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KEYWORDS	ABSTRACT
Academic Stress, Mental Health, University Students, Pakistan	The objective of the study was to explore the effect of academic stress on the mental health of the undergraduate university students. The research was designed as a quantitative causal-comparative study. For the collection of data, standardized instruments were adopted. The instrument was thus duly validated by experts and a pilot study from 60 participants. The population of the study comprised undergraduate university students of the Lahore district. A proportionate stratified random sampling technique was used to select the sample. The selected sample comprised 528 students. The data was analyzed using SPSS version 25. Data analysis included independent sample t-test, ANOVA, and multiple regression analysis. The results revealed the significant correlation between the variables and academic stress was found a significant predictor of mental health issues. It is therefore recommended that the institutions should develop awareness among the students and their parents, regarding the issues under study. Moreover, enhancing the depth and breadth of the research scope can help to get further probe into the issue under considerations.
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INTRODUCTION

The stress is considered a part of the student's life and can impact the student's coping mechanisms according to their needs for academic life (Fincham, Strauss, Marin & Cavanagh, 2023). Academic stress is a mental distress associated with any anticipated dissatisfaction correlated with student failure, or even awareness of possibility of such a failure (Busari, 2014). Pascoe, Hetrick and Parker, (2022) defined academic stress as a requirement linked to academics that taxes or exceeds existing resources (explicit or implicit). Academic stress, she says, reflects the belief of individual's academic

resentment, academic conflict, academic friction, and academic anxiety. Academic stress can be a burden that mostly happens during an academic performance due to a person's extra work relative to his/her capacities or abilities. Academic stress has been emphasized separately by many authors and as pursues. Steare, Muñoz, Sullivan and Lewis (2023) defined academic stress as among the commodities of a physiological battle to regulate the obligation or examination the teacher must obtain from authority in field in question. Yang and Yang (2022) claimed that higher educational stress caused the limited opportunity for achievement. Wang, García, Ren and Liu (2022) have found that academic workload is associated favorably with inherent stress level. Cavioni, Grazzani and Ormaghi (2020) claimed that mental health is a way of thinking, feeling, and acting in the person's everyday life.

The people with healthy relationships recognize their abilities, are ready to tolerate defeat, able to regulate respect and appreciate their sentiments. The term mental health is composed of two words, 'mental' and 'health' The term 'mental' connotes something that is purely related towards a person's intellectual functioning. It also preserves the bond with others and a general power that could be called equilibrium of one in sense of socio-culture. The word 'Health' relates to specific fitness as well as to individual unconscious psychological equilibrium, linking of his psychological system with the outer environment, and individual's social activity (Coninck, Matthijs & Lancker, 2022; Khan & Sabah, 2020). Mental health is seen as level of real well-being in which people understand their capacity, can cope with ordinary life pressures, can function productively and credibly, or can contribute to society, as per world health organization (Salari et al., 2020). Khan and Sabah (2020) identified "mental health as a dynamic condition of effective teamwork that enables people to use their skills in line with the society's widespread norms." Simple psychological and behavioral skills; willingness to understand, and convey, another's feelings and empathize with everyone; resilience and ability to deal with the deleterious events in life and act in social roles; and healthy body-mind relationships are essential elements of mental well-being that lead to varying degrees of the status of the internal circuit.

Health means both body and mind function efficiently and in harmony. Mental health is a state of consciousness characterized by emotional well-being, relative security from anxiety and disabling symptoms, and dealing with ordinary life stress and demands (Green, Faizi, Jalal & Zadrán, 2022). Lipson, Lattie and Eisenberg, (2019) pointed out that, given the cultural diversity between the burden of instructional components or academic stress and mental health problems in adolescent populations, forgotten studies explicitly stipulate a notable link. Thus, it is theorized that although the other costs are taken into consideration, there will be a beneficial affiliation between high educational stress, mental health and phenomenon of developmental issues forgotten by surveys were primarily due to the unfavorable mental health (such as depression and suicidal behavior) and several did not even realize favorable mental health conditions (happiness). It accounts for the adaptive and mental reactions of one. The perceived pleasure was thus coupled with depression, suicidal activity (making plans, imagining, etc.), and alcohol usage (cigarettes, narcotics, etc.) in the measured outcome. The educational system, assessment system, value system, teacher efficiency,

school situation, and school environment are some of the factors that affect a child's mental health (Wang et al., 2022b).

Objectives of Study

1. To explore difference in academic stress on demographic variables among undergraduate students.
2. To explore the effect of the academic stress on the mental health issues of undergraduate students.

Research Hypotheses

Ho1: There are no significant group differences in stress on the gender of undergraduate students.

Ho2: There is no significant group mean difference in stress in the age of undergraduate students.

Ho3: There is no significant effect of academic stress on mental health issues among the students.

Significance of Study

1. School administrators, course content designers, and counselors to include learners with the educational career guidance and advice.
2. For parents to help their children study and to be specific about their academic needs and therefore reduce their academic stress.
3. For students, it may be helpful to understand the unknown mental burdens and to learn how to minimize them.

LITERATURE REVIEW

Stress has become a trademark experienced by students across the world as a health or pathological condition and negative emotional, cognitive, behavioral, and physiological response (Stearé et al., 2023b). The stress in coping is especially academic in origin brought about by examinations, class rankings, and large syllabuses (Azad & Kaur, 2024). They also cite aspects related to workload and interactions with other students and faculty; concerns like too many assignments add to this stress. Stress is usually the strain that originates from pressures or challenging occurrences (Chen et al., 2024). It is defined by Tran et al. (2022) as the process that entails perceiving and dealing with environmental issues. A moderate amount of stress can have positive impacts on the learning and intellectual abilities of person more details (OECD, 2021). Yet high stress levels come with negative consequences that include psychological issues like depression & anxiety as stated by Sutherland (2018). The students in viable academic arena undergo examining stress, class attendance troubles, comprehension snags that cause decreased self-esteem & mental health disorders Mccloud et al. (2023). These pressure sources include workload, perceived as excessive, conflict with other people (Tran et al., 2022b).

Thus, practicing time management, strengthening the social network, and utilizing recreational activities should be considered important methods of combating the academic stress, as stated by (Dessauvagie et al., 2022). Transactional Model of Stress by Adams et al. (2021) centered around cognitive appraisal as key to dealing with stress. Stress is a process that is caused by a relationship between how an individual appraises his environment and demands arising from that environment. This model is suitable for the first-time university students, given the many difficulties that they

experience. Mofatteh (2021) observes that proper mental health leads to proper physical, social, and occupational interaction in day-to-day life. Anxiety-related disorders like depression which are fuelled by intense academic pressure often led to poor performance of students and disruption of their personal lives (Stearé et al., 2023c). Antecedent noted, that mentally healthy people can manage daily stressors, stated by WHO in 2020 (OECD, 2021). In past, student pressure to succeed academically has forced them to work hard in the classroom tests, examinations, and assessments as promoted by their teachers, tutors and parents (World Health Organization, 2022). Extracurricular activities have likewise increased pressure because students have to excel in the academics as well as in other activities.

The lack of counselling and guidance services also elaborate this problem, which leaves students baffled on matters relating to the career paths hence boosting stress levels (Bataineh, 2013). These stresses come in many forms; overburdening homework load, high parental expectations, and social conditioning that compels a child into unwanted actions. This stress can be very damaging to their mental well-being, increasing their likelihood of suffering from depression or anxiety (Adegoyega et al., 2020). Stress has been described by Ang and Huan (2006) as any change that threatens an organism's homeostasis, while the stressors are situations that one thinks of as stressful and which destabilize the individual. Incongruities, changes, and catastrophes; minor daily interferences, and major life changes; catastrophic changes and stressful incidents are considered important sources of stress (Rahiman et al., 2023). The effects of stress are profound and involve the cognition, emotion, and physical well-being of an individual. Therefore, the cognitive aspect has been focused on by different studies in Pakistani context. In the cognitive domain of learning, critical thinking (higher-order) skills have been focused being twenty-first-century skills to be focused on to be developed in the students of today.

Similarly, different studies have been conducted focusing on the critical thinking skills based on teachers' perspectives and practices, policy documents, and textbooks analysis (Naseer, et al., 2021; Jamil, et al., 2024; Muhammad Jamil, Muhammad Aslam, et al., 2024; Muhammad Jamil, Tahira Bibi, et al., 2024; Muhammad Jamil, Tahira Batool Bokhari, et al., 2024; M Jamil et al., 2024; Muhammad Jamil, Wahid Mehmood, et al., 2024; Jamil & Muhammad, 2019; Jamil et al., 2020; Jamil et al., 2021; Azmat, et al., 2021). The symptoms are worry, violence, physical manifestations such as nail biting, and irregular pulse rates (Agolla & Ongori, 2009). These stress reactions are not necessarily sequential and might precipitate a fight-or-flight state (Bataineh, 2013). The key is to know stress and manage it well. The transactional model of occupational stress posits that stress is derived from the transactions between environment's demands and individual's capacity to cope with the stresses (Wang et al., 2022b). To this extent, one can therefore manage the stressors if not their occurrence by adequately evaluating and handling the vice that is a result of stressors. Mental health and emotional status depend on people's psychological and emotional state, which allows, hinders them from performing various tasks effectively in school, workplace & within communities (Cavioni et al., 2020).

The accomplishment of the goals in life determines the state of mental health, whereby one is in a position to handle the pressures in life (Mitchell, 2020). Academic pressure brings about discursive

formation of mental health problems among adolescents such as anxiety and depression (Magier et al., 2023). Academic guidance: The proper mental health intervention and stress management are required to assist students in going through all these challenges and stay healthy. Mental health issues such as depression, form part of common psychiatric disorders in America; they affect about one in four adults (Nazari et al., 2023). Symptoms of depression are as follows: Depression includes consistent low moods, anxiety, lack of value and interest in daily endeavors, sleeping disorders, change in appetite leading to loss of weight or gain, lack of strength, and ideas of dying or death. This includes migraines and digestive disorders that have no medical cure for the condition. The phenomenon of academic stress affects young people's psychological well-being, in particular university students. The OECD (2021) has a more positive view of mental health by describing it as a state in which an individual can function acceptably in day-to-day life, be productive, and easily integrate into society.

Mental health disorders for instance, mood, anxiety disorders, and suicidal risk factors are prevalent among students and are also leading causes of disability globally as classified by Global Burden of Disease study (Coley et al., 2018). The prevalence of psychological health issues among students is a growing global concern. Around 20 percent of the children and university students experience psychiatric illnesses, with nearly 50 percent of adult psychological problems originating during undergraduate years (Reda Ismail, 2022). Suicide is a leading cause of death among 18-24-year-olds, second only to road accidents (DeLisle, 2011). Despite this, the development of psychosocial interventions for adolescents and young adults has lagged, particularly in developing countries where healthcare facilities are inadequate (Stafford et al., 2016). Academic pressure is a significant source of stress, contributing to the depression among students. Various teaching practices and high expectations exacerbate these issues, impacting students' mental health & academic performance (Ruddy et al., 2005). Addressing these challenges needs holistic approach that includes improving access to mental health services, enhancing the data collection, and developing innovative coping strategies for students.

Different studies have been conducted about the current variables of the study in national and international contexts. For example, effect of university-level students' stress on their performance (Ali et al., 2021); the impact of stress on the secondary and higher education (Pascoe et al., 2020); university students' stress regarding COVID-19 (Keyserlingk et al., 2022); stress and burnout of school teachers (Naz et al., 2022); academic stress and mental well-being of the college students (Barbayannis et al., 2022); academic stress and emotional well-being (Clabaugh et al., 2021); risk factors associated with stress (Mofatteh, 2021). In conclusion, academic stress significantly impacts students' mental health, leading to issues like anxiety, depression, and cognitive impairments. The effective stress management and mental health support are vital for students to navigate academic challenges & maintain overall well-being. Depression includes consistent low moods, anxiety, lack of value in daily endeavors, sleeping disorders, change in appetite leading to loss of weight or gain, lack of strength, and ideas of dying/death. Future research should explore stress-coping strategies & mental health intrusions to support students in academic environment. With inclusive approach,

educational institutions can foster a healthier environment that promotes both academic success and mental well-being.

RESEARCH METHODOLOGY

This research was quantitative. The ex-post facto research design is descriptive survey research. Using the word ex post facto to describe something that incorporates past activities, such as a raise in pay ex post facto, subsidizes for job users have since done. Population for research included all undergraduate university students of Lahore. A proportionate stratified random sampling method was used for the study. The selected sample included 550 students, 58% from public, and 42% from private universities. A questionnaire was used to collect data from the participants. It included participants' demographic information (age, gender, and year) academic stress scale, and mental health scale. The perceived level of academic stress of students was measured by academic stress inventory developed by [Ang and Huan \(2006a\)](#). It comprised total of 34 items and 7 factors about the teacher phobia, exam anxiety, group study phobia, peers' phobia, time management issues, and self-inflicted stress.

On the other hand, mental health was measured by a standardized questionnaire GHQ-12 (The General Health Questionnaire) by [Cavioni et al. \(2020\)](#). Mental health can be evaluated through the identification of signs of anxiety, depression, and emotions of effectiveness. The most commonly used screening tool for the common mental illnesses is the 12-item General Health Questionnaire (GHQ-12). The research instrument was duly validated by expert opinion (Content validation), and pilot study (construct validation). In this connection, the data were collected from sixty respondents for pilot testing by the researcher, which was more than ten percent of the total sample size. The reliability analysis revealed 0.99 and 0.82 for the academic stress scale, and mental health scale respectively which indicated that the tool was good and reliable, as per the criteria proposed by [Fraenkel et al. \(2012\)](#).

FINDINGS OF STUDY

Analysis to Explore Difference in Academic Stress on Demographic Variables among Undergraduate Students.

The two most studied, widely influencing demographic variables i.e., gender and age, were selected for study. An Independent sample t-test was used to explore difference in the academic stress on gender of undergraduates.

Table 1 Academic Stress of Students Based on Gender

Gender	N	Mean	SD	T	Df	Sig. (2-tailed)
Male	202	124.8020	19.81382	.569	.526	.000
Female	326	123.7362	21.59824	.580	453.798	

The results from the table indicate a significant difference ($p = .000$) amid both genders was found. The mean values indicate that males were more influenced by stress and mental health issues than females. So, null hypothesis "there is no significant difference of stress on gender of undergraduate students" was rejected. Second selected demographic variable was age. To find group difference of

academic stress on age, analysis of variance (ANOVA) was applied. Following results were obtained from this analysis.

Table 2 Academic Stress of Students Based on Age

PR	SS	Df	Mean Squares	F	Sig.
Between Groups	286.281	3	95.410	.217	.000
Within Groups	230372.830	524	439.643		
Total	230659.061	527			

The table indicates that significant difference in stress was found in age variable of undergraduates. Thus, the null hypothesis “there is no significant difference between students’ academic stress based on age” was rejected.

Analysis to Explore the Effect of Academic Stress on Mental Health of Undergraduate Students

Multiple regression analysis was made to test this research objective. Results of this test are given in following table.

Table 3 Effect of Academic Stress on Mental Health

Model	R	R ²	Adjusted R ²	Std. Error of Estimate
1	.772 ^a	.522	.52	4.29325

Predictors: SS, TTS, PS, TMS, TS, SGS, RS

The table indicates that the value of R² = .522, which means that a one percent rise in mental stress can alleviate mental health issues to 52.2%. Further detailed analysis was conducted to test the unique contribution of each study variable is described in following table that ultimately provide valuable information.

Table 4 Contribution of Each Sub-Variable of Stress towards Mental Health Issues

Model 1	Unstandardized		Standardized	t	Sig.
	Coefficient		Coefficient		
	B	St. Error	Beta		
Constant	40.927	1.216		33.657	.000
Teacher Stress	-.346	.052	.391	-6.699	.000
Result Stress	.133	.080	.096	1.661	.000
Test Stress	.065	.063	.045	1.032	.000
Study in Group Stress	-.665	.074	.494	-8.985	.000
Peer Stress	.026	.066	.014	.390	.000
Time Management Stress	.307	.081	.137	3.811	.000
Self-inflicted Stress	-.034	.056	.020	-.612	.000

a. Dependent Variable: MH

The results from the above table indicate that each sub-variable had a significant effect over the dependent variable i.e., mental health. The values of beta further revealed predictors’ effect over mental health issues in order of study in group (49.4%); teacher stress (39.1%); time management

stress (13.7%); result stress (9.6%); rest stress (4.5%); self-inflicted stress (2.0%); and peer stress (1.4%) respectively. In this connection, from the above two tables, it was found that the hypothesis “There is no significant effect of academic stress on the mental health of undergraduate students” was therefore rejected.

DISCUSSIONS

This study aimed to find out to determine the effect of academic stress on mental health among undergraduate students from Lahore. The findings showed that there was a significant relationship between academic stress and the mental health of undergraduate students. Research conducted by [Nikitha et al, \(2014\)](#) concluded that academic stress is the primary source of stress among students and can lead to low self-esteem. Poor self-esteem affects many mental disorders, like psychological distress and disability where this research reported same results as mentioned in the other studies. The same results from the previous research studies ([Barbayannis et al., 2022](#); [Prowse et al., 2021](#)). The same results were also revealed in a study conducted by [Keinan and Perlberg \(1986\)](#) that the potential effects of intense stress are emotions of anger, depression, and anxiety. Oh, [McKean et al. \(2000\)](#) conclude that anxiety, depression, or pain are not triggered by pressures alone. Conversely, stress is triggered by interaction and response amid stressful events and the interpretation of person to these stimuli.

[Gupta and Khan \(1987\)](#) revealed in their study that academic stress is a mental disorder concerning some anticipated disappointment associated with the academic failure, or even knowledge of the probability of such failure. [Sapru \(2006\)](#) reported that for most teenagers in stressed and unstressed classes, the proportion of people were in the 18-21 age group. In this linking, the findings also show that there is a significant difference between the age group of students. While the 18-21 age group of students takes more stress and is more influenced than other age groups of students. Nationally and globally, in the 18-24 age groups, death is the second largest cause of the death that is only exceeded by road accidents ([WHO, 2008](#)). Consequently, Global Burden of Disease (GBD) reports by the World Health Organization indicate that the monopolar mood symptoms, schizophrenia, bipolar disorder, drug use, and self-inflicted diseases are some of the leading causes of the infection diverse rates, which both compensate for 22 percent of all existence-years (disease burden) suffered ([Gore, 2011](#)).

The results indicated a significant positive relationship based on year while in the first year of the degree program, students are more influenced than in other years of learning. [Prabu \(2015\)](#) showed in his study that challenges and difficulties encountered by undergraduates in the first year differ from those encountered by their non-student colleagues or those in final year. The study indicated a significant difference between genders. The result revealed that females are more influenced by males. In literature, some studies showed that males are more influenced than females; some show females are more influenced than males. Starting from here [Prince et al., \(2007\)](#) examined that the results of impact of academic stress on mental health on both men and women are far below average and that female score was significantly higher than that of males. Same results were from previous studies ([Barbayannis et al., 2022](#); [Prowse et al., 2021](#)). Another study led by ([Wells, 2002](#)) that 70%

of males take academic stress than females while remaining 30% of females take more academic stress than males.

CONCLUSION

This study was an attempt to determine how academic stress affects the mental health of university students. The results of the study showed significant effect of academic stress on the mental health of undergraduate students. It was also found that the factors of academic stress, TS (teacher stress), RS (results stress), TTS (test stress), SGS (group stress), PS (peer stress study), TMS (time management stress), SS (self-inflicted stress) were related to mental health among undergraduate students. The result showed significant difference in gender-based academic stress of undergraduate students, females are more influenced than males. The study also showed significant difference between the students' academic stress based on age. While a significant difference was also shown between the students' academic stress based on year, moreover students from 3rd year are more influenced than other years of learning.

Recommendations

1. The educational institutions and universities should arrange the workshops, seminars, stress management skills, and different training centers.
2. The universities should provide motivational sessions, therapy, and intellectual stimulation to reduce stress on the mental health of students.
3. A mixed method approach should be done on it which helps to explore causes of stress. Future studies should be led in other areas of Pakistan.

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