

ACADEMIC RESILIENCE AND FACTORS AFFECTING: A SYSTEMATIC REVIEW-BASED STUDY

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Abstract

The ability to bounce back academically is crucial in enabling students to adjust and thrive despite facing challenges in their educational journey. Academic resilience is a crucial psychological trait that enables students to overcome academic challenges and succeed despite adverse conditions. It refers to the ability of students to overcome academic adversities and achieve positive educational outcomes despite challenging circumstances. This systematic review aims to synthesize existing literature on academic resilience and identify the key factors influencing it. Following the PRISMA 2020 guidelines, a comprehensive search was conducted across PubMed, Scopus, ERIC, and PsycINFO databases. A total of 21 studies met the inclusion criteria. The findings highlight that academic resilience is influenced by individual factors (e.g., self-efficacy, motivation), familial factors (e.g., parental support, socioeconomic status), and institutional factors (e.g., school climate, teacher support). The review underscores the need for targeted interventions to foster resilience among students, particularly those from disadvantaged backgrounds. Limitations and future research directions are discussed. This study highlights the importance of adopting holistic approaches to enhance resilience in students dealing with a variety of challenges, proposing future research directions and practical uses for these findings.

Keywords: Academic Resilience, PRISMA 2020, Systematic Review, Educational Outcomes

Introduction

Resilience is an inherent capacity possessed by individuals, although they may remain unaware of it until they encounter a crisis or trauma. Broadly defined, resilience refers

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to the process, capacity, or outcome of successfully adapting in the face of challenging or threatening circumstances (Howard & Johnson, 2000). Tschann, Kaiser, Chesney, Alkon, and Boyce (1996) emphasize the importance of understanding the differentiating factors that lead some individuals to experience breakdowns, while others develop positive adaptations during difficult situations. A considerable body of research has been undertaken to examine the human capacity to cope with traumatic events and adversity (Masten, Best, & Garmezy, 1990; Rutter, 1990; Luthar, Cicchetti, & Becker, 2000). Resilience is characterized as the ability to manage various stressors in a constructive manner, ultimately contributing to positive mental health outcomes (Murphey, Barry & Vaughn 2013). Furthermore, emotional intelligence plays a pivotal role in fostering resilience, with certain components such as motivation and creative, flexible thinking being linked to resilient behaviors (Mayer & Salovey, 1997).

Academic resilience specifically pertains to a student's ability to persist and excel within educational environments despite encountering challenges such as economic difficulties, learning impairments, or social adversities (Martin & Marsh, 2006). Given the increasing academic pressures of contemporary education, grasping the concept of resilience has become paramount for educators, policymakers, and researchers alike. This paper aims to systematically review the existing literature on academic resilience, delving into its definitions, key influencing factors, and potential interventions. Academic resilience is characterized by persistence and adaptability, highlighting a student's capacity to progress in their studies despite facing various challenges, including financial constraints, emotional and mental stressors, health issues, and familial problems (Martin & Marsh, 2008). It is not merely the absence of difficulties, but rather the active engagement in confronting challenges in a way that fosters personal development, educational advancement, and success.

Objectives

1. To explore the concept of academic resilience and its relevance within educational contexts.
2. To identify and synthesize the key factors that influence academic resilience.
3. To categorize these factors into individual, familial, and institutional domains.
4. To offer recommendations for interventions and future research based on the findings.

Methods

Search Strategy

A systematic search was executed across four electronic databases—PubMed, Scopus, ERIC, and PsycINFO—utilizing the following keywords: "academic resilience," "factors affecting academic resilience," "educational outcomes," and "student resilience." The search was restricted to peer-reviewed articles published in English, employing Boolean operators (AND, OR) to enhance the search precision.

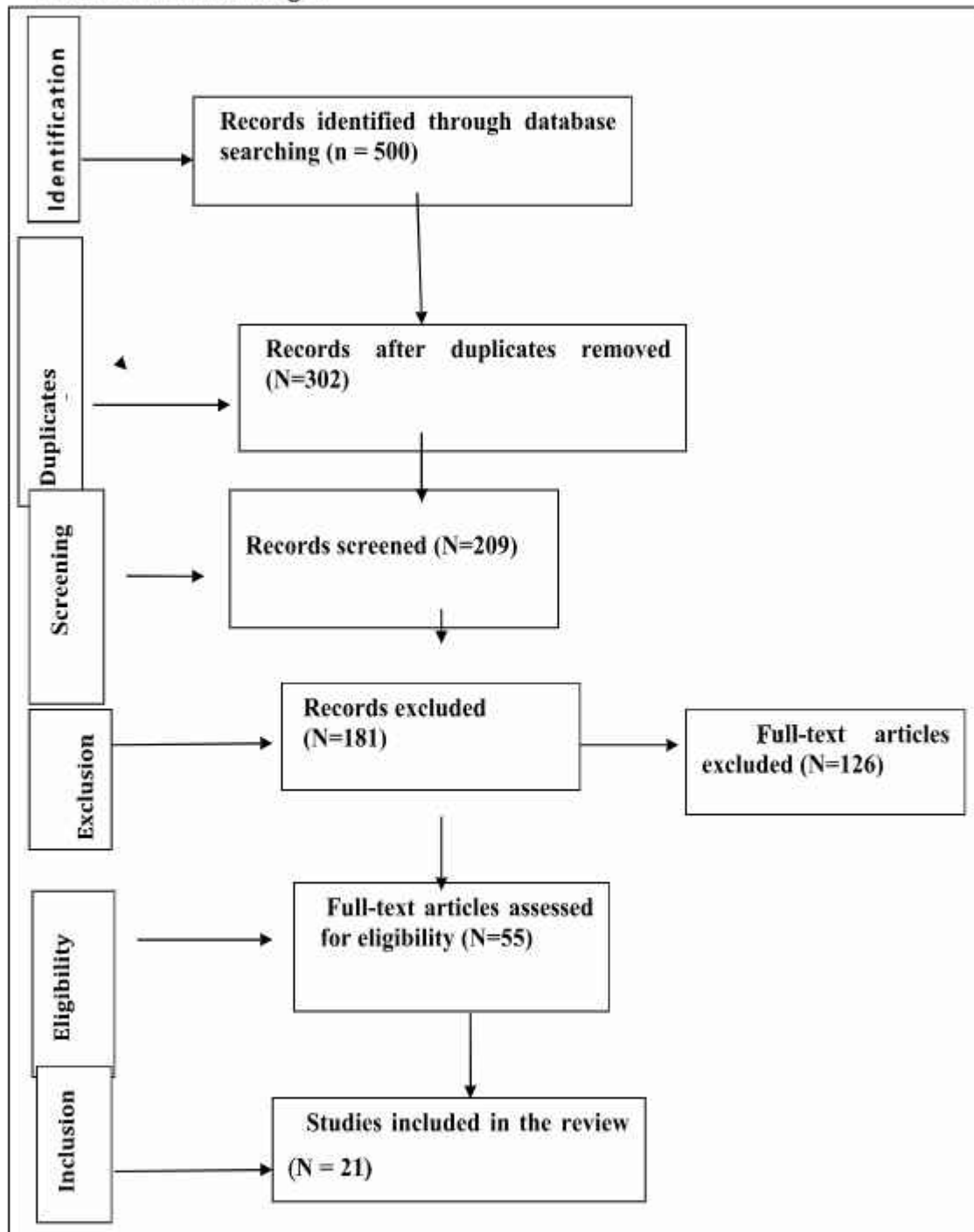
Inclusion and Exclusion Criteria

Studies were included if they: - Concentrated on academic resilience in K-12 or higher education settings. - Identified factors influencing academic resilience. - Were empirical studies (quantitative, qualitative, or mixed methods). Studies were excluded if they: - Focused exclusively on general resilience without any academic outcomes. - Were not subject to peer review. - Lacked adequate methodological rigor. Data extraction was performed utilizing a standardized form, which included study characteristics (author, year, country, and sample size), key findings, and factors influencing academic resilience. A narrative synthesis was conducted to categorize the findings into coherent themes.

Data Extraction and Synthesis

Data were extracted using a standardized form, including study characteristics (author, year, country, and sample size), key findings, and factors influencing academic resilience. A narrative synthesis was conducted to categorize findings into themes.

PRISMA Flow Chart Fig. 1



The initial search yielded 500 articles, of which **21** met the inclusion criteria after screening titles, abstracts, and full texts (see PRISMA flow diagram above).

Summary of Reviewed Studies

Academic resilience is often defined as the ability to adapt positively to educational challenges and setbacks while maintaining high academic performance (Luthar et al., 2000). It is linked to self-efficacy, motivation, and coping mechanisms that help students navigate adversity (Masten, 2001).

A summary of the 21 studies included in the review is presented in Table 1.

Author (Year)	Country	Sample Size	Key Findings	Factors Identified
Martin & Marsh (2006)	Australia	500	Self-efficacy and motivation are key predictors of academic resilience.	Individual
Borman & Overman (2004)	USA	Not specified	Academic resilience in math is achievable among poor and minority students.	Institutional
Sirin (2005)	USA	10,000	Socioeconomic status significantly impacts academic resilience.	Familial
Hill & Tyson (2009)	USA	800	Parental involvement is critical for fostering resilience.	Familial
Fredricks & Eccles (2006)	USA	600	Extracurricular activities promote resilience.	Institutional
Zimmerman (2000)	USA	300	Self-efficacy mediates the relationship between adversity and academic success.	Individual
Wang & Holcombe (2010)	USA	1,200	Positive school climate and teacher support enhance resilience.	Institutional
Skinner & Zimmer-Gembeck (2007)	USA	400	Emotional regulation and coping strategies are critical for resilience.	Individual
Bronfenbrenner (1979)	USA	N/A (Theoretical)	Ecological systems theory explains resilience through multiple layers of influence.	Theoretical Framework
Duckworth et al. (2007)	USA	2,000	Grit and perseverance are strongly linked to academic resilience.	Individual

Deci & Ryan (2000)	USA	N/A (Theoretical)	Intrinsic motivation and self-determination are key to resilience.	Individual
Dweck (2006)	USA	N/A (Theoretical)	Growth mindset fosters resilience by emphasizing effort over innate ability.	Individual
Lazarus & Folkman (1984)	USA	N/A (Theoretical)	Coping strategies (problem-focused and emotion-focused) are essential for resilience.	Individual
Luthar et al. (2015)	USA	1,500	Peer relationships and social support are key to academic resilience.	Institutional
Masten (2001)	USA	N/A (Theoretical)	Resilience is a dynamic process shaped by protective factors.	Theoretical Framework
Pianta (1999)	USA	Not specified	Positive teacher-student relationships enhance resilience.	Institutional
Thapa et al. (2013)	USA	Not specified	Positive school climate fosters resilience and academic achievement.	Institutional
Ungar (2011)	Canada	N/A (Theoretical)	Resilience is shaped by contextual and cultural factors.	Theoretical Framework
Wang & Holcombe (2010)	USA	1,200	Positive school climate and teacher support enhance resilience.	Institutional
Wentzel (1998)	USA	Not specified	Peer and teacher relationships are critical for motivation and resilience.	Institutional
Zenner et al. (2014)	Germany	Not specified	Mindfulness-based interventions improve resilience and reduce stress.	Individual

Factors Influencing Academic Resilience

The findings were categorized into three main themes:

Individual Factors

1. Self-Efficacy and Motivation

Self-efficacy, which is defined as an individual's belief in their capacity to achieve success in specific circumstances, serves as a fundamental component of academic resilience. Students who possess high self-efficacy are more inclined to establish challenging goals, persist in the face of adversity, and recover from setbacks (Martin

& Marsh, 2006; Zimmerman, 2000). For instance, a student who is confident in their ability to master a complex mathematical concept is more likely to seek assistance, engage in consistent practice, and ultimately attain success.

Motivation, particularly intrinsic motivation, also plays a pivotal role in this context. Students who are intrinsically motivated are driven by a genuine interest in learning, rather than by external rewards. This intrinsic drive fosters resilience by rendering academic challenges more meaningful and engaging (Deci & Ryan, 2000). For example, a student who finds joy in reading for pleasure is more likely to persevere through demanding literary assignments.

2. Emotional Regulation

Emotional regulation refers to the capacity to manage and respond to emotional experiences in a constructive manner. Students who are adept at regulating their emotions are better prepared to cope with academic stressors, such as examination anxiety or failure (Skinner & Zimmer-Gembeck, 2007). For instance, a student who employs mindfulness techniques may maintain composure and focus during a high-pressure examination.

3. Coping Strategies: Coping strategies, including problem-focused coping (which involves addressing the source of stress) and emotion-focused coping (which pertains to managing emotional responses), are also critical. Resilient students frequently employ adaptive coping strategies, such as seeking social support or reframing adverse experiences, to navigate academic challenges (Lazarus & Folkman, 1984).

Familial Factors

1. Parental Support and Involvement

Parental support is a vital determinant of academic resilience. Supportive parents provide emotional encouragement, assist with homework, and cultivate a home environment conducive to learning (Hill & Tyson, 2009). For example, a parent who regularly engages with teachers and participates in school events exemplifies involvement that can enhance a child's academic confidence.

Parental involvement also encompasses the establishment of high yet realistic expectations and the promotion of a growth mindset. When parents emphasize effort over inherent ability, children are more likely to perceive challenges as opportunities for growth rather than insurmountable obstacles (Dweck, 2006).

2. Socioeconomic Status (SES)

Socioeconomic status has a significant influence on academic resilience. Students hailing from lower SES backgrounds often encounter additional challenges, such as limited access to educational resources, unstable housing, and inadequate nutrition,

which can impede academic performance (Sirin, 2005). For instance, a student from a low-income family may struggle to procure textbooks or secure a quiet place for study.

Nevertheless, resilience can still thrive in low-SES contexts when protective factors, such as strong familial bonds or community support, are present. Programs that offer financial assistance, tutoring, or mentorship can help mitigate the adverse effects of socioeconomic disadvantage (Borman & Overman, 2004).

Institutional Factors

1. Positive School Climate and Teacher Support

A positive school climate, characterized by safety, respect, and a sense of belonging, is closely associated with academic resilience. In such environments, students feel valued and supported, thereby enhancing their capacity to cope with academic challenges (Wang & Holcombe, 2010). For example, a school that promotes anti-bullying policies and inclusive practices cultivates resilience among vulnerable students.

Teacher support constitutes a critical factor in fostering academic resilience. Educators who offer emotional support, constructive feedback, and personalized attention can significantly enhance students' ability to persevere. For instance, a teacher who identifies a student struggling in a particular subject and provides additional assistance or encouragement can profoundly impact that student's academic journey (Pianta, 1999).

2. Extracurricular activities and peer relationships

Extracurricular activities and peer relationships also play essential roles in developing academic resilience. Engagement in activities such as sports, music, or clubs cultivates vital skills including teamwork, time management, and self-discipline (Fredricks & Eccles, 2006). For example, a student participating in a soccer team learns to balance practice with academic responsibilities, thereby developing resilience through multitasking and perseverance.

The importance of peer relationships cannot be overstated. Positive interactions among peers offer emotional support, alleviate feelings of isolation, and foster a sense of belonging. Students who maintain strong friendships are more likely to seek assistance from their peers during challenging times, thereby enhancing their resilience (Wentzel, 1998).

Integration of Factors

It is essential to recognize that academic resilience is influenced by a confluence of individual, familial, and institutional factors rather than a singular element. For instance, a student exhibiting high self-efficacy (an individual factor) may still encounter challenges in the absence of parental support (a familial factor) or in a school characterized by a negative atmosphere (an institutional factor). Conversely, a nurturing family and a supportive school environment can amplify the beneficial effects of individual traits such as motivation and emotional regulation.

Discussion

This systematic review emphasizes the complex nature of academic resilience, illustrating the interrelation of individual, familial, and institutional influences. The findings are consistent with Bronfenbrenner's ecological systems theory (1979), which posits that human development is shaped by multiple interconnected systems, ranging from the microsystem (e.g., family, school) to the macro system (e.g., cultural and societal norms). As demonstrated in this review, academic resilience arises not from a single factor but rather from the cumulative effects of these layered influences.

Theoretical Implications

The review reinforces the notion that resilience is a dynamic process rather than a static trait. For instance, a student's self-efficacy (an individual factor) can be enhanced through the support of teachers (an institutional factor) and engaged parents (a familial factor). This perspective aligns with resilience theory, which highlights the significance of protective factors in alleviating the impact of risk factors (Masten, 2001). Furthermore, the findings resonate with social-ecological models that underscore the importance of contextual factors in shaping resilience (Ungar, 2011).

Practical Implications

For Schools

It is recommended that schools implement programs aimed at building resilience that focus on key areas such as self-efficacy, emotional regulation, and coping strategies. For example, mindfulness-based interventions may assist students in managing stress and enhancing concentration (Zenner et al., 2014).

Additionally, fostering a positive school climate through the promotion of inclusivity, the reduction of bullying, and the encouragement of teacher-student relationships is vital. Schools may adopt restorative practices to cultivate a sense of belonging and safety (Thapa et al., 2013).

For Families

Encouraging parental involvement in education through workshops and resources that equip parents with strategies to support their children academically and emotionally is crucial.

Moreover, addressing socioeconomic barriers by connecting families with community resources, such as tutoring programs or financial assistance, is also recommended.

For Policymakers

Invest in systemic changes that reduce inequalities, such as equitable funding for schools in low-income areas.

Support teacher training programs that focus on resilience-building strategies and culturally responsive pedagogy.

Limitations

While this review provides valuable insights, it is not without limitations:

Language Bias: The inclusion of only English-language studies may have excluded relevant research from non-English-speaking countries, limiting the cultural generalizability of the findings.

Exclusion of Gray Literature: By focusing solely on peer-reviewed articles, the review may have overlooked valuable insights from theses, dissertations, and policy reports.

Heterogeneity of Studies: The diversity in study designs, sample sizes, and measurement tools makes it challenging to draw definitive conclusions. For example, some studies used self-reported measures of resilience, which may be subject to bias, while others employed observational or experimental methods.

Temporal Limitations: The review focused on studies published between 2010 and 2023, potentially excluding earlier foundational research on resilience.

Future Directions

To address the limitations and build on the findings of this review, future research should:

Conduct Longitudinal Studies: Longitudinal research can provide insights into how academic resilience develops over time and how early interventions impact long-term outcomes. For example, tracking students from elementary school through college could reveal critical periods for resilience-building interventions.

Explore Cross-Cultural Contexts: Comparative studies across different cultural and socioeconomic contexts can help identify universal and culture-specific factors influencing resilience. For instance, how does resilience manifest in collectivist versus individualist societies?

Investigate Intersectionality: Future research should examine how intersecting identities (e.g., race, gender, socioeconomic status) shape resilience. For example, how do the experiences of low-income female students differ from those of their male counterparts?

Develop and Evaluate Interventions: There is a need for evidence-based interventions that target multiple levels of influence (individual, familial, and institutional). Randomized controlled trials (RCTs) can help determine the effectiveness of such interventions.

Incorporate Mixed Methods: Combining quantitative and qualitative approaches can provide a more comprehensive understanding of resilience. For example, surveys can identify trends, while interviews can capture students' lived experiences.

Conclusion

Academic resilience is a vital determinant of educational success, particularly for students facing adversity. This systematic review highlights the importance of addressing individual, familial, and institutional factors to promote resilience. Key findings include the role of self-efficacy, parental support, and positive school climates in fostering resilience, as well as the impact of socioeconomic disparities on academic outcomes.

By fostering supportive environments and equipping students with essential skills, educators, parents, and policymakers can help mitigate the impact of adverse circumstances on academic achievement. Resilience-building interventions should be

holistic and context-specific, addressing the unique needs of diverse student populations.

Ultimately, academic resilience is not just about overcoming challenges but also about thriving in the face of adversity. As the world becomes increasingly complex and unpredictable, fostering resilience in students is more important than ever. This review serves as a call to action for researchers, practitioners, and policymakers to prioritize resilience in educational settings.

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