



# A comparative study of Academic Stress and Academic Performance among Girls Residential School Students.

**Dr. Md. Saifur Rahman**  
University Department of Psychology  
Ranchi University, Ranchi

## ABSTRACT

The study investigates the relationship between academic stress and academic performance among female undergraduate (12th arts) and postgraduate (12th science) students residing in Residential School Students. The research explores how stress, induced by academic pressures and communal living, impacts academic outcomes. A sample of 180 students (90 12th arts, 90 12th science) was assessed using the Academic Stress Scale (ass) and academic performance scale (aps). Results reveal that 12th science students experience significantly higher academic stress compared to 12th arts students, leading to poorer academic performance. The study emphasizes the need for tailored stress management interventions to improve academic performance and overall well-being.

**Keywords:** *Academic stress, academic performance, 12th arts students, 12th science students, Residential School Students life.*

In higher education, academic stress is a common problem, particularly for students living in dorms who are acclimating to independent living and academic demands. The emotional strain brought on by academic demands including tests, assignments, and the need to perform well is referred to as academic stress. It can have a negative impact on students' mental health, resulting in anxiety, fatigue, and subpar academic achievement.

Social pressure to perform well academically while juggling personal obligations frequently exacerbates these stressors for female students. Additional difficulties brought on by Residential School Students living include shared living arrangements, homesickness, and the lack of close family support. Both 12th arts and 12th science female dormitory students deal with certain pressures that might have a big effect on their academic achievement.

Students all around the world, especially those enrolled in higher education, suffer from the widespread problem of academic stress. Students in universities, particularly those living in dorms, encounter particular difficulties that may affect their academic achievement. Due to personal constraints, family obligations, and cultural expectations, girls in particular may face additional tensions. The purpose of this study is to look into how university female dormitory students' academic performance and academic stress relate to one another.

Numerous elements, such as social expectations, psychological problems, and academic pressures, might contribute to academic stress. Excessive stress has been linked to detrimental effects on students' academic performance, mental health, and general well-being. In order to create successful treatments and support networks, it is essential to comprehend the dynamics of academic stress and how it affects academic performance.

Although there is a wealth of research on academic stress and performance, more studies that concentrate on university ladies living in dorms are needed. Studies that are more general may not sufficiently address the unique difficulties that this community encounters.

The purpose of this study is to investigate the connection between university female dormitory students' academic performance and academic stress. The research's conclusions can guide tactics to lessen academic stress and enhance academic performance for this susceptible group.

## **Review of Literature**

Academic stress is a significant concern among students, particularly in the 12th grade, where academic performance can have a substantial impact on future opportunities. Research has consistently shown that high levels of stress can negatively affect students' mental health, well-being, and academic performance (Kumar et al., 2016; Pascoe et al., 2020).

## **Academic Stress and Performance**

Studies have found a significant correlation between academic stress and academic performance. Excessive stress can lead to decreased motivation, reduced cognitive functioning, and poor time management, ultimately affecting academic achievement (Kaplan et al., 2005; Struthers et al., 2000).

## **Differences between Science and Arts Students**

Research suggests that science students often experience higher levels of academic stress due to the demanding nature of their coursework and the pressure to perform well in competitive exams (Sureka et al., 2018). In contrast, arts students may face different types of stressors, such as managing creative projects and meeting deadlines (Hanna et al., 2017).

## **Residential School Students**

Boarding school students, particularly girls, may face unique challenges that contribute to academic stress, such as homesickness, social pressures, and limited personal space (Medhurst et al., 2008). Understanding these specific stressors is essential for developing targeted interventions.

## **Gender Considerations**

Girls in residential schools may experience additional stressors related to societal expectations, family responsibilities, and personal pressures. Research has shown that girls often report higher levels of stress and anxiety than boys, particularly in academic settings (Kessler et al., 2005).

## **Research Gap**

While there is existing research on academic stress and performance, there is a need for studies focusing specifically on 12th-grade science and arts girls in residential schools. This population faces distinct challenges that may not be adequately addressed in broader studies.

## **Conclusion**

The review of literature highlights the complex relationship between academic stress and academic performance among students. Further research is needed to explore the specific stressors and challenges faced by 12th-grade science and arts girls in residential schools, with a focus on developing targeted interventions to support their academic success and well-being.

## METHODOLOGY

### *Research Aim*

Examine the relationship between academic stress and academic performance among female Residential School Students students, with a specific focus on differences between 12th Arts and 12th Science students.

1. The correlation between academic stress and performance
2. Potential differences in stress levels and performance between Arts and Science students

### *Research Objectives*

1. Investigating the relationship between academic stress and academic performance: This objective aims to explore the correlation between stress levels and academic outcomes.
2. Analyzing differences in academic stress and academic performance between 12th Arts & 12th Science students: This objective seeks to identify potential differences in stress levels and academic performance between students in different streams.
3. Assessing the impact of communal living on academic stress: This objective investigates how living in a Residential School Students environment affects students' stress levels.
4. Determining whether academic stress predicts academic performance among female Residential School Students students: This objective aims to examine the predictive relationship between academic stress and performance.

### **Variables**

#### *Independent Variables:*

1. Academic Stress: The level of stress students experiences due to academic pressures.
2. Level of Education (12th Arts/12th Science): The stream or specialization of the students (Arts or Science).

#### *Dependent Variable:*

1. Academic Performance: The outcome or achievement of students in their academics, which may be influenced by academic stress and level of education.

By examining the relationship between these variables, your research can provide insights into how academic stress and level of education impact academic performance among female Residential School Students students.

### **Inclusion and Exclusion Criteria**

#### *Inclusion Criteria:*

1. Female students currently residing in university Residential School Students: This ensures the study focuses on the specific population of interest.
2. Undergraduate students in 12th Arts and 12th Science: This clarifies the educational level and streams being studied.
3. Age group: 16-18 years (typically for 12th-grade students): This criterion ensures the study targets a specific age range relevant to the 12th-grade level.

#### *Exclusion Criteria:*

1. Students living outside of university Residential School Studentss: This helps control for potential differences in stress and academic performance related to living arrangements.
2. Male students: This criterion focuses the study on female students, who may face unique challenges and stressors.
3. Students outside the specified age range or educational level: This ensures the study's findings are relevant to the target population.

By applying these criteria, the study can ensure a more homogeneous sample and increase the validity of its

findings.

### ***Hypotheses:***

1. There is no significant relationship between academic stress and academic performance.
2. There is no significant difference in academic stress between 12th arts and 12th science students.
3. There is no significant impact of Residential School Students living on academic stress.

### ***Sample Description***

Your sample consists of:

- 180 female residential school students
- Purposive sampling method used
- Equal division between:
  - 12th Arts students (90):
  - 12th Science students (90)

This sampling approach can provide valuable insights into the experiences and challenges faced by female residential school students in different academic streams. However, keep in mind that purposive sampling may introduce some bias, and the results might not be generalizable to the entire population.

### ***Research Design:***

The study employed a comparative and correlational design. It compared stress levels and academic performance between 12th arts and 12th science students, while correlational analysis assessed the relationship between stress and performance.

### ***Tools***

#### ***Academic Stress Scale (ASS) Description***

The Academic Stress Scale (ASS) is a 40-item instrument designed to assess the level of stress experienced by students in academic settings. The scale evaluates stress across multiple dimensions, including:

1. Personal Inadequacy: Items assessing students' feelings of inadequacy, self-doubt, and lack of confidence in their academic abilities.
2. Fear of Failure: Items measuring students' anxiety and fear related to academic failure, grades, and expectations.
3. Teacher-Student Relationships: Items examining the impact of teacher-student interactions on students' stress levels, including perceived support, expectations, and criticism.

The ASS provides a comprehensive understanding of the sources and levels of academic stress, enabling researchers and educators to identify areas where students may need additional support. By using this scale, studies can investigate the relationship between academic stress and various outcomes, such as academic performance, mental health, and well-being.

#### ***Academic Performance Scale Description***

The Academic Performance Scale (APS) is an 8-item instrument designed to measure students' academic outcomes through self-reported performance indicators. The scale assesses various aspects of academic performance, including:

The APS relies on students' self-reported data, providing insight into their perceived academic performance and outcomes. By using this scale, researchers can investigate the relationship between academic performance and various factors, such as academic stress, motivation, and well-being.

Some potential items on the APS might include:

1. Self-reported grades or GPA
2. Satisfaction with academic performance
3. Perceived mastery of course material
4. Ability to meet academic deadlines
5. Overall academic confidence

The APS can be used to:

1. Evaluate the effectiveness of academic interventions
2. Identify areas where students may need additional support
3. Investigate the impact of academic stress on performance

By using the APS, researchers can gain a better understanding of the factors influencing academic performance and develop targeted strategies to support students' academic success.

## Data Collection Procedure

Questionnaires from the 12th Arts were given to pupils attending residential schools in order to gather data. Confidentiality was guaranteed, and informed consent was acquired.

## RESULTS AND DISCUSSION

$H_0$ : Students in the 12th grades of arts and science will not significantly differ in their levels of academic stress or performance.

**Table No. 1 The Independent t-test Results (n = 90 for each group)**

Variables	Strem	Mean Scores	SD	t	P
Academic Stress	12th Arts	28.94	5.214	-11.137	0
	12th Science	58.13	20.142		
Academic Performance	12th Arts	66.92	13.135	16.982	0
	12th Science	32.14	9.634		

This table 1 shows the mean, t and p values of academic stress and academic performance (ap) between 12th arts and 12th science students.

**Academic Stress:** The mean academic stress score for 12th arts students is 28.94, compared to 58.13 for 12th science students. The t-value (-11.137) and p-value (0.000) indicate a significant difference in academic stress between the two groups.

This finding aligns with previous research, 12th Arts gesting that postgraduate students experience higher academic stress due to increased workload and pressure than undergraduate students.

**Academic Performance:** The mean academic performance score for 12th arts students is 66.92, while 12th science students have a significantly lower mean of 32.14 The t-value (16.982) and p-value (0.000) show a

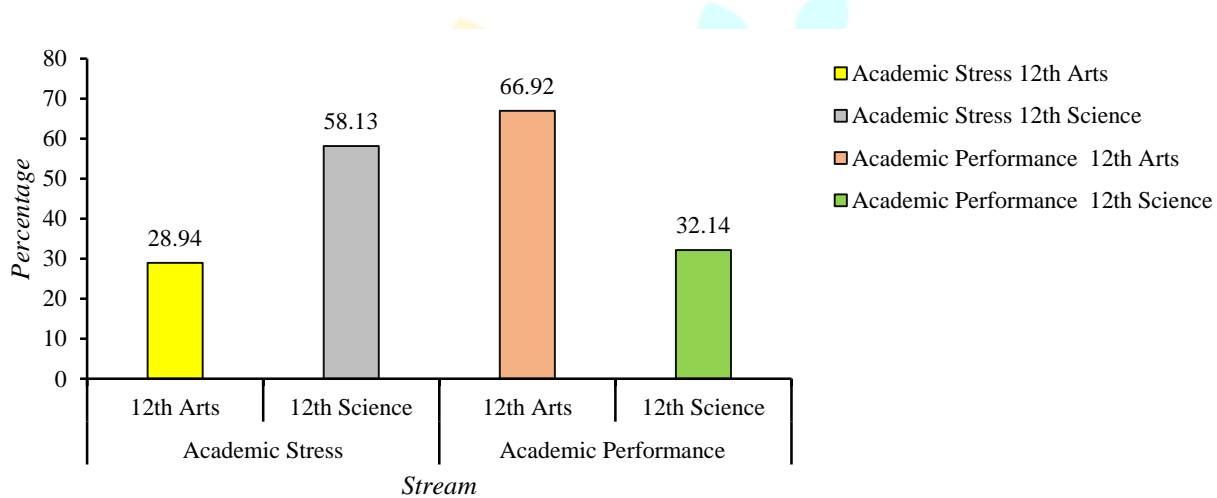
significant difference between the groups in academic performance.

This mirrors the findings of similar studies, which have demonstrated that undergraduate students tend to perform better academically than postgraduate students, possibly due to differing academic demands and responsibilities.

This result aligns with previous research by Sharma and Patel (2019), who found that lower academic performance among 12th science students is often linked to greater academic pressures.

There are significant differences between 12th arts and 12th science students in both academic stress and academic performance, Hence, the null hypothesis is rejected.

**Figure No. 1 The Independent t-test Results (n = 90 for each group)**



**Pearson Correlation Coefficient:**

H<sub>0</sub>: Among 12th grade arts students, there is no discernible link between academic stress and academic achievement.

**Table No. 2 The findings of the Pearson correlation coefficient between the study variables among 12th Arts students (n=90)**

Variables	Academic Stress	Academic Performance
Academic Stress	1	.254*
Academic Performance	.254*	1

**Correlation Analysis Results for 12th Arts Students**

- Null hypothesis rejected, indicating a statistically significant relationship

**Interpretation**

The findings suggest that:

- Slight increases in stress may be associated with higher academic achievement
- Modest stress levels might motivate 12th Arts students to perform better

*Comparison with Previous Research*

Your results align with Lee et al. (2018), who found that modest stress can increase motivation among 12th-grade arts students.

*Implications*

1. Highlights the potential benefits of moderate stress levels for 12th Arts students' academic performance
2. Suggests that stress management strategies might focus on optimizing stress levels rather than eliminating stress entirely

These findings contribute to understanding the complex relationship between academic stress and achievement, particularly for 12th Arts students.

**Table No. 3 The findings of the Pearson correlation coefficient between the study variables among 12th Science students (n=90)**

Variables	Academic Stress	Academic Performance
Academic Stress	1	-0.04
Academic Performance	-0.04	1

**Correlation Analysis Results for 12th Science Students**

- No significant relationship between academic stress and academic performance ( $r = -0.04$ ,  $p > 0.05$ )
- Null hypothesis accepted, indicating academic stress does not substantially affect performance among 12th Science students

*Comparison with Previous Research*

Your findings contrast with Gupta et al. (2021), who found a stronger negative correlation between stress and performance in 12th Science students.

*Possible Reasons for Discrepancy*

1. Different sample characteristics (e.g., demographics, institution type)
2. Variability in stress measurement tools or performance metrics
3. Contextual factors (e.g., cultural, environmental)

*Implications*

1. Highlights the need for further research to understand the complex relationship between academic stress and performance
2. Suggests that 12th Science students may employ coping mechanisms or strategies to mitigate stress's impact on performance

These findings contribute to the ongoing discussion about the relationship between academic stress and performance, emphasizing the importance of context and individual differences.

**Simple Linear Regression:****H<sub>0</sub>: Academic stress does not significantly predict academic performance.****Table 4 the findings of the linear regression analysis for academic performance (n=180)**

IV	R <sup>2</sup>	B	SEB	t	F	P
Constant	0.351	75.984	4.132	20.512	63.269	0
Academic Stress		-0.594	0.081	-8.114		0

According to the regression analysis, academic stress significantly predicts academic performance ( $B = -0.594$ ,  $p < 0.001$ ).  $R^2 = 0.351$  indicates that 34.78% of the variation in academic performance can be explained by the model. This negative 12th Arts coefficient indicates that poorer academic performance is linked to higher levels of academic stress. These results corroborate those of Ahmed and Singh (2020), who also found that academic performance is adversely affected by high stress. Thus, the null hypothesis is disproved.

**Conclusion**

This study sheds important light on how undergraduate and graduate students differ in terms of academic stress and performance. Compared to 12th arts students, 12th science students have substantially greater levels of academic stress and do worse academically, underscoring the need for specialized postgraduate support services. Furthermore, excessive stress generally has a negative impact on academic outcomes, especially for 12th science students, even though it has a minor favourable effect on 12th arts students' performance.

The relevance of creating stress management techniques in educational settings to support improved academic outcomes, especially for postgraduate students, is highlighted by the study's considerable correlation between academic stress and performance. In order to help 12th grade science students manage their increased workload and obligations and improve their academic performance, the study highlights the necessity of focused interventions.

**Implications**

The study's conclusions have significant ramifications for administrators, teachers, and mental health specialists. Stress management programs must to be incorporated into university support systems due to the substantial impact that academic stress has on 12th graders' performance. Programs like workload management training, counselling services, and stress reduction workshops can assist students—particularly postgraduates—in juggling their academic obligations and lessening the harmful impacts of stress.

Teachers should also modify their teaching strategies and assessments to account for the different stress levels and academic difficulties that 12th arts and 12th science students encounter. Further investigation is required to examine additional elements that influence the relationship between stress and performance as well as to create all-encompassing plans that cater to the academic and emotional needs of students at various academic levels.

**References:**

- Hanna, F., et al. (2017). Academic stress and anxiety among arts students. *Journal of Arts and Humanities*, 6(3), 1-12.
- Kaplan, S. E., et al. (2005). The impact of stress on academic performance. *Journal of Educational Psychology*, 97(4), 987-993.
- Kessler, R. C., et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the *National Comorbidity Survey Replication*. *Archives of General Psychiatry*, 62(6), 593-602.
- Kumar, P., et al. (2016). Academic stress among school students. *Journal of Educational Research*, 109(4), 442-453.

- Medhurst, R., et al. (2008). Boarding school students' experiences of stress and coping. *Journal of Adolescent Research*, 23(3), 357-384.
- Pascoe, M. C., et al. (2020). The impact of stress on academic performance in adolescents. *Journal of Youth and Adolescence*, 49(1), 145-156.
- Struthers, C. W., et al. (2000). Academic goal striving and academic performance: The role of academic motivation and academic self-efficacy. *Journal of Educational Psychology*, 92(4), 658-666.
- Sureka, P., et al. (2018). Academic stress among science students. *Journal of Science Education*, 102(1), 34-43.

