



PREVALENCE OF DEPRESSION, DEPRESSIVE SYMPTOMS, AND SUICIDAL IDEATION AMONG MEDICAL STUDENTS: A NARRATIVE REVIEW

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Abstract

Background: Depression, anxiety, and psychological distress are increasingly recognized among medical trainees and physicians, affecting personal well-being and professional performance.

Objective: This review synthesizes evidence from cross-sectional surveys, cohort studies, and systematic reviews to examine the prevalence, risk factors, and consequences of psychological distress in medical education and practice.

Findings: Early studies identified high rates of depression and anxiety among interns and residents, with subsequent large-scale surveys confirming these issues across different cultural and geographic settings. Systematic reviews highlighted widespread psychological distress among medical students and residents, driven by workload, fatigue, and training pressures. Prospective cohort studies demonstrated associations between depression, burnout, and medical errors, reduced empathy, and compromised patient safety. Cross-national surveys further emphasized the global nature of the problem, including in low-resource countries.

Conclusion: Psychological distress is prevalent and consequential in medical training and practice. Structured interventions, institutional support, and policy reforms are urgently needed to protect physician well-being and ensure patient safety.

Keywords: Medical trainees, Physician well-being, Depression, Anxiety, Burnout, Psychological distress, Patient safety

Introduction

Depression, anxiety, and psychological distress among medical trainees and physicians are recognized as critical issues impacting both personal well-being and professional performance. Early studies, such as Schneider and Phillips (1993), revealed high rates of depression and anxiety among interns, highlighting the psychological burden of medical training. The National Comorbidity Survey Replication (Kessler et al., 2005) established psychiatric disorder prevalence in the general population, emphasizing medical professionals' heightened vulnerability. Systematic reviews by Dyrbye et al. (2006) and Joules et al. (2014) documented widespread psychological distress driven by workload, fatigue, and training pressures. Prospective cohort studies (Sen et al., 2010; West et al., 2006; Fahrenkopf et al., 2008; West et al., 2009) further linked depression and burnout to medical errors, reduced empathy, and compromised patient safety. Cross-sectional surveys across Switzerland, Pakistan, Taiwan, and Canada highlight the global nature of these issues. Collectively,

these findings underscore the need for structured interventions, institutional support, and policy reforms in medical education.

Methods

A narrative review methodology was adopted to synthesize findings from cross-sectional surveys, cohort studies, and systematic reviews examining depression, anxiety, and psychological distress among medical students, interns, residents, and practicing physicians. Studies were selected based on relevance, methodological rigor, and publication in peer-reviewed journals. The PRISMA guidelines (Moher et al., 2009) were used to ensure systematic identification and reporting of included studies.

Author	Country	Study Design	Sample	Result	Discussion
Schneider & Phillips (1993)	USA	Cross-sectional survey	Medical, surgical, pediatric interns	High prevalence of depression and anxiety among interns	Early evidence that training stress contributes to psychological morbidity
Kessler et al. (2005)	USA	National epidemiological survey (NCS-R)	General population (large national sample)	Lifetime prevalence & age-of-onset distributions of DSM-IV disorders	Established baseline psychiatric epidemiology; relevant for medical trainees' risk comparison
Dyrbye, Thomas & Shanafelt (2006)	USA & Canada	Systematic review	Medical students (multiple studies)	High rates of depression, anxiety, and psychological distress	Highlights need for interventions in medical education
Sen et al. (2010)	USA	Prospective cohort study	Medical interns	Identified risk factors for depression during internship	Stressful work and personal factors predict depression onset
Joules, Williams & Thompson (2014)	UK	Systematic review	Resident physicians (reviewed studies)	Depression prevalent among residents	Emphasized systemic and workload-related contributors
West et al. (2006)	USA	Prospective longitudinal study	Residents	Perceived medical errors linked to distress and reduced empathy	Emotional well-being impacts clinical performance
Fahrenkopf et al. (2008)	USA	Prospective cohort study	Pediatric residents	Higher medication error rates among depressed/burned-out residents	Depression and burnout impair patient safety
West et al. (2009)	USA	Longitudinal study	Residents	Resident fatigue and distress linked to perceived medical errors	Fatigue and distress impact judgment and patient care
Buddeberg-Fischer et al. (2005)	Switzerland (German study)	Cross-sectional	Junior residents	Stress and well-being negatively associated	Cultural differences noted, stress management crucial
Yousuf, Ishaque & Qidwai (2011)	Pakistan	Cross-sectional survey	Postgraduate medical & surgical trainees	Depression common, associated with work stressors	Highlights burden in low-resource countries
Highlights burden in low-resource countries	International	Methodological guideline	N/A (PRISMA reporting standard)	PRISMA guidelines for systematic reviews/meta-analyses	Provides framework for reporting systematic reviews

Discussion

The reviewed studies consistently show that depression, anxiety, and psychological distress are highly prevalent among medical students, interns, residents, and physicians worldwide. Workload, fatigue, and systemic stressors significantly contribute to psychological morbidity, while early career stages appear particularly vulnerable. These mental health challenges not only impair personal well-being but also compromise clinical performance, empathy, and patient safety. Cross-national evidence highlights that this is a global issue, affecting both high-resource and low-resource settings. Structured

interventions, including stress management programs, institutional support, mentoring, and policy reforms, are essential to mitigate these risks and promote physician well-being.

Conclusion

Depression, anxiety, and psychological distress are prevalent and consequential in medical training and practice. Early recognition, structured interventions, and institutional support are critical to safeguard trainee well-being, enhance professional performance, and ensure patient safety.

Conflict of Interest

The authors declare no conflicts of interest in relation to the conduct of this review.

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