Systematic Review on Global Trend in Students' Academic Stress: Prevalence, Causal Factor, and Psychological Implication

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ABSTRACT

Academic stress has become a major global mental health concern among university students. It negatively affects psychological well-being, academic performance, and physical health, yet a comprehensive understanding of its worldwide trends, causes, and impacts over the past 15 years remains limited. This systematic review aims to identify the global prevalence of academic stress and analyze its causal factors and psychological implications from 2010–2025. Using the Systematic Literature Review (SLR) method based on PRISMA 2020, this study searched ScienceDirect (Elsevier) and Google Scholar via Publish or Perish. From 1,498 initial articles, 58 met the inclusion criteria and were assessed using the JBI Critical Appraisal Checklist. Keywords included academic stress, student stress, prevalence, factors, and psychological implications. Results show that 46.6% of studies reported high academic stress, indicating a rising global trend. Academic factors (workload, limited time, academic competition), psychological factors (self-concept, personal stress, low confidence or self-efficacy), social–interpersonal factors (family expectations, lecturer pressure, low social support), and contextual–environmental factors (language barriers, financial issues, limited technology) were identified as key contributors. Academic stress leads to significant psychological, cognitive-motivational, socialbehavioral, well-being, and physiological consequences. Findings highlight the need for psychological interventions, educational reforms, and policies supporting students' mental health.

Keywords: academic stress, prevalence, causal factors, psychological implication, systematic review

INTRODUCTION

Over the past few years, academic stress has emerged as one of the major mental health concerns among university students, both in Indonesia and across the globe. The current situation reflects a psychological response arising from environmental pressures, academic expectations in particular, that exceed an individual's coping capacity (Lazarus & Folkman, 1984). Within higher education, students encounter multiple sources of tension, including intensive academic workloads, limited time frames for completing coursework, and substantial expectations from both family and academic communities. According to Krohne's Model of Coping Modes (2002), individuals facing stressful conditions tend to habitually employ self-regulation and heightened vigilance (vigilant coping). This mechanism is highly relevant to the transitional phase into university life, which requires students to adjust to new learning systems and academic demands.

In the digital era, academic demands have increased rapidly. Technology-driven changes in learning systems, high academic expectations, and strong engagement with digital devices have given rise to new forms of stress, including digital fatigue. The change in academic systems during the COVID-19 pandemic later escalated these pressures even more. Students in some amounts of countries were reported to have experienced increased academic stress, enhanced by a lack of self-control and heightened loneliness due to prolonged social isolation. They also faced disruptions in teaching–learning activities, changes in evaluation systems, and uncertainty regarding their academic and career futures. This situation provides strong evidence that academic stress arises

not only from academic expectations but also from structural and technological transformations within modern education.

Global research data indicates an increasing prevalence of academic stress amongst college students across the world. A systematic analysis in Africa by Fentahun et al. (2025) involving 7,828 students reported a prevalence rate of 64.7%. In Saudi Arabia, Al-Shahrani et al. (2023) stated that 85.5% of students experienced mild to severe level. A study in Bangladesh found that 76.8% of students faced academic stress during their college years (Rabbi & Islam, 2024). Meanwhile, in Nepal, 31.7% of students reported moderate academic stress and 35.4% experienced high levels of stress (Kaphle et al., 2024).

In Indonesia, this phenomenon is also evident across several regions. At one Health Sciences Institute (STIKES) in Surabaya, 65.5% of students experienced moderate academic stress (Ananda et al., 2023). In Aceh Province, the same level of stress was reported by 72.8% of students (Humaira, Astuti & Afnidar, 2024). Nearly half of nursing students in Ambon also fell into the moderate stress category (Manery et al., 2024). Furthermore, nonlocal students in West Sumatra reported academic stress levels extending from moderate to high (Ardi et al., 2025). These findings reinforce that academic stress is an issue that surpasses geographical and cultural boundaries, demanding serious attention from higher institutional policymakers.

Numbers of research have already identified some of the stress sources. Bedewy & Gabriel (2015) shows that the demands of gaining academic achievement, exam pressure, low self-esteem in academic field, and limited time, are the most significant factors of academic stress. This was later strengthened by Watson & Watson (2016), which High expectations, information overload, academic pressure, unrealistic ambitions, limited opportunities, and a high level of competition are common contributors to academic stress among students. These research's results elaborate that academic stress is a multidimensional phenomenon that caused by academic pressure, psychological factor, and social context amongst the students' environment.

Academic stress not only puts negative impact on psychological aspects but also affecting academic performance, study motivation, students' welfare, even physiological aspects. Some of the researches reported that academic stress fosters a sleep deprived condition and triggers some depression symptoms Romo-Nava et al., 2016). Students' mental health shares a significant negative correlation into academic stress (accuracy 99%), which the higher academic stress, the lower students' mental health state (Gasser et al., 2025). Sustainable academic stress has shown negative impact on studying capacity, academic performance, education and career achievements, sleep quality and quantity, physical health, mental health, and drugs usage. These facts indicate that academic stress has been the part of modern campus life and needs cross-discipline scientific approaches for deeper understanding and excellent management.

Although academic stress has been widely studied, numbers of gaps remain. Empirically, developmental psychology theory explains that university students who fall within the stage of emerging adulthood should possess more advanced self-regulation capacities, emotional maturity, and coping strategies compared to teenager period (Santrock, 2019). However, the research findings presented earlier indicate an uptrend of academic stress among students across various regions of the world. From a theoretical view, prior studies examining the causes of academic stress most likely to differ in focus. Some emphasize internal factors such as perfectionism, self-efficacy, and emotion regulation, whereas the rest later focus on external factors such as academic workload, assessment systems, and social pressures. By these few differing points of view, it is confirmed that there is a need for an integrative model, that combines both internal and external causes in one conceptual framework. Furthermore, a systematic synthesis of academic stress covering the period from 2010 to 2025 has yet to be identified.

This study draws on two models of stress mechanisms to explain academic stress in higher education environment. The first is the transactional type of stress introduced by Lazarus & Folkman (1984), which posits that stress arises when environmental demands are surpassed as exceeding an individual's capacity to cope. The second refers to Krohne's (2002) Model of Coping Modes (MCM), which extends the concept of stress coping

by pointing out the role of personal dispositions, emotion regulation and tolerance for uncertainty in particular, to navigate stressful situations.

This study aims to discover the prevalence of academic stress across different regions of the world, identify the academic stress causing factors, review the resulting psychological implications, and map the trend shifts over the past fifteen years. It addresses four research questions: (1) What is the prevalence level of academic stress among university students across various global regions? (2) Which factors contribute most significantly to the lead of academic stress in students? (3) What psychological implications arise from academic stress? and (4) How has the trend of academic stress among university students changed over the past fifteen years (2010–2025)? From a scientific strategy, this study provides an extensive overview of the academic stress phenomenon among university students throughout the 2010–2025 period. Practically, the results are expected to serve as a reference for developing policies and psychological interventions in higher education aimed at strengthening students' resilience.

METHODS

This study uses a Systematic Literature Review (SLR) design guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework (Page et al., 2021). All steps of the review process were conducted in line with the principles of replicability and traceability. Two main databases were used for the literature search: ScienceDirect (Elsevier) and Google Scholar that accessed through the Publish or Perish (PoP) software, version 8. ScienceDirect was selected due to its strong academic reputation and numerous collection of Scopus-indexed publications. Google Scholar, on the other hand, was utilized to broaden the search scope to include national and regional publications, particularly SINTA-indexed journals which relevant to the Indonesian and Southeast Asian case.

The search strategy applied in ScienceDirect (Elsevier) used keyword combinations with Boolean operators: ("academic stress" OR "student stress") AND ("university student" OR "college student") AND ("prevalence" OR "factors" OR "psychological implication"). With publication years 2010–2025 as the following criteria, English language, is a research article, and available in full-text. For Google Scholar searches through Publish or Perish, the terms Title Words ("academic stress" OR "student stress") and Keywords ("university" OR "college" OR "prevalence" OR "factors") were used, with the same publication year range (2010–2025).

The search results were imported into Mendeley Reference Manager for the deduplication and screening processes. The study selection procedure followed the four steps outlined in the PRISMA 2020 guidelines, that are identification, screening, eligibility, and inclusion. Articles that were not relevant to the topic of academic stress among students and that did not meet the inclusion and exclusion criteria were gradually eliminated.

The inclusion and exclusion criteria were applied into the literature search process. The inclusion criteria that applied to the article were: (1) published between 2010–2025; (2) study population including higher education students; (3) the main topic discussing academic stress and reporting or examining one or more aspects of prevalence, causing factors, or psychological implications; (4) studies with quantitative method or mixedmethods designs; (5) written in English or Indonesian; (6) available in full-text; and (7) published in Scopus or SINTA journals. The exclusion criteria were: (1) articles with non-student populations; (2) articles that related to the concept but without measured data; (3) studies about psychological intervention; (4) articles without fulltext access; and (5) articles published before 2010. From the study selection process, 58 articles were considered eligible for further analysis from an initial total of 1,498 articles.

Each article was also evaluated through a quality control using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies (JBI, 2020). The contol assigned with range score of 0 to 8 and later divided into three types of studies. Those are the High Quality (7–8), Moderate Quality (4–6), and Low Quality studies (0–3). The results indicated that 89.7% (52 studies) were sorted as High Quality, 10.4% studies as Moderate Quality (6 studies), while none were sorted as Low Quality. This selection process is presented in the PRISMA flow diagram **(Figure. 1).**

The data extraction process was conducted systematically after the article selection stage was completed. The extracted data were then analyzed using a thematic analysis approach based on the core dimensions of academic stress to address the research questions. To ensure transparency, credibility, and scientific replicability, all stages of the study were conducted in accordance with the principles of PRISMA 2020. The resulting synthesis is expected to be valid, comprehensive, and representative of global trends in academic stress among university students, as the review was conducted using a systematic approach, rigorous literature selection, and complemented by a quality appraisal based on JBI standards.

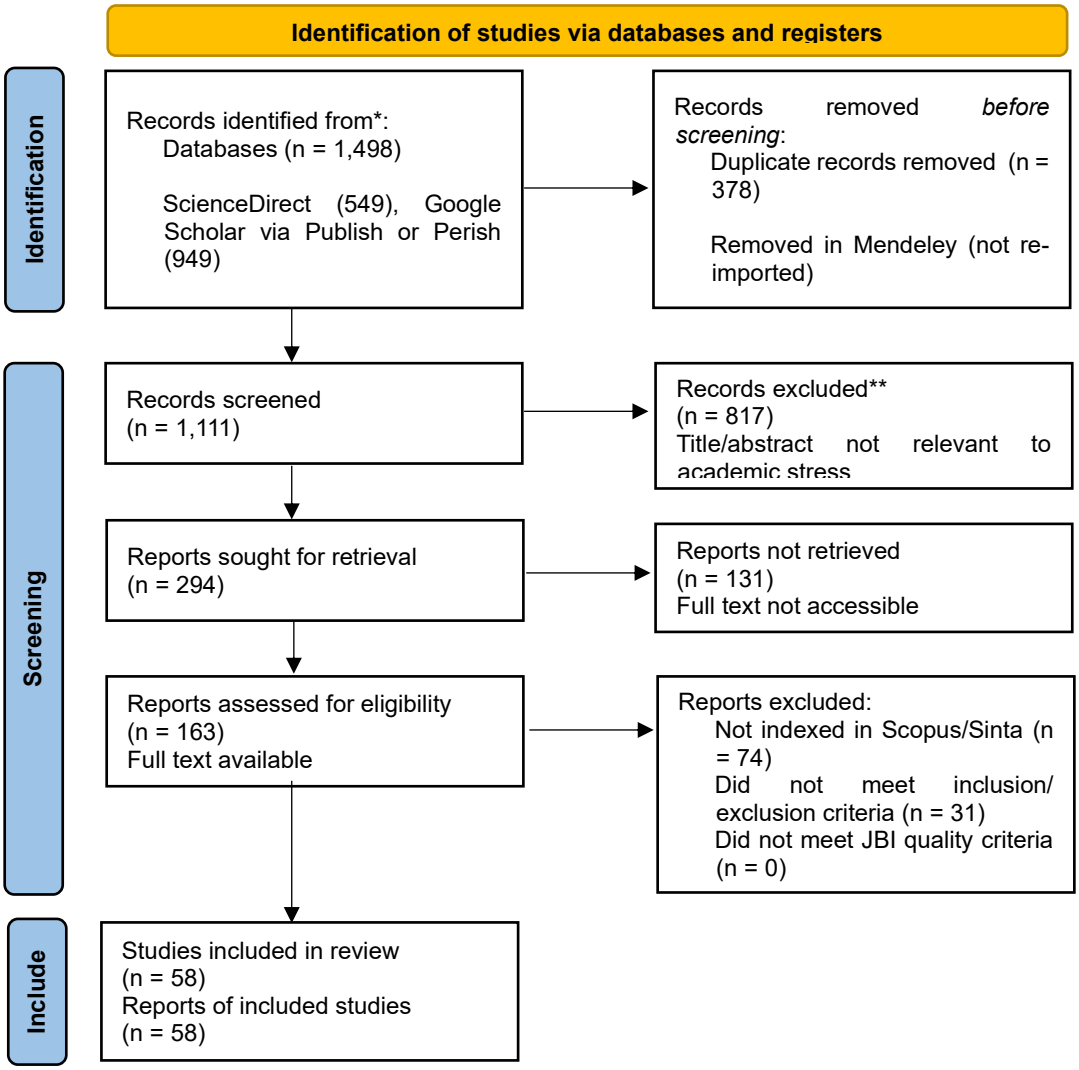

Figure 1. PRISMA flow diagram

RESULTS

General Characteristics of the Studies

After applying the inclusion and exclusion criteria, a total of 58 articles published between 2011 and 2025 were selected for this systematic review. There is an increase in publications developed after 2020, indicating the increasing of global attention toward academic stress among students, after the COVID-19 pandemic.

The majority of the studies were conducted in the continental of Asia which contributed 50% of total 58 articles (n = 29). This number covering the researches in Indonesia, China, India, Philippines, Pakistan, Iran, Nepal, Malaysia, and Saudi Arabia. Europe continent contributed 15,5% of 58 articles (n = 9), including researches conducted around Spain, France, Italy, Netherland, UK, Lithuania, Croatia, Sweden, and Romania. The Americas contributed 22,4% (n = 13), including studies from the US, Colombia, Bolivia, Canada, and Mexico. Africa

contributed for 8.6% (n = 5), including research from Ghana, Egypt, Nigeria, and Sudan. Oceania contributed 1.7% (n = 1), represented by a study conducted in New Zealand. An additional 1.7% (n = 1) study was conducted across India and the United States, making it difficult to sort strictly into Asia or the Americas (thus, for the prevalence synthesis, this study was sorted under the Americas). The studies analyzed clearly originated from a wide range of countries and continents. This geographical distribution elaborates that academic stress is a cross-cultural phenomenon experienced by students across diverse educational systems worldwide.

A total of 30,249 students from various academic disciplines were included across the 58 studies reviewed. The sample amount also varied widely, ranging from 54 respondents in New Zealand to 3,138 respondents in Sweden. The majority of participants were full-time undergraduate students.

All 58 articles used a quantitative research method; none of the studies used qualitative or mixed-methods designs. The most common research design was cross-sectional, using correlational and comparative models to examine the relationships between academic stress and various psychological, social, and academic variables.

Table 1 presents the authors and publication year, country and sample size, and the key findings relevant to the research questions. This table provides a comprehensive overview of the extracted data, which serves as the basis for the thematic analysis presented in the subsequent section.

Table 1. Characteristics of the Reviewed Studies

No	Authors & Year	Country & Sample	Main Findings (RQ Relevant)
1	Rianti, Kholidin, & Yandri, (2024)	Indonesia (109)	There is a relationship between academic stress, anxiety, and the emergence of sleep deprived amongst students. When the academic stress and anxiety are higher, the more likely students are to experience sleeping issues. Academic stress levels were classified as four groups: very low (33.94%), low (19.26%), moderate (23.85%), high (21.10%), and very high (1.83%).
2	Pozos-Radillo et al., (2014)	Mexico (527)	IEA-related situations involving class interventions, mandatory assignments, and examinations were found to predict high levels of chronic stress. A total of 35.3% of students experienced high chronic academic stress, 44.8% moderate, and 19.9% low. The main contributing factors are extreme academic workload, group tasks, competition amongst students, minimum technological resources, lack of guidance, and inadequate time management.
3	Liu et al., (2023)	China (700)	Higher levels of academic stress were also linked with increased depressive symptoms. Academic stress was shown to enlarge negative affect, such as sadness, anxiety, and emotional anger. This also reduce sleep quality, which subsequently contributed to depression. The average stage of academic stress was moderate, showing M = 2.91, SD = 0.97. This is indicating that students experienced mild to moderate academic stress on average.
4	Yan (2025)	China (704)	An increase in academic stress was associated with decreased learning motivation and a rise in excessive screen device use. Although prevalence rates were not explicitly reported, the stress level can be interpreted as being within the moderate range based on the scale used. The primary sources of academic stress included academic expectations, academic self-concept, perceived workload, and exam-related perceptions.

5	Charan, Chongjin, & Soomro, (2025)	Pakistan (376)	Academic stress was found to increase cognitive behaviors (such as study effort and academic awareness) while reducing academic emotions, community or social engagement, and prosocial behaviors. The levels of academic stress and anxiety were in the moderate range (M = 3.45).
6	Slimmen et al., (2025)	Netherland (1.374)	The higher the level of academic stress, the lower the students' mental well-being. Several studies have reported that academic stress levels fall within the high category. Factors contributing to academic stress include pressure to gain achievements, perceptions of workload, academic self-perception, and limited time.
7	Mejía-Rubalcava et al., (2012)	Mexico (73)	Students experiencing moderate to high levels of academic stress are at a greater risk of developing dental caries. One study reported that 69.9% of students were in the moderate to high academic stress category. The sources of academic stress include the demands of clinical practice, frequent examinations, heavy workload, insufficient rest time, and various other factors.
8	Benítez-Agudelo, Restrepo, & Clemente-Suárez, (2025)	Columbia (601)	Female students maintain strong academic performance despite experiencing higher levels of stress. In total, 31% of students reported significant stress levels.
9	Kadivar et al., (2011)	Iran (300)	There is a significant positive relationship between learning goal orientation, learning strategies (both cognitive and metacognitive), and academic stress. The average academic stress score among students was 59.45 (SD = 5.61), indicating moderate to high levels. Academic stress was caused by high expectations to achieve, performance-based goal orientation, classroom competition, and the limited use of effective learning strategies
10	Alduraywish et al., (2023)	Saudi Arabia (297)	Poor eating habits and an increase in constipation symptoms were found to rise significantly as academic stress increased. During examinations, stress levels were reported as low (2%), moderate (72%), and high (26%).
11	Kamila, & Ramadhani, (2024)	Indonesia (83)	Academic stress has also been shown to have a significant effect on students' subjective well-being. The higher the academic stress, the lower the subjective well-being. High levels of academic stress were reported.
12	Putra, & Ardi, (2023)	Indonesia (720)	Life satisfaction and happiness were found to be negatively and significantly correlated with academic stress among first-year students. Happiness emerged as a key determinant of academic stress. Students experienced high academic stress at 39.2%, moderate at 46%, and low at 14.8%.
13	Santoso, & Prapunoto, (2024)	Indonesia (147)	High self-management among students was associated with lower academic stress, and vice versa. Academic stress levels were classified in five gropus: moderate (47%), high (30%), low (14%), very high (8%), and very low (1%).

14	Rohmah et al., (2025)	Indonesia (91)	Students with higher academic stress more likely to engage more frequently in cyberloafing, such as accessing social media, entertainment videos, online shopping, and similar activities.
15	Blanco et al., (2025)	Spain (1.505)	Academic stress, evaluation anxiety, and resilience were significant predictors of students' intention to drop out of university. The higher the academic stress, the greater the intention to leave university. Academic stress levels were reported as 30% moderate and 30% high.
16	Chandra (2020)	India (94)	Male and female students show different in fear of academic failure, perceptions of the home environment, and online learning. The mean score was 58.2 (SD = 6.88), indicating moderate to high stages of academic stress.
17	Putri, Yandri, & Harmalis, (2024)	Indonesia (304)	Both academic stress and nomophobia played an important role in driving excessive online gaming behavior among students. Academic stress was reported to be high in 94.41% of students and moderate in 5.59%.
18	Prayitno, & Andayani, (2023)	Indonesia (230)	Students who received peer social support experienced lower levels of academic stress during online learning.
19	Dewani, Arneliwati, & Agrina. (2024)	Indonesia (150)	Moderate academic stress was considered one of the triggers for gastritis symptoms among students. Academic stress levels were reported as moderate (50.0%), very low (8.0%), low (18.7%), high (17.3%), and very high (6.0%).
20	Nugroho, & Soetjiningsih, (2023)	Indonesia (100)	Another study reported 62% moderate academic stress, 30% low, and 8% high. Academic stress was caused by academic expectations from instructors and parents, workload, academic perceptions, and selfefficacy.
21	Nuriyyatiningrum et al., (2023)	Indonesia (400)	State anxiety and academic stress affected students' quality of life through different mechanisms. Academic stress tended to reduce perceived quality of life.
22	Malinauskas, & Saulius, (2022)	Lithuania (188)	The mean academic stress level in the first phase was (M = 3.66) and in the second phase (M = 3.52). Academic stress remained high despite there is a slight decline.
23	Al Rasheed et al., (2017)	Saudi Arabia (386)	Students experienced in a few clalow academic stress at 18.7%, moderate at 64%, and high at 17.4%, leading to undesirable outcomes related to health, emotional well-being, and academic performance.
			Academic stress was attributed to exams, course load, assignment load, cumulative GPA, career and future concerns, and limited free time.
24	Liao, & Wei, (2014)	US (370)	Academic stress was negatively associated with positive affect, reducing students' emotional well-being. Causes of academic stress included academic demands, difficulty in academic expression (e.g., writing and discussing), and low English proficiency.

25	Acharya Pandey, & Chalise, (2015)	Nepal (190)	A total of 78% of students had low self-esteem, and 74% experienced high academic stress. Academic stress can lead to psychological disorders, physical complaints, behavioral problems, and a decline in academic performance. Contributing factors included younger age, lower educational level, limited family support, and restricted financial support.
26	Bedewy, & Gabriel, (2015)	Egypt (100)	Academic stress is caused by pressure to achieve, academic workload and examinations, academic self-perception, and limited time.
27	Caso et al., (2020)	Italy dan France (748)	Academic stress increases unhealthy food consumption among Italian students but reduces junk food consumption among French students. It increases the intake of sweet, fatty, and snack-type foods (unhealthy foods). Academic stress was reported to be above average (high).
28	Yang et al., (2022)	China (900)	Academic stress negatively affects mental health.
29	Bohman et al., (2024)	Sweden (3.138)	Academic stress also has a negative impact on students' life satisfaction. It increased sharply during the first year of the pandemic. A lack of academic and social integration was causing academic stress, as well as the sudden system change to online learning.
30	Ali et al., (2015)	Pakistan (387)	Academic stress can lead students to do academic misconduct, substance misuse, and even suicidal ideation or attempts. In GPAbased systems, 77% experienced above-average stress, whereas 57% did in pass/fail systems.
31	Tibus, & Ledesma, (2021)	Philippines (250)	Academic stress causes serious psychosocial and mental health consequences. It is caused by personal stress, the campus environment, performance-related stress (workload/pressure), and poor time management.
32	Fakapulia, Samalia, & Wibowo, (2023)	New Zealand (54)	Academic stress affects students' studies. Significant stress levels were reported among male students. The stress was attributed to family and cultural expectations, excessive religious involvement, lack of social support, and social anxiety as a minority.
33	Karaman, & Watson, (2017)	US (307)	Locus of control, academic stress, and life satisfaction altogether explained the variance in achievement motivation about 18%. The average academic stress score was 151.00 (SD = 27.33). This later indicating a relatively high level of stress.
34	Yang et al., (2025)	China (1124)	Higher academic stress is associated with greater job anxiety. The mean score of 85.96 (SD = 13.51) and this value indicates relatively high stress stage.
35	Ghose et al., (2025)	India and US (258)	Indian students reported 18.57% self-related memories that linked with academic stress. In the other hand, American students reported
			only 3.42%. Both groups reported moderate stages of academic stress. Academic stress was mostly caused by family pressure, expectations, and cultural norms.

36	Gil et al., (2023)	Columbia (403)	Academic stress increases symptoms of anxiety and depression among students. The mean score of this study is 59.73 (SD = 15.66). This value falls within the moderate to high category.
37	Gong (2020)	China (313)	The outcomes also show that university students experience high stages of academic stress in the context of the internet period, with stress stages ranging from moderate to high. Implications include physical and mental health problems such as anxiety, depression, insomnia, and even suicide risk, as well as reduced learning efficiency. Academic rivalry, educational prospects, tasks workload, family expectations, academic performance, the learning atmosphere, and learning conditions are the reasons for academic stress to happen.
38	Fridkin et al., (2023)	England (177)	Academic stress peaked in the second semester (M = 3.10). The pressure later decreasing again in the third semester (M = 2.80). Mean levels ranged from 2.80 to 3.10 (SD ≈ 0.6). This indicating moderate to high stress.
39	Cobzeanu, Opariuc-Dan, & Vrabie, (2025)	Rumania (301)	High levels of academic stress are associated with increased academic learning. The mean academic stress score of 39.52 (SD = 6.35) and indicates moderate to high stress stages.
40	Berdida, & Grande, (2022)	Philippines (611)	The higher the academic stress, the lower the quality of life. The mean academic stress score of 2.03 (SD = 0.51) indicates a moderate level of stress.
41	Dewi et al., (2022)	Indonesia (487)	Two percent of students experienced very high academic stress, 28% high, 49% moderate, 16% low, and 4% very low. The stress was primarily driven by family expectations and teacher expectations.
42	Kennett, QuinnNilas, & Carty, (2021)	Canada (586)	Academic stress put impact in reduced students' resilience, university adjustment, and physical health. The mean academic stress score was 97.23 (SD = 16.54). Thus, moderate to high stress stages indicated.
43	Knežević, & Polak, (2024)	Croatia (704)	Flexible schedules, minimum procrastination, satisfaction with tasks and group work, and greater motivation were found to be important factors linked to academic stress. The average score of 61.4 (SD = 10.94) and indicates a moderate stress level.
44	Magnavita, & Chiorri, (2018)	Italy (633)	Students showed significantly higher job-strain scores (M = 1.01 ± 0.28) compared to healthcare professionals (M = 0.90 ± 0.21), showing relatively high stages of academic and clinical stress.
45	Gasser et al., (2025)	Bolivia (1.972)	Academic stress had an important impact on students' mental health. High stress stages were reported by 44.6% of students particularly during the pandemic, largely due to self-imposed pressure, group tasks, and time management difficulties.
46	Nonterah et al., (2015)	Ghana (431)	Increased symptoms of depression and anxiety were linked to higher stages of academic stress. The average stress score was 15.14 (SD = 4.89), indicating moderate to high stress.
47	Ekpenyong et al., (2011)	Nigeria (393)	Female students facing academic stress were twice as likely to report menstrual problems compared to those without stress.

48	Oginyi et al., (2018)	Nigeria (2.500)	Academic stress strongly predicted suicidal wills amongst university students. The mean score was 38.41 (SD = 4.12), indicating a relatively high stress level.
49	Yousif, Arbab, & Yousef, (2022)	Sudan (251)	Most students, about 92%, reported facing academic stress, with an average score of 24.99 ± 5.16. This classified in three groups, which are low stress (4.3%), moderate stress (73.2%), and high stress (22.5%). Reported stress was attributed to difficulty recalling material, excessive worry about exams, lack of instructor attention, teaching style, and low self-confidence.
50	Alsulami et al., (2018)	Saudi Arabia (290)	Students in the HSPP program reported high levels of perceived academic stress (8.37 ± 4.64), caused by heavy academic workload, language barriers, and competitive pressure.
51	Karaman et al., (2019)	US (307)	Life satisfaction, locus of control, and gender were significant predictors of academic stress. With M = 150.74 (SD = 27.27), the average level of academic stress among students fell within the moderate to high range.
52	Romo-Nava et al., (2016)	Mexico (1.068)	Academic stress increased depressive symptoms, especially when combined with an evening chronotype.
53	Guízar Sánchez et al., (2023)	Mexico (210)	All students reported experiencing academic stress (100%), with 64% experiencing moderate to severe stress.
54	O'Neill, Slater, & Batt, (2019)	US (90)	Students who practiced daily self-care had lower academic stress levels (M = 2.04) compared to those who did not (M = 2.70). The mean academic stress score of 2.52 (SD = 0.74). This indicated a moderate stress level. The feeling of overwhelmed by the amount of material to master and not having enough time to understand lessons lead to academic stress.
55	Poon, Lee, & Ong, (2012)	Malaysia (480)	The mean stress scores fell within the moderate range ($\mu \approx 2.69–3.37$ on a 1–5 scale). Stress was caused by conflict like competition or difficulties; and pressure like assignments, exams, and finances.
56	Sujadi (2022)	Indonesia (191)	Academic stress led students to experience serious academic problems. The average academic stress level was in the moderate category. Sources of stress included course completion, financial issues, family demands, concerns about career after graduation, academic services, and thesis completion.
57	Su, & Wong, (2025)	China (439)	Students experiencing high academic stress were more likely to use smartphones excessively.
58	Watson, & Watson, (2016)	US (125)	The mean academic stress score of 110.59 (SD = 18.89) indicated moderate to high levels of stress.

Prevalence of Academic Stress

Each study sorted the level of academic stress into three categories: low, moderate, and high. This classification followed the initial explanations provided by the authors and the mean scores reported in the studies. If a study already identified a single category such as low, moderate, or high, that classification was adopted directly. When a study reported two adjacent categories, such as mild to moderate, the higher category (moderate) was used.

The similar things applied if the category moderate to high was reported, it was classified as high. This approach was also applied to equivalent terms such as fairly high, considerably high, or relatively high, which were treated as indicators of high stress.
For studies that did not report groups of levels but instead provided mean stress scores, the classification was established based on the scoring range of the instrument that used. For example, if a study used a 1–5 scale, thus the scores of 1.00–2.00 were considered as low, 2.01–3.40 as moderate, and 3.41–5.00 as high. Some other studies that have a 0–100 scale, thus the scores were considered low if the result shows ≤40, 41–58 as moderate, and ≥59 as high. On the other studies that using a 30–150 scale, scores of 30–70 were considered as low, 71–95 as moderate, and ≥96 as high. When the mean score showed on the upper threshold of a group (for example, 3.4 on a 1–5 scale), the study was considered as high, as the value exceeded the upper limit of the moderate group.

The prevalence classifications were systematically documented during data extraction and grouped according to continental regions, as presented in Table 2. This systematic documentation ensured transparency, replicability, and validity in synthesizing academic stress levels across studies and diverse cultural contexts.

Table 2. Academic Stress Prevalence Based on Regions (n = 58)

Region	Study Numbers (n)	Low Stress	Moderate Stress	High Stress	Not Reported
Asia	29	1 (3,5%)	14 (48,3%)	9 (31%)	5 (17,2%)
Europe	9	0	1 (11,1%)	8 (88,9%)	0
America	14	0	4 (28,6%)	8 (57,1%)	2 (14,3%)
Africa	5	0	1 (10%)	2 (40%)	2 (40%)
Oceania	1	0	0	0	1 (50%)
Total	58	1 (1,7%)	20 (34,5%)	27 (46,6%)	10 (17,2%)

Based on Table 2, the synthesis result shows that 46.6% studies reported that students faced high levels of academic stress, while 34.5% reported moderate levels, and only 1.7% reported low levels. A total of 17.2% of studies did not explicitly report stress classifications. Geographically, the data indicate that Europe and the Americas show the highest proportion of studies reporting high stress levels where in Europe shows 88.9% and the Americas shows around 57.1%, whereas Asia and Africa predominantly show within the range of moderate to high. Overall, this pattern demonstrates that academic stress worldwide tends to be around the moderate to high range across regions.

These outputs confirm that academic stress is a worldwide phenomenon, with most students facing stress at moderate to high stages. This suggests that academic stress is not solely driven by individual pressures or studentrelated factors but is also shaped by broader educational systems and campus learning environments that require substantial adaptation. The variation in stress levels across world regions further reflects the influence of personal, institutional, and social factors on students' stress experiences. Therefore, the following subsection will focus on identifying the key factors contributing to academic stress among students.

Factors Contributing to Academic Stress

Of the 58 studies analyzed, 22 explicitly reported the primary causes of academic stress in their results, discussions, or conclusions. The data indicate that academic stress among university students is influenced by multiple factors. Based on thematic coding, these contributing factors can be categorized into four major themes: (1) academic factors, (2) psychological factors, (3) social–interpersonal factors, and (4) environmental–contextual factors. This categorization shows that cross-national findings consistently position academic pressure and individual characteristics as the main sources of stress among the students.

Table 3. Factors Causing Academic Stress Based on Themes and Subthemes (22 Studies)

Primary Topics	Specific Subthemes & Study Frequencies (n)
Academic Factors	Excessive academic demands/workload (course load, exams, practicum, group tasks, final projects, learning outcomes, GPA) (15), time management/limited time (8),
	academic competition (5), learning conditions (4), performance pressure (3), and insufficient guidance (2).
Psychological Factors	Academic self-concept/perception (6), personal stress (self-pressure/fear/anxiety) (4), low self-confidence/self-efficacy (2), career/future concerns (2), and personal vulnerability (younger age & lower education) (1).
Social Interpersonal Factors	Family expectations (6), teacher expectations (3), low social support, cultural pressure (2), and excessive religious involvement (1).
Environmental dan Contextual Factors	Communication/language barriers (3), financial difficulties (3), limited technological resources (1), sudden transition to online learning (1), inadequate academic services (1), and campus environment factors (1).

The table shows that the causes of academic stress among students have been grouped into four main themes: academic factors, psychological factors, social–interpersonal factors, and environmental–contextual factors. These four themes interact with each other, creating a complex and multidimensional experience of academic stress, reflecting the interconnection between academic demands, personal conditions, social support, and the learning environment encountered by students worldwide.

Most studies reported that the most dominant contributing factor is academic in nature. This burden primarily stems from excessive academic workload and demands, such as the number of courses, examinations, practical assignments, group projects, final assignments, academic performance, and GPA (n = 15). Inadequate time management or limited time, including insufficient rest, was also identified as a source of academic stress (n = 8). Academic competition and performance expectations (n = 5 and n = 3, respectively) further intensified student pressure. Some studies also highlighted a lack of academic guidance (n = 2) and unfavorable learning conditions (n = 4) as additional stressors, especially when students feel they are not receiving adequate teaching or support from lecturers or higher education institutions.

Academic stress is also significantly influenced by psychological factors. Six studies identified negative academic self-concept or perception as a main reason of stress (n = 6), combined with the low self-efficacy and confidence (n = 2). Students with low confidence in their academic abilities are more to experience higher stress. Additionally, personal stress (n = 4), such as self-imposed pressure, fear of failure, and more concern over performance, also resulting academic stress. Some studies reported concerns about career and future prospects (n = 2), and one study highlighted personal vulnerabilities, such as younger age or limited prior education, as factors that further intensified academic stress.

The third contributing factor is social and interpersonal. This includes family expectations and pressure, particularly from parents (n = 6), high lecturer expectations (n = 3), and low social support (n = 2). Some studies also reported that excessive religious involvement (n = 1) and cultural pressures (n = 2) contributed to academic stress. These findings indicate that academic stress is not solely the result of cognitive workload but is also shaped by social pressures within the student's environment.

Another factor that causes academic stress is from student's environment and contextual. Studies reported that environmental-contextual condition happened mostly during the COVID-19 pandemic, includes narrow technological resources (n = 1) and the sudden system change to online learning (n = 1). Communication and language barriers (n = 3), financial issues (n = 3), and poor academic services (n = 1) also contributed to higher

academic stress. Moreover, an low-support or non-conducive campus environment (n = 1) was identified as a factor that increasing the stress.

Overall, these outcomes indicate that academic stress among students is a multifactorial phenomenon. While academic and psychological factors are the strongest direct causes, social and environmental factors play a contextual role, either amplifying or mitigating the experience of academic stress.

Psychological Implications

Out of the 58 studies, 34 explicitly reported the consequences of academic stress. Analysis revealed that academic pressure affects not only students' emotional well-being but also their cognitive, behavioral, social, welfare, and physiological aspects. To present the synthesis systematically, data from these 34 studies were categorized into five main themes: psychological impact, cognitive–motivational impact, social–behavioral impact, well-being impact, and physiological impact, with specific subthemes detailed in Table 4.

Table 4. Psychological Implications Based on Themes and Subthemes (34 Studies)

Primary Topics	Specific Subthemes & Study Frequency (n)
Psychological Impacts	Decline in mental health & well-being (8), Depression (5), Anxiety (5), Suicide risk (3), Emotional distress (1), Burnout (1)
Cognitive and Motivational Impacts	Decreased academic performance (3), Reduced learning motivation (1), Intention to drop out (1), Lower resilience and university adaptation (1), Severe academic problems (1)
Social Behavioral Impacts	Excessive gadget use (nomophobia, gaming, cyberloafing) (4), Maladaptive behaviors (academic misconduct, substance use, risk of emotional or sexual violence) (3), Low social engagement & reduced prosocial emotions (3), Unhealthy eating behaviors (2), Psychosocial impacts (1)
Welfare Impacts	Reduced quality of life (2), Decline in emotional well-being (1)
Physiological Impacts	Health problems/physical complaints (4), Psychosomatic disorders (gastritis, dental caries, menstrual issues, constipation) (4), Sleep disturbances (3)

The results presented in Table 4 emphasize that academic stress does not only trigger temporary mental issues but also leads to complex consequences encompassing psychological, cognitive–motivational, social–behavioral, well-being, and physiological aspects.

First, the psychological impact is the most prominent, reported in the majority of studies. Academic stress has been shown to reduce students' mental health and well-being, trigger and worsen the symptoms of depression, anxiety, emotional distress, burnout, and even suicidal willing. Several studies (Liu et al., 2023; Gil et al., 2023) reported that academic stress increases negative affect, such as sadness, anxiety, anger, sleep deprived, and enhance depressive symptoms. In extreme cases, uncontrolled academic stress can increase the risk of suicide (Ali et al., 2015; Oginyi et al., 2018; Gong, 2020). Studies also highlighted burnout and emotional exhaustion experienced by students (Guízar Sánchez et al., 2023), especially in post-pandemic situations requiring sudden system change to online learning. Overall, these findings indicate that academic stress is a strong predictor of various psychological disturbances that can hinder students' mental well-being.

Second, reduced academic performance, decreased study motivation, intentions to drop out, lower resilience and adaptation to college life, also numbers of serious academic problems are few examples which included in the

cognitive and motivational impacts. Several studies that conducted separatedly by Yan (2025), Charan et al. (2025), and Kennett et al. (2021) confirmed that high levels of academic stress reduce motivation, resilience, and adaptation, while also giving negative effects on physical health. Studies by Blanco et al. (2025) and Sujadi (2022) also found that academic stress is often associated with serious academic issues and dropout intentions. In general, these conclusions show that academic stress not only impairs rational thinking but also diminishes motivational drive essential for academic success.

Third, the social behavioral impacts include excessive gadget use such as nomophobia, gaming, and cyberloafing; maladaptive behaviors such as academic misconduct, substance abuse, and risk of emotional or sexual violence; low social engagement and reduced prosocial behaviors, unhealthy eating habits, and psychosocial consequences. Several studies conducted by Rohmah et al. (2025), Putri et al., (2024), and Su & Wong (2025) all indicated that students experiencing high academic stress are more likely to engage in excessive gadget use as a psychological escape from academic pressure.

Additionally, academic stress triggers other risky behaviors such as academic misconduct, substance misuse, and self-medication (Ali et al., 2015), reflecting students' attempts to achieve instant relief but with long-term health risks. Socially, stress reduces engagement and increases isolation, along with a decline in prosocial behaviors (Charan et al., 2025). Overall, these findings suggest that academic stress can hinder students' social development and reduce their ability to form healthy interpersonal relationships, highlighting that the negative impact of stress extends beyond individuals to the social dynamics within the university and broader community.

Fourth, impacts on well-being include reduced quality of life and diminished emotional well-being. Studies show that academic stress negatively affects students' subjective well-being and life satisfaction (Kamila & Ramadhani, 2024; Nuriyyatiningrum et al., 2023; Bohman et al., 2024). This finding is important because psychological well-being is a key indicator of students' mental health and a foundation for optimal academic performance.

Fifth aspect is about physiological impacts. It shows that that academic stress also leads to biological consequences. Separated studies done by Rianti et al. (2024), Liu et al. (2023), and Gong (2020) show that higher levels of academic stress increase the likelihood of sleep deprived. Academic stress has also been associated with various psychosomatic disorders, including gastritis, dental caries, menstrual irregularities in female students, and constipation (Dewani et al., 2024; Mejía-Rubalcava et al., 2012; Ekpenyong et al., 2011). These studies demosntrates that academic stress can be considered a risk factor for students' physical health, not merely a psychological phenomenon.

The combination of psychological, cognitive, social, well-being, and physiological effects demonstrates that academic stress is a complex response involving interactions between external pressures, individual resources, and the social environment context.

Trends in Changes in Academic Stress 2010–2025 (RQ4)

Table 5. Trends in Changes in University Students' Academic Stress Levels (2010–2025)

Period	Studi Numbers (n)	Low Stress	Moderate Stress	High Stress	Not Reported
2010-2014	10	0	2 (20%)	5 (50%)	3 (30%)
2015-2020	13	0	2 (15,38%)	10 (76,92%)	1 (11%)
2021-2025	35	1 (2,86)	16 (45,71%)	12 (34,29%)	6 (17,14%)
Total	58	1 (1,7%)	20 (34,5%)	27 (46,6%)	10 (17,2%)

Based on the analysis of studies published between 2010 and 2025, a total of 48 studies reported levels of academic stress among university students out of the 58 articles included in this SLR. The data show that the level of academic stress fluctuated across periods, but overall remained within the moderate to high category.

According to the findings from the 2010–2014, it is clear that academic stress had already become an issue requiring attention among students. Surely a total of 50% of the studies reported high levels of academic stress, 20% reported moderate levels, and 30% did not provide any classification of stress levels.

In the 2015–2020 period, academic pressure appeared to increased in intensity. As many as 76.9% of studies reported high academic stress, showing a marked increase compared to the previous period. Meanwhile, 15.3% of studies reported moderate stress, which represents a decline from the earlier period.

In range of 2021–2025 period, data show a shift in the trend. The proportion of studies reporting high academic stress dropped to 34.3%, compared with the two previous periods (2010–2014 and 2015–2020). In contrast, studies reporting moderate stress increased to 45.7%. These findings demonstrate a shift from high to moderate stress levels, along with a minimum increase in low stress (2.86%). The decline in high stress stages in the postpandemic period may be associated with higher awareness of mental health, improved adaptation to online learning systems, and increased institutional efforts to provide psychological and social support for students. Nevertheless, academic stress generally remains in the moderate category for the majority of students.

Overall, the synthesis indicates that academic stress continues to be a significant issue in higher education worldwide, with patterns that shift according to social developments and learning contexts. Although there has been a slight decrease in students' academic stress during 2021–2025, academic stress remains predominantly in the moderate to high range, which is reaching 80% in 2021–2025 and 81.1% across the entire 2010–2025 period.

DISCUSSION

This systematic review states that the majority of students across broad regions and countries faces academic stress at moderate to high stages. The main sources of pressure have arisen from academic pressure and psychological strain. This aligns with the results of a systematic review and meta-analysis conducted by Bezie et al. (2025), which reported a high prevalence of stress among students. Academic demands is not merely a personal issue happened individually by students but also a systemic concern linked to the culture of modern higher education, as evidenced consistently across different countries. Therefore, these results conclude that academic stress is a worldwide phenomenon that has increased significantly over the past fifteen years (2010–2025).

The Transactional Model of Stress (Lazarus & Folkman, 1984), the Model of Coping Modes (Krohne, 2002), and the Academic Stress Model (Bedewy & Gabriel, 2015) serve as the three main theoretical frameworks used to explain the findings of this SLR.

First, the Transactional Model of Stress and Coping explains that differences in individual stress levels are shaped by two key processes that mediate the interaction between a person and their environment: appraisal and coping. Appraisal refers to the evaluative process that determines why and to what extent a series of person– environment transactions are perceived as stressful (Lazarus & Folkman, 1984).

Students experience academic stress when they perceive pressures or threats that exceed their coping capacity in dealing with assignments, examinations, and instructors' expectations within their academic environment. The results of this SLR (RQ1 and RQ2) show that excessive academic demands, time management challenges such as limited time, academic competition, and self-efficacy are dominant factors contributing to high academic stress. As stated by Córdova Olivera (2023), self-imposed demands and perceived self-efficacy are key factors that lead to elevated levels of academic stress. Conversely, students who employ effective coping strategies such as having a study plan, strong social support, and high self-efficacy more likely to report lower levels of academic

stress. This reinforces the idea that academic stress results from the interaction between external pressures and students' internal perceptions.

Second, the Model of Coping Modes (MCM) distinguishes two main strategies individuals use when facing stress: vigilance such as characterized by monitoring, seeking stress-relevant information, and problem-solving among individuals with high alertness; and avoidance such as protecting oneself from stimulation through disengagement, such as diverting attention or denying the source of stress (Krohne, 2002). The results of this SLR (RQ3) regarding psychological implications clearly show that students who rely on avoidant coping which evident in behaviours such as social withdrawal or excessive gadget use more likely to experience higher stages of anxiety, burnout, and academic stress. In contrast, students with a vigilant coping style, which are students who actively seek solutions and social support, give better adaptability and psychological well-being. Consistent with this theory, the results confirm that coping orientation serves as an important mediator between academic pressure and psychological outcomes. In the studies done by Waterhouse & Samra (2024) and Ruiz-Camacho (2025), there are highlights about the importance of strengthening coping skills to reduce academic stress.

Third, the Academic Stress Model views academic stress among university students as the result of an interaction between four key aspects: academic expectations, academic workload, academic self-perception, and environmental conditions (Bedewy & Gabriel, 2015). The overall results of this SLR show that academic stress is a multifactorial phenomenon, shaped not only by academic and psychological factors, which emerge as the strongest contributors. In the other hand, academic stress also caused by social and environmental factors that serve as contextual elements that either enhance or reduce students' stress levels. The factors identified in this SLR align well with the components of the Academic Stress Model. This is further supported by the research done by Iqra (2024), that emphasizes that academic stress is a multifactorial issue arising from various academic and individual determinants. When integrated, the three theoretical models provide a comprehensive understanding that academic stress is transactional (based on cognitive appraisal), dynamic (changing across contexts), and multidimensional (involving academic, psychological, social, and environmental factors).

Table 2 that presented cross-regional analysis shows clear differences in the intensity of academic stress across global regions. High levels of stress were most often reported in Europe, followed by the Americas, Africa, and Asia. Meanwhile, Asian countries showed a higher amount proportion of students facing moderate stage of academic stress. These outcomes are consistent with a study conducted by Fentahun et al. (2025), who reported that the prevalence of academic stress varies across regions and is shaped by sociocultural contexts.

Even when educational systems in Europe and the Americas are more likely to be flexible and supported by excellent mental health services, the data show that students in both regions still report high levels of academic stress. This may be linked with strong performance-oriented cultures, intense academic competition, and high expectations for personal achievement. Zhang et al. (2025) stated similar patterns are reflected in studies reporting that competitive pressure and demanding academic environments bring impact to academic burnout. Thus, academic stress is surely a universal phenomenon, but the sources of pressure and cultural contexts influence the severity of stress across regions.

In Asia, academic stress is reported in both high and moderate categories, suggesting that stress remains prevalent across the region. This may be linked to strong social norms, high family expectations, and a pervasive culture of perfectionism. Students in this region often experience pressure not only from academic systems but also from cultural values that position academic achievement as an important marker of social status. In Africa, high levels of academic stress were also reported. Here, stress may be linked to limited educational resources, economic challenges, and difficulties adapting to modern higher education systems. Overall, academic stress is a cross-cultural phenomenon, but its intensity and underlying causes are strengthened by performance pressures, sociocultural expectations, and systemic educational conditions which these patterns surely reflected in the results of this review.

The outcomes of this SLR carry several important implications. Higher education institutions are recommended to develop such programs which prevents academic stress that focus on strengthening students' psychological

capacities, such as offering coping skills training or stress management workshops. Universities should also promote a healthier academic culture by reducing extreme workloads while maintaining academic quality, and by upscaling social support among students, lecturers, and academic staff. Where possible, it is also essential to merge mental health guidelines into the higher education curriculum. The implementation may be, for instance, by having lectures about emotional regulation, self-efficacy, and adaptive coping strategies as part of academic learning.

For researchers and scholars, this SLR discovers new directions for future studies, particularly the need to conduct quantitative meta-analyses to estimate prevalence rates all over the world and identify risk factors of academic stress. Additionally, mixed-method and longitudinal approaches may offer insights that more comprehensive about how academic stress evolves in the digital era. Based on the present outcomes, further research is also needed to explore effective interventions and coping strategies that can be applied to reduce students' academic stress.

This SLR has several limitations. First, the potential for selection bias remains, as only two major sources (ScienceDirect and Google Scholar) were used. Second, the trend analysis is largely descriptive because not all included studies reported numerical prevalence data. Third, the review does not incorporate meta-statistical analyses. These limitations do not minimize the value of the synthesis but highlight the need for more integrative methodological approaches in future research.

Future studies are encouraged to apply quantitative meta-analysis and to conduct psychological intervention research to examine the effectiveness of stress-reduction strategies in higher education settings. As Waterhouse & Samra (2024) note, developing coping strategies that can be communicated and taught to students is a key approach to addressing academic stress moving forward.

CONCLUSION

Across the 58 studies analyzed, this review found that academic stress has become a global phenomenon that has risen sharply over the past fifteen years (2010–2025). Medium to high levels of academic stress were reported among the majority of university students across countries. This indicates that academic stress has become a central aspect closely tied to contemporary higher education. The findings of this SLR align with the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), the Model of Coping Modes (Krohne, 2002), and the Academic Stress Model (Bedewy & Gabriel, 2015).

Academic pressure and psychological factors emerged as the dominant contributors to academic stress. Socialinterpersonal factors, particularly family expectations, were found to intensify stress levels, followed by environmental and contextual factors. Cross-regional comparisons showed variations in the patterns of academic stress among regions, yet consistently supported the view that academic stress is a universal issue influenced by culturally and systemically diverse social and environmental conditions.

The psychological implications reported in this review were various and multidimensional. Academic stress was associated with declines in mental health and well-being, such as poorer psychological health, depression, anxiety, and suicide risk; cognitive and motivational disruptions, such as reduced academic performance and motivation; social-behavioral difficulties, including excessive gadget use, maladaptive behaviors, and low social engagement; well-being impairments as the lower quality of life and emotional well-being; and physiological problems where physical complaints, insomnia, and psychosomatic symptoms occured. These results discover that academic stress is not merely an individual psychological issue but also a broader well-being and health concern within university environment.

Trends from 2010 to 2025 show a significant increase in academic stress, which began to stabilize around 2020–2025. This indicates the emergence of student adaptation to changes in educational systems, increased awareness of mental health, and expanded environmental support. However, the fact that most students still fall within the

moderate to high stress groups emphasizes the need for more extensive and structured prevention, also intervention strategies in higher education.

Practically, services and facilities related to psychological counseling, literacy programs linked to mental health, and training for coping skills are significant to integrate into higher education curriculum. Social support from lecturers and learning environments also plays a huge role in reducing academic stress. Universities must reconsider and reform campus policies. Future research is encouraged to develop quantitative meta-analyses to estimate the global impact of academic stress more precisely.

Overall, this review concludes that academic stress among university students is a multidimensional, dynamic, and transactional phenomenon resulting from the interaction of academic pressures, psychological and socialinterpersonal factors, and environmental-contextual conditions. Therefore, developing psychological interventions to reduce academic stress is highly necessary, along with systemic educational improvements and university policies that prioritize students' mental well-being.

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