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Academic stress and mental health in high school students: A systematic review

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Abstract

Background: Academic stress is a common psychological problem among high school students due to the pressures of studying, exams, and the expectation of high academic achievement. If not managed effectively, academic stress can negatively impact mental health, psychological well-being, and even student achievement.

Purpose: To examine the impact of academic stress and the influence of academic stress on the mental health of high school students based on empirical studies in the last decade.

Method: A literature review with a narrative approach. This method aimed to identify, examine, and synthesize several previous research findings examining the impact of stress on the mental health of high school students.

Results: Academic stress in students is associated with increased anxiety, depression, decreased mental well-being, and decreased academic performance. Students without adaptive coping strategies typically experience higher levels of stress.

Conclusion: Academic stress significantly impacts students' mental health and academic achievement. Therefore, support from schools, families, and the community is crucial in helping students develop effective coping strategies for dealing with academic stress.

Keywords: Academic Stress; Adolescents; High School Students; Mental Health.

INTRODUCTION

Adolescence is a developmental stage marked by various biological, cognitive, and social transitions, making adolescents highly vulnerable to psychological stress, particularly from academic demands (Pillai, Jose, Velukutty, & Riyaz, 2023). At the senior high school level, adolescents must face increasing study loads, exam pressure, ongoing assessments, and preparation for career choices or further study, often accompanied by high expectations from parents, teachers, and themselves (Zhou, Bambling, Bai, & Edirippulige, 2023). Academic pressure is the most dominant source of stress among students, impacting their emotions, sleep, concentration, and mental well-being (Zimmer-Gembeck, Skinner, Scott, Ryan, Hawes, Gardner, & Duffy, 2023). School demands, environmental expectations, and peer pressure are perceived as

exceeding their coping abilities and resources, adolescents are at greater risk of experiencing psychological distress, depression, risky behavior, and the use of maladaptive coping strategies such as avoidance, aggression, or substance use. This confirms that high school students are a group with a high vulnerability to stress, and the quality of coping skills and support from family and school are key factors in determining how far academic stress will develop into more serious mental health problems (Zhou et al., 2023).

Stress in secondary school adolescents can be understood as a psychological reaction when academic, social, and family demands are perceived to exceed their coping abilities, for example when faced with a heavy workload, repeated exams, demands for high grades, and competition with

peers (Jeyasingh, 2022). In the context of secondary education, academic pressure arises from high parental and teacher expectations, unrealistic self-expectations, excessive homework, anxiety about grades, and fear of failure that threatens future education or careers. When adolescents perceive these demands as excessive and their coping resources as inadequate, stress can develop into prolonged emotional complaints such as anxiety, tension, decreased concentration, fatigue, sleep disturbances, and the risk of depression and school burnout (van Loon, Creemers, Beumer, Okorn, Vogelaar, Saab, & Asscher, 2020). Adolescence is not only burdened by academic demands, but also by strong social and environmental factors that trigger stress. Peer pressure, academic competition, conflict or lack of support in friendships, and experiences of bullying and violence at school and in the surrounding environment are significant sources of stress for adolescents (Kurniawaty, Silalahi, Winarni, Purnama, & Kristama, 2024). At home, high expectations, excessive control, and parental pressure regarding academic performance can exacerbate existing stress at school (Haritay, Angolkar, Koparde, Oswal, & Carvalho, 2025). When this socio-environmental stress persists without healthy management, adolescents are at greater risk of experiencing impaired emotional regulation (e.g., irritability, anxiety, sadness), decreased self-confidence, difficulty adapting to peers and the school environment, and the emergence of maladaptive coping behaviors such as avoidance, aggression, or substance use (Anyanwu, 2023).

While many studies describe adolescent stress as a global phenomenon, stress among high school students is also evident in various local contexts across countries. Qualitative studies of high school students in China indicate that they experience very high levels of stress in their daily lives, with high expectations for academic performance primarily impacting negatively on emotions, sleep, learning, and mental well-being (Zhou et al., 2023). Research in India and other Asian regions has also found that the pressure of assignments, exams, and parental and teacher expectations make academic stress a significant problem for the majority of high school adolescents, often accompanied by strong emotional reactions and the use of less adaptive coping strategies (Jeyasingh, 2022). In other regions, such

as Uganda, Russia, and Hong Kong, high levels of psychological distress and academic stress are reported among high school students, associated with reduced well-being, physical complaints, and the risk of more serious mental health problems (Khlokov, Bocharov, & Korneev, 2021).

Continuous stress experienced without adequate management has the potential to cause serious mental health disorders in adolescents, such as increased symptoms of anxiety, depression, emotional exhaustion, and a decline in general psychological well-being (Chyu, & Chen, 2022). Ongoing academic and social stress is associated with the emergence of high psychological distress, including somatic symptoms, sleep disturbances, difficulty concentrating, and the risk of risky behaviors such as substance use and self-harm (Jiang, Ren, Jiang, & Wang, 2021). Continuous study pressure is also associated with school burnout and an increased likelihood of depression in adolescents, especially when they have low self-esteem and less adaptive coping strategies. These conditions not only impact emotional functioning but also disrupt academic achievement, relationships with family and peers, and the ability to participate optimally in school and community life, which can have long-term consequences for quality of life into adulthood (Östberg, Plönty, Låftman, Modin, & Lindfors, 2018).

RESEARCH METHOD

A literature review approach with a narrative design to gain a comprehensive understanding of the impact of stress on the mental health of high school students. The narrative approach was chosen because it allows researchers to systematically describe, compare, and integrate previous research findings in a contextual manner. Through this method, various concepts regarding adolescent stress, its causal factors, and its implications for psychological well-being can be comprehensively mapped based on published scientific evidence. Data sources were searched through national and international scientific databases, including Google Scholar, PubMed, and ScienceDirect. The search process used a combination of keywords such as stress, mental health, high school students, adolescents, adolescent stress, and high school students, combined with Boolean operators (AND, OR) to increase the

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relevance of the search results. Articles considered were published within the last ten years, available in full text, and written in Indonesian or English. Inclusion criteria included empirical research addressing stress in high school students or adolescents and examining its relationship to mental health. Articles that were irrelevant, opinionated or editorial articles without empirical data, and did not specifically address mental health aspects were excluded from the selection process.

The selection process was carried out in stages, starting with reviewing the title and abstract, and then

reading the full text to ensure alignment with the study's focus. Articles that met the criteria were then further analyzed by examining the research objectives, methodological design, and reported key findings. Data analysis was conducted using a descriptive-narrative approach, grouping research findings by theme, such as sources of stress, forms of impact on mental health, and proposed intervention recommendations. These findings were then synthesized to produce a comprehensive and in-depth picture of the impact of stress on the mental health of high school students.

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RESEARCH RESULTS

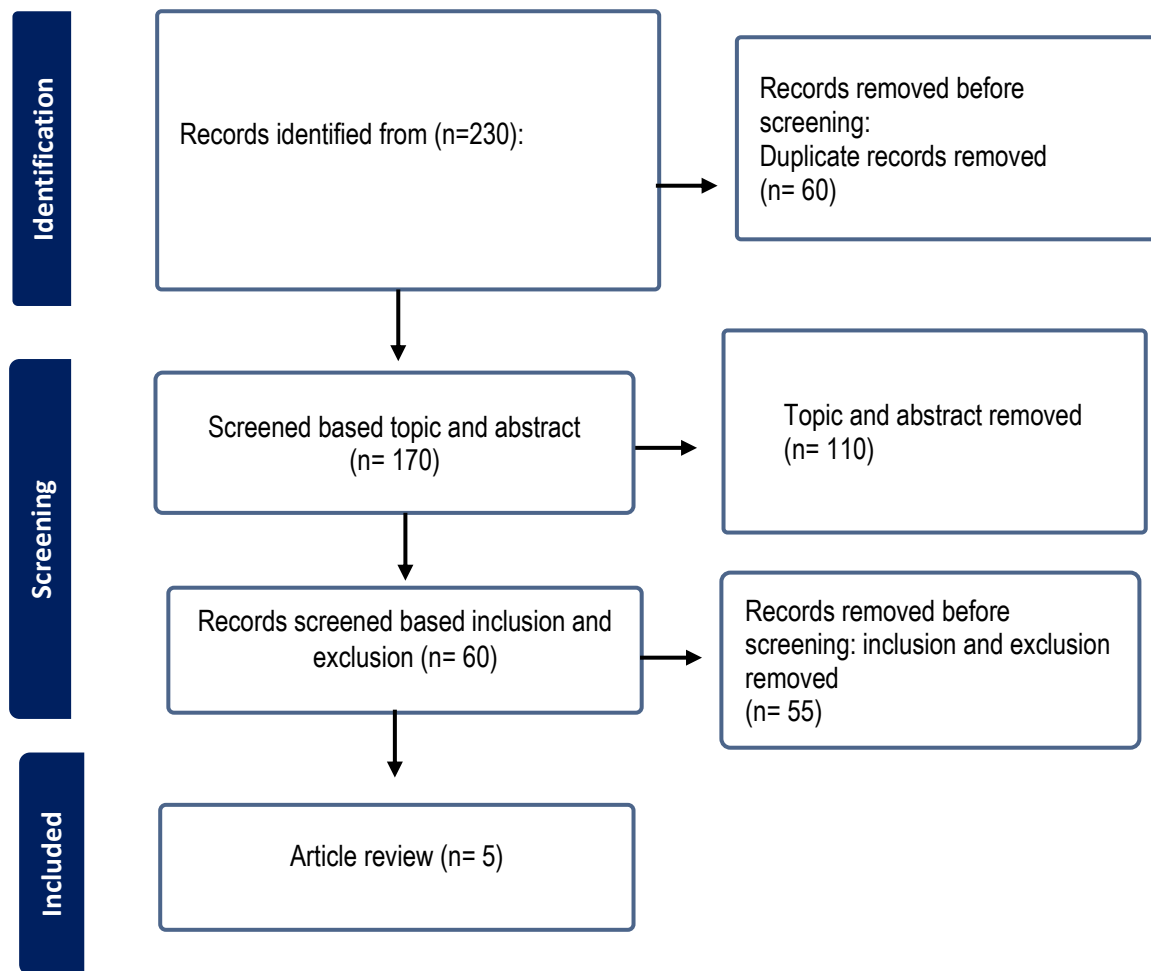


Figure. Diagram Prisma Flow

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Table 1. Summary of Literature

(Author, Year) (Country)	Purpose	Method	Results
(Pertiwi & Delianti, 2025) (Indonesia)	To analyze learning stress levels among high school adolescents in Aceh Jaya	Quantitative descriptive with cross-sectional approach	Most students experience mild to moderate learning stress, with academic pressure being the dominant source of stress.
(Compas et al., 2017) (USA)	To examine the relationship between coping, emotion regulation, and psychopathology in children and adolescents	Meta-analysis and narrative review	Stress has a strong relationship with the emergence of emotional disorders and psychopathology, especially when adolescents use non-adaptive coping strategies.
(Pascoe et al., 2020) (Australia)	To review the impact of stress on secondary school students	Literature review	Academic stress is associated with increased anxiety, depression, and decreased psychological well-being of students.
(Deb et al., 2025) (India)	To analyze the relationship between academic stress, mental health, and academic performance	Cross-sectional	High levels of academic stress are significantly associated with mental health disorders and decreased academic achievement.
(World Health Organization, 2021)	To provide a global overview of adolescent mental health	Global report	Mental health problems in adolescents are closely related to school environmental stress and psychosocial pressure.

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DISCUSSION

Stress in high school students is a common phenomenon during adolescence, when individuals face various physical, emotional, cognitive, and social changes accompanied by increased demands from the school and family environment. The transition to higher education, the burden of work, exam pressure, and high expectations for achievement make academic demands a major source of stress for adolescents (Reddy, Menon, & Thattil, 2017). A large proportion of students report academic stress, with levels varying from minimal to high, and this stress is associated with decreased psychological well-being, the emergence of emotional complaints, anxiety, and the risk of depression and school burnout (Amai, & Hojo, 2022). This pressure is often perceived as exceeding one's coping abilities, thus disrupting learning motivation, self-esteem, and social functioning, and increasing the likelihood of using maladaptive coping strategies (Arsyad, Usman, Syamsuddin, Ahmad, & Sinrang, 2021).

On the level of learning stress in high school students showed that most students experienced mild to moderate learning stress (Pertiwi, & Delianti, 2025). The results of this study indicate that academic pressures such as schoolwork demands, exam preparation, and grade targets are the main sources of stress for students. Although most students fall into the mild to moderate stress category, this condition still requires attention because if it persists, it can impact students' mental health and learning process.

These findings suggest that an educational system that demands high academic achievement can be a contributing factor to stress in adolescents. High school students are generally in the preparation phase for higher education, confronting various demands such as academic competition, performance assessments, and expectations from parents and teachers. These conditions can lead to stress and mental exhaustion if students lack effective coping strategies.

Examined the relationship between stress, emotional regulation, and psychopathology in children and adolescents (Compas, Jaser, Bettis, Watson, Gruhn, Dunbar, & Thigpen, 2017). The study explained that stress is closely related to the emergence of various emotional and psychological problems in adolescents, such as anxiety, depression, and behavioral disorders. This study emphasizes that

an individual's ability to manage emotions and use adaptive coping strategies is a crucial factor in determining the impact of stress on mental health. Adolescents with good emotional regulation skills tend to be able to deal with stress more effectively than those who use less adaptive coping strategies.

Academic stress is significantly associated with increased levels of anxiety and depression in high school students (Pascoe, Hetrick, & Parker, 2020). The pressure stemming from academic demands can impact students' psychological well-being, especially if they feel unable to meet the expectations placed on them by their environment. This can lead to decreased motivation to learn, reduced self-confidence, and feelings of helplessness in the face of academic demands.

High levels of academic stress were significantly associated with mental health disorders and decreased academic performance (Deb, Strodl, & Sun, 2025). Students experiencing high levels of stress tended to have difficulty concentrating, felt mentally fatigued easily, and experienced a decreased interest in learning activities. This suggests that stress not only impacts students' psychological well-being but can also affect their cognitive abilities and academic performance.

The impact of academic stress on students is also inextricably linked to the social environment surrounding adolescents. Family, school, and peers form the primary contexts that influence how adolescents experience and respond to stress. High expectations and pressure from parents, conflict-ridden interaction patterns, and a lack of attention and affection within the family can be additional sources of stress and trigger emotional problems in adolescents. At school, teacher demands, a competitive classroom climate, a lack of teacher support, and experiences of bullying or problematic peer relationships contribute to the burden of academic stress (Kurniawaty et al., 2024). Conversely, warm and reliable social support from parents, teachers, and peers serves as a crucial coping resource, encouraging the use of more adaptive coping strategies and reducing the risk of psychological distress. A lack of social support or negative interactions is associated with increased use of maladaptive coping, school burnout, and greater vulnerability to mental health disorders in adolescents (Nguyen-Thi, Truong, Le, Nguyen, & Tran-Chi, 2024).

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The World Health Organization (WHO) also emphasizes that adolescent mental health is a critical public health issue. The WHO states that many mental health problems in adolescents are related to various psychosocial stressors, including pressures in the school environment. Factors such as high study loads, academic competition, and lack of time for rest and recreational activities can increase stress levels in students. Therefore, efforts to create a school environment that supports mental health are crucial (World Health Organization, 2021).

In the educational context, schools play a central role in helping students manage academic stress through supportive learning environments and strengthening coping resources. Several studies recommend the development of school-based programs that target not only achievement but also emotional regulation, problem-solving, and interpersonal skills, as well as the provision of easily accessible counseling and support groups (Rahayu, Darni, & Iskandar, 2025). A meta-analysis shows that structured school-based interventions can reduce psychological stress, particularly when targeting students who already show early signs of problems (Zimmer-Gembeck et al., 2023). Furthermore, family support has been shown to contribute significantly to how adolescents cope with academic stress: parental support is associated with more adaptive coping (e.g., seeking help, developing strategies), while negative interactions with parents encourage avoidant and escapist coping. Adolescents also report that they highly value attention, empathy, warm communication, and a conducive home environment when facing academic stress (Rahayu et al., 2025).

CONCLUSION

Academic stress is a common problem experienced by high school students due to various learning demands and pressure to achieve. Several studies have shown that most students experience mild to moderate levels of stress, but this condition can still impact mental health, learning motivation, and academic achievement. Therefore, support from schools, families, and the surrounding community is needed to help students manage stress adaptively, thus maintaining their mental health and academic success.

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