

Relationship between Academic Stress, Cyberloafing and Academic Achievement among Undergraduate Students

Iqra ¹ Umbreen Ishfaq ^{2*} Tehseen Tahir ³ Sehrish Fida ⁴ Bushra Habib ⁵

¹ M.Phil. Scholar, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.

Email: iqrakhan0560@gmail.com

² Professor, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.

Email: umbreenishfaq@uoh.edu.pk

³ Assistant Professor, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.

Email: tehseen.tahir@uoh.edu.pk

⁴ M.Phil. Scholar, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.

Email: sehrishfida97@gmail.com

⁵ M.Phil. Scholar, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.

Email: bushrahabib2205@gmail.com

ABSTRACT: The aim of this study was to examine the relationship between academic stress, cyberloafing and academic performance of undergraduate students. The quantitative descriptive survey research design with correlational and comparative approaches were used, where structured questionnaires were used to collect data from 324 students (162 male and 162 female) of the University of Haripur. The study examined dimension of academic stress such as inadequate study facilities (ISF), teacher–pupil relationship (TPR), personal inadequacy (PI), interpersonal difficulties with teachers (IDT) and fear of failure (FOF) and dimension of cyberloafing was divided into sharing, shopping, real-time updates (RTU), accessing online content (AOC), and gaming. The results showed that students' academic stress experienced was moderate, and the most frequent stress dimension was fear of failure. The students' level of cyberloafing was moderate, with real-time updates being the most common cyberloafing behavior. The correlation analysis revealed that the academic stress and cyberloafing had high positive correlation. The results also demonstrated significant negative correlations between academic stress and academic achievement, and between cyberloafing and academic achievement. Inadequate study facilities showed the strongest negative relationship with CGPA among stress dimensions, while gaming demonstrated the strongest negative relationship among cyberloafing. For undergraduate students, there were no significant gender differences in academic stress, cyberloafing or academic achievement, as found by an independent samples t-test. The overall findings indicate that increased academic stress and increased cyberloafing negatively affect students' academic performance and highlight the need for stress management and responsible technology use among university students.

Pages: 86 – 93

Volume: 5

Issue: 2 (February 2026)

Corresponding Author

Umbreen Ishfaq

✉ umbreenishfaq@uoh.edu.pk

Cite this Article: Iqra., Ishfaq, U., Tahir, T., Fida, S., & Habib, B. (2026). Relationship between Academic Stress, Cyberloafing and Academic Achievement among Undergraduate Students. *The Regional Tribune*, 5(2), 86-93.

<https://doi.org/10.55737/trt/v-ii.364>

KEYWORDS: Academic Stress, Cyberloafing, Academic Achievement, Undergraduate Students

Introduction

The rapid expansion of digital technologies has significantly transformed higher education by enhancing access to learning resources, communication, and academic support systems. Universities increasingly integrate digital tools such as smartphones, laptops, and internet-based platforms into teaching and learning processes. While these technologies offer substantial academic benefits, they have also introduced new behavioural challenges among students, particularly cyberloafing. Cyberloafing refers to the use of digital devices for non-academic purposes during instructional or study time. When combined with academic stress, such behaviour may negatively influence students' academic achievement. Academic stress is described as the psychological and physiological reaction that happens when academic demands surpass the coping capability of students (Pascoe et al., 2020). It results from various factors such as fear of failure, workload stress, time pressure, poor learning environment, and poor teacher-student relationship (Reddy et al., 2018). The prolonged academic stress has been linked to anxiety, depression, irritability, and decreased academic performance (Al-Shahrani et al., 2023). The competitive grading system and high academic expectations in University settings further exacerbate stress. With the ubiquitous presence of Internet-connected devices in the classroom, cyberloafing has become an increasingly prevalent cyber behavior among college students. It involves social media, gaming, shopping, browsing unrelated content, and instant messaging while doing homework (Akbulut et al., 2016; Hibrian et al., 2022). The study shows that cyberloafing could be a coping strategy for students to temporarily remove them from the academic burden (Simatupang & Margaretha, 2023). But such actions can lower attention, interrupt learning processes and have a negative impact on academic engagement. Academic achievement is defined as the achievement of students in relation to their educational objectives and is measured through student grade point average (GPA) or standardized tests (Steinmayr et al., 2014). Academic stress and excessive use of non-academic digital devices could have detrimental effects on academic performance, as previous studies have indicated that they can negatively affect concentration, motivation, and effective study time. University students' academic performance and well-being have also been found to be negatively affected by stressful academic experiences (Khan et al., 2013).

Despite growing interest in digital behaviour and student performance, limited empirical attention has been given to the combined influence of academic stress and cyberloafing on academic achievement, particularly in developing country contexts. Understanding this relationship is important for developing effective educational strategies that promote academic success and responsible technology use. Therefore, the present study aims to examine the relationship between academic stress, cyberloafing, and academic achievement among university students. Academic stress, cyberloafing, and academic achievement are important aspects of university students' academic experiences. Academic stress occurs when academic demands exceed students' perceived abilities or available coping resources (Sriwahyuningsih & Barseli, 2023). It may arise from excessive workload, examinations, time-management difficulties, fear of failure, inadequate learning facilities, and interpersonal difficulties with teachers (Fairbrother & Warn, 2003; Ramachandiran & Dhanapal, 2018). Previous studies indicate that excessive academic stress can negatively affect students' psychological well-being, concentration, motivation, and academic performance (Reddy et al., 2018; Sohail, 2013). Similarly, Pozos-Radillo et al. (2014) and Schraml et al. (2012) reported a significant association between academic stress and academic achievement, suggesting that students experiencing higher levels of stress may be more likely to experience difficulties in their academic performance. The increasing use of smartphones and internet technologies has introduced another important concern in higher education, known as cyberloafing. Cyberloafing refers to the use of the internet or digital devices for non-academic purposes during academic activities (Taneja et al., 2015; Ozdamli & Ercag, 2021). Common cyberloafing activities include social networking, personal messaging, online shopping, accessing online content, real-time updating, and gaming (Akbulut et al., 2016; Simanjuntak et al., 2022). Although digital technologies can facilitate learning, their

inappropriate use may divert students' attention from academic tasks and reduce classroom engagement (Yilmaz et al., 2015; Akgün, 2020).

Research suggests that academic stress and cyberloafing may be positively related. Students experiencing high academic pressure may engage in non-academic internet activities as a way of escaping academic demands or managing stress. Chen et al. (2021) found that higher academic stress was associated with increased cyberloafing among university students. Similarly, Hibrian et al. (2022) and Nweke et al. (2024) reported significant positive relationships between academic stress and online loafing. More recent evidence suggests that individual characteristics may influence this relationship. Zhou et al. (2021) found that the relationship between academic stress and cyberloafing was stronger among students with lower self-control, indicating that self-regulation may play an important role in students' responses to academic pressure.

Cyberloafing has also been associated with academic achievement. Students who engage in non-academic internet activities during lectures may divide their attention between academic and unrelated online activities, which can interfere with learning (Wu et al., 2018). Simatupang and Margaretha (2023) reported that cyberloafing negatively affected academic achievement and students' motivation to learn. However, the relationship may not always be entirely negative. Wu et al. (2018) and Guo et al. (2025) reported an inverted U-shaped relationship, suggesting that moderate cyberloafing may have limited or temporary benefits, whereas excessive cyberloafing is associated with poorer academic outcomes. This indicates that the frequency, intensity, and context of cyberloafing may determine its academic consequences.

The relationship among academic stress, cyberloafing, and academic achievement can also be explained through Self-Regulation Theory, Cognitive Load Theory, and Cognitive Appraisal Theory. Self-Regulation Theory suggests that students need to regulate their attention and behaviour to achieve academic goals (Zimmerman, 2000). Cognitive Load Theory proposes that dividing attention between academic tasks and unrelated online activities can increase unnecessary cognitive load and interfere with learning (Sweller et al., 2011). Cognitive Appraisal Theory further explains that students experience stress when they perceive academic demands as exceeding their available coping resources (Lazarus & Folkman, 1984). Together, these perspectives suggest that academic stress may encourage cyberloafing, while excessive cyberloafing may reduce students' academic engagement and achievement.

Recent studies provide further support for these relationships. Asghar and Tariq (2025) found significant positive associations among academic stress, cyberloafing, and academic procrastination among undergraduate students in Pakistan. Rinaldi et al. (2024) reported that study-related stress was positively associated with cyberslacking, while emotion regulation influenced the strength of this relationship. Purwatini and Nabilah (2024) also found a significant relationship between academic stress and cyberloafing. Furthermore, Guo et al. (2025) demonstrated a curvilinear relationship between cyberloafing and academic achievement. Although these studies provide useful evidence, most previous research has examined the relationships between two variables separately, while comparatively limited research has examined academic stress, cyberloafing, and academic achievement together, particularly among university students in the Pakistani context. Therefore, the present study seeks to examine the relationship between academic stress, cyberloafing, and academic achievement among university students.

Research Objectives

1. To examine the level of academic stress experiences by undergraduate students.
2. To identify the most prevalent forms of cyberloafing behaviour (e.g. social media browsing, online shopping, entertainment) during academic hours among undergraduate students.

3. To determine the relationship between academic stress and cyberloafing behaviour among undergraduate student.
4. To examine the relationship between academic stress and academic achievement among undergraduate students.
5. To investigate the relationship between cyberloafing behaviour and academic achievement among undergraduate students.
6. To analyse the overall relation pattern among academic stress, cyberloafing and student academic achievement.
7. To examine gender differences in academic stress, cyberloafing and academic achievement among undergraduate students.

Research Questions

1. What is the level of academic stress experienced by undergraduate students?
2. What are the most common forms of cyberloafing behaviour among undergraduate students?
3. Is there is significant relationship between academic stress and cyberloafing behaviour among undergraduate students?
4. What is the nature of the relationship between academic stress and academic achievement among undergraduate students?
5. Is there are significant relationship between cyberloafing behaviour and academic achievement among undergraduate students?
6. How are academic stress, cyberloafing and academic achievement interrelated among undergraduate students?
7. Do gender difference exist in academic stress, cyberloafing and academic achievement among undergraduate students?

Research Design

A quantitative, descriptive-correlational research design was employed to examine the relationship between academic stress, cyberloafing, and academic achievement among undergraduate students.

Population

The total number of students used for the study were 1,656 undergraduate students from various academic programs in the Faculty of Social and Administrative Sciences at the University of Haripur (Provost Office, University of Haripur, personal communication, March 2026).

Sample

The number of students sampled was 324, with 162 males and 162 females, obtained through stratified random sampling. The participants comprised students from nine academic disciplines: Economics, Education, Islamic Studies, Law, English, Psychology, Sports Sciences and Physical Education, Management Sciences and History and Politics.

Instruments

Two standardised instruments were used for data collection. Academic stress was measured by a modified 39-item Academic Stress Scale (Rajendran & Kaliappan, 1991; Rao, 2012) and cyberloafing was measured by a modified 28-item Cyberloafing Scale (Akbulut et al., 2016). Academic achievement was assessed through students' self-reported CGPA, verified using departmental records

Pilot Testing

For clarity of the instruments, a pilot study was conducted with 30 students (15 male and 15 female) who were not part of the study sample.

Reliability

The Academic Stress Scale showed satisfactory internal consistency (Cronbach's $\alpha = .82$), while the Cyberloafing Scale demonstrated high internal consistency (Cronbach's $\alpha = .87$).

Data Collection

Confidentiality and adequate instructions were ensured with data being gathered personally with the selected participants.

Analysis

Analysis of the collected data was carried out using SPSS. The level of academic stress, cyberloafing and academic achievement were determined by descriptive statistics. The relationship between academic stress, cyberloafing and academic achievement was examined using Pearson product-moment correlation and gender differences in the study variables were examined using independent-samples t-tests.

Table 1

Relationship Between Academic Stress, Cyberloafing and Academic Achievement

	ISF	TPR	PI	IDT	FOF	S	S	RTU	AOC	G
Pearson Correlation	-.758**	-.681**	-.553**	-.502**	-.558**	-.643**	-.610**	-.655**	-.646**	-.705**
CGPA Sig. (2 tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
N	324	324	324	324	324	324	324	324	324	324

The results showed that academic stress, cyberloafing and academic achievement were all significantly negatively correlated. The results showed that students with higher academic stress scores showed lower academic achievement and those who participated more in cyberloafing activities had lower academic achievement scores. The results indicated that academic achievement was negatively associated with the dimension of academic stress – inadequate study facilities, suggesting that the students' academic performance may be affected by limited and/or unsatisfactory learning resources and facilities. Likewise, for the dimensions of cyberloafing, the negative correlation with academic achievement was the most significant for the dimension of gaming, suggesting that excessive gaming during school time may cause students to lose focus on their studies resulting in adverse effects on academic achievement. The results indicated that academic stress and non-academic use of digital devices play important roles in students' academic achievement, with increased academic stress and cyberloafing associated with decreased academic achievement.

Discussion

The results indicated that academic stress was significantly and negatively correlated with academic achievement (CGPA), showing that students with high academic stress had low academic performance. Likewise, there was a negative correlation between cyberloafing and academic performance, while those involved in gaming, real-time updating and accessing online content had comparatively strong negative correlations. The results indicate that having too much contact with non-academic topics online can diminish pupils' focus and learning time. The study

also revealed that academic stress and cyberloafing were significantly correlated, indicating that students who were stressed may be using the Internet for non-academic reasons as a coping mechanism for their academic stress. But there were no significant gender differences in the cases of CGPA, academic stress and cyberloafing. The overall results suggest that learning stress and cyberloafing are crucial variables related to the academic performance of university students that require attention in the creation of appropriate learning environments and responsible use of technology.

Conclusion

The study showed that undergraduate students had a moderate level of academic stress, and fear of failure was the most dominant stress factor. Students also reported moderate cyberloafing, with real-time updating being the most prevalent, and gaming being the least prevalent. There was a strong positive correlation between academic stress and cyberloafing, suggesting that the higher the level of academic stress, the more likely students are to engage in non-academic online activities. On the other hand, academic stress demonstrated a significant negative correlation with the academic achievement (CGPA), indicating that increased academic stress is linked to decreased academic performance. Likewise, the negative correlations between cyberloafing and academic performance were strong and significant with gaming having the strongest negative correlation with CGPA. The findings overall suggest that academic stress and cyberloafing are crucial factors in relation to poorer academic outcomes among the undergraduate population. Lastly, there were no significant differences between the academic achievements, academic stress, and cyberloafing of male and female students, indicating that the three groups had similar experiences.

Recommendations

1. Academic stress in Universities may be reduced and achievement enhanced by improving study facilities, libraries, internet and learning environments.
2. Teachers may promote positive relationships with students through effective communication and educational guidance.
3. Universities may provide counselling and stress management programs to help students cope with academic pressure and fear of failure.
4. Awareness program may be organized to encourage responsible technology use and reduce excessive cyberloafing.
5. Students may be encouraged to limit social media, gaming, and unnecessary mobile phone use during academic hours.
6. Universities may offer time-management and self-regulation programs to help students manage academic stress and reduce online distraction.
7. Support programs may be made provide equally accessible to male and female students, as no significant differences were found.

References

- Akbulut, Y., Dursun, Ö. Ö., Dönmez, O., & Şahin, Y. L. (2016). In search of a measure to investigate cyberloafing in educational settings. *Computers in Human Behavior*, 55, 616–625. <https://doi.org/10.1016/j.chb.2015.11.002>
- Akgün, F. (2020). Investigation of high school students' cyberloafing behaviors in classes. *Education and Science*, 45(201), 79–108. <https://doi.org/10.15390/EB.2019.8419>
- Al-Shahrani, M. M., Alasmri, B. S., Al-Shahrani, R. M., Al-Moalwi, N. M., Al Qahtani, A. A., & Siddiqui, A. F. (2023). The prevalence and associated factors of academic stress among medical students of King Khalid University: An analytical cross-sectional study. *Healthcare*, 11(14), 2029. <https://doi.org/10.3390/healthcare11142029>
- Asghar, A., & Tariq, O. (2025). Perceived academic stress, cyberloafing and academic procrastination in university students. *Online Media and Society*, 6(3), 49–61. <https://doi.org/10.71016/oms/wybv909>
- Chen, Y., Chen, H., Andrasik, F., & Gu, C. (2021). Perceived stress and cyberloafing among college students: The mediating roles of fatigue and negative coping styles. *Sustainability*, 13(8), 4468. <https://doi.org/10.3390/su13084468>
- Fairbrother, K., & Warn, J. (2003). Workplace dimensions, stress and job satisfaction. *Journal of Managerial Psychology*, 18(1), 8–21. <https://doi.org/10.1108/02683940310459565>
- Guo, Y., Song, Y., & Guo, J. (2025). The curvilinear relationship between cyberloafing and academic performance among college students: An empirical evidence from China. *Education and Information Technologies*, 30, 18327–18346. <https://doi.org/10.1007/s10639-025-13499-4>
- Hibrian, H., Baihaqi, M., & Ihsan, H. (2021). Relationship between academic stress and cyberloafing behavior among Psychology Department students at Universitas Pendidikan Indonesia. *Psikopedagogia: Jurnal Bimbingan dan Konseling*, 10(2), 89–93. <https://doi.org/10.12928/psikopedagogia.v10i2.17602>
- Khan, M. J., Altaf, S., & Kausar, H. (2013). Effect of perceived academic stress on students' performance. *FWU Journal of Social Sciences*, 7(2), 146–151.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Nweke, G. E., Jarrar, Y., & Horoub, I. (2024). Academic stress and cyberloafing among university students: The mediating role of fatigue and self-control. *Humanities and Social Sciences Communications*, 11, Article 419. <https://doi.org/10.1057/s41599-024-02930-9>
- Ozdamli, F., & Ercag, E. (2021). Cyberloafing among university students. *TEM Journal*, 10(1), 421–426. <https://doi.org/10.18421/TEM101-53>
- 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. <https://doi.org/10.1080/02673843.2019.1596823>
- Pozos-Radillo, B. E., Preciado-Serrano, M. L., Acosta-Fernández, M., Aguilera-Velasco, M. de los Ángeles, & Delgado-García, D. D. (2014). Academic stress as a predictor of chronic stress in university students. *Revista de Psicología del Trabajo y de las Organizaciones*, 30(2), 109–114. <https://doi.org/10.1016/j.rpto.2014.05.006>
- Purwatini, L., & Nabilah, P. (2024). Conscientiousness, academic stress, and cyberloafing among final-year students. *Prosiding Religion, Psychology and Environment*, 42–51.
- Rajendran, R., & Kaliappan, K. V. (1991). A factorial study of sources of student academic stress. *Journal of Psychol Res*, 35, 53–57.
- Ramachandiran, M., & Dhanapal, S. (2018). Academic stress among university students: A quantitative study of Generation Y and Z's perception. *Pertanika Journal of Social Sciences & Humanities*, 26(3), 2115–2128.

- Rao, R. B. (2012). *A study of academic stress and adjustment styles of teacher trainees* [Unpublished doctoral dissertation, Acharya Nagarjuna University]. Shodhganga.
- Reddy, K. J., Menon, K. R., & Thattil, A. (2018). Academic stress and its sources among university students. *Biomedical and Pharmacology Journal*, 11(1), 531–537. <https://doi.org/10.13005/bpj/1404>
- Rinaldi, M. R., Hardika, J., & Wiyointi, R. (2024). Academic stress and cyberslacking in students: The moderating role of emotion regulation. *Journal Psikogenesis*, 12(2), 216–228. <https://doi.org/10.24854/jps.v12i2.4568>
- Schraml, K., Perski, A., Grossi, G., & Makower, I. (2012). Chronic stress and its consequences on subsequent academic achievement among adolescents. *Journal of Educational and Developmental Psychology*, 2(1), 69–79. <https://doi.org/10.5539/jedp.v2n1p69>
- Simanjuntak, E., Nawangsari, N. A. F., & Ardi, R. (2022). Academic cyberslacking: Why do students engage in non-academic internet access during lectures? *Psychology Research and Behavior Management*, 15, 3257–3273. <https://doi.org/10.2147/PRBM.S374745>
- Simatupang, K. M., & Margaretha, M. (2023). The impact of academic stress on cyberloafing with fatigue as a mediating variable: A study of students in Bandung City, Indonesia, during a pandemic. *European Journal of Educational Research*, 12(1), 525–535. <https://doi.org/10.12973/eu-jer.12.1.525>
- Sohail, N. (2013). Stress and academic performance among medical students. *Journal of the College of Physicians and Surgeons Pakistan*, 23(1), 67–71.
- Sriwahyuningsih, V., & Barseli, M. (2023). The impact of academic stress and cyberloafing on students' smartphone addiction. *ENLIGHTEN: Jurnal Bimbingan Konseling Islam*, 6(2), 90–99. <https://doi.org/10.32505/enlighten.v6i2.7144>
- Steinmayr, R., Meißner, A., Weidinger, A. F., & Wirthwein, L. (2014). Academic achievement. In *Oxford bibliographies in education*. Oxford University Press. <https://doi.org/10.1093/obo/9780199756810-0108>
- Sweller, J., Ayres, P., & Kalyuga, S. (2011). *Cognitive load theory*. Springer. <https://doi.org/10.1007/978-1-4419-8126-4>
- Taneja, A., Fiore, V., & Fischer, B. (2015). Cyber-slacking in the classroom: Potential for digital distraction in the new age. *Computers & Education*, 82, 141–151. <https://doi.org/10.1016/j.compedu.2014.11.009>
- Wu, J., Mei, W., & Ugrin, J. C. (2018). Student cyberloafing in and out of the classroom and the relationship with student performance. *Cyberpsychology, Behavior, and Social Networking*, 21(3), 199–204. <https://doi.org/10.1089/cyber.2017.0397>
- Yilmaz, F. G. K., Yilmaz, R., Öztürk, H. T., Sezer, B., & Karademir, T. (2015). Cyberloafing as a barrier to the successful integration of information and communication technologies into teaching and learning environments. *Computers in Human Behavior*, 45, 290–298. <https://doi.org/10.1016/j.chb.2014.12.023>
- Zhou, B., Li, Y., Tang, Y., & Cao, W. (2021). An experience-sampling study on academic stressors and cyberloafing in college students: The moderating role of trait self-control. *Frontiers in Psychology*, 12, Article 514252. <https://doi.org/10.3389/fpsyg.2021.514252>
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50031-7>