



Burnout And Psychological Well-Being Among Medical Students: A Systematic Review

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Abstract: Burnout is one of the most common mental health problems among medical students and has been associated with various adverse psychological outcomes. However, evidence regarding the relationship between burnout and psychological well-being remains dispersed across different indicators and study settings. This systematic review aimed to evaluate and synthesize the available evidence regarding the association between burnout and psychological well-being 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 and Google Scholar in June 2026 using keywords related to medical students, burnout, and psychological well-being. Inclusion criteria were primary observational studies published between 2020 and 2026 that assessed burnout and psychological well-being among medical students. Data were extracted and synthesized narratively based on study characteristics and key findings. Seven studies met the inclusion criteria. The findings consistently demonstrated that higher levels of burnout were associated with poorer psychological well-being among medical students. Burnout was linked to increased depression, anxiety, psychological distress, insomnia, and social dysfunction, as well as reduced quality of life. Studies also reported that students experiencing burnout were more likely to report impaired mental health and poorer psychological well-being. Across all included studies, burnout showed a negative impact on multiple dimensions of psychological well-being. Burnout is consistently associated with poorer psychological well-being among medical students. Higher burnout levels are related to increased psychological problems and reduced quality of life. These findings highlight the importance of implementing preventive strategies and mental health interventions to reduce burnout and promote psychological well-being in medical education.

Keywords: Burnout; Psychological Well-Being; Medical Students; Mental Health; Depression; Anxiety; Quality Of Life.



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INTRODUCTION

Medical students are a group that is vulnerable to mental health problems due to high academic demands, dense learning loads, and pressure to achieve professional competence. Continuous exposure to stress can increase the risk of psychological disorders in medical students. Di Vincenzo et al. (2024) reported that medical students have a higher risk of experiencing mental health problems than the general population, while Mhata et al. (2023) and Dhachpramuk et al. (2024) shows the high prevalence of psychological disorders in this group (Dhachpramuk et al., 2024; Di Vincenzo et al., 2024; Mhata et al., 2023). The findings are in line with the results of a meta-analysis by Rotenstein et al. (2016) which shows the high prevalence of depression and depressive symptoms in medical students, as well as Quek et al. (2019) reported that anxiety is one of the most common mental health problems found in this population (Quek et al., 2019).

One of the most common mental health problems found in medical students is *burnout*. Burnout is a syndrome that arises due to chronic stress that is not managed effectively. Burnout is characterized by emotional exhaustion, depersonalization, and decreased self-achievement (World Health Organization, 2019). Based on a systematic review by Di Vincenzo et al. (2024) the prevalence of burnout among medical students ranges from 5.6% to 88% (Di Vincenzo et al., 2024). These findings are supported by Frajerma et al. (2019) from Erschens et al. (2018) which shows that this condition is a common problem in medical students in various countries and has the potential to affect academic performance, mental health and quality of life of students (Erschens et al., 2018; Frajerma et al., 2019). The findings are also in line with the results of a systematic review by IsHak et al. (2013) which shows that burnout is a common problem found in medical students and can have a negative impact on psychological well-being and academic performance (IsHak et al., 2013). In addition, Dyrbye et al. (2008) reported that burnout was associated with an increased risk of suicidal ideation and various forms of psychological distress in medical students (Dyrbye et al., 2008).

In addition to burnout, psychological well-being is an important concept used to describe an individual's psychological well-being that includes aspects such as depression, anxiety, psychological distress, quality of life, and social functioning. Ryff and Keyes (1995) explain that psychological well-being reflects an individual's ability to function optimally, build positive social relationships, have a purpose in life, and be able to adapt to various challenges (Ryff & Keyes, 1995). Psychological well-being is not only characterized by the absence of mental disorders, but also by the presence of healthy psychological function and a good quality of life (Ryff, 2014). The concept of psychological well-being was first described by Ryff and Keyes (1995) who emphasized that psychological well-being includes self-acceptance, positive relationships with others, autonomy, mastery of the environment, life goals, and personal growth (Ryff & Keyes, 1995).

Various studies show that burnout is related to worsening psychological well-being in medical students. Cazolari et al. (2020) and Akiki et al. (2025) reported the relationship between burnout and decreased quality of life, while Mhata et al. (2023) and Shaw et al. (2025) found a link between burnout and increased depression and anxiety (Akiki et al., 2025; Cazolari et al., 2020; Mhata et al., 2023; Shaw et al., 2025). In addition, burnout is also

associated with increased psychological distress and other mental health disorders (Faghihzadeh et al., 2025; Medisauskaite et al., 2025). Dyrbye et al. (2006) and Dyrbye et al. (2014) also reported that burnout is associated with various indicators of psychological distress and decreased well-being in medical students and young medical personnel (Dyrbye et al., 2006, 2014).

Although the relationship has been extensively researched, the results of the study are still scattered on various indicators of psychological well-being and use various instruments. Some studies focused on depression and anxiety, while others assessed quality of life, psychological distress, or general mental health. These variations make it difficult to compare the results of the study directly and do not provide a comprehensive picture of the relationship between burnout and psychological well-being in medical students.

Therefore, a comprehensive synthesis of evidence is needed to provide a more comprehensive picture of the relationship between burnout and psychological well-being in medical students. This study aims to evaluate and synthesize the available scientific evidence regarding this relationship through a systematic review approach so that it can be the basis for the development of burnout prevention strategies and improve the mental health of medical students.

RESEARCH METHODS

This study uses the Systematic Literature Review (SLR) method to identify, evaluate, and synthesize scientific evidence regarding the relationship between burnout and psychological well-being in medical students. This method was chosen to gain a comprehensive understanding of the impact of burnout on the psychological well-being of students during medical education. The implementation and reporting of systematic reviews refers to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 to improve the transparency and quality of research reporting (Page et al., 2021).

A literature search was conducted in June 2026 through the PubMed database and Google Scholar using a combination of keywords: ("*medical students*") AND ("*burnout*") AND ("*psychological well-being*" OR "*wellbeing*" OR "*well-being*" OR "*depression*" OR "*anxiety*" OR "*mental health*" OR "*distress*" OR "*quality of life*"). Article searches are limited to publications published in the 2020–2026 time frame, available in full text, and written in English.

Inclusion criteria include: (1) primary research articles with observational designs such as cross-sectional, cohort, or longitudinal; (2) the research respondents are medical students; (3) the study assessed burnout as the main variable; (4) the study assesses psychological well-being or related indicators such as depression, anxiety, psychological distress, quality of life, or mental health; (5) the article is available in full text; and (6) the article is published in 2020–2026. Exclusion criteria include: (1) systematic review, meta-analysis, narrative review, editorial, commentary, letter to editor, and conference abstract; (2) research that does not involve medical students; (3) research that does not assess burnout or psychological well-being as the main variables; (4) articles that are not available in full text form; and (5) articles that are published outside the specified year range.

The article selection was carried out based on the PECO framework, namely medical

students as population, burnout as exposure, and psychological well-being as outcomes. Psychological well-being in this study includes various mental health indicators such as depression, anxiety, psychological distress, quality of life, insomnia, social dysfunction, and other mental health outcomes.

All articles obtained from the search process were selected through the stages of identification, title and abstract screening, and feasibility assessment based on complete text according to the PRISMA 2020 guidelines. Articles that meet all inclusion criteria are then included in the final synthesis.

Data from each article were extracted and analyzed in a narrative descriptive manner based on the characteristics of the study, the country of origin of the study, the number of samples, the research design, the burnout measurement instrument, the psychological well-being measurement instrument, and the main findings reported. The synthesis of results was carried out by grouping findings based on the main themes of psychological well-being, namely depression, anxiety, quality of life, and psychological distress. The results of the synthesis were then used to identify a consistent pattern of relationship between burnout and psychological well-being in medical students.

RESULTS AND DISCUSSION

The literature search conducted through the PubMed and Google Scholar databases identified 215 records relevant to the research topic. After the identification process, title and abstract filtering, and feasibility assessment based on the complete text according to the PRISMA 2020 guidelines, 7 articles that met the inclusion criteria were obtained and analyzed in this study. All included studies were published between 2020 and 2025 and investigated the relationship between burnout and psychological well-being among medical students.

Figure 1 illustrates the study selection process based on the PRISMA 2020 guidelines, while Table 1 summarizes the characteristics and key findings of the included studies.

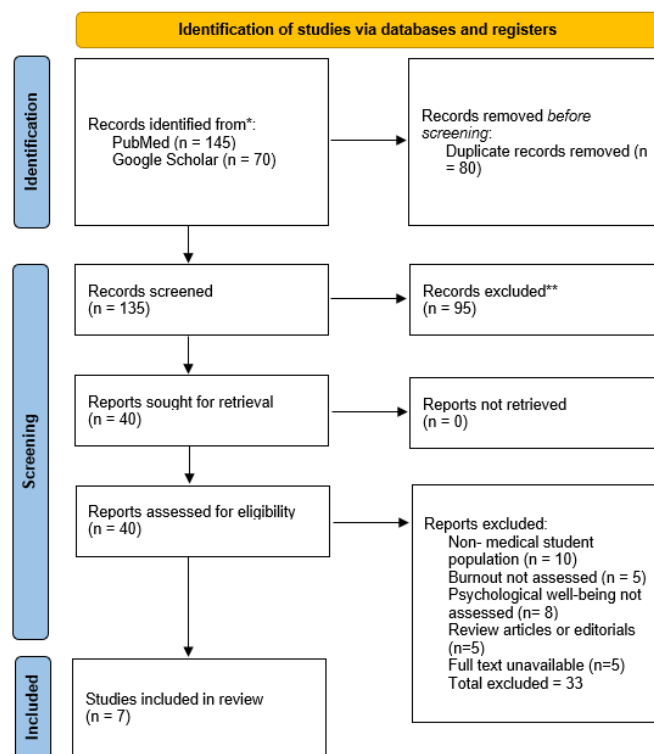


Figure 1. Study selection flow diagram based on the PRISMA 2020 guidelines.

Table 1. Characteristics and Key Findings of the Included Studies.

Author	Year	Population	Key Findings
Cazolari et al.	2020	302 medical students in Brazil	Burnout was negatively correlated with the entire domains of quality of life (WHOQOL-BREF).
Mhata et al.	2023	229 medical students in Namibia	The high prevalence of burnout is accompanied by a high prevalence of depression and anxiety among medical students.
Dhachpramuk et al.	2024	404 medical students in Thailand	Burnout is associated with depression, anxiety, insomnia, and social dysfunction.
Akiki et al.	2025	200 medical students in Lebanon	Burnout is related to a decrease in quality of life, especially in the psychological domain.
Faghihzadeh et al.	2025	Medical students	Burnout is associated with increased psychological distress and mental health disorders.
Medisauskaite	2025	792 medical students	Burnout is related to anxiety,

et al.		from 9 medical schools in the UK	depression, insomnia, and the intention to leave medical education.
Shaw et al.	2025	147 first-year medical students in the United States	Burnout shows a strong positive correlation with depression.

Overall, all included studies consistently demonstrated a negative association between burnout and psychological well-being among medical students. Although different psychological well-being indicators and measurement instruments were used, the direction of the findings remained consistent across studies. Reported outcomes included depression, anxiety, quality of life, psychological distress, insomnia, social dysfunction, and intention to leave medical education, indicating that burnout is consistently associated with multiple dimensions of psychological well-being among medical students. (Akiki et al., 2025; Cazolari et al., 2020; Dhachpramuk et al., 2024; Faghihzadeh et al., 2025; Medisauskaite et al., 2025; Mhata et al., 2023; Shaw et al., 2025).

Depression and anxiety were the most frequently reported psychological outcomes associated with burnout. Three studies consistently found that students experiencing higher levels of burnout were more likely to report depressive and anxiety symptoms. In addition, depressive symptoms were associated with greater emotional exhaustion, depersonalization, and reduced personal accomplishment, indicating that burnout and emotional disorders often coexist throughout medical training (Dhachpramuk et al., 2024; Mhata et al., 2023; Shaw et al., 2025). This consistent pattern suggests that prolonged academic demands and continuous psychological stress may impair students' emotional regulation and coping capacity, thereby increasing their vulnerability to depression and anxiety. These findings support previous evidence indicating that mental health problems remain one of the greatest challenges in medical education and therefore require greater institutional attention (Rotenstein et al., 2016; Slavin, 2016).

Quality of life was another important component of psychological well-being affected by burnout. The included studies consistently demonstrated that students with higher burnout levels experienced poorer quality of life, particularly within the psychological domain. Burnout was negatively correlated with all quality-of-life domains, indicating that its impact extends beyond academic performance to broader aspects of students' daily functioning and overall well-being (Akiki et al., 2025; Cazolari et al., 2020). These findings suggest that persistent burnout may reduce students' motivation, learning satisfaction, emotional functioning, and ability to maintain a healthy balance between academic responsibilities and personal life.

Psychological distress and other mental health outcomes also showed a strong relationship with burnout. Students experiencing burnout were more likely to report psychological distress, insomnia, anxiety, depression, and social dysfunction. Furthermore, one longitudinal study found that burnout was associated with a greater intention to withdraw from medical education, indicating that the consequences of burnout may extend beyond mental health and potentially affect academic retention and future workforce sustainability (Dhachpramuk et al., 2024; Faghihzadeh et al., 2025; Medisauskaite et al., 2025). These findings indicate that burnout may serve as an early warning indicator of

deteriorating mental health and should therefore be identified and managed as early as possible during medical training.

Overall, the included studies consistently indicate that burnout is closely associated with poorer psychological well-being among medical students. Higher levels of burnout were consistently related to depression, anxiety, psychological distress, reduced quality of life, insomnia, and impaired social functioning. These findings highlight the importance of early recognition and prevention of burnout to support students' mental health throughout medical education.

CONCLUSIONS AND SUGGESTIONS

Based on seven included studies, burnout has a consistent relationship with deteriorating psychological well-being in medical students. Burnout is related to increased depression, anxiety, psychological distress, sleep disorders, and decreased quality of life. These findings show that burnout is an important factor that needs attention in medical education because it can affect various aspects of students' psychological well-being. Therefore, efforts to prevent and mentor students, as well as the creation of a healthy learning environment need to be part of the medical education strategy. These steps are expected to support mental health, improve psychological well-being, and help students undergo the educational process optimally.

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