

## **Level of Academic Stress and its Influence on the Academic Achievements of Students at Mirpur University of Science and Technology**

\* Masood ur Rehman, Lecturer (Education)

\*\* Syed Jawad Zareen Shah, Assistant Professor (Corresponding Author)

\*\*\* Sher Bano, EST

### **Abstract**



*Academic Stress among university students is a major problem that may negatively affect their grades. Students often experience academic pressure because of the difficulties they face at the university level. This quantitative study aims to evaluate the level of academic stress among the students of Mirpur University of Science and Technology (MUST), Mirpur, Azad Jammu & Kashmir, and its effect on their academic achievements. For this purpose, the causal-comparative research design was used, and the “Academic Stress Scale for University Students” (Noreen et al., 2021) was administered to assess the levels of stress experienced by 331 participants (202 male and 129 female students, stratified by degree level). The CGPA of students was taken as a measure of their academic achievements. SPSS 25 was used to run a t-test and linear regression analysis on the collected data. The findings showed that both male and female students experience similar levels of academic stress with no significant difference between the two groups. Furthermore, the study found that academic stress has little (but not significant) impact on students’ academic achievements, as it only accounts for a small portion of the variation. These results suggest that while academic stress is a concern, it may not be a major factor in students’ academic achievements at MUST.*

**Keywords:** Academic Stress, Academic Achievement, Tertiary Education

### **Introduction**

Researchers (Misra and McKean, 2000) have found that academic stress is a multidimensional concept that includes academic, emotional, and social stressors. Many things can cause academic stress, such as the amount of work, the pressure to do well on exams, and social pressure. So, it's important to figure out the specific things that stress out students and come up with ways to help them deal with them. On the other end, researchers like Tus (2020) argued that many significant factors impact the performance of students in academic performance. Academic stress is one of those factors. Fuente et al. (2020) commented on the stress in university students. They argued that university students, stress can manifest as a build-up of emotional strain caused by academic responsibilities and uncertainty about the future. Moreover, the same study claimed that academic stress among university students was found, in the general population or college students. Pascoe et al (2020) concluded in their study that students at all levels faced academic stress including higher education. Although several studies have examined the relationship between academic stress and academic achievement, very few studies have been conducted in the context of Azad Jammu & Kashmir and especially for Mirpur University of Science and Technology. Previous research has concentrated on methods for coping with stress, rather than evaluating the degree to which academic stress affects academic performance. Consequently, the objective of this investigation is to scrutinize the level of academic stress that students encounter at Mirpur University of Science and Technology and analyse how it affects their academic success. This study is important because it could help teachers and policymakers understand how important it is to help students deal with academic stress. The study will add a significant literature and findings in the existing knowledge. By knowing what causes academic stress and how it affects academic performance, teachers can create effective interventions and support systems to assist pupils in dealing with academic stress and performing better in school.

\* Government College of Education, Afzalpur Email: [masood.edu@outlook.com](mailto:masood.edu@outlook.com)

\*\* Department of Education, University of Poonch, Rawalakot Email: [jawadzareen@upr.edu.pk](mailto:jawadzareen@upr.edu.pk)

\*\*\* Department of Elementary and & Secondary Education, Government of AJK

**Objectives:**

The following are the study's objectives:

1. To find out the gender-based differences in the academic stress level of students enrolled in MUST.
2. To investigate the influence of academic stress on the academic achievements of students at MUST.

**Research Hypotheses**

H1: Male and female students in MUST's higher education system report similar levels of academic stress.

H2: Students' academic performance in MUST is significantly affected by academic stress.

**Literature Review**

This section of the literature review explores the sources of academic stress and the relationship between the level of academic stress experienced by students and their academic achievements.

**Academic Stress**

Yang et al. (2021) argued that academic stress is a common problem for students at all levels of schooling, even at the college level. The term stress is defined by Tus (2020) that anything that presents a difficulty or danger to an individual's health and happiness can be considered as stress. It referred to the stress that students go through because of things like tests, homework, and deadlines. Stress from school can cause both mental and physical problems, such as anxiety, depression, and trouble sleeping. According to a study by Yusoff et al. (2010), university students have a lot of academic stress, which affects both their schoolwork and their personal lives. Adom et al (2020) explored that academic stress is one of the significant issues among university students. This study concluded that stress can be negative or positive. The study commented that academic stress is a psychosocial issue, which can hinder the progress of students and learners. Moreover, Academic stress can hurt how well students do in school, leading to lower grades, less motivation, and a higher rate of dropping out.

**Sources of Academic Stress**

Academic stress has been the focus of numerous studies in the higher education context. The literature suggests that common sources of academic stress include academic workload, time constraints, exams, and financial constraints (Kaltiala-Heino et al., 2000). However, the sources of academic stress can differ based on various factors, such as individual traits and academic environments. The goal of Akinboy's (2019) study was to find out what makes Nigerian college students stressed about school. As the data revealed, the most prevalent causes of academic stress among the participants were the amount of work they had to do, their inability to manage their time well, their fear of failing, and their lack of money. These findings suggest that academic stress is not universal and can differ depending on individual and contextual factors. Understanding the sources of academic stress is crucial to developing effective strategies to manage stress and promote academic success.

In line with the previous study, Ali et al. (2015) investigated the sources of academic stress among Pakistani medical students. The study discovered that the main causes of academic stress were a large amount of work, exam pressure, and a lack of social support. Furthermore, research has demonstrated that female students experience elevated levels of academic stress compared to male students. These findings indicate that female medical students require specialised support programmes to cope with the academic stress they face. Another study, done by Shah and Afsar (2019), investigated what causes college students in Pakistan so much stress. Academic workload, social isolation, and family pressure were identified as the most common sources of academic stress in the study. These findings suggest that social support and family dynamics can play a significant role in either mitigating or exacerbating academic stress levels among Pakistani undergraduate students. Therefore, targeted interventions that address these factors may prove effective in reducing academic stress among this population. Taken together, the findings of these studies emphasise the need for further research and interventions that target the sources of academic stress among students in Pakistan. Specifically, efforts should be made to identify the unique stressors faced by female students in medical education and to develop programmes that provide targeted support to this population. Additionally, interventions that address academic workload, social isolation, and family pressure may be useful in lowering academic stress among Pakistani undergraduate students.

Yusoff et al. (2019) did a study in Malaysia to find out why medical students get stressed out about school. The results showed that the three most important sources of academic stress were academic workload, clinical training, and the pressure to do well in school. Based on these results, it seems likely that the way a medical school is taught in Malaysia may contribute to the stress that students feel in school. In the same way, Al-Dabal and Koura (2017) studied medical students in Saudi Arabia to find out what causes them the most stress in school. The study revealed that academic workload, inadequate preparation for exams, and difficulty adapting to the medical school environment were the primary sources of academic stress.

These findings imply that academic stress among medical students may be a universal phenomenon, regardless of the region or cultural background of the students. These studies show that academic stress is a big problem for students and can come from many different things, like the amount of work they have to do and the pressure to do well in school. The findings highlight the need for interventions and support programmes that can help medical students manage and alleviate academic stress.

### **Level of Academic Stress**

A recent study has shown that male and female students suffer different levels of academic stress. Academic stress among college students has been the subject of several studies looking at its prevalence and root causes. For example, Ali et al. (2015) conducted research on the sources of academic stress experienced by medical students in Pakistan. Their findings revealed that female students experienced higher levels of stress compared to their male counterparts. According to Shah and Afsar (2019), the most common reasons for academic stress among undergraduate students in Pakistan are academic burden, social isolation, and household pressure. These findings emphasise the significance of social support and family factors in determining academic stress levels in both male and female students.

Academic burden, clinical training, and pressure to achieve were identified as the major drivers of academic stress in research by Yusoff et al. (2019) among Malaysian medical students. Al-Dabal and Koura (2017) conducted a similar study on Saudi medical students and found that academic overload, lack of test preparation, and difficulties adjusting to the medical school atmosphere were the most significant contributors to academic stress.

Overall, the studies show that female students are more likely to feel academic stress than their male counterparts and that students' social support systems and family dynamics have a substantial bearing on their stress levels.

### **Academic Achievement and Academic Stress**

Several studies have explored the issue of academic stress among students. Wuthrich, Jagiello, and Azzi (2020) conducted a systematic literature review on academic stress in the final years of school and found that it is a significant issue during this period, with potential negative effects on mental health and academic achievement. A study conducted by Aihie and Ohanaka (2019) explored the level of academic stress that undergraduate students experienced in a Nigerian university. The research findings revealed that academic workload, financial struggles, and the fear of not succeeding were the main causes of stress among the students. Trigueros et al. (2020) found that teachers' behaviour and teaching styles can have a significant impact on students' motivation, academic stress, and learning strategies. These studies highlight the importance of addressing academic stress among students and suggest that a range of factors, such as workload, financial difficulties, fear of failure, and teachers, can contribute to this stress.

Higher levels of academic stress have been demonstrated in several studies, including those conducted by Dolan et al. (2002), Hammen (2005), and Kaltiala-Heino et al. (2000), to be associated with lower grades as well as an increased likelihood of dropping out of college. In addition, the emotional and physical health of students might be adversely affected when they are under excessive academic pressure. For instance, Hammen (2005) discovered that academic stress can increase the risk of physical ailments such as headaches and gastrointestinal difficulties, in addition to the risk of mental health issues such as anxiety and depression. These impacts aren't limited to the classroom; they may have far-reaching ramifications for a student's overall performance and happiness in school, as well as their motivation, engagement, and likelihood of dropping out (Eisenberg & Lennon, 1983; Hetland, Winner, & Sheridan, 2007). To deal with the pressures of school, adolescents must develop healthy coping strategies and get the help they need. It's been shown that this practice has a positive effect on

students' health and happiness, which in turn improves their school performance. In light of these findings, it is abundantly evident that colleges and universities should make alleviating academic stress a top priority in their respective institutions. Institutions may help establish a more conducive learning environment for their students and enhance the overall success of their students by providing support and resources to the students in their institution.

**Methodology**

**Research Design**

This study aims to investigate how academic stress affects academic achievement among students in higher education, with a specific focus on the Mirpur University of Science and Technology. To achieve this goal, a quantitative research method was used, employing a causal-comparative analysis to examine the extent of the impact of academic stress on student performance. The study utilized a cross-sectional design, collecting data from a sample of participants at a single point in time. The participants were selected using a purposive sampling technique, consisting of students enrolled in a degree program at Mirpur University of Science and Technology who had completed at least one semester of coursework.

**Population, Sample and Sampling Technique**

The study's total population is 8375 students at Mirpur University of Science and Technology. The sample selected for the study consists of 331 participants, including 202 males and 129 females. The sample was chosen using a purposive sampling technique based on specific criteria, such as being enrolled in a degree program at MUST and having completed at least one semester of coursework. The participants were further divided into three groups based on their level of education: bachelor's, master's, and M.Phil. The sampling technique was appropriate for the study's goals, allowing for the comparison of results across different levels of education.

**Research Instrument**

The level of academic stress of students was measured via “The Academic Stress Scale for University Students”, constructed and validated by Noreen et al. (2021). The scale included a total of 26 questions written in the Urdu language. The questions were arranged on a five-point Likert scale that ranged from Strongly Disagree (1) to Strongly Agree (5). The academic achievements of the participants were evaluated based on their overall grade point average (CGPA).

**Validity and Reliability of the Research Instrument**

The scale demonstrated high reliability and validity. Internal consistency using Cronbach's alpha coefficient was calculated, with values ranging from .72 to .87 for the scale and subscales, indicating that the instrument consistently measures the same construct. The scale also demonstrated good validity, as confirmed by a confirmatory factor analysis that revealed an excellent model fit to the data.

**Collection and Analysis of Data**

The researchers sought permission from the university authorities and enlisted the help of department heads in identifying potential participants. The participants anonymously completed the Academic Stress Scale, with their confidentiality being ensured by the researchers. In addition, demographic information and CGPA were gathered through a survey that included an attached cover page. The researchers used SPSS 25 to analyse the data that was collected. The collected data was then analysed using inferential statistical methods, which allowed the researchers to conclude the larger population based on the data they collected from their sample. T-tests were used to determine if there was a statistically significant difference in the level of academic stress between male and female participants in the study. Additionally, the researchers used regression analysis to explore the relationship between academic stress and academic performance among students enrolled at MUST. By utilizing these statistical methods, the researchers were able to make more accurate and meaningful conclusions about the relationships between academic stress and academic performance among students at the higher education level.

**Results**

**Table 1**

*Gender of the Respondents*

Gender	f	%
Female	129	39.0
Male	202	61.0
Total	331	100.0

The gender breakdown of the whole sample population of 331 participants is presented in table 1 above. Male participants made up 202 of the entire sample size, while female participants made up 129 of the total. Therefore, male participants accounted for 61 per cent of the overall sample, while female participants were responsible for 39 per cent of the whole sample.

**Table 2**

*Degree Programs of the Respondents*

Degree Program	f	%
M. Phil	95	28.7
Masters	115	34.7
Bachelors	121	36.6
Total	331	100.0

Table 2 presents the frequency and percentage distribution of enrollment of the participants of the study in their respective degree programs. The data pertains to three categories of degree programs: M. Phil, Master, and Bachelor. As per the data presented, most of the participants are enrolled in Bachelor (f=121, 36.6%) followed by Masters (f=115, 34.7%) and M. Phil (f=95, 28.7%) programs. The total number of participants is 331, representing 100% of the sample.

**Table 3**

*Students' Academic Stress Level (Gender-Based Difference)*

Variables	Male (n=202)		Female (n=129)		t (329)	P	95% CL	
	M	SD	M	SD			Lower	Upper
Academic Stress Level	79.08	6.64	77.90	6.51	1.330	0.001	-0.566	2.930

Table 3 shows the mean and standard deviation of academic stress levels reported by male and female students at MUST. The results reveal that male students reported a mean stress level of 79.08 with a standard deviation of 6.64, while female students reported a mean stress level of 77.90 with a standard deviation of 6.51. The t-test conducted shows a significant difference in academic stress levels reported by male and female students at MUST (t=1.330, p=0.001, 95% confidence interval -0.566 to 2.930). This suggests that male and female students do not report similar levels of academic stress. Contrary to Hypothesis 1, the findings suggest that gender plays a significant role in the amount of academic stress experienced by students at MUST. Specifically, male students report higher levels of academic stress than female students.

**Table 4**

*Linear Regression Analysis*

Variables	R	R <sup>2</sup>	B	SE	B	SD	t (329)	P
(Constant)	0.27	0.001	4.835	2.541		6.51	1.903	0.058
Academic Stress Level			-0.16	.032	-0.27		-0.483	0.629

Table 4 includes the correlation coefficient (R), R-square, coefficients (B and B), standard error (SE), standard deviation (SD), t-value, and p-value. The results show that the correlation coefficient between academic stress level and academic performance is negative (-0.16), indicating that there is a weak negative relationship between the two variables. The R-square value is very low (0.001), indicating that only a very small percentage of the variance in academic performance can be explained by the academic stress level. The coefficient of academic stress level is -0.16, with a standard error of 0.032, which means that for every one-unit increase in academic stress level, there is a decrease of 0.16 units in academic performance. However, the t-value for the coefficient is -0.27, with a p-value of 0.483, indicating that the coefficient is not statistically significant at the 0.05 level. Based on these results, it can be concluded that there is no significant relationship between academic stress level and academic performance in MUST. The coefficient of academic stress level is not statistically significant, and the R-square value is very low, suggesting that academic stress does not significantly affect academic performance. Hypothesis 2 stating “students' academic performance in MUST is not significantly affected by academic stress” is accepted.

**Discussions**

The study found that academic stress is a prevalent issue among students at MUST, but it may not have a significant negative impact on their academic achievements. Although male students were slightly more dominant in the sample than female students, there was no statistically significant

difference in stress levels between male and female students, despite the larger proportion of male students in the sample. However, on average, female students are less worried than male students. Male and female students' mean stress levels differ statistically. The difference between male and female students' stress levels is likely real, as indicated by the fact that it has a 95 % confidence interval and hence is unlikely to be attributed to chance alone. According to these results, gender does have a role in determining stress levels, which is consistent with earlier studies (Kaltiala-Heino et al., 2000). Results from a regression study showed a small but statistically significant correlation between students' levels of stress and their grades at MUST. There was a slight downward trend in stress, but it wasn't reflected in the coefficient. This small correlation between stress and grades lends credence to the findings of Hammen (2005). Stress has just a little impact on performance in the classroom, but this fact should not be disregarded. Negative consequences, such as lower motivation and involvement in academic pursuits, increased absenteeism and dropout rates, and an increased risk of mental health disorders including anxiety, depression, and burnout, have been linked to long-term stress (Hetland et al., 2007). Another study in Pakistan by Sohail (2013) reported that in Pakistan, students at the tertiary level faced depression and anxiety. This leads to psychophysical and psychosocial problems among learners. The same study resulted that there is a significant relationship between stress and the academic performance of students, as they are concerned about their future. In contrast to this study, the present study showed a slight relationship between academic stress and academic performance. That's why it's so important for learners to learn how to manage their stress and connect with others in healthy ways.

### **Conclusion**

The purpose of this study was to identify the differences in academic stress between male and female students in MUST and its influence on their academic achievements. The study found that academic stress is a prevalent issue among students at MUST. However, there were no significant differences in stress levels between male and female students. Additionally, the study found that academic stress did not have a significant impact on students' academic performance. The amount of academic stress only explains a very small percentage of the variation in academic performance.

### **Recommendations**

The study recommends that:

1. Targeted support and resources may be provided to male students to manage stress levels effectively.
2. Further research may be conducted with a more diverse sample to explore the relationship between gender and academic stress.
3. Awareness about academic stress among students and educators may be raised through seminars and awareness campaigns.
4. Stress management programs tailored for male students at MUST may be introduced.

### **References:**

- Adom, D., Chukwuere, J., & Osei, M. (2020). Academic Stress among Faculty and Students in Higher Institutions. *Pertanika Journal of Social Sciences & Humanities*, 28(2).
- Aihie, O. N., & Ohanaka, B. I. (2019). Perceived academic stress among undergraduate students in a Nigerian University. *Journal of Educational and Social Research*, 9(2), 56.
- Akinboye, J. O., Akinboye, D. O., & Adeyemo, D. A. (2002). Coping with stress in life and workplace. *Stirling-Horden Publishers (Nig.) Ltd.*
- Al-Dabal, B. K., Koura, M. R., Rasheed, P., Al-Sowielem, L., & Makki, S. M. (2010). A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos University Medical Journal*, 10(2), 231.
- Ali, M., Asim, H., Edhi, A. I., Hashmi, M. D., Khan, M. S., Naz, F., ... & Jehan, I. (2015). Does academic assessment system type affect levels of academic stress in medical students? A cross-sectional study from Pakistan. *Medical education online*, 20(1), 27706.
- Bedewy, D., & Gabriel, A. (2015). Examining perceptions of academic stress and its sources among university students: The Perception of Academic Stress Scale. *Health psychology open*, 2(2), 2055102915596714.
- De la Fuente, J., Peralta-Sánchez, F. J., Martínez-Vicente, J. M., Sander, P., Garzón-Umerenkova, A., & Zapata, L. (2020). Effects of self-regulation vs. external regulation on the factors and symptoms of academic stress in undergraduate students. *Frontiers in Psychology*, 11, 1773.

- Eisenberg, D., & Lennon, R. (1983). Sex differences in empathy and related capacities. *Psychological Bulletin*, 94(1), 100-131.
- Hammen, C. (2005). Stress and depression. *Annual Review of Clinical Psychology*, 1, 293-319.
- Hetland, L., Winner, E., & Sheridan, K. (2007). Studio thinking: The real benefits of visual arts education. New York, NY: Teachers College Press.
- Kaltiala-Heino, R., Rimpela, M., Rantanen, P., & Rimpela, A. (2000). Bullying, depression, and suicidal ideation in Finnish adolescents: School survey. *British Medical Journal*, 321(7257), 646-650.
- Liu, X., & Wang, Q. (2017). Academic stress, coping strategies, and life satisfaction in Chinese university students: A structural equation modeling approach. *Current Psychology*, 36(4), 547-556.
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies*, 16(1), 41.
- Noreen, S., Ghayas, S., Khalid, S., & Awan, S. M. (2021). Construction and validation of academic stress scale for university students. *Pakistan Journal of Education*, 38(2), 1-24.
- Ostrov, J. M., & Keith, T. Z. (2006). Academic stress, coping, and depression in college students: An examination of gender differences. *Sex Roles*, 55(1-2), 81-90.
- Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25(1), 104-112.
- Shakeel, S., Fazal, S., & Majoka, M. I. (2022). Academic Stress among University Students in Pakistan: Causes and Consequences. *Research Journal of Social Sciences and Economics Review*, 2(2), 27-34.
- Sohail, N. (2013). Stress and academic performance among medical students. *J Coll Physicians Surg Pak*, 23(1), 67-71.
- Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Lirola, M. J., García-Luengo, A. V., Rocamora-Pérez, P., & López-Liria, R. (2020). The influence of teachers on motivation and academic stress and their effect on the learning strategies of university students. *International Journal of Environmental Research and Public Health*, 17(23), 9089.
- Tus, J. (2020). Academic stress, academic motivation, and its relationship on the academic performance of the senior high school students. *Asian Journal of Multidisciplinary Studies*, 8(11), 29-37.
- Wuthrich, V. M., Jagiello, T., & Azzi, V. (2020). Academic stress in the final years of school: A systematic literature review. *Child Psychiatry & Human Development*, 51, 986-1015.
- Yang, C., Chen, A., & Chen, Y. (2021). College students' stress and health in the COVID-19 pandemic: The role of academic workload, separation from school, and fears of contagion. *PloS one*, 16(2), e0246676.
- Yusoff, M. S. B., Rahim, A. F. A., & Yaacob, M. J. (2010). Prevalence and sources of stress among Universiti Sains Malaysia medical students. *The Malaysian journal of medical sciences: MJMS*, 17(1), 30.