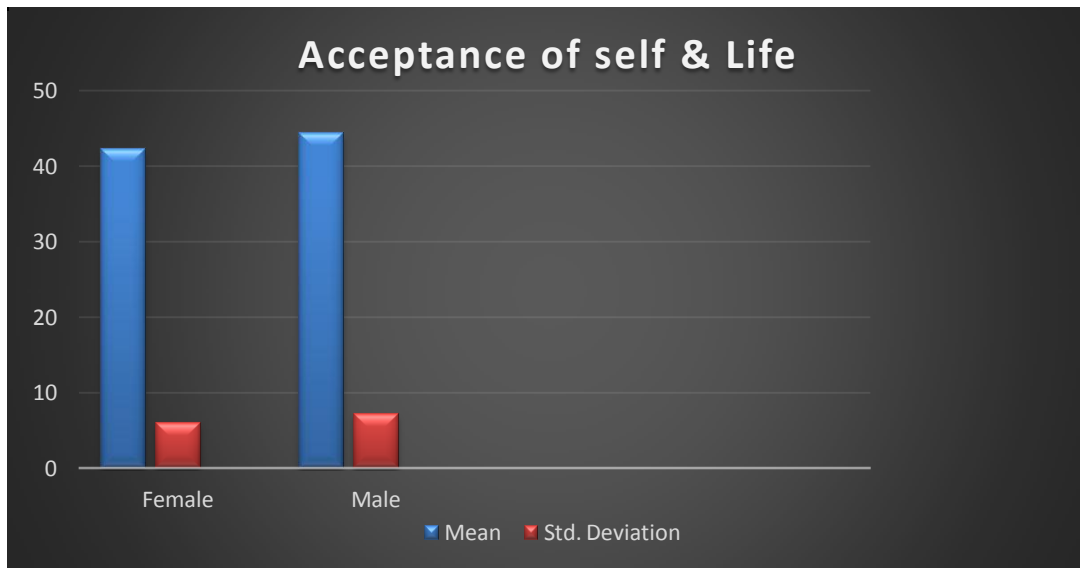
Table-4:

	Gender	N	Mean	Std. Deviation	t-VALUE
Acceptance of self & Life	F	241	42.3171	6.03506	1.276*
	M	235	44.2571	7.21658	

* Difference is insignificant

Diagram-10

Diagram showing comparisons between the Acceptance of self & Life Score (factor2 of Resilience Scale) of Male and Femalecollege students belonging to the state of West Bengal during COVID-19.

Data inserted in Table-5 reveals the comparative picture between the DASS-21 score of Male and Femalecollege studentsbelonging to the state of West Bengal during COVID-19. The two-tailed sig. value is 0.628 which is more than 0.05. So, the **H0₄:** which states **"Emotional state of individuals of the college students in West Bengal is not differentially associated with gender difference during COVID-19 is accepted.**
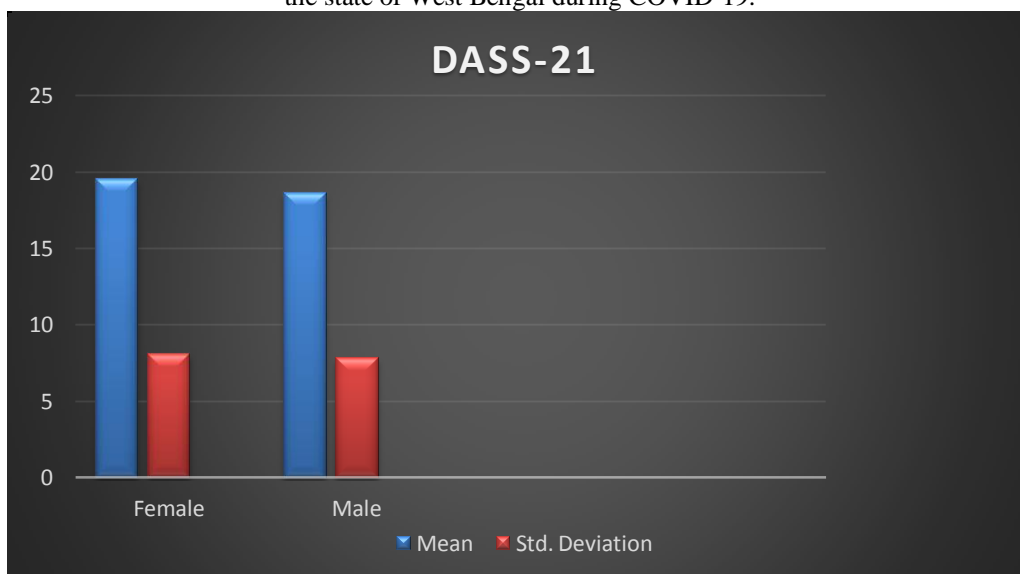
Table-5:

	Gender	N	Mean	Std. Deviation	t-VALUE
DASS-21	F	241	19.4878	8.03779	0.486*
	M	235	18.6000	7.81853	

* Difference is insignificant

Diagram-11

Diagram showing comparisons between the DASS-21 score of Male and Femalecollege students belonging to the state of West Bengal during COVID-19.

Data inserted in Table-6 reveals the comparative picture between the Depression levels (subscale of DASS-21) of Male and Female (who are college students) belonging to the state of West Bengal during COVID-19.The two-tailed sig. value is 0.386 which is more than 0.05. So, the **H0$_5$:** which states "Depression Levels of individuals of the college students is in West Bengal not differentially associated with gender difference during COVID-19" is accepted.

Table-6:

	Gender	N	Mean	Std. Deviation	t-VALUE
Depression	F	241	4.9756	3.25951	0.871*
	M	235	4.3429	3.02871	

* Difference is insignificant

Diagram-12
Diagram showing comparisons between the levels of Depression (subscale of DASS-21) of Male and Female college students belonging to the state of West Bengal during COVID-19.

Data inserted in Table-7 reveals the comparative picture between the levels of Anxiety (subscale of DASS-21) of Male and Female (who are college students) belonging to the state of West Bengal during COVID-19 (Second Wave). The two-tailed sig. value is 0.537 which is more than 0.05. So, the **H0$_6$:** which states "Anxiety Levels of individuals of the college students is in West Bengal not differentially associated with gender difference during COVID-19" is accepted.
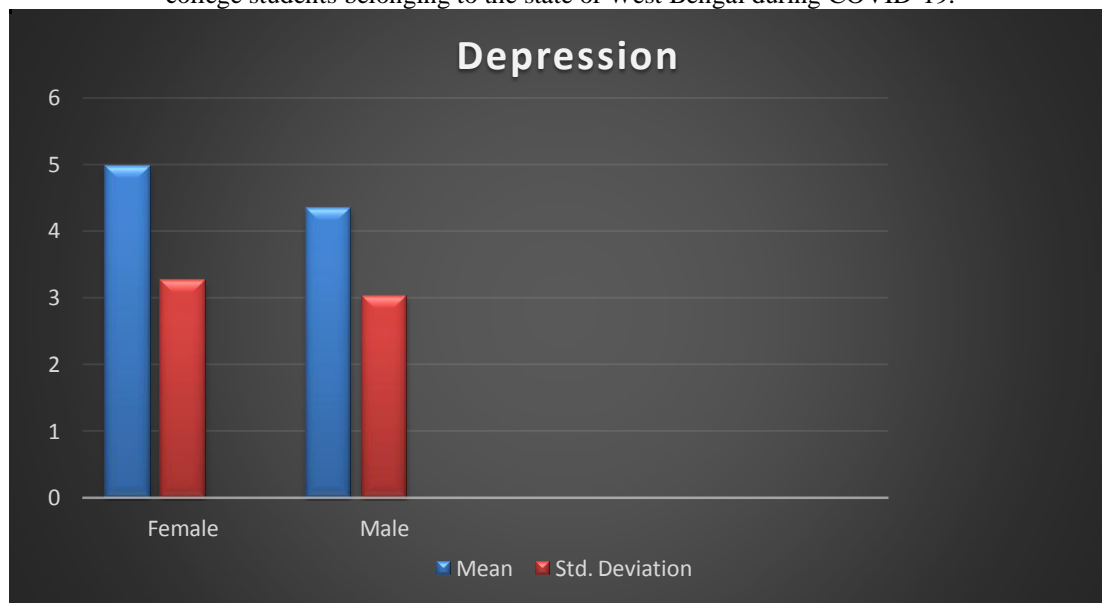
Table-7:

	Gender	N	Mean	Std. Deviation	t-VALUE
Anxiety	F	241	6.6585	3.13536	0. 620*
	M	235	6.2286	2.86033	

* Difference is insignificant

Diagram-13
Diagram showing comparisons between the levels of Anxiety (subscale of DASS-21) of Male and Female college studentsbelonging to the state of West Bengal during COVID-19.

Data inserted in Table-8 reveals the comparative picture between the Stress level score (subscale of DASS-21) of Male and Femalecollege studentsbelonging to the state of West Bengal during COVID-19. The two-tailed sig. value is 0.785 which is more than 0.05. So, the **H0₇:** which states "Stress Levels of individuals of the college students in West Bengal is not differentially associated with gender difference during COVID-19" is accepted.
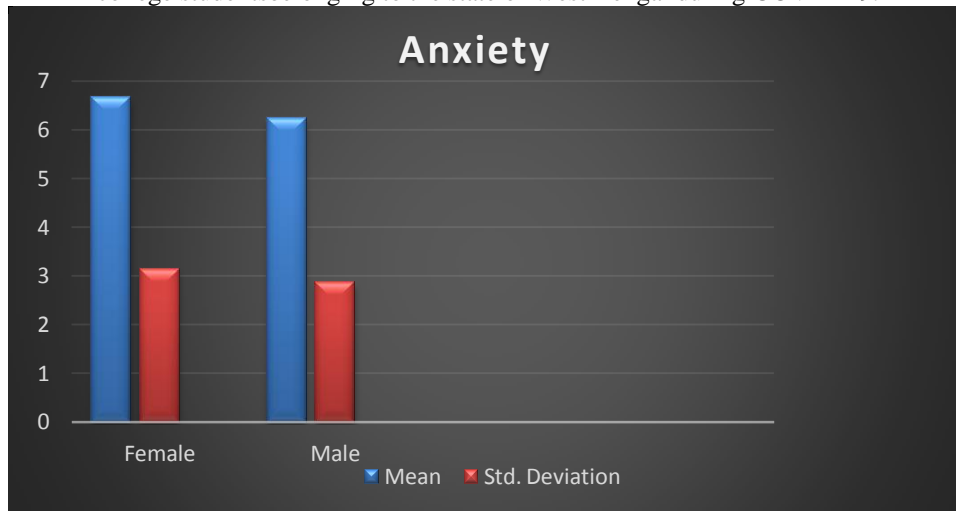
Table-8:

	Gender	N	Mean	Std. Deviation	t-VALUE
Stress	F	241	7.8537	2.79787	0.273*
	M	235	8.0286	2.75986	

* Difference is insignificant

Diagram-14
Diagram showing comparisons between the levels of Stress (subscale of DASS-21) of Male and Female college studentsbelonging to the state of West Bengal during COVID-19.

Data inserted in Table-9 reveals the correlation between Resilience and Emotional State of College Students of West Bengal during Covid-19. The findings revealed that correlation is significant at the 0.01 level (2-tailed), and the Resilience and Emotional State of College Students of West Bengal during Covid-19 are moderately negatively correlated. Therefore, the more the score in Resilience scale, the less the score in DASS-

21 i.e., the more resilient a person is the less is the level of depression, anxiety and stress within him or her. Thus, the **H0₈:** which states "There is no relationship between Resilience and Emotional State of College Students of West Bengal during Covid-19" is rejected.

TABLE-9:

		Resilience Scale	DASS-21
Resilience Scale	**PEARSON CORRELATION SIG.(2-TAILED)** **N**	1 476	0.453** 0.000 476
DASS-21	**PEARSON CORRELATION SIG.(2-TAILED)** **N**	0.453** 0.000 476	1 476

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

XIII. CONCLUSION

From the present investigation results it can be concluded that the Resilience and Emotional State of College Students of West Bengal during Covid-19 are moderately negatively correlated. Therefore, the more the score in Resilience scale, the less the score in DASS-21 i.e., the more resilient a person is, the less is the level of depression, anxiety and stress within him or her. No significant difference was found between males and females college studentsbelonging to the state of West Bengal in terms of resilience, acceptance of self & life, emotional state, depression levels, anxiety levels and stress levels during COVID-19. While, significant difference was found between males and femalescollege studentsbelonging to the state of West Bengal in terms of Personal Competence ability during COVID-19, Personal Competence ability is found to be more in females than male.

XIV. LIMITATIONS OF THE STUDY

This study has several limitations.

• First, sample size was only 476. Therefore; generalization of the findings to all college students of the state is limited.

• Second, data collection instruments were based on the participants' self-reports. Hence, it should be noted that results might not actually reflect the participants' characteristics.

• Fifth, data collection was done through an online survey mode (due to COVID-19),participants with biases may select themselves into the sample and participants are less likely to stay fully engaged for a survey of more than 8-10 minutes than with other research methods, and will not provide data with at most concentration. Hence, it should be noted that the findings from a sample can be generalized to a meaningful population.

XV. APPLIED VALUE

Several practical implications can be made based on the findings of the present study. This research will provide an overall idea about college students' resilience ability as well as their emotional state during the global pandemic situation and online education. The study also measured the depression, anxiety, and stress levels of college students in the COVID-19 situation. The findings also include Personal Competency and the ability to Acceptance of Self and Life in this Lockdown situation. All these findings can potentially help in outlining the kind of therapy and psychological help a college student needs. Moreover, this research could contribute to understanding the need of helping students successfully face this life transition, increasing their well-being and life satisfaction levels and decreasing college absenteeism. This research might help in gaining insight into the relationship between resilience and emotional health, which will in turn promote the idea of developing resilience as it is an important protective factor for the emotional state and overall psychological well-being of an individual.As now due to COVID-19 the online education system is pushed into, college and respective university Administration may strengthen online information systems for students can access information easily. Thefindings underline the need for educational institutions to provide intervention strategiestargeting students' mental well-being during the course of the pandemic. The findings might also encourage colleges and respective universities to support students in managing their academic anxiety through counselling and behavioral techniques for students so that they may cope with examination anxiety, academic anxiety, and management problems. The students with a higher level of anxiety must be identified and treated to enhance their academic performance and for timely and effective gender-sensitive counselling(ifneeded) and therapeutic interventions. The findings of the present study can also help in deciding what kind of therapy and counselling West Bengal college students will need during emotional distress and situations and factors where gender-sensitive counselling is needed during this pandemic situation.

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