

THE IMPACT OF RESILIENCE ON ACADEMIC STRESS: A COMPARATIVE STUDY BETWEEN MALE AND FEMALE UNIVERSITY STUDENTS.

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ABSTRACT This study examined the relationship between resilience and academic stress among male and female university students enrolled in the Department of Psychology at Kohat University of Science and Technology (KUST), Pakistan. Using a quantitative, correlational, and cross-sectional design, data were collected from 326 students selected through purposive sampling, representing individuals balancing academic responsibilities. The Brief Resilience Scale (BRS) and the Academic Stress Scale (ASS) were administered to assess resilience and academic stress levels. Results revealed a significant negative correlation between resilience and academic stress, indicating that students with higher resilience experienced lower academic stress. Regression analyses further showed that resilience significantly predicted on academic stress for both male and female students. Gender differences were observed in both resilience and academic stress levels, suggesting distinct coping mechanisms between male and female students. Based on these findings, it can be concluded that resilience plays a key role in reducing academic stress. Students with higher resilience experience lower pressure in academic settings, and resilience serves as a strong protective psychological factor. T-Test shows that gender differences highlight the importance of providing gender-sensitive support to help students cope with academic challenges. Strengthening resilience through counseling, training programs, and supportive learning environments may improve students' academic performance and overall well-being. These findings reinforce the value of resilience in academic life and emphasize the need for institutional strategies that enhance coping skills. Future research should explore additional factors influencing resilience and examine long-term interventions to support diverse student populations.

INTRODUCTION

CHAPTER 1

Introduction of Study

Higher education is often regarded as one of the most critical stages in personal and professional development, offering opportunities for growth, skill acquisition, and social mobility. However, for

many students, pursuing a university degree comes with substantial challenges that may affect their mental health and academic performance. Among these challenges, academic stress has emerged as a significant concern, particularly for university students who balance multiple academic

responsibilities. In comparative studies, students often experience increased pressure due to demanding coursework, deadlines, and performance expectations (Nguyen & Sawang, 2016).

Managing both responsibilities simultaneously can generate considerable strain, requiring students to develop effective coping strategies. One of the key psychological resources that enables such adaptation is resilience, defined as the ability to recover and adapt positively despite experiencing adversity or stress (American Psychological Association, 2020). Understanding how resilience influences academic stress among university students has become an important area of inquiry for educators, psychologists, and policymakers seeking to promote student well-being and success. University students often face heavy academic demands, including coursework, examinations, and performance expectations, which can elevate stress levels. Examining this relationship is particularly important in comparative research focused on male and female students, as both groups may experience and cope with academic pressure differently. This growing academic interest reflects global concerns about student mental health and the need to strengthen resilience within higher education settings (Carney et al., 2005).

University students face a range of academic pressures, including the need to manage coursework, examinations, deadlines, and performance expectations. These demands can contribute to heightened academic stress, making it essential to understand the role of resilience in helping students cope effectively. Resilience enables individuals to adapt positively to challenges, recover from setbacks, and maintain psychological well-being in demanding academic environments. Exploring this dynamic is especially important in comparative studies involving male and female students, as both groups may experience stress differently and draw on distinct coping strategies. University students often experience role overload when faced with multiple academic demands such as assignments, examinations, class participation, and performance expectations. Managing these

overlapping responsibilities can create role conflict, particularly when one academic task interferes with the completion of another. This overlap increases pressure and contributes to higher levels of academic stress among students. The concept of role conflict helps explain how competing academic expectations can disrupt students' overall well-being and academic performance (Marks, 1977; Greenhaus & Beutel, 1985).

Curtis and Shani (2002) found that students experiencing increased demands tend to show reduced academic engagement and higher levels of stress. Such heightened pressure can place university students at greater risk of academic strain and psychological exhaustion. These findings underscore the importance of examining resilience and coping mechanisms, particularly in comparative research exploring how male and female students experience and manage academic stress.

The word resilience comes from the Latin *resilire*, meaning "bouncing back." According to the American Psychological Association, resilience is the process by which a person adapts successfully to stress arising from life challenges or academic pressures. It is a multifaceted psychological construct widely studied across disciplines such as psychology, education, and health sciences. The APA (2020) defines resilience as "the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands." In simpler terms, resilience is not merely about "bouncing back" from hardship but also about growing stronger through adversity (Luthar et al., 2000).

The idea of resilience's effect on academic stress originated from Eastern and Asian social customs and has since gained prominence in counseling and cognitive science. Research conducted with European American students has shown that resilience can significantly mitigate the negative impacts of anxiety, depression, and psychological strain. University students frequently encounter academic stress after enrolling in higher education, often arising from challenges in

adapting to the demands of the academic environment. For example, some students struggle to manage the pressure of homework, exams, and achieving high grades. Additionally, research indicates a positive relationship between mindfulness and resilience (Kirillova, 2013).

In the academic context, academic resilience refers to students' ability to effectively cope with academic setbacks, stress, or pressure while maintaining motivation and performance (Martin & Marsh, 2006). For example, a resilient student who receives a poor exam grade may respond by analyzing their mistakes and improving study strategies rather than feeling defeated or disengaged. Academic resilience is influenced by both personal traits such as optimism, perseverance, and self-efficacy and environmental factors, including social support, mentoring, and a positive academic climate (Hartley, 2011).

Research has consistently shown that resilience is associated with positive psychological outcomes, including reduced stress, greater well-being, and higher academic achievement (Fletcher & Sarkar, 2013; Li et al., 2016). For university students, resilience acts as a protective factor that buffers the negative effects of stressors such as workload, exams, financial pressures, and social challenges (Thomas & Revell, 2016). Resilient students are better able to maintain emotional stability and employ effective problem-solving strategies when facing academic pressures.

Furthermore, resilience is not a fixed trait; it can be developed and strengthened through experience and intervention (Masten, 2014). Universities can foster resilience through support systems, mentoring programs, and training that enhance students' coping abilities, emotional regulation, and confidence. By promoting resilience, educational institutions can help students manage academic stress and improve academic performance, retention, and overall satisfaction. Academic stress is defined as the psychological and physiological response to academic demands that exceed an individual's adaptive capacity (Misra & Castillo, 2004). It arises from various sources, including heavy workloads, examinations, time constraints, competition, performance pressure, and fear of

failure (Kausar, 2010).

According to Pascoe et al., (2020), academic stress can lead to negative emotional outcomes such as anxiety, burnout, depression, and decreased academic motivation. The stress response may also manifest physically (e.g., headaches, fatigue, sleep disturbances) or behaviorally (e.g., procrastination, withdrawal, or academic disengagement). University students often experience academic stress as a normal part of their education, but when it becomes chronic or overwhelming, it can impair cognitive functioning, concentration, and academic performance (Putwain, 2007). Prolonged exposure to academic stress increases the likelihood of stress-related exhaustion, commonly referred to as academic burnout (Salmela-Aro & Read, 2017).

Significance of the Study

Understanding the impact of resilience on academic stress among male and female university students has both theoretical and practical significance. Theoretically, it contributes to the growing body of literature on positive psychology and student well-being by identifying resilience as a key factor influencing academic outcomes. Practically, it provides valuable insights for university administrators, counselors, and educators to design targeted interventions. For example, resilience-building programs, mentoring, and stress management workshops can be integrated into student support services. Such initiatives may enhance students coping capacities, reduce stress-related dropout rates, and promote academic success.

Moreover, recognizing the challenges faced by university students is essential for promoting inclusivity and mental health in higher education. Institutions can implement flexible scheduling, academic advising, and support policies that address students' diverse needs. By emphasizing resilience as a central coping mechanism, universities can foster a supportive learning environment that enables students to thrive academically and personally.

Aim of the Study

The primary aim of this study is to examine the impact of resilience on academic stress among male and female university students. Specifically, the research seeks to understand how resilience, as a psychological resource that enables individuals to adapt positively to challenges, affects the level of academic stress experienced by students. The study aims to determine whether higher levels of resilience contribute to reduced academic stress, improved emotional well-being, and better academic performance. Additionally, it intends to explore the coping mechanisms that resilient students employ to manage academic pressures effectively. By investigating these relationships, the study seeks to provide empirical insights that can inform university policies and student counseling services, ultimately promoting mental health, academic success, and overall life satisfaction among university students.

Research Objective

1. To examine the relationship between resilience and academic stress among university students.
2. To determine the predictive role of resilience in explaining academic stress among male and female university students.
3. To compare male and female university students in terms of their levels of resilience and academic stress.

Delimitations of the Study

This study is delimited to examining the impact of resilience on academic stress specifically among university students enrolled at Department of Psychology of Kohat University of Science and Technology (KUST) in the Kohat region of Pakistan. The purpose of these delimitations is to ensure that the scope of the study remains focused, manageable, and contextually relevant. The study focuses exclusively on students of Kohat University, rather than including other higher education institutions in the region. This choice is made to maintain uniformity in the academic environment, institutional policies, and educational resources that may influence student's resilience and stress levels. Therefore, the results

may not be generalizable to students from other universities with different academic structures or support systems. Finally, the study is delimited to undergraduate and graduate students within a specific age range, reflecting the majority of traditional university students in the Kohat region, who may experience distinct stress patterns and coping mechanisms.

CHAPTER 2 LITERATURE REVIEW

Introduction

The transition to university poses considerable stress for students, stemming from heavy workloads, high expectations, role changes, and an often-competitive environment (Trigueros et al., 2020). Academic stress, defined as the psychological and physiological response to educational demands that exceed an individual's adaptive capacity, has been linked to negative outcomes such as lower academic performance, increased anxiety, and burnout (Misra & Castillo, 2004).

Resilience has emerged as a vital psychological resource. It can be conceptualized as the ability to bounce back from adversity, adapt to challenges, and maintain or regain well-being (Luthar, Cicchetti, & Becker, 2000). In university contexts, higher resilience has been associated with lower levels of academic stress and psychological distress (Trigueros et al., 2020).

Bukhari et al., (2023) found a significant negative effect of perceived resilience on stress among Pakistani university students, showing that students with higher resilience reported lower stress levels. Furthermore, gender differences in both academic stress and resilience have been observed. Studies indicate that female students often report higher stress levels and greater emotional distress compared to male students.

Meanwhile, emerging research suggests that resilience and its relationship with academic outcomes may operate differently across genders (Garcia et al., 2024).

Specifically, in "The Influence of Gender on Academic Performance and Psychological Resilience" (2024), resilience was found to correlate with performance differently for males and females, indicating the importance of

considering gender as a moderator. Given this backdrop, your topic examining the impact of resilience on academic stress and comparing male and female university students is timely. The evidence suggests that resilience may act as a protective factor, reducing academic stress, and that gender may influence levels of both resilience and stress, or the strength of their relationship. However, few studies have simultaneously investigated resilience, academic stress, and gender in a cross-sectional, correlational design in the university student population, especially in your context. Thus, your study can fill a gap by focusing directly on how resilience predicts academic stress and whether that predictive relationship differs by gender among university students.

Resilience as a Protective Factor

Resilience is commonly defined as the capacity to adapt positively in the face of adversity, to bounce back from setbacks, and maintain or regain psychological well-being (Luthar, Cicchetti, & Becker, 2000). In higher education contexts, resilience has been shown to act as a buffer, helping students cope with academic challenges, reduce negative psychological outcomes, and enhance persistence (Fletcher & Sarkar, 2013). In Pakistan, the relationship between resilience and academic stress has been examined in multiple studies.

Bukhari et al., 2023 found a “great significant negative effect” of perceived resilience on stress among 738 Pakistani university students, indicating that students with higher resilience scores reported lower stress.

Gender Differences

Gender differences in both academic stress and resilience have been documented. Although fewer studies focus specifically on the resilience-stress relationship by gender, some evidence suggests that female students may report higher levels of academic stress compared to males. For instance, in Indonesia the sample was 79.1% female and found no significant effect of resilience on academic stress (Fatimah et al., 2024).

In Pakistan, some data suggest that females may

have higher resilience compared to male adolescents and that resilience protects mental health similarly across genders (Zafar & Khan, 2023). However, the comparative predictive relationship (resilience → academic stress) by gender remains under-explored. Your study’s focus on comparing male and female students’ resilience, academic stress, and the relationship between them therefore addresses an important gap.

The Relationship between Resilience and Academic Stress

Numerous empirical studies have highlighted the inverse relationship between resilience and academic stress among university students. Students with higher resilience tend to experience lower levels of stress, anxiety, and burnout (Bukhari et al., 2023). This is because resilient individuals possess better emotional regulation and cognitive flexibility, allowing them to maintain perspective during challenging times.

Li et al., (2016) found that resilience significantly predicted lower perceived stress and improved mental health among Chinese university students. Similarly, Thomas and Revell (2016) concluded that resilience training in nursing students reduced stress and improved academic satisfaction. These students face additional stressors such as long working hours, schedule conflicts, and reduced leisure or family time (Nguyen & Sawang, 2016). Resilient students are more likely to adapt to academic stressors by developing time-management strategies, maintaining optimism, and seeking support when needed. Studies indicate that resilience can buffer the negative effects of stress and enhance students’ ability to maintain a sense of control and balance.

Theoretical Framework

A suitable theoretical underpinning is the Conservation of Resources (COR) Theory (Hobfoll, 1989). According to COR theory, individuals strive to obtain, retain, and protect valuable resources (e.g., time, energy, social support, personal traits like resilience). Stress occurs when these resources are threatened or lost,

or when individuals invest resources without adequate return. In the university setting, academic demands (workload, deadlines, evaluations) represent resource demands; resilience may be viewed as a personal resource enabling students to manage demands more effectively. Thus, students with higher resilience are better positioned to withstand academic stress (a resource threat) and avoid negative outcomes. Gender may influence resource availability or utilization informing your comparative focus.

3.04 Gap and Rationale for Current Study

While many studies examine resilience, academic stress independently or explore their association, few examine gender-based comparisons of both resilience and academic stress and the predictive relationship between them in a cross-sectional, correlational design within one university of

Pakistani context. By focusing on male vs female university students and analyzing how resilience predicts academic stress differently by gender, your study fills this gap and provides actionable insights for gender-sensitive student support.

CHAPTER 3 RESEARCH METHODOLOGY

Conceptual Framework

The current study investigates the impact of resilience on academic stress among university students, with a comparative analysis between male and female students. In this model, resilience functions as the independent variable, influencing the dependent variable, academic stress. Gender serves as a comparative factor, exploring whether the relationship between resilience and academic stress differs across male and female students.



Resilience represents a psychological resource that enables individuals to adapt positively when confronted with adversity, challenges, or pressure. In academic settings, resilient students are more likely to perceive academic challenges as manageable, employ effective coping strategies, and maintain emotional stability. On the other hand, academic stress arises when students perceive academic demands such as examinations, deadlines, and performance expectations as exceeding their coping resources

promoting personal assets and protecting an individual from the potential negative effects of stressors.”

In the context of higher education, resilience is conceptualized as a protective factor that enables students to recover from academic failure, manage heavy workloads, and maintain motivation and , mental, and physical reaction students

3. 02 Definitions of Variables

Resilience

In this study, resilience refers to the individual’s ability to adapt successfully in the face of stress, adversity, or academic challenges and to maintain or regain psychological well-being despite setbacks. According to Luthar, Cicchetti, and Becker (2000), resilience is “a dynamic process encompassing positive adaptation within the context of significant adversity.” Fletcher and Sarkar (2013) further describe resilience as “the role of mental processes and behaviors in engagement. Similarly, Masten (2014) defines resilience as “the capacity of a system to adapt successfully to challenges that threaten the function, survival, or development of that system.

Academic Stress

Academic stress is defined as the emotional experience when academic demands exceed their

perceived coping ability. Misra and Castillo (2004) conceptualize it as “students’ response to academic-related stressors such as exams, deadlines, and performance expectations.” Similarly, Bedew and Gabriel (2015) define academic stress as “the body’s response to academic-related demands that are perceived as exceeding available resources. From a psychological perspective, academic stress arises from environmental pressures (e.g., competition, workload, evaluation) and internal pressures (e.g., self-expectations, fear of failure). In the South Asian context, Zafar and Khan (2023) observed that academic stress among Pakistani university students is heightened due to cultural emphasis on academic success and limited access to mental health resources. Therefore, in this study, academic stress refers to the degree to which students perceive academic demands as overwhelming or exceeding their capacity to manage effectively.

Gender

Gender in this study refers to the self-identified classification of participants as male or female, used as a categorical variable to compare levels of resilience and academic stress. According to the American Psychological Association (2020), gender is “a social construct encompassing the roles, behaviors, and identities that society attributes to men and women. Gender has been found to influence stress experiences and coping strategies. For instance, Misra and McKean (2000) noted that female students tend to report higher academic stress due to multitasking and emotional sensitivity, while male students often exhibit higher resilience and problem-focused coping (Fatimah et al., 2024). However, these differences are also context-dependent and influenced by sociocultural norms (Nawaz & Javed, 2022). Therefore, in this study, gender serves as a comparative and moderating variable, examining whether the relationship between resilience and academic stress differs between male and female university students.

Hypothesis

There is a significant negative relationship between resilience and academic stress among university students.

Resilience significantly predicts academic stress among Male and Female university students.

There is a significant difference in resilience and academic among male and female university students.

Research Approach and Design

The present study adopts a quantitative, correlational, and cross-sectional research approach. This approach is appropriate because it allows the researcher to measure the strength and direction of relationships between variables (resilience and academic stress) and to compare differences between male and female students at a single point in time. A correlational design is used to determine whether higher levels of resilience are associated with lower levels of academic stress. Additionally, a predictive analysis (using regression techniques) assesses whether resilience can statistically predict academic stress levels among male and female students. The cross-sectional nature of the study enables data collection from participants simultaneously, ensuring practicality and feasibility within an academic semester. The target population comprises undergraduate and postgraduate university students, while gender serves as a comparative variable to examine potential differences in both resilience and academic stress. Standardized instruments such as the Brief Resilience Scale (BRS) for resilience and Academic Stress Scale (ASS) for academic stress will be used to ensure validity and reliability of measurement. By adopting this approach, the study not only quantifies the relationship and predictive power of resilience on academic stress but also provides evidence-based insights into how gender moderates these dynamics in the Pakistani higher-education context.

Study Setting and Population



Study Setting and Population

The present study will be conducted at Kohat University of Science and Technology (KUST), located in Kohat, Khyber Pakhtunkhwa (KPK), Pakistan. KUST is a public-sector university that offers undergraduate, postgraduate and PhD programs across various disciplines, including social sciences, management sciences, natural sciences, and humanities. The university provides a diverse academic environment where students encounter multiple academic, social, and personal challenges making it an appropriate setting to study resilience and academic stress. The institutional environment of KUST, characterized by competitive academic demands, examination pressures, and varying levels of student support services, provides a suitable context for exploring how students cope with academic challenges. The ideal population for this research was all undergraduate students at Kohat University of Science and Technology. The study includes only Psychology department only for several important reasons due to cooperation from staff and ease of access, control over study variables in a controlled environment in order to make sure a more homogeneous sample population, feasibility in terms of logistics and resources, conducting a pilot study prior to scaling up, and local relevance was

ensured by choosing a representative. The target population was therefore as all currently enrolled male and female students in the School of Psychology at KUST. So, the accessible population consisted of those psychology students who were available and willing to participate in the study during the data collection period.

Furthermore, the inclusion of both male and female students from Psychology departments due to time limit it allows for meaningful comparative analysis of gender-based differences in resilience and academic stress

Participants will be selected regardless of their year of study, socioeconomic status, or academic performance, as long as they are currently enrolled students and willing to participate voluntarily.

Rationale for Selection of Setting and Population

Kohat University of Science and Technology was chosen as the study setting because it represents a typical higher education institution in Khyber Pakhtunkhwa, with students from both urban and rural areas, different socioeconomic backgrounds, and varying exposure to academic stressors. Studying resilience and academic stress in this context can provide locally relevant insights into how university students in Pakistan manage academic challenges and how gender differences

may influence these coping mechanisms. By focusing on this population, the study aims to contribute empirical evidence to the national body of psychological research on resilience and academic stress, while also supporting university-level mental health and counseling initiatives.

Sample Size and Sampling Technique

The study population included 5000 thousand regular students. A list of total number of students, as provided by the administration officer of KUST and we used by Yamani formula to calculate sample size of 326 which represents 85.0% of the total regular KUST students. Purposive sampling was used in the study on the Impact of Resilience on Academic Stress among university Students. A comparative study among male and female students. With a known total sample size of 326 healthcare workers, selecting sample efficiently based on pre-defined. Additionally, purposive sampling was used due to homogeneity in the study population by selecting participants who had similar characteristics, such as working in the same hospital, which can enhance the validity of the results by minimizing variability in responses of the participants. Purposive sampling was selected to efficiently select the specific sample of interest, ensuring homogeneity, and addressing practical challenges related to conducting research in a clinical setting.

Inclusion and Exclusion Criteria Inclusion Criteria

Participants must be currently enrolled as full-time undergraduate or postgraduate students at Kohat University of Science and Technology (KUST).

Participants must have sufficient understanding of English.

Only students who provide informed consent and agree to participate voluntarily will be included in the study.

Students who are regularly attending classes and are actively engaged in academic coursework during the data collection period will be eligible.

Exclusion Criteria

Individuals who are not officially enrolled at KUST, such as alumni etc., will be excluded.

Students enrolled in part-time or distance learning programs will be excluded to maintain consistency in academic workload and stress exposure.

Participants who self-report having diagnosed psychological disorders will be excluded to avoid confounding effects on academic stress and resilience levels.

Students who are currently on academic or medical leave during the data collection period will not be included.

Data Collection Method

The present study will employ a quantitative, correlational, and cross-sectional research design to examine the relationship between resilience and academic stress among male and female university students at Kohat University of Science and Technology (KUST), Khyber Pakhtunkhwa. Data will be collected at a single point in time using standardized self-report questionnaires. The researcher will explain the purpose of the study, voluntary nature of participation, and confidentiality of responses. Participants will then be provided with an informed consent form. Only those who agree to participate voluntarily will receive the research questionnaires. The average time required to complete the forms will be approximately 15–20 minutes.

Instruments Details for Data Collection

Academic Stress Scale

The Academic Stress Scale you provided is from a psychometric study by Indah Dwi Cahya Izzati (2020) titled “Academic Stress Scale: A Psychometric Study for Academic Stress in Senior High School. It measures academic stress in school students across four components: biological (physical symptoms), cognitive-psychosocial, psychosocial emotion, and psychosocial behavior. Respondents rate items on a 4-point Likert scale: 1 (Not at All) to 4 (Very Much / High).

Brief Resilience Scale (BRS)

The Brief Resilience Scale (BRS) was originally developed by Smith et al., (2008) to measure a person’s “ability to bounce back” or recover from stress. It is a 6-item self-report scale, with responses

typically on a 5-point scale: “Strongly Disagree” to “Strongly Agree. Some items are reverse-coded; after scoring, you average the item scores to get a resilience score

Validity and Reliability

The study used **Structural Equation Modeling (SEM)** with to test the measurement model. The four components (biological, cognitive psychosocial, psychosocial emotion, psychosocial behavior) showed good loadings; the *cognitive-psychosocial* component was the strongest (loading ~ 0.631), and the *biological* component was the weakest (loading ~ 0.525). The reliability scale’s Cronbach’s alpha (internal consistency) was reported as ~ 0.788 in their sample, indicating acceptable reliability. The authors conclude that all components and indicators are valid and reliable to reflect academic stress in their sample. The BRS has been shown to have a unidimensional structure in many studies (i.e., all items measure one underlying factor: resilience). In a sample of people with serious mental illness, factor analyses supported its validity, and BRS scores correlated positively with life satisfaction and positive coping supporting *convergent validity*. In a general population the BRS correlated positively with well-being, social support, optimism, and adaptive coping, and negatively with anxiety, depression, and somatic symptoms showing good *convergent/divergent validity*. Internal consistency (Cronbach’s alpha) is good in many studies for example, in the German validation, $\alpha = .85$. Test-retest reliability has been demonstrated in clinical samples. In a shoulder-pain study, ICC (intraclass correlation) = 0.83, showing the measure is stable over time.

Ethical Considerations

Ethical principles outlined by the American Psychological Association (APA, 2020) will be strictly followed. Participants will be informed of their right to withdraw at any stage without penalty. The collected data will be used solely for research purposes, ensuring anonymity, confidentiality, and voluntary participation throughout the process.

CHAPTER 4 RESULT

The aim of this chapter was to investigate the relationship between Resilience and Academic Stress among male and female university students. The analyses used in this research were as follows (I) Cronbach’s Alpha reliability analysis was used to assess the reliability of the scales used in this current study (II) Pearson Product Moment Correlation Analysis was used to assess the relationship Resilience and Academic Stress among male and female university students. (III) To check the predicting role of Resilience on Academic Stress among male and female university students, Simple Linear Regression Analysis was used. (IV) Independent sample t-test was carried out to determine gender differences between variables of study.



Descriptive Statistics Table 1 Descriptive Statistics of Demographic Variables of the Sample (300)

Variables	F (%)	Min	Max
Age		20	39
20-29	290(96.7)		
30-39	10(3.3)		
40 and above			
Gender			
Male	146(48.7)		
Female	154(51.3)		
Marital Status			
Single	272(93.0)		
Married	21(7.00)		
Education			
BS	271(90.3)		
MS	25(8.3)		
PhD	4(1.3)		

Note. SD = Standard Deviation, M = Mean, f= frequency, % = Percentage

Reliability Analysis Table 2 Descriptive Statistics and Reliability Coefficients for Research Variables (N = 300)

Variables	M	SD	k	α	Potential (Min-max)	RangeActual (Min-max)	Range
Resilience	18.07	3.43	6	.83	6-30	7-28	
Academic Stress	22.06	3.66	8	.78	8-40		14-39

Note. M=Mean; S.D =Standard deviation; α = Cronbach alpha; k= no. of items

The Cronbach alpha reliability values of Resilience and Academic Stress is .83 and .78 respectively which indicates very good reliability.

The overall Cronbach alpha reliability of above two scales has a very good reliability to perform further analysis and interpretation of data.



Main Analysis

It was hypothesized Resilience and Academic Stress is likely to have significant negative relationship. Pearson Product Moment

Correlation was applied to determine such relationship, as shown in Table 3

Table 3 Pearson Product Moment Correlation analysis assessing the relationship between Resilience and Academic Stress among male and female university Students (N=300).

S.#	Variables	1	2
1.	Resilience	-	-.39*
2.	Academic Stress		-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$,

Table 3 presents the Pearson correlation coefficients among Resilience and Academic Stress in male and female university students. Resilience shows a significant negative correlation with Academic Stress. ($r = -.39^*$, $p < .05$), indicating

that students experiencing higher levels of Resilience tend to have less scores in Academic Stress. Furthermore, those students who are more resilient in their life tend to have less academic stress in their Academic journey.

Regression Analysis Table 4 Simple Linear Regression analysis assessing the predicting role Resilience on Academic

Variable	B	SE	95% CI		P
			LL	UL	
Resilience					
Constant	21.31	1.13	19.08	23.54	.001

Stress among male and female university Students (N=300).

The results show that resilience is a significant predictor of academic stress among university students. The positive B value (21.31) indicates that changes in resilience are meaningfully related to changes in academic stress. The 95% confidence interval (19.08 to 23.54) suggests the true effect likely falls within this range. Additionally, the p-value (.001) confirms that this relationship is statistically significant and not due

to chance

Table 5 Independent Sample t test representing the differences in male and female in the scores of Resilience and Academic Stress (N=300)

Variables	Male		Female		T	p
	(n=146) M	SD	(n=154) M	SD		
Resilience	24.36	4.22	17.78	2.40	1.47	.039
Academic Stress	21.85	3.02	28.26	4.10	.97	.041

Note. * $p < .05$; M= Mean; SD= Standard Deviation; CI=Confidence Interval; LL=Lower Limit; UL= Upper Limit.

The independent sample t-test compared male and female students on Resilience and Academic Stress. Results show that male students experience significantly higher resilience than female students ($p = .039$). The table also shows there is a significant difference between the two groups in Academic Stress stating that male students experience low academic stress ($p = .041$).

Summary of the Findings

Resilience had a significant relationship with Academic Stress male and female university students.

Resilience had a significant negative relationship with Academic Stress in male and female university students.

Resilience was a significant predictor of Academic Stress in male and female university students.

Male and female had different scores on Resilience and Academic Stress among university students.

Discussion

The present study examined the relationship between resilience and academic stress among male and female university students. The findings showed that resilience had a significant association with academic stress, indicating that students' ability to cope with challenges is closely connected to how much academic pressure they experience. This aligns with previous research suggesting that resilience is an important protective factor in academic settings and influences how students perceive and respond to stress (Connor & Davidson, 2003). When students possess stronger coping abilities, they may interpret academic

demands as less overwhelming. Moreover, the study found a significant negative relationship between resilience and academic stress. This means that as resilience increases, academic stress decreases. This finding is consistent with earlier studies showing that resilient individuals are better able to regulate emotions, adapt to challenges, and use positive coping strategies to manage stressful academic situations (Rutter, 2012; Folkman & Moskowitz, 2004). Stronger resilience may help students approach exams, deadlines, and workload with greater confidence, reducing the emotional impact of academic pressure.

Further supporting this idea, the regression analysis confirmed that resilience significantly predicted academic stress among university students. This suggests that resilience not only correlates with stress but plays an active role in explaining differences in students' stress levels. Similar studies have reported that resilience serves as a key predictor of academic well-being and reduces vulnerability to stress-related difficulties (Hartley, 2011). These findings highlight the importance of resilience-building interventions such as mentoring, stress-management workshops, and psychological counseling, which have been shown to enhance students' ability to cope with academic challenges.

The study also revealed gender differences in resilience and academic stress among university students. This outcome corresponds with previous research suggesting that male and female students may differ in coping strategies, emotional expression, and stress appraisal due to

socialization patterns and cultural expectations (Matud, 2004). For example, female students may experience and report higher academic stress, while male students may rely on different coping mechanisms. Recognizing these gender-based differences is important for designing gender-sensitive programs that support students more effectively. Overall, the findings emphasize the crucial role of resilience in reducing academic stress among university students. By viewing resilience as both a protective factor and a predictor, educators and counselors can develop targeted strategies to help students strengthen their coping skills and improve academic functioning. This is consistent with research showing that resilience-enhancing programs can significantly reduce stress and promote psychological well-being in academic environments (Windle, 2011). Future studies may explore additional variables influencing resilience or examine the long-term effects of resilience-building interventions across diverse student populations.

Conclusion

Based on the findings of this study, it can be concluded that resilience plays a key role in reducing academic stress among male and female university students. The significant negative relationship between resilience and academic stress suggests that students with higher resilience experience lower levels of pressure in academic settings. The results further confirm that resilience is a strong predictor of academic stress, highlighting its importance as a protective psychological factor. Gender differences in resilience and academic stress indicate that male and female students cope with academic challenges in different ways, emphasizing the need for gender-sensitive support. Overall, the study underscores the importance of helping students build resilience to better manage academic demands. Strengthening resilience through counseling, training programs, and supportive learning environments may improve students' academic performance and well-being. These findings contribute to existing literature by

reinforcing the value of resilience in academic life. The study also encourages institutions to prioritize mental health strategies that enhance coping skills. Finally, future research should explore additional factors that influence resilience and examine long-term interventions to support diverse student groups.

Limitations and Suggestions

Limitations

The study used only university students from Kohat, so the results may not apply to all students of Pakistan.

The sample size was limited, which may not fully represent the large student population.

The study relied on self-report questionnaires, which may include biased or inaccurate answers.

Only resilience and academic stress were studied, while other important factors like support systems or personality were not included.

The research design was cross-sectional, so it cannot show cause and effect, only relationships.

Suggestions

Future studies should include students from different universities or regions to get a broader understanding.

Using a larger sample size could improve the accuracy of the findings.

Researchers can use interviews or mixed methods to get more detailed and reliable data.

Future research should include other factors like social support, study habits, or emotional health.

Long-term studies should be conducted to better understand how resilience and academic stress change over time.

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