

Relationship between Resilience and Stress-Coping Strategies among College Students

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Abstract: College life is characterized by academic demands, examinations, career uncertainty, financial concerns, interpersonal relationships, social expectations, and adjustment to new environments. These challenges can produce considerable psychological stress and influence students' academic performance, emotional well-being, and overall quality of life. Resilience represents an individual's capacity to adapt successfully to adversity, recover from stressful experiences, and continue functioning effectively despite difficulties. Stress-coping strategies, in contrast, refer to the cognitive, emotional, and behavioral efforts individuals use to manage stressful situations.

The relationship between resilience and coping is particularly important among college students because effective coping may strengthen resilience, while higher resilience may encourage students to select more adaptive ways of responding to stress. Recent evidence indicates a significant negative association between stress and resilience among college students. A 2025 systematic review and meta-analysis involving 25 studies and 32,613 participants reported a moderate negative correlation between stress and resilience ($r = -0.29$), indicating that students with greater resilience generally tend to report lower levels of stress.

Keywords: Resilience, Stress, Coping Strategies, College Students, Psychological Well-Being, Academic Stress, Adaptive Coping, Mental Health.

I. INTRODUCTION

The transition to college represents an important developmental period in which students experience increased academic responsibility, greater personal independence, changing social relationships, career-related uncertainty, and new expectations. Although higher education provides opportunities for intellectual, professional, and personal development, students may simultaneously experience multiple stressors. Academic workload, examinations, assignments, competition, financial difficulties, relationship problems, family expectations, loneliness, and uncertainty about employment can contribute to psychological stress. Persistent stress may influence concentration, motivation, sleep, emotional stability, academic achievement, and psychological well-being.

Consequently, understanding why some students adjust successfully to stressful circumstances while others experience substantial distress has become an important area of educational and psychological research. Resilience is increasingly viewed as a significant protective psychological resource because resilient students are more capable of adapting to difficulties, recovering after setbacks, and maintaining functioning during challenging circumstances. Recent meta-analytic evidence provides particularly strong support for the relationship between resilience and stress: across 25 studies involving more than 32,000 college students, resilience showed a moderate negative relationship with stress.

Stress and coping are closely related concepts. Stress generally develops when individuals perceive that environmental demands exceed their available resources, whereas coping involves the cognitive and behavioral efforts used to manage those demands. Lazarus and Folkman's transactional perspective emphasizes that individuals do not respond to stressful situations solely according to the objective characteristics of an event; rather, their interpretation of the situation and perceived coping resources influence their responses.

II. CONCEPT OF RESILIENCE AMONG COLLEGE STUDENTS

Resilience can be understood as the capacity to maintain or regain psychological functioning following adversity, stress, or challenging experiences. It is not necessarily a fixed personality characteristic; contemporary approaches increasingly describe resilience as a dynamic process influenced by personal, interpersonal, social, and environmental resources. Among college students, resilience may involve persistence after academic failure, adjustment to unfamiliar environments, emotional regulation during examinations, effective problem solving, maintaining supportive relationships, and continuing to pursue goals despite obstacles. Students with stronger resilience may interpret academic difficulties as manageable challenges rather than overwhelming threats and may consequently be more likely to employ constructive coping responses.

Resilience is also associated with self-efficacy, optimism, social support, emotional regulation, adaptability, and a sense of purpose. Students who believe that they can influence outcomes may be more willing to confront difficult academic tasks and seek assistance when necessary. Social relationships are similarly important because supportive peers, teachers, family members, and institutional personnel can provide emotional encouragement and practical assistance. Recent reviews of higher education resilience interventions have examined approaches including mindfulness, skills-based programmes, psychoeducation, and coaching, suggesting that resilience-oriented interventions can contribute to reductions in stress and anxiety, although effects across outcomes and studies are not uniform.

III. STRESS AMONG COLLEGE STUDENTS

Stress among college students can originate from academic, social, financial, familial, and personal sources. Academic stress is particularly prominent because students are required to manage examinations, assignments, presentations, deadlines, competition, and expectations for high achievement. Career uncertainty can further intensify stress, particularly when students perceive limited employment opportunities. Financial pressure, accommodation problems, relationship difficulties, and adjustment to independent living may create additional demands. During periods of major disruption, such as public health emergencies or institutional changes, students may experience additional uncertainty and social isolation.

The effects of prolonged stress can extend beyond temporary emotional discomfort. Students may experience fatigue, sleep disturbances, irritability, reduced concentration, anxiety, low motivation, and declining academic engagement. Therefore, the objective should not simply be to eliminate all stress because some degree of challenge may motivate students and promote personal growth. Instead, educational institutions should help students develop resources that allow them to manage stress effectively. Resilience and coping strategies are central to this process.

IV. STRESS-COPING STRATEGIES

Stress-coping strategies can broadly be classified into problem-focused and emotion-focused approaches. Problem-focused coping involves identifying the source of stress and taking practical steps to address it. For a student facing examination pressure, this might involve creating a study schedule, seeking clarification from a teacher, organizing academic materials, or dividing a large assignment into manageable tasks. Emotion-focused coping involves managing emotional responses to stressful circumstances through strategies such as relaxation, emotional expression, mindfulness, acceptance, or talking with supportive individuals. Both approaches may be useful depending on the nature of the stressor.

Students also use social-support coping, positive reframing, acceptance, religious or spiritual coping, physical activity, time management, and recreational activities. In contrast, avoidance, denial, excessive substance use, withdrawal, procrastination, and disengagement may become maladaptive when they prevent students from addressing persistent problems. A recent scoping review examining 165 international peer-reviewed studies found substantial diversity in the coping strategies and measurement approaches used in university-student research, highlighting the difficulty of making direct comparisons across studies.

Table 1. Major Stress-Coping Strategies among College Students

Coping Strategy	Description	Potential Effect on Stress	Relationship with Resilience
Problem-focused coping	Directly addressing the source of stress	Usually reduces manageable stressors	Strengthens confidence and adaptability
Time management	Planning and prioritizing academic tasks	Reduces academic pressure and procrastination	Supports self-regulation
Social-support coping	Seeking help from family, peers, teachers or counsellors	Provides emotional and practical assistance	Strengthens interpersonal resources
Positive reframing	Interpreting difficulties constructively	Reduces negative emotional reactions	Promotes adaptive thinking
Acceptance	Recognizing situations that cannot immediately be changed	Reduces unnecessary emotional struggle	Supports psychological flexibility
Mindfulness/relaxation	Managing attention and physiological arousal	May reduce anxiety and perceived stress	Supports emotional regulation
Physical activity	Exercise and active recreation	Can improve mood and stress regulation	Supports psychological and physical well-being
Avoidance	Ignoring or escaping the stressful situation	May provide short-term relief but prolong problems	Generally associated with weaker adaptation when excessive
Denial	Refusing to acknowledge the stressor	May temporarily reduce distress	Can interfere with constructive adjustment
Substance-based coping	Using alcohol, drugs or other harmful behaviours	May provide temporary relief but increase long-term risks	Generally maladaptive

V. RELATIONSHIP BETWEEN RESILIENCE AND COPING

The relationship between resilience and coping is reciprocal and multidimensional. Resilient students may possess greater confidence in their ability to manage challenges and therefore be more likely to use problem-solving, positive reframing, acceptance, and social-support strategies. At the same time, repeated use of effective coping strategies may strengthen resilience by providing successful experiences of managing adversity. In this way, resilience and coping can form a reinforcing psychological system. When students successfully cope with academic challenges, they may develop greater self-efficacy and confidence, which subsequently helps them deal with future stressors.

The empirical literature generally supports a negative relationship between resilience and perceived stress, although individual studies have not always produced consistent findings. The recent systematic review and meta-analysis by Ansari and Iqbal found a moderate negative association between resilience and stress among college students, while also identifying substantial heterogeneity related to measurement tools, resilience types, methodological characteristics, and geographic region. This finding indicates that resilience is important but should not be viewed as the sole explanation for differences in students' stress experiences. Family environment, social support, institutional climate, socioeconomic circumstances, academic discipline, personality, and coping resources may all influence the relationship.

VI. ADAPTIVE AND MALADAPTIVE COPING

Adaptive coping is particularly important in explaining how resilient students respond to stressful situations. Problem solving, planning, positive reinterpretation, seeking support, acceptance, and emotional regulation can enable students to confront difficulties constructively. For example, a student who receives a poor examination result may initially experience disappointment but then identify weaknesses, consult the instructor, modify study habits, and prepare differently for the next examination. Such a response reflects both adaptive coping and resilience.

Maladaptive coping may operate differently. Avoidance and denial can temporarily reduce emotional discomfort but may allow academic or interpersonal problems to become more severe. Procrastination can increase examination-related stress, while social withdrawal can reduce access to support. Thus, the relationship between resilience and stress cannot be understood simply by measuring how frequently students cope; the quality, suitability, and effectiveness of coping responses are equally important.

VII. ROLE OF SOCIAL SUPPORT AND EMOTIONAL REGULATION

Social support is one of the important contextual resources associated with resilience and coping. Students who maintain positive relationships with family members, friends, classmates, teachers, mentors, and counsellors may have greater access to emotional encouragement and practical assistance. Social support can also reduce feelings of isolation and help students interpret stressful experiences more realistically. Similarly, emotional regulation enables students to recognize and manage negative emotions without becoming overwhelmed by them. A student who can tolerate frustration and regulate anxiety may be better positioned to use problem-solving strategies.

The interaction between personal and contextual resources is therefore central. Resilience should not be interpreted exclusively as an individual responsibility. Institutional environments, supportive teaching practices, accessible counselling, inclusive campus communities, and opportunities for social connection can influence students' capacity to cope effectively.

VIII. RESILIENCE-BUILDING INTERVENTIONS IN HIGHER EDUCATION

Universities can promote resilience through structured psychological and educational interventions. These may include stress-management workshops, mindfulness programmes, cognitive-behavioural skills, peer-support groups, mentoring, counselling, time-management training, emotional-regulation activities, physical activity programmes, and academic-support services. The purpose of such interventions should be broader than simply reducing immediate stress. Effective programmes should help students develop transferable skills for problem solving, emotional regulation, communication, self-efficacy, and adaptive coping.

Evidence from intervention research is encouraging but also indicates that outcomes vary. A meta-analysis of 29 randomized controlled trials found that resilience interventions for higher-education students produced a small positive effect on resilience and small reductions in depressive and stress symptoms. A later systematic review of university resilience interventions also found that stress and anxiety may decrease following interventions, although many programmes did not produce consistent improvements in measured resilience itself.

IX. REVIEW OF MAJOR RESEARCH EVIDENCE

Table 2. Selected Research Evidence on Resilience, Stress and Coping

Study/Review	Population/Scope	Major Focus	Key Finding
Amanvermez et al. (2020)	College students	Stress-management interventions	Examined interventions targeting stress, depression and anxiety among college students.
Ang et al. (2022)	Higher-education students	Resilience interventions	Meta-analysis of 29 RCTs found small improvements in resilience and reductions in stress symptoms.

Waterhouse & Samra (2025)	University students	Coping with stress	Review of 165 studies showed wide variation in coping concepts, measures and student populations.
Ansari & Iqbal (2025)	College students	Stress–resilience relationship	Meta-analysis of 25 studies and 32,613 participants found a moderate negative correlation between resilience and stress ($r = -0.29$).
2024 systematic review	University students	Resilience interventions	Reviewed 47 eligible studies involving mindfulness, skills-based, psychoeducation and coaching interventions.
Sperling et al. (2025/2026)	Medical students	Resilience training and stress	Meta-analysis found resilience training had beneficial effects on resilience and stress, although heterogeneity and risk of bias remained concerns.

Despite considerable research on student stress, resilience, and coping, several gaps remain. First, the literature uses diverse definitions and measurement instruments, making comparison difficult. The coping literature is especially heterogeneous, with substantial variation in conceptualization and assessment. Second, many studies rely on cross-sectional designs, which identify associations but cannot establish whether resilience causes lower stress or whether successful coping experiences subsequently increase resilience. Third, much research has focused on medical and health-related students, while students from humanities, social sciences, commerce, engineering, management, and other disciplines remain comparatively less represented.

The recent meta-analysis specifically noted the need to understand resilience and stress among broader college populations beyond medical and healthcare students. Fourth, cultural and socioeconomic differences require greater attention because students' coping resources and stressors may vary across regions and social contexts. Future research should therefore incorporate longitudinal, mixed-method, and intervention-based designs.

X. IMPLICATIONS FOR COLLEGES AND UNIVERSITIES

The reviewed evidence has important implications for higher education institutions. Universities should consider resilience and coping as components of student development rather than only as mental-health concerns. Orientation programmes can introduce students to stress-management and help-seeking resources. Academic departments can provide time-management and study-skills support during periods of high academic pressure. Counselling services can teach cognitive and emotional coping techniques, while peer-support programmes can increase social connectedness. Faculty members can contribute by creating supportive classroom environments and identifying students who demonstrate persistent academic or emotional difficulties.

XI. CONCLUSION

The literature indicates that resilience and stress-coping strategies are closely interconnected among college students. Students with greater resilience generally demonstrate a greater capacity to manage academic, interpersonal, and personal challenges and tend to experience lower levels of perceived stress. The strongest recent evidence comes from a systematic review and meta-analysis showing a moderate negative relationship between resilience and stress among college students. Adaptive coping strategies including problem solving, planning, positive reframing, social support, acceptance, emotional regulation, and mindfulness can help students manage stress constructively, while excessive avoidance, denial, procrastination, and other maladaptive responses may intensify difficulties.

Resilience should consequently be understood as a dynamic capacity that develops through the interaction of personal strengths, coping experiences, social relationships, and institutional environments. Although resilience interventions show promising effects on stress and student well-being, methodological differences and inconsistent intervention outcomes indicate the need for more rigorous longitudinal and culturally sensitive research. Overall, colleges and universities can improve student adjustment by integrating resilience development, coping-skills training, counselling,

social support, academic guidance, and healthy campus environments into comprehensive student-support systems. Such an integrated approach can help students not merely withstand stress but develop the adaptability, confidence, and psychological resources needed to succeed in higher education.

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