

The Impact of Stress Management Strategies on Students' Academic Performance: Perceptions, Practices, and Recommendations

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Abstract

This qualitative research investigated the effects of stress management techniques on undergraduate students' academic performance and their understanding, coping strategies and suggestions to reduce academic stress. Ten undergraduate students of the University of Malakand, Pakistan, were purposely selected and interviewed using semi-structured interviews until data saturation was reached. Thematic analysis was used to analyze the data. Results showed financial problems, academic workload, fear of failure, time management problems and high parental and personal expectations were the primary sources of academic stress. Students reported that chronic stress interfered with their learning and academic performance, including memory, attention, problem solving, motivation and academic achievement (e.g. lowered their marks and the quality of their academic assignments). Students used a range of stress management strategies including time management, setting academic and life goals, taking care of themselves, and seeking support from friends and family, but some felt they could not manage their stress well. The research concludes that academic stress that goes unchecked has a negative impact on students' cognitive performance and academic achievement, and stress management and social support can alleviate these effects. Students suggested practical strategies of effective time management,

relaxation, healthy living, and personal efforts combined with faith in God. This research suggests that universities need to provide culturally relevant stress management interventions that consider both academic and financial stressors, as well as encourage healthy coping mechanisms and social support.

Keywords: Academic Stress, Stress Management, Academic Performance, Coping Strategies, University Students, Pakistan

Introduction

Academic stress is a common problem among students globally and is on the rise in universities. It is the psychological and emotional pressure arising from academic pressures, such as academic workload, exams, fear of failing, time management, and self- and family-pressures (Barbayannis et al., 2022; Deng et al., 2022). Academic stress can negatively affect cognitive processes including memory, attention, and problem-solving skills, resulting in decreased learning motivation, academic procrastination, sub-optimal academic performance and poor academic achievement (Tang et al., 2023).

In Pakistan, higher education students are especially vulnerable to academic stress, due to fierce competition, financial hardships, family pressure, and lack of support (Shakeel, 2022). Research from various parts of Pakistan shows that many students are exposed to moderate and high levels of stress, anxiety and depression, which negatively impact their mental health and academic performance (Asif et al., 2020; Shakeel, 2022). Common sources of stress for Pakistani students include financial difficulties and imbalanced study-life (Gondal et al., 2025).

Stress management strategies, including time and self-management, social support, and relaxation exercises, are important in reducing the negative impact of academic stress and improving student achievement (Waterhouse et al., 2024). But there is a lack of qualitative studies on the perceptions and practices of student stress management, especially in the context of public universities in Khyber Pakhtunkhwa. The current study seeks to understand the effects of stress management strategies on students' academic performance and to explore students' views, experiences and recommendations for stress management. This qualitative study, based on semi-structured interviews and thematic analysis, sheds light on the voices of students from the University of Malakand. The results will inform the design of culturally sensitive stress management strategies in Pakistani universities.

Literature Review

University students' academic stress has gained much attention in recent decades as a common phenomenon with negative effects on mental health and academic performance. Academic stress is typically defined as the emotional strain resulting from academic stressors, including workload, exams, lack of time, fear of failure and high self- and parental expectations (Barbayannis et al., 2022; Reddy et al., 2018).

There has been a plethora of research on the negative impact of academic stress on academic performance. Meta-analyses and empirical studies suggest that increased academic stress leads to poor cognitive performance, such as memory, attention and problem-solving skills, which in turn negatively affects academic performance, resulting in poor grades, increased procrastination and reduced motivation (Deng et al., 2022; Tang et al., 2023). Prolonged stress is also associated with psychological problems like depression and anxiety, leading to further deterioration in academic performance (Asif et al., 2020; Barbayannis et al., 2022).

Pakistani university students are highly stressed academically. Common stressors include financial constraints, intense competition, parental expectations, high academic pressures and lack of support (Shakeel, 2022; Javaid et al., 2024). Research in various parts of Pakistan reveals a high percentage of students struggle with moderate to severe levels of stress, anxiety and depression, with anxiety being the most common (Asif et al., 2020). These factors not only impact psychological health but also academic performance and, in severe cases, suicidal thoughts (Asmat, 2025). Managing stress is an important factor in reducing the adverse effects of stress. Students report various coping strategies including time management, scheduling tasks, goal setting, self-care (exercise and healthy diet), social support (friends and family) and religious/spiritual coping (Waterhouse et al., 2024; Alkhaldeh et al., 2023). Social support has been found as a protective factor against the negative impact of stress on academic achievement (Aziz et al., 2023). But many students still engage in ineffective or avoidant coping, suggesting a need for intervention.

While there is increasing research on academic stress, there remains a dearth of qualitative evidence on the perceptions and experiences of students, the effectiveness of stress management strategies and their recommendations, especially in public sector universities of Khyber Pakhtunkhwa, Pakistan. The majority of studies are quantitative and report prevalence. Our study aims to bridge this gap by qualitatively exploring the effects of stress management strategies on academic achievement, as well as students' perceptions and recommendations.

Research objectives

To examine the connection between academic performance and stress management techniques, with a concentration on the effects of effective stress management on grades, homework completion, and overall academic success

To explore effective strategies that can improve their ability to manage stress and achieve academically, it is important to examine how students understand and respond to stress management strategies, as well as their recommendations and strategies to manage with academic stress.

Research question

How do stress management strategies influence students' academic performance, and what are students' perceptions and recommendations for effectively managing academic stress?

Research Design

This research employed a qualitative design to investigate the effects of stress coping strategies on academic achievement, and to examine students' beliefs and suggestions for academic stress management. The study was descriptive, and the aim was to describe, analyse and interpret rich qualitative data about the students' experiences. Themes and patterns were identified through thematic analysis and narrative data presentation was adopted, rather than statistical data representation.

Population of the Study

The study population was all undergraduate students of the University of Malakand, Pakistan.

Sample and Sampling Technique

This study was carried out in different departments of the University of Malakand. The research involved 10 undergraduate students. Sample size was based on principles of qualitative research, which dictates that sample size is based on the point of data saturation, where no new data were emerged from further interviews (Creswell & Poth, 2018). The researcher used purposive sampling to identify information-rich participants. Participants were required to: (a) be enrolled in a BS degree at the University of Malakand, and (b) voluntarily participate in the interview.

Data Collection

The researcher used semi-structured interviews to gather data from the participants. The interview questions were open-ended to understand the causes of academic stress, how students manage stress, how it affects their academic performance, and the students' suggestions.

Data Analysis

The data were analyzed using thematic analysis. This process entailed transcribing the interviews, reading and re-reading the data, initial coding, searching for themes, reviewing and refining the themes, and then defining and naming the themes (Braun & Clarke, 2006). These were then interpreted and discussed in the context of the study aims.

Results

In this section, the results of the reflexive thematic analysis of semi-structured interviews with university students are presented. We identified nine key themes, which were grouped according to the two objectives of the study. Themes 1-5 are largely focused on students' understanding of academic stress, their experiences of stress and its causes, and its social context. Themes 6-8 explore the effects of stress on students' cognition, motivation, engagement and performance. Theme 9 presents students' strategies for coping with academic stress. Quotes from students are included to illustrate the themes.

Theme 1: Sources of Academic Stress

Money issues topped the list of stressors encountered by students. Other notable stressors included poor time management, social relationship problems, family problems, fear of failure, juggling multiple academic tasks, high self and parental expectations and examination stress. These factors often interacted to increase stress.

Theme 2: Strategies for Managing Academic Stress and Responsibilities

Students reported several techniques for dealing with academic tasks under stress. Popular strategies included time management, goal setting, breaking tasks into smaller steps, asking for support and self-care. But one student reported that s/he was incapable to manage academic responsibilities under pressure, suggesting differences in coping ability.

Theme 3: Seeking and Receiving Social Support

Most participants confided in close friends, who were supportive and encouraging, as well as offering constructive advice. A few participants also trusted their family members, who offered emotional support. On the other hand, some students did not want to confide their stress to anyone - showing that there are individual differences in help-seeking.

Theme 4: Challenges in Balancing Academic Work with Personal Life

Finding the right balance between academic and personal life was an issue for many students. This could result in stress, low motivation and concentration, well-being and family neglect resulting from the academic workload. But others found ways to strike a balance by allocating time between studying and other activities.

Theme 5: Effects of Stress on Social Relationships and Coping Responses

Students reported stress had a negative impact on their friendships, family, and peer groups. These included cancelling plans, avoiding others, arguments, and missing social events due to academic obligations. A few respondents indicated that stress made them impatient and impatient, which could create further conflict. To resolve these issues, students apologised to family and friends and later talked about their feelings, leading to more acceptance and support.

Theme 6: Cognitive Impairments Due to Prolonged Stress

There were a number of negative cognitive and emotional consequences of prolonged stress reported by students, which we grouped into four sub-themes:

Forgetfulness and Difficulty in Remembering Chronic stress impaired students' memory, making them more forgetful and unable to complete academic work.

Impaired Attention and Clarity of Mind Stress impaired students' attention and thinking processes, and had a negative impact on their academic performance.

Reduced Problem-Solving Skills Prolonged stress also decreased students' problem-solving capacities, affecting their academic performance.

Behavioral and Emotional Impacts As well as cognitive impairment, stress also affected behavior and emotion regulation, and in some cases, led to antisocial, negative behavior and interpersonal issues.

Theme 7: Impact of Stress on Motivation and Academic Engagement

Most students reported stress influenced their motivation and engagement in academic activities. It resulted in loss of interest, demotivation, procrastination, loss of creativity, lack of energy and inability to complete tasks. This often resulted in delays and drop in academic results. However, some students reported relying on outside help to refocus and redouble efforts during times of stress.

Theme 8: Impact of Stress on Grades and Quality of Academic Work

Students reported that stress had a significant negative impact on their grades and quality of academic work. It induced stress, which made it difficult to focus, retain information and produced rushed and/or poor-quality work and decreased performance during exams. Students attributed these challenges to poor academic performance.

Theme 9: Students' Recommendations for Managing Academic Stress

Students offered advice to others with stress. They mentioned taking care of oneself, asking for help early from friends or family, taking breaks, deep breathing, and time management (e.g., writing down a timetable). Other recommendations included exercise, healthy diet, recognising one's emotions and balancing personal effort with faith (e.g., trusting Allah). Students highlighted the importance of gradual change rather than drastic change.

Discussion

This study shows that university students tend to encounter various interrelated sources of academic stress, with the most common being financial problems, time management, fear of failure, workload and family pressure. These stressors have substantial negative impacts on cognitive processes, including memory, attention and problem-solving, as well as motivation, engagement and academic performance (grades, quality of schoolwork). This finding is consistent with previous research that shows a negative association between academic stress and performance (Barbayannis et al., 2022; Deng et al., 2022; Tang et al., 2023). Students used a variety of coping strategies, such as planning tasks and goals, engaging in self-care, and seeking social support (mostly from friends and family). Social support was especially important, offering emotional support and guidance, confirming perceived social support moderates academic stress (Aziz et al., 2023). But some students also indicated poor coping skills, suggesting variability in individuals' coping effectiveness. Students' suggestions focused on practical strategies, including time management (writing schedules), taking breaks, exercise, eating well, and the importance of personal effort and faith. These recommendations point to a combination of problem-focused and

emotion-focused coping strategies found in the literature (Waterhouse et al., 2024; Reddy et al., 2018). This study supports the notion that unregulated academic stress negatively impacts cognitive functioning and academic achievement, and that good stress-management strategies and social support can buffer these effects. In the case of Pakistani higher education, family and financial pressure seems particularly prominent, and culturally targeted interventions may be particularly effective. The small sample size from one university and self-reporting of data are limitations of this study, which may affect its ability to generalize. Recommendations include universities offering stress management programs, training for time management, financial assistance, and peer counselling to improve academic performance and well-being. Future studies should utilize mixed-methods or longitudinal approaches to assess the impact of a range of interventions.

Conclusion

This research investigated the effects of stress management on the academic performance of university students and their views on and recommendations about how to manage academic stress. The results show that academic stress, primarily caused by financial pressures, academic workload, fear of failure and time management problems, has a negative impact on students' memory, attention, problem-solving skills, motivation, engagement and academic performance (grades). Students reported diminished memory, attention, and problem-solving skills, as well as more procrastination and academic productivity, under long-term stress. But the research also emphasizes that these students are not simply victims of stress. They are actively using different types of coping strategies including scheduling, self-care and social support (such as friends and family). Students' social support systems are particularly important in buffering stress, with students' own advice including time management, regular breaks, healthy living, and religious faith indicating culturally relevant strategies to effectively manage stress. In summary, unaddressed academic stress can have a major negative impact on students' academic performance, but the use of suitable stress management strategies and social support can significantly buffer these negative effects. Universities should focus on developing comprehensive, student-focused stress management strategies that consider the academic and financial stressors students face, and encourage positive coping strategies. Through student feedback and appropriate strategies, universities can foster a more positive learning environment to improve both well-being and academic outcomes.

Recommendations

This study has three main recommendations:

Introduce Stress Management Programmes Universities should offer stress management programs that include training in time management, goal setting, stress management skills and relaxation techniques. These should address financial stress and exam stress, significant stressors in this study.

Improve Social Support Networks Universities should set up and promote peer mentoring and counselling programs to facilitate support-seeking behaviour. Increasing awareness about the value of disclosing academic stress to friends and family members can increase emotional support and minimise the effect of academic stress on academic performance.

Encourage Balance in Academic Practices Lecturers and university administrators should examine course loads and testing practices to minimise stress. Flexible deadlines, chunking tasks into smaller bits and orientation talks about stress management can help students achieve a balance between their academic and home life and enhance their performance.

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