



Theoretical article

ACADEMIC STRESS AND TEST ANXIETY IN SECONDARY EDUCATION

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Abstract

In the contemporary educational landscape, stress has emerged as a significant impediment to students' mental health and academic success. This paper explores the multifaceted impact of stress on students in secondary education. Stressors originating from academic pressures, financial constraints and social interactions profoundly affect students, leading to symptoms of anxiety and depression. The reciprocal relationship between stress and mental health issues diminishes overall well-being and hampers academic achievements. Specifically, academic stress, intensified by factors such as financial struggles and demanding educational systems, impedes students' ability to cope and excel academically. Additionally, test anxiety, characterized by worry and emotionality components, disrupts students' performance in examinations, influencing both immediate test outcomes and long-term academic motivation. This paper emphasizes the crucial need for comprehensive support systems within educational institutions to address stressors and implement effective coping mechanisms. Mitigating the adverse effects of stress on students' lives and educational experiences requires tailored interventions and further research in stress management and mental health support.

Key words: *academic stress, academic performance, secondary education, school psychology*

Stress is a significantly overlooked issue in our society, often disregarded due to its association with mental health. Stress can emanate from various sources, including relationships with friends and significant others. Additionally, the dynamics of student-lecturer relationships can introduce stress when strained. Furthermore, financial stress is a prominent concern among many students, encompassing the struggle to secure sufficient funds for tuition fees and cover the cost of living during their university years. Academic stress, in particular, poses considerable challenges for society. It obstructs students from acquiring the comprehensive intellectual knowledge necessary for societal progress and development. Therefore, academic stress represents a substantial issue affecting both students and society as a whole (Abdullah et al., 2020).

Stress can manifest in various forms in a person's daily life, and it is a prevalent issue that eventually impacts the lives of many students. University students often contend with a multitude of

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stressors stemming from family, financial concerns, social interactions, and the demands of campus life. The presence of different stressors, coupled with elevated stress levels, can significantly affect students' academic performance. Therefore, stress can be understood as the body's non-specific response mechanism when confronted with demands or pressures arising from either internal or external sources. It represents a process through which an individual reacts and adapts to environmental challenges and threats (Siraj et al., 2014).

Similarly, Elias et al. (2011) suggest that the impact of stressors on an individual depends on how the person perceives and manages the stress. If students view their educational experiences as challenges, stress can potentially foster a sense of competence and an increased capacity to learn (Veena & Shailaja, 2016). Prifti and Rapti (2018) add that students often grapple with stress due to the transitional nature of higher education programs. They face sudden changes in the educational system, lifestyle, and social environment, leading to situations fraught with stress.

Furthermore, Hj Ramli et al. (2018) assert that the primary sources of stress among students often revolve around challenges such as difficulty concentrating due to an overwhelming influx of information, the burden of a heavy workload, and the stress induced by examinations, all of which can have detrimental effects on their health and academic performance.

The purpose of this paper is to examine the pervasive issue of stress among students in secondary and higher education and its multifaceted impact on their mental health, academic performance, and overall well-being. Stress is a prevalent but often underestimated challenge that students face, affecting various aspects of their lives. Through an exploration of existing literature, this paper aims to shed light on the intricate relationship between stress, mental health, and academic achievement.

Anxiety in secondary education and its effects

Previous research has demonstrated a clear connection between self-reported stress and the manifestation of anxiety symptoms and reduced overall well-being (Carter et al., 2006; Robotham & Julian, 2006). A survey conducted by the OECD has also reported that secondary school students who self-report elevated levels of stress related to academic pressures also tend to report lower well-being across various dimensions, including psychological, social, cognitive, and physical aspects (OECD, 2015). Furthermore, persistent stress is known to contribute to the emergence of more severe mental health conditions, notably anxiety and depression (Moylan et al., 2012).

The prevalence of anxiety has been documented to reach as high as 35% among tertiary students (Bayram & Bilgel, 2008; Ozen et al., 2010), while the prevalence of depression stands at 30% (Ibrahim et al., 2013). It is well-established that stress and depression, as well as stress and anxiety, share a reciprocal relationship (Dantzer, 2012; Dantzer et al., 2011). In fact, major stressful life events are considered to be among the most reliable predictors of depression onset (Kendler et al., 1995). Consequently, in young individuals, the initial occurrence of depression often follows significant life stressors (Lewinsohn et al., 1999).

In addition to its adverse impact on overall health and well-being, it is noteworthy that symptoms of depression and anxiety can exert detrimental effects on academic performance (Bernal-Morales et al., 2015).

Academic achievement in education plays a pivotal role in shaping the self-esteem, motivation, and perseverance of learners. Inadequate academic performance or elevated failure rates can result in unacceptable levels of student attrition, reduced graduation rates, and increased educational expenses.

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Academic performance is often defined primarily in terms of examination outcomes. Furthermore, academic performance typically serves as a gauge of how effectively an individual student can absorb, retain, reproduce, recall, and communicate their knowledge of the material, usually assessed through examinations or continuous assessments (Joe et al., 2014).

Research conducted by Oduwaiye et al. (2017) has indicated that students exhibit moderate academic performance due to the significant impact of stress on their pursuit of academic goals. Additionally, stressful circumstances such as financial constraints, missed assignment deadlines, difficulties in comprehending course material, post-graduation unemployment, power shortages, and insufficient financial support all constitute stressors that can adversely affect academic performance. Similarly, Saqib and Rehman (2018) have noted that academic stress hampers students' performance, particularly in semester-based educational systems that demand completion of numerous modules within compressed timeframes.

A longitudinal study conducted with secondary school students in Hawaii revealed that self-reported depressive symptoms were predictive of subsequent academic underachievement (McArdle et al., 2014). Similarly, in a sample of Finnish students aged 13 to 17, self-reported depression severity correlated with issues related to concentration, weaker social relationships, reduced self-directed learning, lower academic performance, and poorer outcomes in reading and writing (Fröjd et al., 2008).

The World Health Organization (WHO) has asserted that for students to actively engage in education, they must maintain both physical health and emotional well-being (WHO, 1996). Indeed, as revealed by the aforementioned OECD survey, anxiety stemming from schoolwork, homework, and examinations exerts a detrimental influence on students' academic performance in subjects such as science, mathematics, and reading. This survey has highlighted that high-achieving female students often experience test anxiety due to their fear of making mistakes, which disrupts their performance (OECD, 2015). Notably, students in the lower quartile of academic performance report significantly higher stress levels compared to those in the upper quartile of academic achievement. A striking 63% of students in the lowest quartile of science performance report feeling anxious about tests, irrespective of their level of preparedness, whereas 46% of students in the top quartile report similar feelings of anxiety (OECD, 2015). This underscores the correlation between elevated perceived stress levels and diminished academic performance.

Past research has established a direct relationship between the experience of positive and negative emotions and students' levels of engagement (Reschly, Huebner, Appleton, & Antaramian, 2008). In a study involving 293 students in Grades 7–10 in the United States, a higher frequency of positive emotions during classes was linked to increased student engagement. Conversely, a greater frequency of negative emotions was associated with reduced engagement (Reschly et al., 2008). This finding holds significant importance since active engagement in the learning process is a prerequisite for academic achievement, as demonstrated in a survey conducted by the National Union of Students. This survey identified stress as the primary factor affecting the tertiary education experiences of Australian university students aged 17–25 (Rickwood et al., 2016).

Test anxiety and academic achievement in secondary education

In the competitive global landscape, tests serve as crucial instruments for evaluating students' achievements, abilities, and capacities (Adom et al., 2020). Test anxiety, defined as students' apprehension regarding displaying inadequate performance in tests or examinations, is a significant concern (Ewell et al., 2022). According to Alemu (2020), a low to moderate level of test anxiety can act

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as a positive motivator, encouraging students to invest greater effort in achieving academic excellence. However, heightened levels of test anxiety pose a serious threat to students' psychological and physical well-being, adversely affecting their private lives, social interactions, and educational accomplishments (Rehab, 2021). Recognizing the impact of test anxiety on students' achievement, it becomes imperative to comprehend the various facets of test anxiety and their roles in students' academic success. As described by Sharma and Sud (1990), test anxiety comprises of two components: worry and emotionality. The emotional symptoms of test anxiety are linked with the emotionality component, while the psychological symptoms are associated with the worry component (Kültür & Özcan, 2022).

Sharma and Sud (1990) elucidated the cognitive aspect of worry, emphasizing its connection to mental perceptions and thoughts concerning personal academic achievement scores. Worry involves preoccupations with poor achievement scores and the fear of failure in examinations. Conversely, the emotionality component pertains to physiological manifestations such as fear, stress, heightened heart rate, and increased breathing rates. Both worry and the emotionality component combine to affect test achievement in diverse situations. According to Tennant's (2002) conceptualization of anxiety, students' perceptions of test anxiety determine whether the outcome is positive or negative. While test-taking is generally recognized as an anxiety-inducing situation, the intensity of test anxiety varies from one student to another. Despite being distinct concepts, the emotionality and worry components of test anxiety jointly influence students' levels of test anxiety. Berk and Nenda (2006) proposed that the worry component holds greater influence than the emotionality component.

Academic achievement stands as a pivotal element within the formal education system, commonly denoting the grades a student attains in their studies. This achievement is typically assessed through examinations and continual evaluations conducted throughout a student's academic journey. Among the prevalent challenges faced by students, anxiety emerges as a prominent mental issue significantly impacting academic performance (Sadler, 2013). Test anxiety, even at subclinical levels, exerts adverse effects on students' prospective academic accomplishments and overall development (Yusefzadeh et al., 2019).

Students across all levels of academic aptitude can experience test anxiety, albeit in varied ways. Some individuals may experience intense fear during exams due to concerns about parental reactions to low academic performance or failure (Ritchwood et al., 2015). Research indicates that students grappling with test anxiety often require extended exam durations and invest additional effort to achieve academic levels comparable to their non-anxious peers (Mavilidi et al., 2014).

Certain consequences of test anxiety are overt and easily noticeable, such as crying, feeling physically unwell, or engaging in unethical behaviors like cheating. Additionally, there are more nuanced consequences that can have enduring impacts on students. These include diminished academic motivation, altered attitudes towards academics, and compromised self-esteem. Test anxiety can impede a student's ability to perform at their best, hindering them from reaching their full potential. The level of test anxiety experienced by students dampens their enthusiasm for learning, particularly when they perceive a test as highly daunting, leading to heightened anxiety levels prior to examinations (Amiri & Ghonsooly, 2015).

Students struggling with test anxiety often adopt ineffective study methods and lack effective test-solving techniques. Recognizing the individual differences among students, it is imperative to impart a variety of study strategies (Chakraborty, 2023). These strategies assist students in maintaining composure, focus, and motivation while preparing for examinations. Furthermore, teachers can collaborate with parents to cultivate good study habits among students. Effectively managing test anxiety constitutes a crucial area of research. Employing appropriate coping strategies tailored to each

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student's specific test anxiety issues enhances positive functioning and yields favorable outcomes (Rehman et al., 2021).

Conclusions

Stress poses a substantial challenge to students, emanating from diverse sources including academic pressures, financial struggles, and social dynamics. This stress, if not managed effectively, can detrimentally affect mental health and academic performance. It is evident that the relationship between stress and mental health is reciprocal, with stressors contributing to anxiety and depression. These conditions, in turn, lead to reduced overall well-being and hinder academic achievements.

In the context of academic stress, students face a myriad of challenges such as financial constraints, missed deadlines, and difficulties in comprehending course material. These stressors significantly hamper academic performance and can lead to moderate achievement due to the overwhelming impact of stress on their pursuit of educational goals. Furthermore, the nature of educational systems, especially semester-based ones, exacerbates stress levels, affecting students' ability to cope and perform effectively.

The impact of stress on academic achievement is particularly significant in the realm of examinations. Test anxiety, characterized by worry and emotionality components, influences students' performance in exams. The consequences of test anxiety are multifaceted, affecting not only students' immediate test performance but also their long-term academic motivation and self-esteem. Strategies to manage test anxiety, tailored to individual students, are crucial for positive functioning and improved outcomes.

In summary, stress among students, whether originating from academic, financial, or social pressures, has profound implications for mental health and academic success. The intricate relationship between stress, anxiety, and depression highlights the need for comprehensive support systems within educational institutions. Addressing stressors and implementing effective coping mechanisms, both at the individual and institutional levels, is vital to ensure students' well-being and foster a conducive environment for academic achievement. Further research and interventions focusing on stress management and mental health support are essential to mitigate the adverse effects of stress on students' lives and educational experiences.

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