

Stressors and coping strategies in a sample of Albanian Adolescents: A mixed-methods study

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Abstract

Adolescence is a period of heightened sensitivity to environmental and internal stressors with clear implications for mental health and academic functioning. This study examined the relationship between common stressors, coping strategies, and perceived academic impact among secondary school students using a mixed methods questionnaire that integrated multiple-choice items and brief free-response prompts.. Quantitative results showed moderate awareness of stress-management techniques, with 51.6% reporting they were somewhat familiar and 38.7% not familiar. The most frequently cited focus barriers were distractions from social media and noise (58.1%) and loss of motivation (25.8%). Coping patterns centered on distraction and music (32.3%), with smaller shares reporting exercise or breathing techniques (12.9% each); many students reported rare or no use of mindfulness or relaxation practices (41.9% and 35.5%, respectively). Sleep was often insufficient, with 51.6% sleeping only 5–6 hours on school nights. Most respondents perceived stress as harming academic performance (61.3%), though a minority described stress as motivating. Qualitative responses highlighted the role of social support, therapy, organized routines, quiet spaces, and individualized activities such as swimming or creative play. Findings suggest actionable levers for schools and families: sleep hygiene, simple relaxation

skills, structured study routines, and guidance on digital distraction. Future research should test brief, school-feasible interventions and evaluate longer-term outcomes.

Keywords: *adolescent stress, coping strategies, sleep, mindfulness, academic performance*

Introduction

Adolescence is a sensitive developmental period where internal and external stressors shape mental health and daily functioning. When a stressor occurs, homeostasis, the body's ability to maintain a stable internal environment, is disrupted and a coordinated stress response is triggered through neuroendocrine and autonomic pathways. This response is adaptive in the short term, protecting the organism from threat. Prolonged or excessive activation, however, can contribute to adverse physical and psychological outcomes.

This study focuses on stress in teenagers and young adults. It examines common stressors in daily life, the strategies adolescents report using to manage stress, and the ways stress is perceived to affect academic performance. To provide a fuller picture, the study combines multiple-choice items with short free-response prompts and analyzes both quantitative patterns and qualitative themes.

Study aims

1. Describe prevalent stressors among adolescents.
2. Identify commonly used coping strategies.
3. Examine perceived effects of stress on focus and academic performance.
4. Summarize brief qualitative accounts that illustrate how adolescents manage stress in real contexts.
5. Highlight practical levers for schools and families that align with adolescents' reported needs.

Chronic, uncontrollable stress

This paper focuses on chronic, uncontrollable stress, commonly modeled in three forms: repeated restraint, chronic intermittent cold stress, and chronic unpredictable stress. These forms illustrate physiological and behavioral adaptations that mirror human stress experiences (McEwen, 2017; Leigh et al., 2023).

Repeated physical restraint can produce a sustained sense of loss of control, signaling risk to homeostasis and triggering a stress response with corticosterone in rodents and cortisol in humans. Short-term effects observed in animal models include enhanced hippocampal-dependent context freezing and reduced open-field exploration. Over time, there will most likely be dendritic atrophy of the hippocampus present. In adolescent male rats, repeated restraint stress has been linked to binge-like alcohol use patterns (Sánchez-Marín et al., 2022).

Unpredictable, random stressors that mirror daily life chaos have been associated in animal models with decreased spontaneous firing rates, increased firing irregularity, and behavioral changes. Research connects chronic unpredictability with elevated anxiety and attention-deficit symptoms in adolescents (Kwarteng et al., 2022). Reviews also outline broader systemic and neurobiological consequences (McEwen, 2017) and gastrointestinal effects via the microbiota–gut–brain axis (Leigh et al., 2023).

Neuroscience-informed strategies to manage stress

Treatment strategies are commonly grouped into pharmaceutical and non-pharmaceutical approaches. For adolescents, non-pharmaceutical approaches are emphasized because they build durable coping skills without medication.

Pharmaceutical solutions

Monoamine neurotransmission-targeting drugs. Conventional antidepressants inhibit reuptake of monoamines such as serotonin and noradrenaline at the presynaptic neuron, increasing signaling at the postsynaptic site and helping correct imbalances associated with depression (Monoamine neurotransmitter, n.d.).

Modafinil. A prescription agent used to promote wakefulness and support cognition through effects on monoaminergic systems. It is approved for sleep-related disorders and has been observed to improve episodic and working memory in remitted depression with persistent cognitive symptoms (Smith & Doe, 2024).

Non-pharmaceutical solutions

Cognitive behavioral therapy (CBT). Uses techniques including guided exposure to identify and modify negative thoughts and behaviors, building coping skills to manage stress (Geetanjali, Wahane, & Sharma, 2023).

Mindfulness. Fosters present-moment awareness and non-reactivity, improving emotional regulation and attention in adolescents. Mindfulness programs have been implemented to help individuals cope with modern stress, reduce mental strain, and improve self-regulation, with potential benefits for well-being and organizational outcomes (Geetanjali et al., 2023).

Physical exercise. Physical activity supports mood, reduces stress hormones, and is often reported as a practical first-line strategy in adolescents.

Relaxation techniques

- Music therapy: engages neurochemical pathways, can reduce cortisol, increase parasympathetic activity, stabilize heart rate, and improve attention, including in pre-procedure contexts (Geetanjali et al., 2023).
- Massage therapy: reduces sympathetic arousal and promotes parasympathetic dominance; benefits have been noted around cardiovascular procedures, especially with lavender oil, connecting to aromatherapy (Geetanjali et al., 2023).
- Aromatherapy: olfactory stimulation interfaces with limbic circuits involved in emotion; lavender oil shows anxiolytic properties (Geetanjali et al., 2023).

Methodology

Research design

The questionnaire for this study was designed with the objective of gathering relevant data to confirm the personal conclusions derived from the researcher's prior observations and hypotheses. To ensure that the questions effectively addressed the research objectives, the development process involved careful consideration of the key themes and information required for analysis.

Instrument development

The first step in designing the questionnaire involved identifying the central research questions that needed to be answered to validate the study's conclusions. These questions were carefully constructed to directly address the themes that were central to the research focus.

The questionnaire was organized to ensure clarity and accessibility for the target demographic of teenagers. The questions were structured in a way that made them comprehensible to this age group, taking into account their typical language and cognitive levels. Effort was made to use simple, concise wording to minimize potential confusion and ensure that the questions could be easily interpreted by a broad range of respondents. This approach was intended to improve the reliability of the responses by making it easier for participants to provide accurate answers.

Sampling and Participants

The study involved 32 adolescents aged 15–18 enrolled in secondary schools in Tirana. Participants were recruited through voluntary response after receiving an information sheet distributed by school counselors. Participation was anonymous, and no identifying data were collected. Parental consent was obtained for minors.

Ethical Considerations

The research followed the ethical standards of the European University of Tirana's Department of Psychology. Participants were informed about the study's purpose, their right to withdraw at any time, and the confidentiality of responses.

Administration

Additionally, the questionnaire was organized logically, with questions progressing from general to more specific. This sequencing allowed for a smooth flow of thought for the respondents, reduced participant fatigue, and encouraged higher engagement throughout the survey.

Data analysis

Quantitative data were analyzed using descriptive statistics (percentages, frequencies) to identify patterns of stress familiarity, stressors, coping strategies, and perceived effects on academic performance. Qualitative responses were reviewed thematically, allowing recurring patterns and illustrative examples to emerge.

Results

Familiarity with neuroscience strategies

Most respondents (51.6%) reported being somewhat familiar with neuroscience-based stress strategies. Another 38.7% said they were not familiar at all, while 9.7% were very familiar.

Challenges in staying focused

The two most common difficulties were distractions such as social media and noise (59.4%) and loss of motivation (25%). A smaller proportion reported multitasking (6.3%), mental fatigue and burnout (3.1%), or all of the above (6.3%).

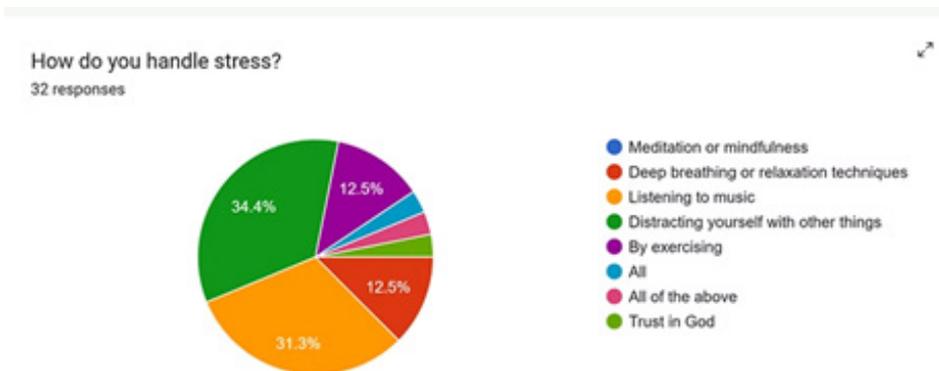
FIGURE 1. Biggest challenges when staying focused (n = 32).



Stress management strategies

The most frequently used strategies were listening to music (31.3%) and spiritual coping, such as prayer or trust in a higher power (34.4%). Smaller proportions reported exercise (12.5%), relaxation/breathing (12.5%), mindfulness (6.3%), or a mix of multiple approaches (3.1%).

FIGURE 2. Stress management strategies reported by adolescents (n = 32).



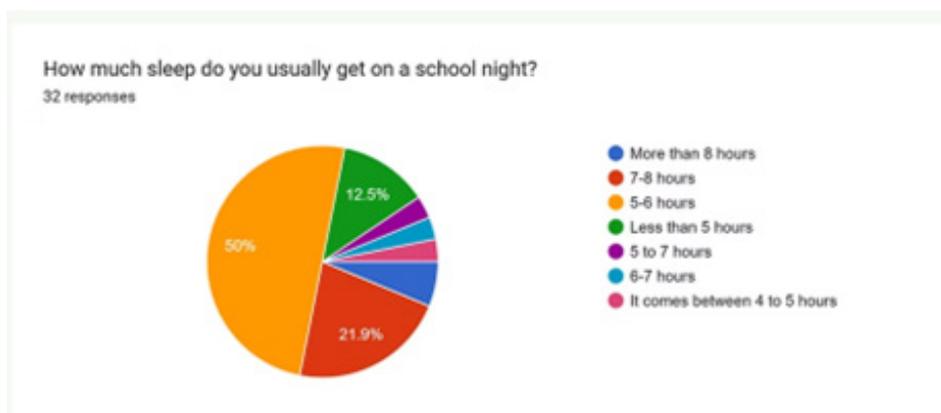
Impact of stress on school performance

Most respondents (61.3%) stated stress significantly affected their school performance. Another 32.3% said it somewhat affected them, while 6.5% felt it had no impact. Interestingly, 16.1% reported stress pushed them to study harder, improving their grades.

Sleep patterns

On school nights, half of the respondents (50%) reported sleeping 5–6 hours. Another 21.9% slept 7–8 hours, while smaller percentages slept less than 5 hours (12.5%), more than 8 hours (6.3%), or 6–7 hours (6.3%).

FIGURE 3. Sleep duration on school nights (n = 32).



Other themes (qualitative responses)

Students also described personal experiences with stress, mentioning therapy, exercise, prayer, quiet spaces, reading, and walking. Some described counterproductive strategies such as procrastination or avoidance. As one respondent explained, “When I feel stressed, I go for a walk alone to clear my head.” Another noted, “Noise in the classroom makes it impossible to focus.” These examples illustrate how coping is often sensory and situational.

Discussion

Familiarity with neuroscience-based strategies

The results showed that more than half of the adolescents (51.6%) were somewhat familiar with neuroscience-based stress management strategies, while 38.7% were not familiar. Only a small minority (9.7%) reported strong familiarity. This indicates that while awareness exists, detailed knowledge is limited. The gap highlights the need for more accessible education about how neuroscience can guide everyday stress-reduction practices in schools and families. This pattern reflects the gap between general awareness and active application of neuroscience-informed stress-reduction practices in school settings (Geetanjali et al., 2023).

Challenges in staying focused

Distractions from social media and noise, along with loss of motivation, were the two most common barriers. These findings are consistent with existing research emphasizing the mental toll of constant digital interruptions and multitasking. Similar findings have been reported globally, where excessive social media exposure correlates with reduced concentration and increased anxiety symptoms (Brown & Green, 2023; Kwarteng et al., 2022). A smaller group cited mental fatigue and burnout, reflecting how stress can undermine sustained attention. The presence of multiple challenges suggests that interventions should not only target external distractions but also internal motivational resources.

Stress management strategies

The strategies most often used by participants included listening to music, trust in higher power, and exercise. These results emphasize the personalized nature of coping mechanisms. Similar evidence highlights how cultural and spiritual coping can provide emotional stability, complementing behavioral interventions such as exercise (Geetanjali et al., 2023; Basso & Suzuki, 2017). Music therapy and spiritual practices were both common, pointing to the importance of cultural and individual contexts in how adolescents manage stress. Exercise, while less frequently chosen, is strongly supported in the literature as an effective non-pharmacological intervention for stress relief.

Impact of stress on academic performance

A large majority (61.3%) reported that stress negatively influenced academic performance, often leading to avoidance of tasks due to feelings of overwhelm. At the same time, a smaller but significant group (16.1%) reported that stress pushed them to study harder and improve grades. This dual role of stress—debilitating for some and motivating for others—reflects the complex relationship between stress and performance. It supports the view that moderate levels of stress can sometimes enhance achievement, while excessive stress undermines it.

Sleep and stress

Half of the respondents reported sleeping only 5–6 hours per school night, which is below recommended levels for adolescents. Inadequate sleep is known to exacerbate stress and reduce cognitive functioning, suggesting a cycle in which stress both reduces sleep quality and is worsened by it. These findings underline

the need for health education about the role of sleep in stress regulation and academic performance. This aligns with McEwen's (2017) research on stress-related disruption of circadian rhythms and cognitive fatigue in adolescents.

Mindfulness and relaxation practices

Although mindfulness and relaxation are well-established strategies for managing stress, most participants reported rarely or never practicing them. This indicates an opportunity for schools and communities to introduce structured, simple programs in mindfulness and relaxation that could be integrated into daily routines.

Qualitative insights

Personal accounts reinforced the quantitative findings, with adolescents describing strategies such as therapy, walking, reading, and quiet spaces. Others described avoidance behaviors or procrastination, showing the range of coping styles. These narratives add depth to the numerical patterns, illustrating how adolescents experiment with both adaptive and less adaptive strategies when dealing with stress.

Limitations and future research

The study's limitations include a small sample size and reliance on self-reported data, which may be affected by recall bias or social desirability. Despite these constraints, the findings provide useful insights into adolescent stressors, coping strategies, and perceptions. Future research should involve larger and more diverse samples, test specific interventions in school settings, and examine the long-term impact of stress management training on academic performance and well-being. Given that participants were from a single urban school, results may not represent rural or socioeconomically diverse adolescent populations.

Conclusions

This study highlights important trends in how adolescents perceive and manage stress. The majority of participants were only somewhat familiar with neuroscience-based strategies, revealing a gap in knowledge that schools and families could address through practical education.

Distractions from social media and noise, together with loss of motivation, were the most common obstacles to focus. Coping strategies varied, but listening

to music, prayer, and exercise were prominent. These results emphasize the need for individualized approaches to stress management that respect cultural and personal contexts.

Stress was found to have a largely negative impact on academic performance, often leading to avoidance of tasks, though for some students stress served as a motivator. This dual effect illustrates the complex role stress plays in learning and performance.

Sleep patterns were another critical factor: half of the respondents reported only 5–6 hours of sleep on school nights, a level insufficient for healthy development and cognitive functioning. The lack of consistent mindfulness or relaxation practice further indicates that students are not fully engaging with strategies that could help regulate stress.

Overall, these findings underscore the importance of promoting balanced routines, adequate rest, and simple, accessible stress-reduction techniques among adolescents. Interventions should focus on building awareness of effective strategies, encouraging healthy habits, and providing supportive environments in both schools and families. These findings underscore the potential of integrating stress-management education within the school curriculum as part of preventive mental health initiatives.

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