REGIONAL
LENS

Relationship between Academic Stress, Students' Psychological Well-being and Academic Performance of University Students

Asma Khizar [1]   **Umme Kalsoom** [2]   **Muhammad Nadeem Anwar** [3]   **Hafiz Muhammad Salman Naveed** [4]

Abstract: The study aimed to analyze the relationship between academic stress, psychological well-being and academic performance among university students. The nature of the study was descriptive, and a survey was conducted to collect data. All students of the University of Sargodha comprised the study population. 400 undergraduate students from eight departments were selected as sample through a multistage sampling technique. A questionnaire was developed, and reliability was computed, which was 0.816. The findings showed a significant relationship between academic stress and psychological well-being. The Pearson Product Correlation confirms a weak negative correlation between academic stress and performance. These findings underscore the need for interventions that promote students' psychological well-being and stress management, because these significantly impact academic performance of university students.

Key Words: Academic Stress, Psychological Well-being, Academic Performance

Introduction

The education system has its own set of obstacles, and those who pursue higher education learn to prepare for success by developing a strong determination and mindset. However, in reality, students face their challenges during their studies. These issues, although causing stress, also serve as opportunities for growth and development. When an individual believes that his working resources are being overwhelmed, an unpleasant mood known as stress arises. Preventing students from engaging in productive tasks hinders their efforts to accomplish their life goals (Salari, 2020). Students frequently experience stress and difficult situation as they develop their ability to adjust and cope with life's obstacles. This results in adverse behavioral circumstances, including drug usage and other dangerous activities, as well as depressive and anxious states (Yang & Yang, 2020).

Psychological well-being refers as the state of successfully integrating psychical, cognitive, and socio-emotional functions that leads to fulfilling social relationships, productive activities valued by ones cultural community and the capacity to overcome moderate psycho-social and environmental factors. According to Bornstein et al., (2003), psychological well-being is a dynamic condition that is defined by an acceptable degree of harmony between individual abilities, wants, and expectations as well as environmental demands and possibilities. Aspects of psychological well-being including hope, gratitude, and emotional control, have been found to enhance academic performance in several ways. Grateful students are more satisfied and are more motivated to set and achieve internal objectives. This suggests that by promoting psychological well-being, we can potentially improve academic performance and the overall well-being of students.

Academic performance defined as the extent to which a students, teacher or institutions have achieved their short or long-term learning goals (Tadese, 2022). Future employment prospects and personal development, including

[1] Assistant Professor, Institute of Education, University of Sargodha, Punjab, Pakistan. Email: asma.khizar@uos.edu.pk
[2] M.Phil. Scholar, Institute of Education, University of Sargodha, Punjab, Pakistan. Email: umek60823@gmail.com
[3] Associate Professor, Institute of Education, University of Sargodha, Punjab, Pakistan. Email: nadeem.anwar@uos.edu.pk
[4] PhD Scholar, Department of Education, University of Gujrat, Punjab, Pakistan. Email: salmanvd01@gmail.com

enhanced critical thinking abilities and boosted self-esteem, are determined by a student's academic success (Sirin, 2005). According to Yeager & Walton, (2011), higher academic achievement at university is linked to more employment options, improved mental health, and more motivation.

According to research (Friedlander, 2007), excessive academic stress has been connected to inferior academic success, lower grades, and an increased likelihood of dropping out of school. Stress, anxiety, and depression are all harmful to people and society as a whole. Negative effects might include diminished capacity for regular functioning, poor academic performance, exhaustion, and health problems. Undergraduate students are not exempt in this instance (Ramli, 2018). These students struggle to successfully manage their stress and exhibit poor self-regulation. Students at universities who are under a lot of academic stress find it difficult to control themselves. Academic performance and poor work will follow from this. Additionally, psychological problems, including anxiety, sadness, and stress-related illnesses, could exacerbate as a result of excessive academic stress, which may affect students' academic performance.

Objectives of the Study

1. To investigate the relationship between academic stress and psychological well-being of university students.
2. To explore the relationship between academic stress and academic performance of university students.
3. To determine the relationship between psychological well-being and academic performance of university students.

Research Questions

1. Does the relationship between academic stress and the psychological well-being of university students exist?
2. Does the relationship between academic stress and academic performance of university students exist?
3. Does the relationship between psychological well-being and academic performance of university students exist?

Research Design

The study was conducted thorough descriptive research design, which involved a large number of participants providing their opinions on the research topic. This design, as Gay (2012) explains, is a subset of descriptive research and is particularly useful for collecting data to test theories or address inquiries on people's perspectives on various subjects or issues.

Population of the Study

All undergraduate students of the University of Sargodha were the population of the study. Population includes all the units to which result of study can be applied. A population is a collection of all units that share the variable attribute that is under investigation and from which broad inferences are made (Shukla, 2020). According to Creswell (2012), the target population is a collection of people (or groups of organizations) that share common traits that make them easy for researchers to identify and examine. Data was obtained from the Faculty of Social Sciences, Faculty of sciences, Computing and Information Technology, Law, and Arts and Humanities.

Sampling and Sampling Process

The selected sample was 400 undergraduate students from different facilities of the University of Sargodha, Sargodha. Franklin, Wallen, and Hyun (2012), in their book "How to Design and Evaluate Education Research", say that a sample of a minimum of 100 is compulsory for descriptive research. So, the researcher decided to have a sample of 400 to have more generalizable results. A sample was drawn from the population using a multistage sampling technique. The undergraduate students are defined as all enrolled students who studied in a BS 4-year program. For sample selection, students who were studying in the 5th and 7th semesters were the sample of the study because they had spent too much time on campus and had a clear perspective about their academic life.

Table 1

Faculty, Department and Semester-wise Sample

S. No	Faculties	Departments	Semesters		Total
			5th	7th	
1	Faculty of Social Sciences	Department of Education	25	30	55
		Economics	10	18	28
		Psychology	40	32	72
2	Faculty of Sciences	Department of Urdu	20	30	50
3	Faculty of Computing and Information Technology	Department of IT	30	27	57
4	Faculty of Law	Law	23	20	43
5	Faculty of Arts and Humanities	Department of Mathematics	20	22	42
	Total	English	20	33	53

Table 1 shows the sample selection process. Seven faculty members served at the University of Sargodha. At stage one, the fishbowl method randomly selected 50% of the faculties (five). Five Faculties included the Faculty of Social Sciences, the Faculty of Sciences, the Faculty of Computing and Information Technology, the Faculty of Law and the Faculty of Arts and Humanities. At stage two, 50% of the departments from selected faculties were selected randomly. Three departments from the Faculty of Social Sciences, such as the Department of Psychology, Education and Economics, two from the Faculty of Science, one from the Faculty of Computing and Information Technology, one from the Faculty of Arts and Humanities and one from the Faculty of Law, were randomly selected. At stage three, a convenient sampling technique was used to select samples from respective semesters, which made a sample of 400 (n=400).

Development of Research Instrument

The questionnaire was developed as a tool for the collection of responses from participants. The questionnaires were developed based on the research questions and an extensive literature review relevant to university students' "academic stress, psychological well-being & academic performance". The questionnaire has three parts. Part one has demographic information, including name of institution, program, semester, gender and CGPA; academic performance was measured through CGPA. Part two was designed to investigate the stress in university students from various sources, and part three was to explore students' psychological well-being. The questionnaire contained 40 closed-ended questions.

Questions Related to Demographic Information

The first part of the questionnaire was designed to gather demographic information about the student's institution, program, semester, and gender CGPA. The undergraduate students are defined as all enrolled students who studied in a BS 4-year program. Students studying in the fifth and seventh semesters were the study's sample. We collected data from 5 and 7 semesters from targeted faculties like the Faculty of Social Sciences, Law, Computing and Information Technology, and Arts and Humanities.

Questions Related to Academic Stress

The second part of the questionnaire was based on 5 points Likert scale to investigate the various sources of academic stress. Given in the table below:

Table 2

Indicators-wise items about Academic Stress

S. No	Sources	No of Items
1	Lack of a conducive learning environment	04(1-04)
2	Improper Teaching methods	04(05-08)
3	Personal inadequacy	04(09-12)
4	Interpersonal difficulties with teachers	04(13-16)
5	Fear of failure	04(17-20)
	Total	20

The table 2 reflects the total number of indicators included in the questionnaire about academic stress.

Questions Related to Psychological Well-being

In the third part of the questionnaire, a set of questions related to students' psychological well-being was developed. Indicators' wise description is given in the table below

Table 3

Indicator-wise items Psychological Well-Being

S. No	Dimensions	No of Items
1	Autonomy	04
2	Environmental mastery	04
3	Personal growth	04
4	Positive relationship with others	04
5	Purpose in life	04
	Total	20

The table 3 indicates the total number of items according to indicators of psychological well-being.

Pilot Testing and Validation of an Instrument

Pilot testing is an initial, small-scale experiment to evaluate the viability, efficacy, and possible problems of a research methodology, intervention, or system before its full-scale deployment. It is also known as a pilot study or pilot phase. This method is frequently applied in a variety of sectors, including research. To improve the success of the ensuing larger-scale implementation, the goal is to recognize and resolve any difficulty, improve processes, and optimize the design (Richey & Klein, (2007). As already mentioned, a pool of questions was developed from the literature. Data for pilot testing was collected from students. After the changes in pilot testing, the instrument was validated by experts at the Institute of Education. In addition to filling out the questionnaire, the respondents were requested to provide recommendations about item clarity, direction clarity, rating scale, and other suggestions. Every recommendation was considered and added to the questionnaire. The instrument was modified based on their suggestion and finalized by the researchers' supervisor.

50 students were selected for pilot testing to check the instrument's validity. The number of elements determines the alpha size, which might change as the number of items rises. The minimum acceptable value of alpha is 0.70 (Ritter, 2010). After data was collected, reliability analysis was done to determine which items contributed the most to measuring academic stress.

Table 4

Reliability Statistics of the Questionnaire

S. No	No of Items	Cronbach's Alpha
1.	40	.816

When Cronbach's alpha value is 0.816, questionnaire's items appear to have a rather high degree of internal consistency. Stronger values of Cronbach's alpha, a dependability metric with a range of 0 to 1, denote stronger internal consistency.

In this instance, a strong correlation between the scale's components and an alpha of 0.816 suggests that the items are reliably assessing the same underlying construct. An alpha of 0.7 is generally regarded as acceptable by researchers, so a value of 0.816 is considered rather good.

Data Analysis
Table5
Correlation between Academic stress and Psychological well-being

S. No	Variables	N	R	Sig p.value
1	Academic stress	400	344	001
2	Psychological well-being			

The correlation between these variables is .344. A correlation coefficient of .001 denotes a moderate positive connection, but the correlation's intensity is weak because the value is closer to zero.

Table 6
Correlation between Academic Stress and Academic Performance

S. No	Variables	N	R	Sig p.value
1	Academic stress	400	-.006	909
2	Psychological well-being			

In the table, the relationship between academic stress and academic performance is -.006, which implies a weak negative connection.

Table 7
Correlation between Psychological Well-being and Academic Performance

S. No	Variables	N	R	Sig p.value
1	Academic stress	400	-.094	.061
2	Psychological well-being			

The relationship value of psychological well-being and academic performance is -.094, indicating a weak negative correlation. A weak or insignificant linear link between the variables is suggested if the correlation coefficient is near zero, whether positive or negative. Otherwise, there is not always a consistent correlation between changes in one measure and the other. Remember that a correlation between two variables does not always indicate a cause-and-effect relationship. Correlation does not prove that one variable causes the other to change.

Discussion & Conclusion
The majority of respondents agreed that academic stress affects concentration during study sessions. A similar study by Both, (2009) revealed that the workload of assignments, presentations, quizzes, projects, seminars, tests, and exams and too little time for these tasks are the sources of stress that affect concentration during study sessions for students because managing all these tasks in a short time is difficult for them.

Most respondents agreed that teachers' non-provision of study material significantly contributes to academic stress. Similarly, a study shows that non-provision of educational resources can cause stress and anxiety, particularly among university students (Sharma, 2018). This deficiency not only affects the quality of scholarly work but also adds a degree of stress linked to the limitation of library resources.

Most respondents agreed that teachers are not friendly when interacting with students. In a similar vein, pupils experience stress when their teachers are rigid, prevent them from expressing themselves in favor of some students, and do not adapt their instruction to their cognitive abilities. (Rehman & Khan, 2011).

Most respondents agreed that feeling stressed about upcoming exams makes it a common source of academic stress. This is in agreement with Doğan (2018). One of the pressures is university students' low academic performance. Even students who are not worried experience anxiety before a test. Exam anxiety throughout childhood has an effect later in life. Studies have shown that exam anxiety is associated with more significant negative, off-task self-dialogue, which affects cognitive function.

This study shows no significant difference in academic stress levels between male and female students. A similar study by Waghmare, (2016) reveals no significant difference in psychological well-being among females and males. This study shows a significant moderate positive correlation between academic stress and psychological well-being. Studies have revealed a moderate positive association between academic stress and psychological well-being (Munir, 2015). The findings also support the findings of Malik et al., (2020), who suggest a moderate positive association between psychological well-being and student stress. Use association between psychological well-being and stress among students. In other words, if the students could lessen their stress levels, they could improve their psychological well-being.

A similar study by Smith, (2021) analysis observed a weak negative connection between academic stress and academic performance, and its relation among undergraduate students did not find a statistically significant correlation. These findings emphasize the complexity of academic stress, influenced by various factors. The study highlights the importance of individualized support systems and interventions considering students' diverse challenges. Further research with broader and more diverse samples could offer deeper insights into academic stress dynamics and its impact on student success (Jones & Brown, 2022).

Recommendations

1. Academic institutions may identify the main stresses affecting students and implement focused stress-reduction initiatives, such as peer support groups, counselling services, and time management seminars.
2. To assist students in overcoming difficulties in their academic careers, educational institutions may incorporate academic support services, including academic advising, study skills seminars, and tutoring facilities. It is essential to have a well-rounded learning environment where students are motivated to preserve academic performance and psychological well-being.
3. The interconnectedness of academic stress, psychological well-being, and academic performance may be addressed holistically, and universities should plan events and programs that address stress reduction and academic success at the same time.

References

Bornstein, M. H., Davidson, L., Keyes, C. L., & Moore, K. A. (2003). *Well-being: Positive development across the life course*. Psychology Press.

Both, F., Hoogendoorn, M., Lambalgen, R. V., Oorburg, R., & Vos, M. D. (2009). Relating personality and physiological measurements to task performance quality. In *Proc. of the 31th Annual Conference of the Cognitive Science Society, CogSci* (Vol. 9, pp. 2819-2825).

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research (2nd ed.)*. Thousand Oaks, CA: Sage.

Friedlander, L. J., Reid, G. J., Shupak, N., & Cribbie, R. (2007). *Social support, self-esteem, and stress as predictors of adjustment to university among first-year undergraduates. Journal of College Student Development, 48*(3), 259–274. https://doi.org/10.1353/csd.2007.0024

Jones, A., & Brown, B. (2022). *Stress dynamics and its impact on student success*. Routledge.

Malik, M., Saidin, N., Abd Wab, R., & Nordin, N. (2020). Investigating the relationship between stress and psychological well-being among foundation students of UiTM. *International Journal of Academic Research in Business and Social Sciences*, *10*(14), 93-101. https://doi.org/10.6007/IJARBSS/v10-i14/7366

Munir, T., Shafiq, S., Ahmad, Z., & Khan, S. (2015). Impact of loneliness and academic stress on psychological well-being among college students. *Academic Research International*, *6*(2), 343. http://www.savap.org.pk/journals/ARInt./Vol.6(2)/2015(6.2-34).pdf

Ramli, M. S., Ayob, N. H., Musa, N. D., Ridzuan, A., & Roslan, Z. N. (2022). The Influence of Stress Factors towards Psychological Well-Being among Part-Time Students at UiTM Shah Alam. *International Journal of Academic Research in Business and Social Sciences*, *12*(1), 1351-1364.

Ritter, N. L. (2010). *Understanding a widely misunderstood statistic: Cronbach''s alpha*.

Sharma, A. (2018). A Study on Academic Stress among D. El. Ed. Students of Ghaziabad District. *Journal of Teacher Education and Research*, *13*(2), 197. https://jter.in/index.php/JTER/article/view/53

Shukla, S., & Deotale, P. (2020). Knowledge, attitude and practices towards COVID-19 pandemic in the community: A cross-sectional web-based survey in India. *International Journal of Research in Medical Sciences, 8*(10), 3652–3656. https://doi.org/10.18203/2320-6012.ijrms20204246

Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research, 75*(3), 417–453. https://doi.org/10.3102/00346543075003417

Smith, S. R. (2023). *Impact of Stress on Higher Education Academic Performance: A Qualitative Study of a Midwestern American University Students* [Doctoral dissertation], The Chicago School of Professional Psychology.

Tadese, M., Yeshaneh, A., & Mulu, G. B. (2022). Determinants of good academic performance among university students in Ethiopia: A cross-sectional study. *BMC Medical Education*, *22*, Article 395. https://doi.org/10.1186/s12909-022-03461-0

Waghmare, R. D. (2016). A study of psychological well-being among male and female college students. *International Journal of Indian Psychology*, *3*(3), 26-31. https://doi.org/10.25215/0303.118

Yang, X., & Yang, Y. (2020). Stress-related behaviors and mental health outcomes among students. *Journal of Adolescent Health*, *67*(3), 345–352.

Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81*(2), 267–301. https://doi.org/10.3102/0034654311405999