

# Perceived Stress and Academic Performance among College going Undergraduate Students

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## ABSTRACT

Academic performance is a significant predictor of future success in various aspects, including educational achievement, career opportunities, and overall life outcomes. Academic success is influenced by number of factors. The present study aims to assess the relationship between perceived stress and academic performance among college going undergraduate students. For the current study, a sample of 200 college going undergraduate students were selected using purposive sampling. Data was collected using google form and the tools used for the study were Perceived Stress Scale (PSS-10) and academic performance was assessed through self-reported percentage scores. The present study adopted a quantitative, correlational research design. Data were analysed using descriptive statistics, and Pearson correlation. The findings reveal that majority of the students (64.0%) reported moderate level of stress followed by low (21.0%) and high (15.0%) level of perceived stress. This study also reported that perceived stress was significantly negatively associated with academic performance.

**Keywords:** Perceived Stress, Academic Performance, Undergraduate Students

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## INTRODUCTION

### Stress and Perceived Stress

Stress has become an inevitable part of life. It is the physiological and psychological response to any kind of stressor that come from various sources such as work, academics, relationships, financial problems, environmental factors, or even internal conflicts. It is a universal experience, but how we react to it greatly impacts our well-being (WHO, 2023). Hans Selye (1974) described stress as a response of the body to certain demand that is made on it and he further stated that this response was nonspecific. Baum et al. (1981) have defined stress as a “process in which environmental events or forces, called, stressors, threatens an organism’s existence and wellbeing”. Lazarus and Folkman (1984) defined stress as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his/ her resources and endangering his/ her wellbeing”.

Canon (1932) proposed that the fight-or-flight reaction happens when a person experiences strong emotions, especially those connected to a perceived threat. The body’s stress response is triggered when confronted with a perceived danger or challenge. This triggers off a series of physiological changes intended to prepare the person to either meet the threat (fight) or run from it (fly). Stress hormones like cortisol and adrenaline are released as part of this reaction; these chemicals have a variety of consequences, including raising blood pressure, heart rate, and attention. It makes it easier for people to adjust both inwardly and outwardly to dangers in their environment, allowing them to live and successfully deal with the threat (Vijay and Jain, 2024). Stress has a significant impact on psychological and physical health (Lovell, Moss, & Wetherell, 2011).

The term “perceived stress” describes the emotions or perceptions of an individual’s degree of stress at any given time or throughout a specific duration (Phillips, 2013). An individual’s subjective evaluation of life’s challenges and their capacity for coping is known as perceived stress. It is not only about the events that cause stress; it is also about how one feels about stresses. Because of personal fears, it can occur even in low-stress circumstances. Tension, headaches, exhaustion, anxiety, and sleep problems are just a few of the detrimental physical, mental, and emotional consequences that can result from it.

Achieving work-life balance, improving productivity, and personal growth all depend upon an individual’s ability to control perceived stress. It includes a sense of unpredictability and uncontrollability as well as confidence in managing them (Cohen et al., 1983).

Researchers have found that stress is negatively correlated with happiness and overall quality of life as well as depressive symptoms and positively correlated with elevated risk of coronary heart disease as well as poor lifestyle choices including smoking cigarettes, eating a higher-fat diet, and exercising less frequently (Dulat, 2024).

College students are challenged with having to keep up with the high demands required to thrive in the university environment. To meet these demands, students must be able to work and function under pressure. Generally, stressors are derived from academic load, classroom environment, faculty interaction, illness, and emotional concerns outside of the classroom (Graves et al., 2021). Stress may have a negative impact on student's focus, motivation, and academic performance.

### **Stress and Academic Performance**

In recent years, psychological stress among students has increased, with major sources including academics, finances, relationships, and career concerns. Student experiences financial stress (Zhong & Xu, 2023), social stress (Byrne et al., 2015) and career-related stress (Wu, Kim, & Jian, 2024) which are often interconnected, leading students to experience psychological stress as a combined and holistic burden (Liu, Zhu, et al., 2024; Mu et al., 2022). Academic stress is the most common, driven by heavy coursework, frequent exams, and numerous assignments. According to the 2022 Report on the Mental Health Status of Chinese College Students, a significant proportion (50.44%) of students plan to pursue graduate studies, which further intensifies their academic pressure.

Psychological stress usually results from the interaction of several external elements, indicating both the threat posed by the stressor itself and the person's perception of their capacity for coping. The university phase marks a significant shift from adolescence to adulthood, which requires students to deal and manage stress arising from academic pressure addition to job exploration and identity formation. They are expected to balance multiple roles and tasks which subsequently generates complex psychological stress. According to earlier research, adolescents who endure high levels of stress for prolonged periods of time are more likely to suffer from psychological issues as well as decline in academic performance reductions (Zhang, Peng, & Chen, 2024).

Academic achievement is a crucial measure of student's learning outcomes and is closely related to possibilities for growth like internships or jobs, graduate school admissions, and scholarship assessments. Hence, it is necessary to explore the impact of psychological stress on student's academic performance. This will be significant for not only identifying the underlying pathways of influence, but it will also provide theoretical support and practical value for improving student's learning adaptability and guiding the development of focused intervention strategies.

## **REVIEW OF LITERATURE**

University life is a vital growth period characterized by increased personal responsibilities, social changes, and higher academic demands. Students must adjust to changing educational environments in addition to handling rigorous academic workloads, fulfilling performance requirements, and overcoming social and economic challenges

Bedewy and Gabriel (2015) reported that while modest levels of stress may increase motivation and productivity, excessive or ongoing stress can negatively impact academic success, impair cognitive functioning, and reduce focus. Certain amount of stress is required to function in the daily life.

In a study conducted by Balaji et al. (2019) demonstrated that perceived stress and anxiety were shown to be significantly correlated with academic performance in a study of engineering and medical students. In their study, they reported that during the exam period, both engineering and medical students adopted active coping mechanisms somewhat more frequently than avoidant ones. The association of all the coping strategies used, with the academic performance, was statistically significant, thereby proving the importance of coping states in academic performance.

Similar conclusion has been published in a study by Maynor et al. (2019) indicating that stress and anxiety, considerably influence academic performance and coping techniques play a critical part in managing stress and active coping strategies improve academic outcomes. According to recent meta-analytic study, elevated stress is consistently associated with worse psychological well-being and poorer academic accomplishment, particularly when accompanied with maladaptive coping or insufficient perceived control (Pascoc et al., 2020).

Previous researches have consistently demonstrated that high perceived stress is associated with poor academic performance among undergraduate students. It is shown that the incidence of stress fluctuates throughout the academic year, with higher levels of stress typically appearing during periods of high academic pressure, especially examination seasons. Studies indicate that perceived stress is linked to adverse outcomes such as reduced academic achievement,

poor mental health, and decreased quality of life (Fentahun et al., 2025). According to Beiter et al. (2025), excessive levels of stress have been associated with procrastination, emotional exhaustion, lower intrinsic drive, trouble focusing, and academic disengagement.

### **Aim**

The present study aims to assess the relationship between perceived stress and academic performance among college going undergraduate students.

### **Objectives of the Study**

1. To assess the level of perceived stress among college going undergraduate students.
2. To study the relationship between perceived stress and academic performance among college going undergraduate students.

### **Hypotheses**

1. There will be a moderate level of perceived stress among college going undergraduate students
2. There will be a significantly negative correlation of perceived stress with academic performance.

## **METHODOLOGY**

### **Research Design**

The study employed a quantitative approach and is based on correlational research design. The motive is to assess whether changes in one variable are associated with changes in the other(s), thus examining relationships between perceived stress and academic performance among college going undergraduate students.

### **Sample**

For the present study, a sample of 200 college going undergraduate students from college of Ranchi, Jharkhand. Participants were selected using purposive sampling from college. The age range was between 18 years to 22 years. Since the data collection was done via online platforms, access to mobiles platforms was a must.

### **Tools Used**

For the present study, tools used were:

**Perceived Stress Scale (PSS-10; Cohen & Williamson, 1988):** This tool was originally developed by Sheldon Cohen et al. in 1983. It is a widely used self-report questionnaire designed to measure the degree to which individuals perceive situations in their lives as stressful. The scale consists of a series of 10-items that inquire about feelings and thoughts related to stressful experiences over the past month. Items are measured on a 5-point Likert scale (“0” = never, “1” =almost never, “2” = sometimes, “3” = fairly often, “4” = very often). Four statements are reversely scored, the rest six remain as it is. The total is obtained by summation of scores on all items. Scores range from 0 to 40, the higher the score, the more elevated is the perception of stress.

**Academic Performance:** Academic performance was assessed using self-reported percentage/CGPA obtained by the participants in their recent university examination. The CGPA was then converted into percentage.

### **Procedure**

For the present study, data were collected through a structured Google Form. Confidentiality and anonymity were ensured. An online survey was framed using Google Forms which comprised questions from the respective tools. The participants were explained the purpose and significance of the study and eligibility criteria for participation, and were also provided with a note on insurance of confidentiality and voluntary nature of participation. Consent was taken and they filled the questionnaire.

Data was collected using the purposive sampling technique. Participants were approached via WhatsApp and by e-mail. After data collection, IBM Statistical Package for the Social Sciences software (SPSS v. 23.0) was used for the statistical analysis of the obtained data to reveal mean and standard deviation scores along with correlation computations between the variables. Results from the analysis are communicated in the next chapter.

## RESULTS

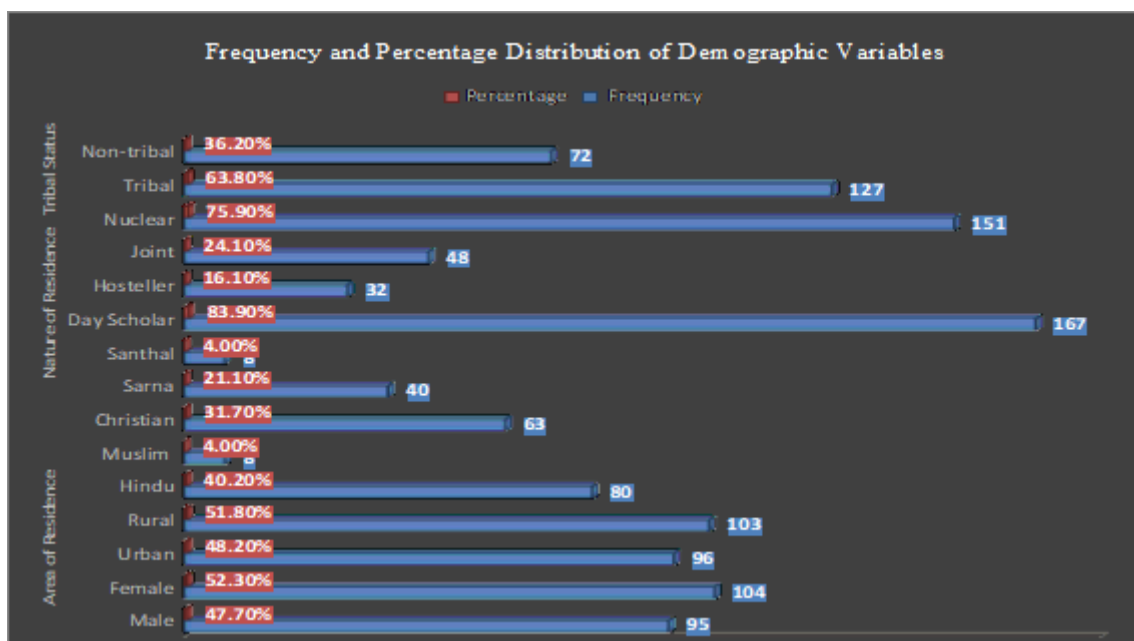
**Table 1: Demographic profile of the sample (n=200)**

Variable		Frequency	Percentage
Gender	Male	95	47.70%
	Female	104	52.30%
Area of Residence	Urban	96	48.20%
	Rural	103	51.80%
Religion	Hindu	80	40.20%
	Muslim	08	4.00%
	Christian	63	31.70%
	Sarna	40	21.1%
	Santhal	08	4.00%
Nature of Residence	Day Scholar	167	83.90%
	Hosteller	32	16.10%
Family Type	Joint	48	24.10%
	Nuclear	151	75.90%
Tribal Status	Tribal	127	63.80%
	Non-tribal	72	36.20%

The socio-demographic characteristics of the sample provide significant context for understanding variations in perceived stress and academic performance among students. The current profile indicates a balanced gender distribution, with females (52.30%) slightly outnumbering males (47.70%). In terms of area of residence, a marginally higher proportion of participants belonged to rural areas (51.80%) compared to urban areas (48.20%), suggesting adequate representation of both backgrounds.

With respect to religion, the sample was diverse, with the majority being Hindu (40.20%), followed by Christian (31.70%) and Sarna (20.1%), while Muslim and Santhal participants constituted comparatively smaller proportions (4.00% each). This diversity reflects a multicultural composition of the sample. In terms of nature of residence, most participants were day scholars (83.90%), with a smaller proportion residing in hostels (16.10%), indicating that the findings may largely reflect the experiences of students living with their families or in their local environment. In terms of family type, a significant majority of the participants belonged to nuclear families (75.90%), while 24.10% came from joint family systems.

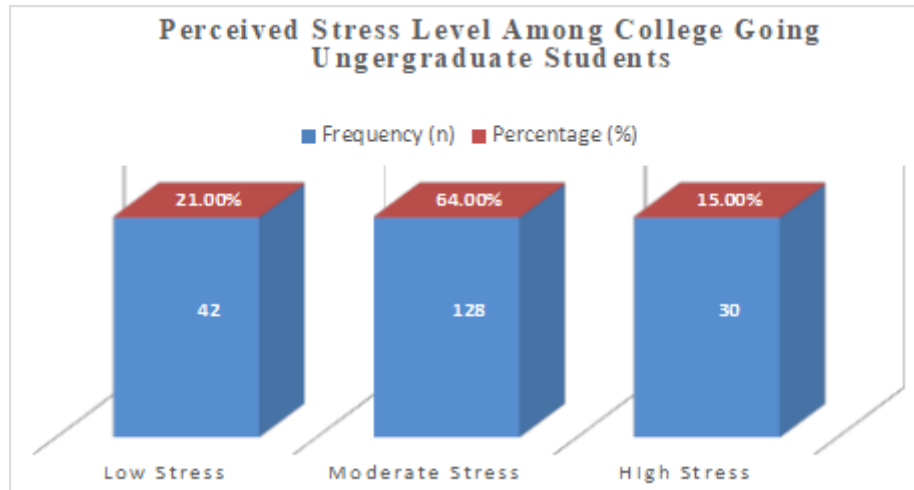
Also, a significant percentage of the sample came from tribal communities (63.80%) as in contrast to non-tribal individuals (36.20%), highlighting the importance of tribal participation in the research. Overall, the demographic characteristics suggest to a diverse sample with variations in social, cultural, and residential backgrounds, which may have significant implications for understanding disparities in students' academic performance, coping mechanisms, and stress levels.



**Table 2: Showing scores obtained by sample on the scale of Perceived Stress Scale**

Stress Level	Score Range	Frequency (n)	Percentage (%)
Low Stress	0-13	42	21.0%
Moderate Stress	14-26	128	64.0%
High Stress	27-40	30	15.0%
<b>Total</b>	-	<b>200</b>	<b>100%</b>

The table shows the distribution of scores obtained on the perceived stress scale by college going undergraduate students. Out of 200 students, majority of the students, (128) (64.0% of the total population), reported moderate levels of stress. Whereas 42 students (21.0% of the total population) reported low level of perceived stress, while 30 students (15.0% of the total population) reported high level of perceived stress.



**Table 3: Correlation between Perceived Stress and Academic Performance in College going undergraduate students.**

Variable	Academic Performance	Perceived Stress
Academic Performance	1	-0.12*
Perceived Stress	-0.12*	1

The table shows the correlation between perceived stress and academic performance in college going undergraduate students. The data shows that perceived stress is significantly negatively correlated with the academic performance. This implies that as the level of perceived stress increases in students, their academic performance tends to decline. This is found to be significant at 0.05 level.

### CONCLUSION

The aim of the study was to assess the relationship between perceived stress and academic performance among college going undergraduate students. This study was mainly concerned with assessing the level of perceived stress and finding the relationship between perceived stress and academic performance. Based on these, hypotheses were formulated which has been discussed further. The study used a correlational design to study the impact of perceived stress on academic performance. Analysis of the collected data has been reported in tables 1 to 3.

From the result table 1, the socio-demographic profile shows a broad spectrum of students in terms of gender, place of residence, religion, family structure, and tribal status. Since prior research indicates that women frequently report greater perceived stress levels, the reasonably equal gender distribution makes it possible to meaningfully examine gender differences in stress and academic performance (Nagle & Sharma, 2018). According to Kapasia et al. (2022), the nearly equal number of rural and urban students underscores the significance of environmental variables, since rural children may have additional academic problems due to restricted access to resources as aligned with the current study.

The cultural diversity highlights the possibility that social and religious origins might affect student's motivation, attitudes, and sense of academic pressure. While hostelers may have adjustment-related challenges as a result of being separated from family, the majority being day scholars suggests the availability of family support, which may assist reduce stress (Wong et al., 2006). The prevalence of nuclear families suggests more customized support networks.

Furthermore, the large percentage of tribal students emphasizes to consider educational and socioeconomic inequalities that may raise stress levels and affect academic performance (Kapasia et al., 2022).

From table 2, it can be concluded that majority of the college going undergraduate students (64.0%) are experiencing moderate level of perceived stress followed by low (21.0%) and high (15.0%) level of perceived stress. This finding is found to align with the study done by Wong, et. al., (2006) among university students in Hong Kong. Batabyal et al. (2021) reported in their study that academic stress has been identified as the most prominent stressor among Indian undergraduate students. This finding is also supported by research done by Adawi and Fadhel (2020). Hence, the proposed hypotheses that there will be a moderate level of perceived stress among college going undergraduate students is accepted.

Also, table 3 shows a significant negatively correlation between perceived stress and academic performance. This inverse relationship implies that high levels of psychological stress may interfere with student ability to concentrate, process information, and effectively engage in academic tasks. Similar finding has been reported in the study by Kapasia et al. (2022) where they found that psychological stress significantly influences academic satisfaction and increase academic risk among Indian college students. Nagle and Sharma (2018) in their study reported that student's experiences stress due to inability to cope with the heavy academic workload, parent's expectation and heavy competition leading to mental health issue like depression, anxiety, and suicide. They further reported that academic stress in Indian students has been linked to adverse mental health outcomes and reduced academic functioning. Hence, the proposed hypotheses that there will be a significantly negative correlation of perceived stress with academic performance is accepted.

### Implications of the Study

The present study contributes to the limited body of research on psychological stress among university students, particularly in the Indian context. By examining perceived stress and its relationship with academic performance, the study provides valuable insights into how stress influences students' academic outcomes. The relatively larger and diverse sample enhances the reliability of findings.

The results highlight the need for interventions aimed at reducing stress and improving student's academic functioning. Educational institutions can implement counselling services, stress management programs, and mental health awareness initiatives to support students. Additionally, integrating self-care and stress management training into academic curricula can help students better manage academic demands. Policymakers and educators can also use these findings to design strategies that promote students' psychological well-being and academic success.

### LIMITATIONS OF THE STUDY AND FUTURE DIRECTION

The study has certain limitations. The use of self-report measures may introduce response bias, affecting the accuracy of responses. Additionally, due to resource constraints, a larger sample size could not be included. Although the sample size is adequate, the use of non-probability sampling techniques may limit the generalizability of the findings. For future research, multidimensional relationships between perceived stress, academic performance, and other psychological variables such as motivation, resilience, and well-being could be explored. Integrating qualitative methods with the quantitative approaches can provide deeper insights into student's experiences. Further studies may also include larger and more diverse samples to improve generalizability. Researches can also be carried out to examine longitudinal effects of stress on academic outcomes and explore physiological indicators of stress (e.g., heart rate variability, hormonal measures) to better understand its impact. Research focusing on rural, tribal, and marginalized student populations can also provide more context-specific insights.

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