Academic Stress and Its Impact on Students' Emotional Well-being and Performance at Universities

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Abstract

Academic stress is a common issue among students that strongly affects students' mental health and academic outcomes. In order to determine the impact of academic stress on students' emotional wellbeing and academic performance, this study, being quantitative in nature, was carried out in two public-sector universities, namely; University of Sargodha and University of Peshawar and a total sample of 800 students (i.e., 400 students from each university) were taken from both. All the students at the graduate and postgraduate levels made up the total population of the study. The study found that academic stress carried a significant impact on students' emotional wellbeing and their academic performance. The study also found that students from both universities experienced an equal level of academic stress, which carried a significant impact on their emotional well-being and academic performance. The female students were more likely to face academic stress than the male students. Students of BS programs were much more prone to academic stress than M.Phil. and PhD students who studied physics experienced more academic stress than the students of chemistry, sociology and management sciences. Furthermore, students who were in their fourth year of studies were more likely to experience academic stress, emotional distress, and academic destruction as compared to the students in their 3rd, 2nd, and 1st years. In conclusion, the study revealed a substantial impact of academic stress on students' emotional wellbeing and academic performance, with significant variations based on gender, academic program, subject, and year of study.

Keywords: Academic stress, Emotional well-being, Academic performance, University of Peshawar, University of Sargodha.

1. Introduction

The quest for academic success in modern higher education environment is accompanied by a multitude of problems that can have a substantial influence on students' emotional wellbeing and their academic performance (Kumaraswamy, 2013). One of the most important issues that some students encounter in educational environments is academic stress, which is a very complicated and multidimensional phenomenon brought on by the many expectations and pressures involved in pursuing educational objectives (Misra & Castillo, 2004). A variety of factors can considerably contribute to academic stress, such as pressure to do well on exams (Roome & Soan, 2019), very high standards set by the academic community (Rice et al., 2006), time limits (Pelletier & Laska, 2012) and an ongoing desire to achieve or surpass academic

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benchmarks (Haspolat & Yalçın, 2023). Students experience much stress through a variety of behavioural reactions as they have to deal with the demands of education. It is critical for educators, psychologists and organizations to acknowledge such behavioural subtleties of students in order to increase academic performance and overall wellbeing The complex relationship that exists between stress and academic achievement has wide-ranging effects on students' cognitive, emotional and physical health (Cassidy, 2022). Academic stress is ubiquitous among students, which greatly emphasizes its importance and calls for a very careful analysis of its possible effects on academic performance (Chemutai & Catherine, 2021). Beyond the obvious difficulties of homework and exams, there are additional complications brought about by the complex effects of stress on cognitive processes and mental health (Elias, et al, 2011). It becomes critical for teachers, administrators as well as mental health experts to identify and manage the various ways in which stress manifests itself when students struggle with these pressures in higher education.

The increasing awareness of some mental health issues among students in educational institutions around the globe greatly highlights the need to examine the connection between academic stress and academic performance. Understanding the very complex relationships between stress and academic success is crucial as academic pressures rise in the face of competitive educational environments and changing social expectations. The goal of this study, as referred to above, was to add actual data to the body of knowledge already available about academic stress and its core impacts. Through a thorough investigation of the causes and characteristics of academic stress, this study carefully tried to shed light on the particular pressures that some students encounter in various learning environments. Additionally, by examining how academic stress affects many different aspects of academic performance, such as academic achievement, cognitive functioning and socio-emotional wellbeing, the study seeks to provide evidence for evidence-based interventions and support systems for students negotiating the challenging landscape of higher education.

2. Literature Review

2.1. Academic Stress

The term "academic stress" describes the intricate interaction between students' emotional, psychological and physical reactions to the many demands and stresses deeply involved in pursuing education (Putwain, 2007).

A study makes it clear that this core phenomenon is a profound part of the student experience and is not just a result of education. Academic stress is widely prevalent due to its triggers, which include some competitive academic environments, high-stakes exams, strict deadlines, very heavy workloads and deadline pressure (Reddy et al, 2018). Acknowledging academic stress as a very necessary component of the student experience is essential to developing some solutions that effectively lessen its effects and advance a much more comprehensive educational philosophy that puts students' academic performance as well as well-being (Prabu, 2015). The effects of academic stress extend beyond the emotional reactions and affect several aspects of a person's health (Abdullah et al, 2023). Stress is typically accompanied by physical symptoms such as headaches, exhaustion and gastrointestinal problems (Farias et al, 2011).

In Pakistan, academic stress is a widespread problem that significantly affects students at all educational levels. Unrealistic expectations are a common problem for students, which cause much worries as well as emotional stress. Students are forced to deal with stress alone

since some educational institutions do not provide enough mental health care, which makes the issue worse (Saeed et al, 2020). Their mental health is negatively impacted by such academic pressure, which also has an adverse effect on their academic performance because excessive stress can make it much more difficult for them to study efficiently and do well on the tests. A comprehensive strategy is much needed to address this kind of academic stress, one that includes changing curriculum, providing great mental health services, and implementing some inclusive and supportive teaching methods (Shakeel et al, 2022).

2.2. Emotional Wellbeing

The total emotional quality of persons' lives, including their capacity to control their emotions, sustain satisfying relationships, and feel purposeful and happy, is referred to as their emotional well-being (CDCP, 2018).

The effects of academic stress on students' emotional well-being are extensive and complex. Students who experience very high levels of academic stress also have higher rates of anxiety as well as depression (Glozah, 2013). Because stress is so prevalent, it can result in burnout, which is typified by diminished performance, emotional tiredness and a detached feeling (Green et al, 2022). Additionally, long-term stress exposure frequently leads to the adoption of unhealthy coping strategies like drug misuse or social disengagement that further jeopardize students' mental wellbeing (Marikutty & Joseph, 2016). The complex link that exists between observable behavioural changes in students and academic stress illuminates the many aspects of stress's effects in educational settings (Cole et al., 2015). Stress is ubiquitous across cognitive and affective domains, as evidenced by the very clear behavioural symptoms, which include increased irritability, heightened responsiveness to stressors, and changes in interpersonal interactions (Abbas et al, 2020, Abdullah et al, 2023).

Stress has a significant effect on sleep patterns, causing some symptoms that range from insomnia to irregular sleep, highlighting how ubiquitous stress is and how it can interfere with some important areas of health (Sadeh et al, 2004). Moreover, the impact of stress related to academics on lifestyle decisions such as changes in eating habits, exercise regimens and recreational pursuits elucidates the complex relationships between stress and behaviour in general among students (Wunsch et al, 2017). Students' social dynamics are also impacted by academic stress, which frequently leads to social disengagement and isolation (Chemutai & Catherine, 2021). A behavioural tendency towards solitary study may be induced by the intense pressure to satisfy academic standards, thereby undermining important social contacts. This retreat from peer interactions has the ability to foster feelings of loneliness in addition to having an impact on the growth of a social support system (Deb et al, 2015).

2.3. Academic Achievement

The degree to which a learner, instructor or institution has met his/its immediate or long-term learning objectives is referred to as academic achievement. Academic accomplishment is often gauged by tests, evaluations, and coursework performance. It represents a student's mastery of the material, general learning, and cognitive growth (APA, 2020).

Students who have worse academic grades, less motivation, and reduced cognitive function are the results of the negative influence (Kumari & Gartia, 2012). Prolonged exposure to stress exacerbates these effects, resulting in a significant reduction in critical

cognitive abilities such as focus, information processing, and exam performance (Murff, 2005).

The weight of the available data emphasizes how urgent it is to manage academic stress because it is a major factor affecting academic progress. The significant effect that academic stress carries on students' intellectual capacities is highlighted by the persistent correlation that has been observed between elevated stress levels and worse cognitive function (Khan et al, 2013). Chronic exposure to stimuli has been linked to demonstrated deficits in memory consolidation and information processing that go well beyond emotional reactions. Instead, these cognitive consequences are directly related to students' basic capacities for productive engagement with academic material. Stress is a major threat to students' academic progress because it interferes with the complex processes of acquiring, retaining, and recalling knowledge (Khan et al, 2023).

A crucial component of the intricate link between academic stress and performance is shown by the emotional toll that excessive stress levels among students take. In addition to being psychological reactions, increased anxiety, fear of failing and decreased motivation are some significant variables influencing how some students perceive school in general (Elias et al, 2011). Crucially, these emotional reactions can combine to create a much more harmful cycle in which more stress causes a drop in motivation and engagement, which makes some academic difficulties more severe (Mishra, 2017). Understanding this cyclical nature highlights the necessity for all-encompassing strategies to reduce such emotional pressures and create an atmosphere that not only supports students' mental health but also increases their drive and fortitude in face of much more demanding academic requirements (Saqib & Rehman, 2018).

3. Theoretical Framework

A fundamental framework for comprehending the dynamic interaction between academic stress, behaviour and academic achievement is provided by stress and coping theory. This theory holds that some people evaluate stresses according to how significant they think they are and how well they can handle them. Examinations and workload are great examples of academic pressures that are likely to be rated as substantial and cause certain cognitive and emotional reactions (Folkman, 1984; Biggs et al, 2017). In order to effectively manage stress, behavioural responses, including coping mechanisms, are thought to be essential (Lazarus, 1998). This theory serves as a framework for investigating how the students perceive academic pressures, what coping techniques they use, and how these methods affect their behaviour as well as their academic achievement.

Social Cognitive Theory (SCT), developed by psychologist Albert Bandura, asserts that learning is a multifaceted and interactive process and is very much influenced by the environment, other people's conduct, and observation of others (Bandura, 1989). Under the theory of reciprocal determinism, which Bandura developed, some environmental, behavioural and personal variables interact and have a great impact on one another. The function of modelling, in which people pick up some skills by watching others and doing actions they find gratifying or influential, is very essential to SCT (Bandura, 2013). Additionally, Bandura established the idea of self-efficacy, highlighting the great importance of believing in one's capacity to complete a task effectively as a determinant of behaviour and learning (Bandura, 2001). This theory greatly emphasizes the significance of social factors and cognitive processes in forming human behaviour and has broad implications, especially in the fields of education, psychology and communication. It may also be used to examine how the students watch and emulate coping mechanisms from their

social environment, which includes classmates, instructors, and family members, in the setting of academic stress. The idea also emphasizes how behaviour and academic achievement are greatly influenced by self-efficacy.

4. Conceptual Framework

Figure 1.

Conceptual Framework of the Study
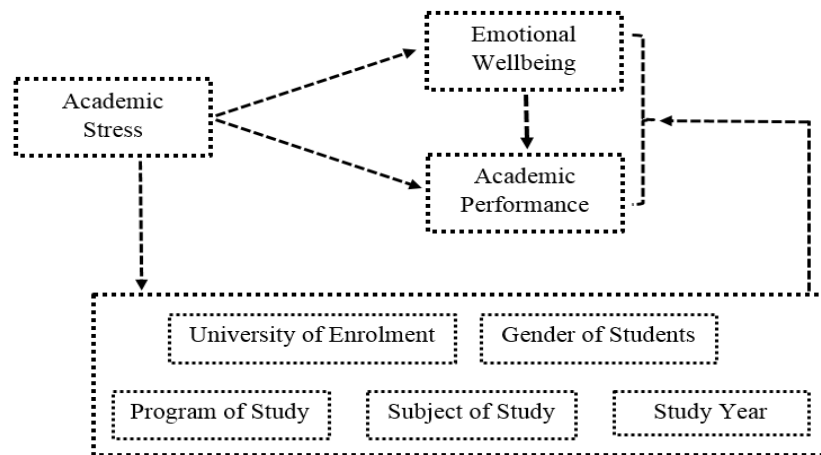
5. Hypotheses

H_1 - There is statistically significant impact of academic stress on students' emotional wellbeing.

H_2 - There is a statistically significant impact of academic stress on students' academic performance.

H_3 - There is a statistically significant impact of students' emotional wellbeing on their academic performance.

H_4 - There is the statistical difference in perceptions among students of University of Peshawar and University of Sargodha regarding academic stress, emotional wellbeing, and academic performance.

H_5 - There is a statistical difference in perceptions among male and female students regarding academic stress, emotional wellbeing, and academic performance.

H_6 - There is a statistical difference in students' perceptions regarding academic stress, emotional wellbeing, and academic performance based on their programs of study.

H_7 - There is a statistical difference in students' perceptions regarding the academic stress, emotional wellbeing, and academic performance based on their subjects of study.

H_8 - There is a statistical difference in students' perceptions regarding academic stress, emotional wellbeing, and academic performance based on their years of study.

6. Methodology

6.1. Method and Design

Using quantitative approach in the cross-sectional study design has given researchers important new information about the variables they are studying. By using this research approach, the study provided a picture of the interaction between the variables and has led to a comprehensive understanding of the phenomena under investigation.

6.2. Participants and Sampling

All male and female students of the University of Peshawar and the University of Sargodha made up the total population of the study. The data was collected through multistage random sampling. At the first stage, four departments (out of 46 from the University of Sargodha and 66 from the University of Peshawar)—chemistry (CHEM), physics (PHYS), sociology (SOC), and management sciences (MS)—were selected through simple random sampling, and this process was executed through online random number generation tools after constructing a sampling frame for all the departments. At the second stage, the data was collected through convenient sampling, as the exact locations of scholars (especially PhDs) were unknown to the researcher and it was not possible to reach their exact locations because of the limited time and resources available. Hence, every possible effort was made to ensure the representation of students from all programs (BS, M.Phil., and PhD). Since the population of both universities was undefined, the researchers were unable to set a specific parameter for the size of the sample. In this scenario, 400 respondents from each university were taken, and these respondents were further given representations based on their gender, department, program, and year of study (see Tables 4–7).

6.3. Instrumentation

The researcher used a self-developed questionnaire for data collection. The questionnaire contained three constructs: academic stress, emotional well-being, and academic performance. The scale of academic stress was perceived as an independent variable, while emotional wellbeing and academic performance were taken as dependent variables. The scales were validated through face and content validity by discussing the questionnaire with a panel of seven experts who were well-experienced as well as highly qualified. Required inclusions, exclusions and modifications in the questionnaire were made according to the suggestions of the panel. Thereafter, the researcher conducted a pilot study by employing 40 students from different departments in order to ensure the feasibility of the research tool and design. Reliability of the tool was ensured through Cronbach's alpha, and only items had a minimum reliability coefficient .70, were kept on the scales.

6.4. Data Collection and Analysis Procedure

Before the data collection procedure, the researchers sought permission from the top authorities at the universities. The researchers visited different departments and collected the required information. Before handing over the questionnaire to the respondents, they were told about the purpose of the study. An informed consent was also attached to the research tool, asking respondents for their volunteer participation. The respondents were also assured of their confidentiality and anonymity. After the data collection process, the raw data were fed into the Statistical Software for Social Sciences (SPSS). The data were analyzed through descriptive and inferential statistics. The mean and standard deviation were computed through descriptive statistics, while the impact of independent variables on dependent variables was identified through linear regression analysis. Furthermore, an independent sample t-test was employed in order to compare the responses of both universities and male and female students. In addition, a one-way analysis of variance (ANOVA) was executed to draw comparisons of academic stress, emotional well-being, and academic performance based on respondents' subject, program, and year of study. Before applying parametric tests, the core assumptions, i.e., homogeneity of variance, data normality, and independence of each group, were ensured.

7. Results

Table 1 shows the mean, standard deviation, factor loadings and Cronbach's alpha reliability coefficients. The statistics clearly indicate that the mean scores of all items are much greater than three, indicating a maximum response rate of agree and strongly agree. In addition, factor loading (FL) statistics clearly indicate that all the items were found to be loaded under their own specific factor. Furthermore, Cronbach's alpha statistics show that the reliability coefficient value of each item is greater than .70, clearly showing the internal consistency of all the items to be loaded under their own specific factor.

Table 1

Mean (M), Standard Deviation (SD), Factor Loading (FL), and Cronbach's Alpha (α)

	Constructs, Dimensions, Items	M	SD	FL	α
Factor 1. Academic Stress (AS)		**3.63**	**.45**		**.80**
AS1	I frequently feel as though I have too much academic stuff to do.	3.51	.43	.754	.78
AS2	Academic-life imbalance made me feel stress.	3.41	.34	.764	.75
AS3	My stress level is typically increased by deadlines with exams.	4.02	.25	.864	.86
AS4	Stress level is typically increased by deadlines for assignments.	3.57	.66	.833	.74
AS5	My scholastic commitments cause me to suffer from stress.	3.48	.43	.861	.84
AS6	I get pressure from others or from myself to do well academically.	3.81	.65	.902	.82
AS7	I worry a lot about my academic performance and grades.	3.64	.33	.729	.86
AS8	Academic responsibilities allow no time for relaxation.	3.91	.54	.775	.75
AS9	My academic stress is worsened by competition with my mates.	3.46	.44	.844	.74
AS10	I frequently get anxious before major exams or quizzes.	3.51	.51	.709	.88
Factor 2. Emotional Wellbeing (WE)		**3.65**	**.45**		**.78**
EW1	My Academic stress heightens the level of anxiety.	4.12	.29	.862	.79
EW2	My Academic stress enhances the level of mood disorder.	3.42	.65	.754	.75
EW3	My Academic stress makes me feel tired.	3.51	.45	.826	.78
EW4	Constant academic pressure made me feel inadequate.	3.61	.75	.763	.82
EW5	Academic stress contributed to a sense of loneliness.	3.42	.43	.810	.81
EW6	Irregular sleep due to academic pressure leads emotional distress.	3.71	.55	.854	.84
EW7	Academic stress contributed to self-criticism.	3.52	.26	.877	.77
EW8	I feel headache and fatigue due to academic stress.	3.75	.36	.865	.82
EW9	Academic stress decreases the level of retention.	4.05	.24	.772	.73
EW10	Academic stress decreases the level of creativity and thoughts.	3.64	.65	.835	.84
EW11	Academic stress disturbed emotional ties with family.	3.46	.42	.855	.76
EW12	Academic stress disturbed emotional bonds with peers.	3.66	.35	.765	.74

Factor 3. Academic Performance (AP)		**3.61**	**.57**		**.81**
AP1	I am not happy with how I am doing academically right now.	3.66	.53	.826	.86
AP2	In my exams, I don't receive the grades I want.	3.56	.43	.825	.73
AP3	I don't feel confident in my ability to succeed academically.	3.65	.65	.832	.80
AP4	I am not able to perform well in my quizzes and presentations.	3.35	.42	.785	.84
AP5	I have not developed desired skills.	3.76	.53	.775	.90
AP6	I am not able to adapt new concepts and methodologies.	3.55	.32	.761	.83
AP7	I don't receive teachers' appreciation for doing well academically.	3.54	.79	.758	.78
AP8	My academic record does not accurately capture my potential.	3.87	.54	.748	.71
AP9	I am not able to spend more time on study.	3.43	.82	.773	.83
AP10	I am not able to take my classes regularly.	3.59	.49	.717	.92
AP11	I am not able to actively participate in class discussions.	3.97	.64	.728	.71
AP12	I cannot submit my projects and assignments on time.	3.45	.72	.741	.83
AP13	I do not feel challenged by my course contents.	3.64	.62	.742	.85

H_1 - There is a statistically significant impact of academic stress on students' emotional wellbeing.

H_2 - There is a statistically significant impact of academic stress on students' academic performance.

H_3 - There is a statistically significant impact of students' emotional wellbeing on their academic performance.

Table 2

Linear Regression Analysis for Impact of AS on EW and AP

Unstandardized							**Standardized**					
			β	SE	t	p				β	Effect
EW	←	AS	.423	.051	8.352	***	EW	←	AS	.459	Significant
AP	←	AS	.619	.038	16.289	***	AP	←	AS	.641	Significant
AP	←	EW	.553	.047	11.856	***	AP	←	EW	.577	Significant

*** $p < 0.001$.

Simple linear regression analysis was performed to determine the impact of one independent variable (academic stress) on a dependent variable (academic performance). The study found a significant impact of academic stress (AS) on students' emotional wellbeing (EW) as well as their academic performance (AP). Table 2 showed that AS significantly influenced the students EW (β = 459, t = 8.352). In addition, AS also significantly influenced students' AP (β = 64, t = 16.289). Furthermore, students' EM also significantly influenced their AP (β = 57, t = 11.856). This study hypothesized that AS had a significant impact on students EW and AP, and students EW had a significant impact on their AP ($p <.001$).

H_4 - There is the statistical difference in perceptions among students of University of Peshawar and University of Sargodha regarding academic stress, emotional wellbeing, and academic performance.

Table 3

Independent Sample t-test for Comparison Between University of Peshawar and University of Sargodha Students about AS, EW, and AP

Scales	University of Peshawar Students		University of Sargodha Students		t	p	Cohen's d
	M	SD	M	SD			
AS	3.68	0.397	3.58	0.463	1.95	.33	0.23
EW	3.70	0.335	3.60	0.378	1.84	.32	0.27
AP	3.58	0.456	3.64	0.414	1.49	.41	-0.13

University of Peshawar students ($n = 400$), University of Sargodha students ($n = 400$).

The study found significant differences in perceptions related to academic stress (AS), emotional wellbeing (EW) and academic performance (AP) based on students' university. Table 3 clearly indicates that the students of both Peshawar (M = 3.68, SD = 0.397) and Sargodha (M = 3.58, SD = 0.463) universities revealed a small difference in the level of academic stress. Similarly, the students of both Peshawar and Sargodha universities faced similar emotional distress (M = 3.70, SD = 0.335; M = 3.60, SD = 0.378).

Figure 2

Graphical Presentation of Results
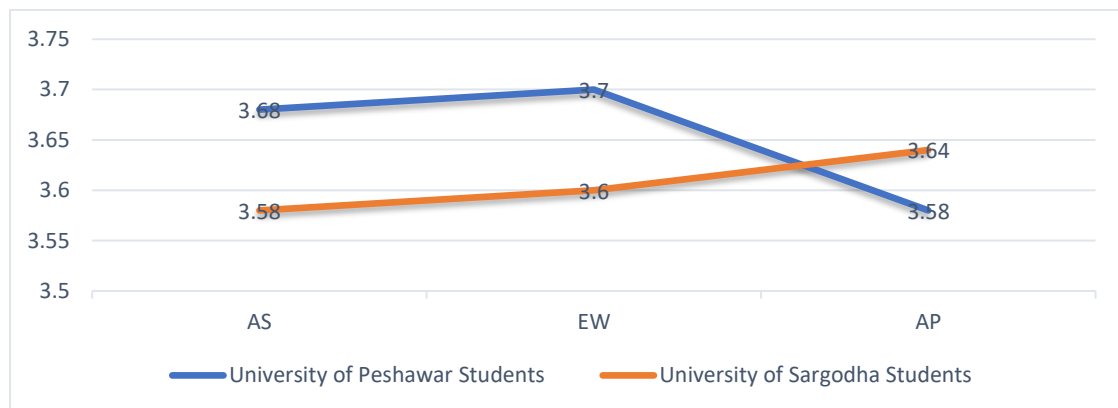
Furthermore, students of Peshawar University showed a similar disturbance in academic performance (*M* = 3.58, *SD* = 0.456) to the students of Sargodha University (*M* = 3.64, *SD* = 0.414). A significant value (*p* > .05) indicates no significant mean difference between students at both universities. Hence, the study hypothesized that students' academic stress level, emotional wellbeing, and academic performance did not vary by university.

H$_5$ - There is a statistical difference in perceptions among male and female students regarding academic stress, emotional wellbeing, and academic performance.

Table 4

Independent Sample t-test for Comparison of Male and Female Students about Academic Stress, Emotional Wellbeing, and Academic Performance

Scales	Male Students		Female Students		t	p	Cohen's d
	M	SD	M	SD			
Academic Stress	3.16	0.471	4.10	0.316	1.65	.00	-2.34
Emotional Wellbeing	3.14	0.662	4.16	0.421	1.84	.00	-1.83
Academic Performance	3.05	0.877	4.17	0.364	1.36	.00	-1.66

Male students ($n = 462$), Female students ($n = 338$).

Figure 3

Graphical presentation of Gender Difference about Academic Stress, Emotional Wellbeing, and Academic Performance
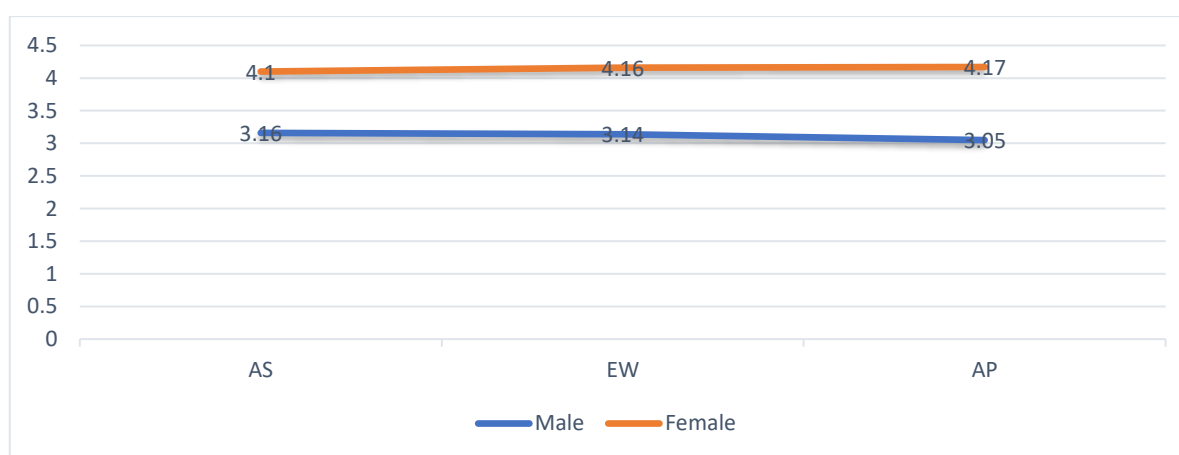
In addition, female students were more likely to face greater emotional distress (M = 4.16, SD = 0.421) than their male counterparts (M = 3.14, SD = 0.662), and female students clearly showed greater disturbance in their academic performance (M = 4.17, SD = 0.364) than male students (M = 3.05, SD = 0.877). A significant value (p < .00) clearly indicates the statistical mean difference between male and female students. Hence, the study hypothesized that students' academic stress level, emotional wellbeing and academic performance varied by gender.

H_6 - There is a statistical difference in students' perceptions regarding academic stress, emotional wellbeing, and academic performance based on their programs of study.

Table 5

One-way ANOVA for AS, EW, and AS based on Respondents' Program of Study

Variable	BS		MS/M. Phil		PhD		*F* (1, 312)	η^2	Post-Hoc
	M	SD	M	SD	M	SD			
AS	4.11	0.31	3.20	0.61	3.58	0.48	21.37***	.57	1>2<3
EW	4.22	0.24	3.55	0.49	3.18	0.61	20.75***	.59	1>2>3
AP	4.16	0.28	3.07	0.62	3.60	0.52	22.47***	.63	1>2<3

*Note.* *** $p < .001$. BS ($n = 374$), MS/M. Phil ($n = 262$), PhD ($n = 164$).

The study found significant differences in perceptions related to academic stress (AS), emotional wellbeing (EW) and academic performance (AP) based on students' study programs.

Table 5 clearly shows that the BS students faced greater academic stress (M = 4.11, SD = 0.31) than those who were pursuing MS/M. Phil (M = 3.20, SD = 0.61) and PhD (M = 3.58, SD = 0.48). In addition, students who were studying in BS were more likely to face emotional distress (M = 4.22, SD = 0.24) than students who were in MS/M. Phil (M = 3.55, SD = 0.49) and PhD (M = 3.18, SD = 0.61). Similarly, students in the BS program showed greater disturbance in their academic performance (M = 4.16, SD = 0.28) than students in the MS/M. Phil (M = 3.07, SD = 0.62) and PhD (M = 3.60, SD = 0.52). A significant value (p < .001) clearly indicates a statistical mean difference among all categories of programs. Hence, the study hypothesized that students' academic stress level, emotional wellbeing and academic performance varied by their program of study.

Figure 4

Graphical presentation of ANOVA for AS, EW, and AS based on Respondents' Program of Study
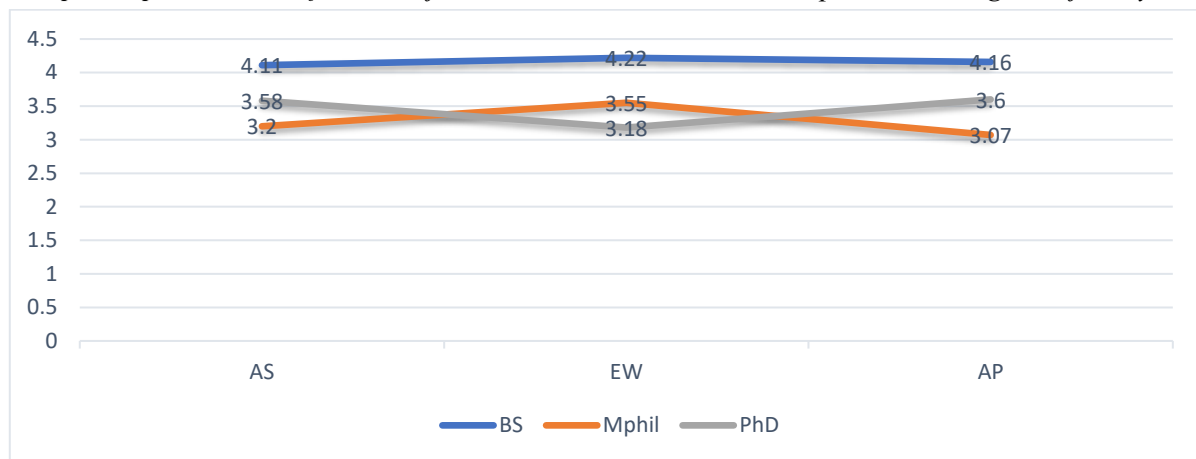
H$_7$ - There is a statistical difference in students' perceptions regarding the academic stress, emotional wellbeing, and academic performance based on their subjects of study.

Table 6

*One-way ANOVA for AS, EW, and AS based on Respondents' Subject of Study*

Variable	CHEM		PHYS		SOC		MS		F (1, 312)	η²	Post-Hoc
	M	SD	M	SD	M	SD	M	SD			
AS	3.98	0.48	4.11	0.33	3.11	0.58	3.32	0.50	24.55***	.89	1<2>3<4
EW	3.93	0.39	4.09	0.30	3.24	0.49	3.34	0.41	21.54***	.93	1<2>3<4
AP	3.85	0.42	4.20	0.27	3.14	0.61	3.25	0.55	27.22***	.84	1<2>3<4

Note. *** *p* < .001. CHEM (*n* = 274), PHYS (*n* = 208), SOC (*n* = 152), MS (*n* = 166).

Significant differences were found in perceptions related to academic stress (AS), emotional wellbeing (EW) and academic performance (AP) based on the students' subject. Table 6 indicates that chemistry (CHEM) students faced lower academic stress (M = 3.98, SD = 0.48) than those who had been studying physics (PHYS) (M = 4.11, SD = 0.33). Students who were studying sociology (SOC) experienced lower academic stress (M = 3.11, SD = 0.58) than those who were enrolled in CHEM, PHYS, and management sciences (MS) programs while students who were studying MS were less likely to face academic stress (M = 3.32, SD = 0.50) than students of CHEM and PHYS. In addition, students who were studying CHEM were less likely to face emotional distress (M = 3.93, SD = 0.39) than students who were in the PHYS department (M = 4.09, SD = 0.30).

Figure 4

Graphical presentation of ANOVA for AS, EW, and AS based on Respondents' Subject of Study
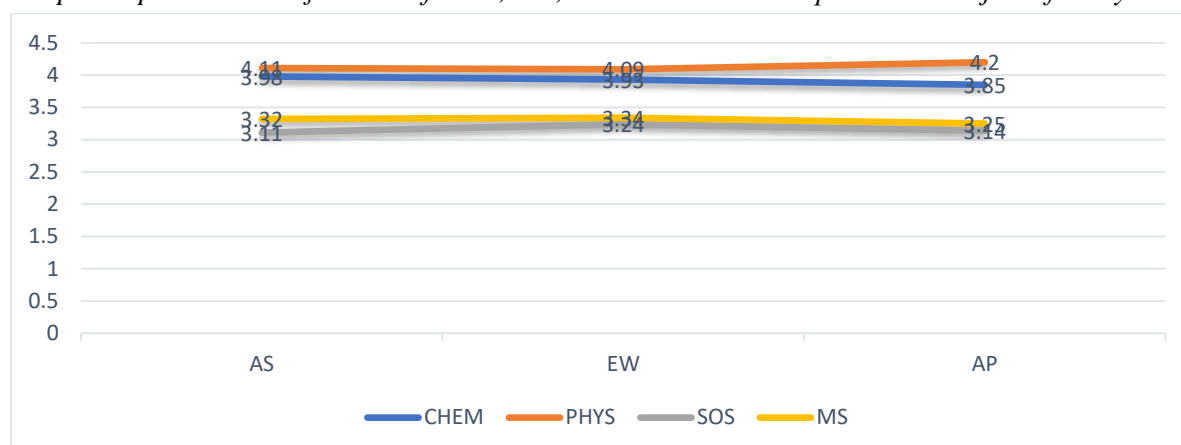
Those students who were studying sociology (SOC) were less likely to experience emotional distress (M = 3.24, SD = 0.49) than CHEM, PHYS and MS students, while those who had been studying MS were less likely to experience emotional distress (M = 3.34, SD = 0.41) than students of CHEM and PHYS. Moreover, the students of the CHEM department clearly showed a lower disturbance in their academic performance (M = 3.85, SD = 0.42) than the students of PHYS (M = 4.20, SD = 0.27). Students in SOC experienced a lower loss of academic performance (M = 3.14, SD = 0.61) than students in CHEM, PHYS, and MS, while students in MS were less likely than CHEM and PHYS to experience a loss in academic performance. A significant value (p < .001) clearly indicates a statistical mean difference among all categories of subjects. Hence, the study hypothesized that students' academic stress level, emotional well-being, and academic performance varied by their subjects of study.

H8 - There is a statistical difference in students' perceptions regarding academic stress, emotional wellbeing, and academic performance based on their years of study.

Table 7

*One-way ANOVA for AS, EW, and AS based on Respondents' Year of Study*

Variable	Up to 1 Year		Up to 2 Years		Up to 3 Years		Up to 4 Years		F (1, 312)	η²	Post-Hoc
	M	SD	M	SD	M	SD	M	SD			
AS	3.02	0.68	3.48	0.57	3.91	0.44	4.11	0.34	24.12***	.78	1<2<3<4
EW	2.96	0.71	3.44	0.57	3.94	0.37	4.26	0.26	22.58***	.84	1<2<3<4
AP	3.03	0.65	3.37	0.48	3.85	0.39	4.19	0.29	26.11***	.88	1<2<3<4

Note. *** $p < .001$. Up to 1 year ($n = 176$), Up to 2 years ($n = 232$), Up to 3 Years ($n = 202$), Up to 4 years ($n = 190$).

Significant differences were found in perceptions regarding academic stress (AS), emotional wellbeing (EW) and academic performance (AP) based on the students' year of study. Table 7 clearly indicates that the students who had been in the universities for up to one year faced lower academic stress (M = 3.02, SD = 0.69) than those who had been studying for up to two years (M = 3.48, SD = 0.57). Students who had been studying for up to three years experienced greater academic stress (M = 3.91, SD = 0.44) than those who were enrolled in the previous years, while the students who had entered their fourth year of study were more likely to face academic stress (M = 4.11, SD = 0.34) than 1st, 2nd, and 3rd year students.

Figure 5

Graphical presentation of ANOVA for AS, EW, and AS based on Respondents' Year of Study
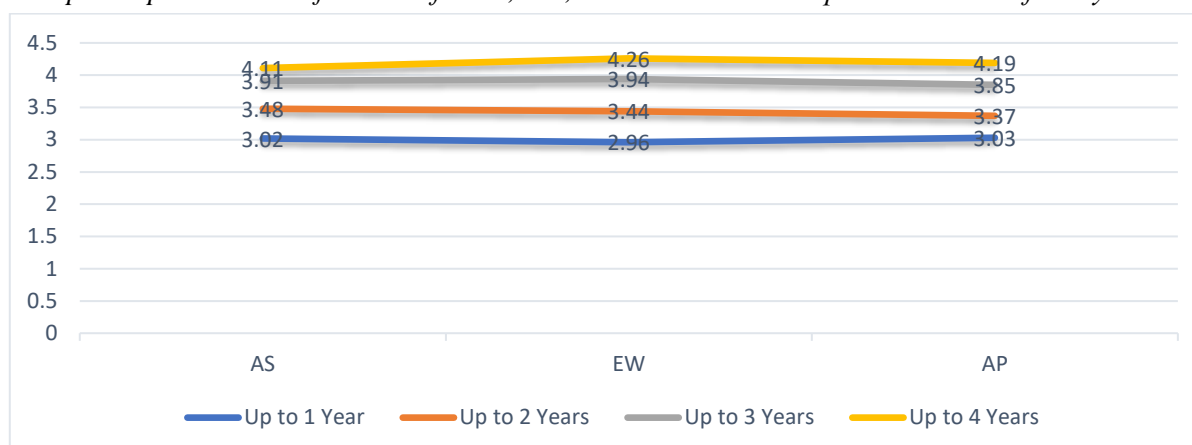
In addition, students who were in their 1st year of study were less likely to face emotional distress (M = 2.96, SD = 0.71) than the students who had been in their 2nd year of study (M = 3.44, SD = 0.57). Those who were in their 3rd year of study were more likely to experience emotional distress (M = 3.94, SD = 0.37) than 1st and 2nd year students, while those who had entered their 4th year of study were more likely to experience emotional distress (M = 4.26, SD = 0.26) than all previous year students (1st, 2nd, and 3rd). Moreover, students in their first year of study clearly showed a lower disturbance in academic performance (M = 3.03, SD = 0.65) than students in their second year (M = 3.37, SD = 0.48). Students who were in their 3rd year of studies experienced greater loss in studies (M = 3.85, SD = 0.39) than the students of the previous two years while students who were in their 4th year of program were more likely than 1st, 2nd and 3rd year students to experience loss in academic performance. A significant value (p < .001) indicates a statistical mean difference among all categories. Hence, the study hypothesized that students' academic stress level, emotional wellbeing and academic performance greatly varied by their year of study.

8. Discussion

The study supports the distinct and significant impact of students' academic stress on their emotional wellbeing as well as their academic performance. The data show that AS has a major impact on students' emotional wellbeing and their academic success, and the research greatly emphasizes the important impact of academic stress on both academic performance and emotional health. The study also lends credence to the idea that a student's emotional health has a significant impact on how well they perform academically. Supporting the findings of the study, Reddy et al. (2018) concluded that because of its triggers, which include some competitive academic environments, high-stakes tests, severe deadlines, excessive workloads and deadline pressure academic stress is quite common among students. These findings are also consistent with those of Glozah (2013), who found that students who experience very high levels of academic stress also have higher rates of anxiety as well as depression.

Remarkably, there were no appreciable variations in the degrees of emotional anguish and academic stress that Sargodha and Peshawar university students encountered. It was clearly shown that students at both educational institutions had comparable disruptions in their academic performance. Students' academic stress levels, emotional wellness and academic performance did not differ depending on the institution they attended, as suggested by the observed lack of significant mean differences. Furthermore, the findings showed that there were notable distinctions between male and female students in these areas. In particular, it has

been discovered that, in comparison to their male students, female students suffered from higher levels of academic stress, emotional discomfort, and disruption in academic performance. These findings are consistent with those of Green et al. (2022), who concluded that, because stress is so prevalent among students, it can result in burnout, which is typified by diminished performance, emotional tiredness, and a detached feeling. Marikutty and Joseph (2016) emphasized that long-term stress exposure frequently leads to the adoption of unhealthy coping strategies like drug misuse or social disengagement which further jeopardizes students' mental wellbeing.

The results showed that the students seeking BS degrees had some higher levels of academic stress than their MS/MPhil and PhD program counterparts. In addition, compared to MS/M.Phil and PhD programs, BS students were more likely to experience emotional discomfort and academic performance disruptions. Research's premise is greatly supported by the presence of significant values, which show statistical mean differences among different study program types. Notably, students studying chemistry (CHEM) reported lower levels of academic stress than those who were studying physics (PHYS), while students studying sociology (SOC) reported even lower levels of stress than those studying chemistry, PHYS, and management sciences (MS). Additionally, the MS students showed less academic stress than PHYS and CHEM students. Emotional discomfort was another area where differences were noted. PHYS students reported higher levels of emotional distress than CHEM students, whereas SOC and MS students reported lower levels than their counterparts in CHEM, PHYS, and MS. There were also clear differences in academic performance: students in CHEM showed less disruption than students in PHYS; students in SOC showed less loss than students in CHEM, PHYS and MS; and MS students were less likely to lose ground academically than students in CHEM and PHYS. It is noteworthy that first-year students reported less academic stress than second-year students did, while third and fourth-year students showed an increase in stress. Students' emotional discomfort also clearly showed a similar pattern, with first-year students expressing less distress than second-year students and third- and fourth-year students showing an increasing tendency toward distress. Academic performance interruptions also greatly differed by year, with first-year students exhibiting fewer disruptions than second-year students and third- and fourth-year students exhibiting more disruptions. The study's premise is much supported by these data, which highlight how students' performance, mental health, and academic stress change during their time in university. Supporting the findings of this study, Chemutai and Catherine (2021) concluded that students' social dynamics are also impacted by academic stress, which frequently leads to social disengagement and isolation. Murff (2005) stated that extended periods of stress intensify these impacts, leading to a notable decline in vital cognitive functions including concentration, information processing, and test performance. At another place, Khan et al. (2013) emphasized that the ongoing relationship between higher stress levels and lower cognitive performance serves as evidence of the substantial impact that academic stress has on some students' intellectual capacity.

9. Conclusion and Recommendations

The thorough investigation of the study clarifies the complex connections between academic stress, emotional wellness and students' academic performance. The results clearly highlight the critical role that academic stress plays in promoting overall student well-being by confirming the substantial influence of academic stress on both emotional health as well as academic performance. Furthermore, the study clearly highlights the reciprocal connection and confirms how academic performance is greatly impacted by emotional health. Notably, the absence of discernible differences between the universities raises the great possibility that a student's academic stress, mental health and performance are not only determined by their school. There were clear gender differences in the universities; female students had much

higher degrees of stress, emotional discomfort and interruption in their academic performance than their male counterparts. The study also identified great differences according to subjects and study programs, highlighting the significance of providing students with individualized help in a variety of academic settings. Furthermore, by analyzing academic stress, emotional wellness and performance throughout several years of study, the study sheds light on how these variables change through university. Interestingly, the study found a small difference in academic stress and academic performance, with students from the University of Peshawar more likely to face academic stress as compared to students from the University of Sargodha.

Several recommendations may be made to improve students' academic performance and well-being based on the study's findings. First and foremost, given the substantial influence that academic stress has on some students' emotional health as well as academic performance, educational institutions may give top priority to the creation and execution of some efficient stress management programs. These programs may consist of several workshops, counseling services and materials designed to teach students some coping skills. Gender-specific support programs may also be helpful, given the differences in stress, emotional distress, and disruption of academics between male and female students that have been identified. Many customized strategies for certain courses and study plans may be taken into account in order to tackle particular difficulties linked to various academic environments. The universities may also provide a supportive atmosphere that changes with its students, acknowledging ways in which academic stress, mental health and performance change throughout the course of a student's academic career. In order to foster a supportive and caring learning environment, it is imperative that student assistance programs take a comprehensive approach that includes academic advising, mental health services and a flexible institutional culture.

10. Directions for Future Research

Future studies may take some individual characteristics and environmental factors into account as they investigate the precise pathways via which academic stress greatly affects emotional wellbeing as well as academic success. This may entail both quantitative analysis to pinpoint mediating and moderating variables and qualitative research to investigate the students' subjective perceptions of stress and its impacts. Furthermore, long-term studies that follow students throughout their academic careers may offer insightful information on the dynamic nature of these connections and the potential need for some treatments to change over time. Furthermore, comparative research in various cultural as well as educational contexts may clarify if the results are generally applicable and guide the creation of customized solutions. Lastly, studies examining how institutional practices and policies affect student well-being and academic stress reduction or exacerbation may greatly help to improve the systems throughout higher education.

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