



Association Between *Self-Efficacy* And *Burnout* Among Medical Students : A Systematic Review

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Abstract: Burnout is a common psychological problem among medical students due to high academic demands, intensive workloads, and continuous pressure to achieve professional competence. One factor that may help reduce the risk of burnout is self-efficacy, defined as an individual's belief in their ability to successfully perform tasks and overcome challenges. This study aimed to identify and synthesize the available evidence regarding the association between self-efficacy and burnout among medical students. A Systematic Literature Review (SLR) was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. Literature searches were performed in PubMed, Scopus, and Google Scholar using the keywords "self-efficacy," "burnout," and "medical students." Articles published between 2016 and 2025, available in full text, and meeting the inclusion criteria were selected for analysis. After the screening process, five studies were included in the qualitative synthesis. The findings consistently demonstrated a significant association between self-efficacy and burnout among medical students. Most studies reported a negative relationship, indicating that students with higher levels of self-efficacy tended to experience lower levels of burnout. These findings suggest that self-efficacy serves as an important protective factor that enables medical students to cope more effectively with academic stress and reduce the likelihood of burnout. In conclusion, self-efficacy is negatively associated with burnout among medical students. Strengthening self-efficacy may be an effective strategy to reduce burnout and promote psychological well-being throughout medical education.

Keywords: Self-Efficacy, Burnout, Psychological Well-Being.



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INTRODUCTION

Medical students face a variety of high academic demands, such as heavy study loads, hectic lecture schedules, and pressure to achieve optimal academic achievement (Aini Nirwan et al., 2025). This condition can increase the risk of *academic burnout*, which is a

condition of fatigue related to academic activities and characterized by emotional fatigue, indifference to learning, and a decreased sense of academic competence (J. H. Yu et al., 2016). The magnitude of the problem of *academic burnout* in medical students is also shown by the results of *systematic review* and *meta-analysis* involving 42 studies with 26,824 medical students from various countries. The study reported a global *prevalence of burnout* of 37.23%, which means that more than one-third of medical students experience *burnout* during their education. In addition, the prevalence of *emotional exhaustion*, *depersonalization*, and decreased *personal accomplishment* reached 38.08%, 35.07%, and 36.85%, respectively, showing that *burnout* is a common mental health problem in medical students around the world (Alhaj et al., 2024). In addition to being global, the prevalence of *burnout* among medical students in the Asian region is also relatively high. Research conducted by Frajerma et al., (2019) report that medical students in various Asian countries show a fairly high *level of burnout*, especially in the dimensions of *emotional exhaustion* and *depersonalization*. The findings indicate that *burnout* in medical students is not only a problem in certain countries, but has developed into a mental health problem that is cross-border and requires special attention from medical institutions (Frajerma et al., 2019).

One of the psychological factors that is suspected to play a role in reducing the risk of *academic burnout* is *academic self-efficacy*, which is an individual's belief in his or her ability to complete tasks and achieve academic goals (Yudhistira et al., 2023a). Students who have high *self-efficacy* tend to be better able to cope with academic pressure and maintain motivation to learn when facing difficulties (Nosratzahi et al., 2025). Research on medical students shows that there is a negative relationship between *academic self-efficacy* and *academic burnout*. Yu, Chae, dan Chang (2016) It was found that *academic burnout* was negatively correlated with *academic self-efficacy*, and *self-efficacy* acted as a mediator in the relationship between *perfectionism* and *academic burnout*. In other words, college students with higher levels of *self-efficacy* tend to experience lower levels of *burnout* (Nosratzahi et al., 2025). *Burnout* in medical students not only has an impact on decreased motivation and academic performance, but is also associated with an increased risk of depression, anxiety, sleep disturbances, decreased quality of life, and decreased professionalism and empathy. This condition has the potential to affect the learning process and the readiness of students in carrying out their role as doctors in the future (Wang et al., 2024).

Similar findings were also reported in other health science students. Rohmani dan Andriani (2021) Found that *academic self-efficacy* has a significant negative relationship with *burnout*, where students with low *self-efficacy* are more at risk of *experiencing more severe burnout* (J. H. Yu et al., 2016). Although various studies have evaluated the relationship between *self-efficacy* and *burnout* in medical students, the results of these studies are still scattered in various publications (Zhang et al., 2021). In addition, these studies show variations in the strength of the relationship between *academic self-efficacy* and *academic burnout* as well as differences in population characteristics and measurement methods used. To date, there has been no *systematic review study* that specifically synthesizes and evaluates the latest scientific evidence regarding the relationship between *academic self-efficacy* and *academic burnout* in medical students comprehensively. This condition shows that there is a *research gap* and a *question gap* related to the consistency of the relationship between the

two variables (Cotobal Rodeles et al., 2025). In addition, the differences in *burnout* and *self-efficacy* measurement instruments used in various studies, such as the *Maslach Burnout Inventory-Student Survey* (MBI-SS), *Copenhagen Burnout Inventory* (CBI), and various academic *self-efficacy* scales, make it difficult to compare research results directly. Therefore, a systematic synthesis of scientific evidence is needed to identify consistent patterns of relationships and assess the strength of the available evidence regarding the relationship between *academic self-efficacy* and *academic burnout* in medical students (J. Yu & Chae, 2020). Therefore, a *systematic review* is needed to identify, evaluate, and synthesize the available scientific evidence regarding the relationship between *self-efficacy* and *burnout* in medical students (Erschens et al., 2024).

Research shows that *burnout* prevention strategies through social support, mentoring programs, physical activity, and ongoing psychological support can reduce emotional fatigue and improve the psychological well-being of medical students (Oliveira et al., 2025). However, the effectiveness of these prevention strategies is influenced by individual psychological characteristics, including the level of *academic self-efficacy* that students have (Kong et al., 2025). Therefore, a more comprehensive understanding of the relationship between *academic self-efficacy* and *academic burnout* is needed as a basis for the preparation of *burnout prevention programs* that are more effective and according to the needs of medical students (Yuliyanasari et al., 2025a). The results of this study are expected to provide a scientific basis for the development of burnout prevention strategies and improve the psychological well-being of medical students, then (Bhugra et al., 2021).

RESEARCH METHODS

This study uses the *Systematic Literature Review* (SLR) method to identify, evaluate, and synthesize scientific evidence regarding the relationship between *academic self-efficacy* and *academic burnout* in medical students. This method was chosen to gain a comprehensive understanding of the psychological factors that contribute to *academic burnout* in medical education. The implementation and reporting of systematic reviews refers to the *guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) 2020 developed by Page et al. (2021) to improve the transparency and quality of systematic review reporting.

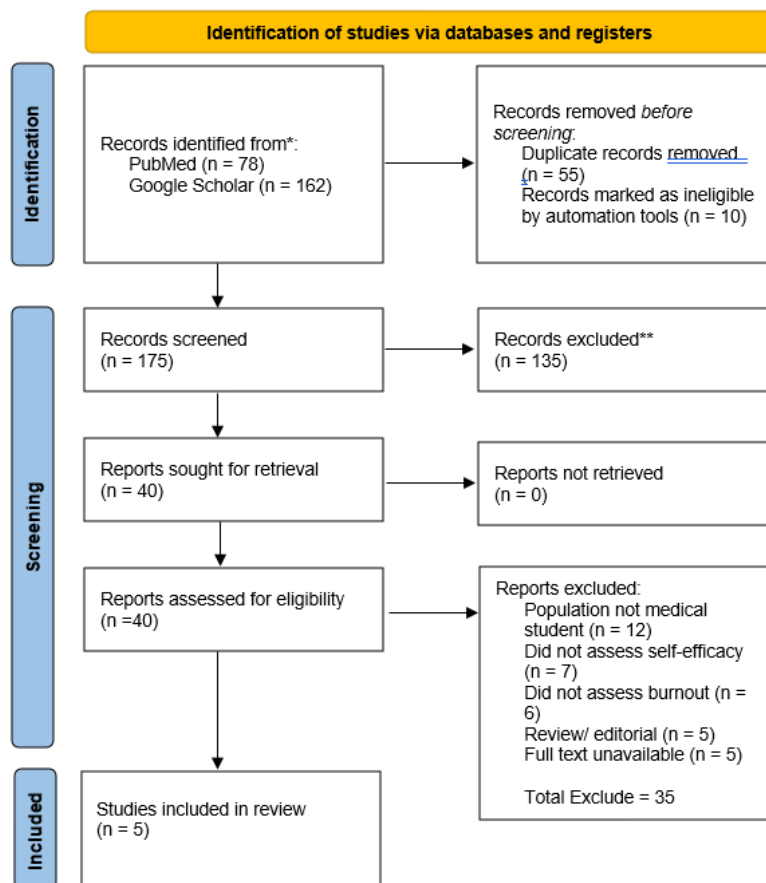
Literature searches were conducted through PubMed and Google Scholar databases with keywords: ("*academic self-efficacy*" OR "*self-efficacy*") AND ("*academic burnout*" OR *burnout*) AND ("*medical student*" OR "*medical education*"). Article searches are limited to publications published in the 2016–2025 period, available in full text, and written in English or Indonesian. Inclusion criteria include: (1) original research articles with quantitative, qualitative, or mixed methods designs (2) research respondents are medical students (3) research discusses the relationship between *academic self-efficacy* and *academic burnout* (4) articles are available in full text and (5) articles are published in 2016–2025. Exclusion criteria include: (1) review articles, editorials, commentaries, letters to editors, or proceedings (2) research that does not involve medical students (3) articles that do not discuss *academic self-efficacy* or *academic burnout* as the main variables and (4) articles that are not fully accessible.



The article selection was carried out based on the PICO framework, namely medical students as population, *academic self-efficacy* as exposure, and *academic burnout* as output. Articles that met the criteria were then extracted and analyzed in a narrative descriptive manner based on the characteristics of the study, the number of samples, the research instruments, and the main reported results.

RESULTS AND DISCUSSION

Literature search results through PubMed and Google Scholar databases yielded a number of articles relevant to the research topic. After the identification, screening, and feasibility assessment process based on the PRISMA 2020 guidelines, 5 articles that met the inclusion criteria were obtained and analyzed in this study. All articles were published in the 2016–2025 range and directly discuss the relationship between *self-efficacy* and *burnout* in medical students.



Based on the results of the synthesis, all studies showed a relationship between *self-efficacy* and *burnout* in medical students. Most studies reported negative associations, suggesting that college students with higher levels of *self-efficacy* tended to have lower levels of *burnout*.

Research by Yu et al., (2016) it shows that *self-efficacy* is negatively correlated with



academic burnout and acts as a mediator in the relationship between *perfectionism* and *burnout*. Students who had higher confidence in their ability to complete academic assignments showed lower levels of *burnout*. Similar findings were reported by Nosratzahi et al., (2025) which found a significant negative relationship between *self-efficacy* and *academic burnout* in medical students. The study concluded that increased *self-efficacy* can help students cope with academic stress and reduce the risk of *burnout*. Research Yudhistira et al., (2023) shows that *self-efficacy* contributes to increased *academic engagement* through reducing *burnout rates*.

These results indicate that students with high *self-efficacy* tend to be more actively involved in the learning process and are better able to cope with academic demands. Medical students with higher levels of *self-efficacy* and resilience tend to have lower burnout rates as well as better adaptability to academic pressures (Michael et al., 2024). *Self-efficacy* allows students to view academic demands as challenges that can be overcome, so that they are better able to maintain learning motivation and develop adaptive coping strategies when facing difficulties during the medical education process. *Self-efficacy* allows students to view academic demands as challenges that can be overcome, so that they are better able to maintain learning motivation and develop adaptive coping strategies when facing difficulties during the medical education process (Sanseverino et al., 2023).

Self-efficacy also has a positive relationship with self-regulation and psychological well-being in medical students. Students with high *self-efficacy* tend to be better able to control emotions, manage academic stress, and maintain engagement in the learning process (Salleh et al., 2021). On the other hand, low *self-efficacy* can cause students to experience emotional fatigue more easily, lose motivation to learn, and develop a cynical attitude towards academic activities which are the main characteristics of *academic burnout* (Retnowati et al., 2024).

Research Neufeld-Kroszynski et al., (2024) shows that *burnout* in medical students is related to efficacy and stress levels experienced during education. The findings reinforce the role of *self-efficacy* as a protective factor against *burnout*. Research Yuliyanasari et al., (2025) It is also reported that *self-efficacy* is one of the factors related to the burnout rate of medical students. Students with better self-confidence tend to show higher adaptability to academic pressure.

Overall, studies show a consistent pattern of outcomes, namely the higher the *self-efficacy* that medical students have, the lower the level of *burnout* experienced. These findings show that *self-efficacy* is an important protective factor in helping medical students cope with academic demands and reducing the risk of *burnout* during their education.

Tabel 1. Characteristics of the Included Studies

Author	Year	Populasi	Key Findings
Yu, Chae, & Chang	2016	244 medical students	<i>Self-efficacy</i> has a significant negative relationship with <i>academic burnout</i> .
Yudhistira et al.	2023	249 medical students	<i>Self-efficacy</i> plays a role in reducing <i>burnout</i> and increasing academic engagement.

Neufeld-Kroszynski et al.	2024	239	medical students	<i>Burnout</i> is related to various dimensions of academic efficacy and stress.
Nosratzahi et al.	2025	110	medical students	There is a significant negative relationship between <i>self-efficacy</i> and <i>academic burnout</i> .
Yuliyanasari et al.	2025	Medical students		<i>Self-efficacy</i> is one of the factors related to the level of student <i>burnout</i> .

CONCLUSIONS AND SUGGESTIONS

This systemic review shows that there is a negative relationship between *self-efficacy* and *burnout* in medical students. The higher the level of *self-efficacy* that students have, the lower the level of *burnout* experienced. *Self-efficacy* acts as a protective factor that helps students cope with academic pressure, increase learning engagement, and maintain psychological well-being during medical education. Therefore, increasing *self-efficacy* can be considered as one of the main strategies in efforts to prevent and overcome *burnout* in medical students.

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