THE INTERPLAY OF DISTRESS, GENERAL SELF-EFFICACY, AND BURNOUT IN UNDERGRADUATE MEDICAL STUDENTS AT A TERTIARY CARE CENTRE

Amit Amit, Geethanjali M. Doddamani, Alladi Vinay Kumar, M. Pramod Kumar Reddy
Department of Psychiatry, Mamata Medical College, 507 002 Khammam, Telangana, India
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ABSTRACT

Introduction: Burnout and psychological distress are common among undergraduate medical students and are associated with adverse academic and mental health outcomes. General self-efficacy may serve as a protective factor; however, its relationship with psychological distress and burnout among Indian medical students remains insufficiently explored.
Aims: To assess the prevalence and levels of burnout, psychological distress, and general self-efficacy among undergraduate medical students, and to examine their associations with demographic variables and with each other.
Methods: This hospital-based cross-sectional study included 401 undergraduate medical students. Psychological distress was measured using the Kessler Psychological Distress Scale Plus (K10+), burnout using the Burnout Assessment Tool–Short Version (BAT), and self-efficacy using the General Self-Efficacy Scale (GSE). Group comparisons were performed using non-parametric tests, associations were examined using Spearman correlation, and multivariable linear regression was used to identify predictors of burnout.
Results: High burnout risk was observed in the majority of participants. Distress, burnout, and self-efficacy were significantly interrelated. Burnout and distress did not differ significantly by gender or year of MBBS (Bachelor of Medicine and Bachelor of Surgery), whereas self-efficacy varied across academic years. In adjusted analysis, self-efficacy emerged as the only independent predictor of burnout.
Conclusion: Burnout is highly prevalent among undergraduate medical students. General self-efficacy appears to be an important correlate of burnout, independent of distress and demographic factor.

Keywords: Burnout, Professional; Stress, Psychological; Self Efficacy; Students, Medical; Cross-Sectional Studies
Corresponding author: Dr. Amit Amit, Senior Resident; amitdoc7062@gmail.com

INTRODUCTION

Burnout and psychological distress are highly prevalent among undergraduate medical students and are associated with adverse academic performance, emotional exhaustion, reduced well-being, and impaired professional development (1). Medical training environments are characterized by demanding academic workloads, frequent examinations, sleep deprivation, clinical responsibilities, and intense competition, all of which contribute significantly to psychological distress during undergraduate medical education (2). Persistent exposure to these stressors may predispose students to burnout, which is characterized by emotional exhaustion, mental distancing, cognitive impairment, and reduced academic efficacy. General self-efficacy, defined as an individual's belief in their ability to effectively manage challenging situations and perform goal-directed behaviors, has been identified as an important psychological resource influencing stress appraisal and coping (3). According to Bandura's social cognitive theory, individuals with higher self-efficacy are more likely to perceive stressful situations as manageable, utilize adaptive coping strategies, and maintain resilience in the face of academic and emotional demands. Lower self-efficacy, conversely, may increase vulnerability to stress-related outcomes and burnout. Previous studies have demonstrated associations between self-efficacy and better psychological adjustment, lower distress, and reduced burnout among students and healthcare professionals (4). However, the interrelationship between self-efficacy, psychological distress, and burnout remains insufficiently explored among Indian undergraduate medical students. The Indian medical education system presents several unique contextual challenges that may influence student mental health differently from Western settings where much of the existing literature originates. Undergraduate medical training in India is often associated with large student volumes, intense competition for academic achievement, long study hours, examination pressure, limited mental health support systems, and sociocultural stigma surrounding psychological help-seeking. Additionally, differences in curriculum structure, resource availability, and educational environments may limit the direct applicability of international findings to Indian medical students. Despite increasing recognition of student mental health concerns in India, studies simultaneously examining burnout, psychological distress, and general self-efficacy using standardized psychometric instruments remain limited. Therefore, this study aimed to assess the prevalence and levels of burnout, psychological distress, and general self-efficacy among undergraduate medical students and to examine their associations with demographic variables and with each other.

MATERIALS AND METHODS

Study Design and Setting

This hospital-based, cross-sectional observational study was conducted among MBBS undergraduate students at a tertiary care teaching hospital in India over a six-month period from October 2025 to March 2026.

Sample Collection Procedures

Undergraduate MBBS (Bachelor of Medicine and Bachelor of Surgery) students were approached in common areas of the institution, including lecture halls and common rooms, and were informed about the study through verbal announcements and notices displayed on institutional notice boards. Students were briefed about the purpose of the study and invited to participate. Those who expressed interest were assessed for eligibility based on predefined inclusion criteria.

A stratified random sampling technique was employed, with stratification based on the year of MBBS (first through final year), to ensure proportional representation of students from all academic years. This approach was chosen to minimize sampling bias and to account for potential differences in academic demands and stress exposure across different stages of medical training. Within each academic year, eligible students were selected using simple random sampling.

During the data collection period, a total of 550 undergraduate MBBS students were approached. Of the 550 students approached, 509 met eligibility criteria; 41 declined consents and were excluded from further participation. Eligible students who agreed to participate were provided with a secure Google Form link through commonly used messaging platforms. The online form included a participant information sheet detailing the nature and objectives of the study, followed by electronic informed consent and clear instructions for completing the questionnaire. Completed responses were screened for eligibility and completeness, resulting in a final analysable sample of 401 undergraduate medical students.

Selection and Description of Participants

Undergraduate MBBS students aged 18 years and above who were present during the data collection period and who provided informed consent were eligible for inclusion in the study. Students were excluded if they were on leave for more than two weeks during the study period, to ensure adequate exposure to the academic environment being assessed. Participants with a self-reported diagnosis of a severe psychiatric disorder were excluded to reduce potential confounding effects on psychological distress and burnout outcomes. Incomplete or unreadable questionnaire responses were also excluded to maintain data quality and reliability.

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee vide no. MMC/IEC/2022/2945/161/2025 on 10/12/2025, prior to the initiation of data collection. All procedures involving human participants were conducted in accordance with the ethical standards of the responsible institutional committee and the principles of the Declaration of Helsinki (1975), as revised in 2000 (5). Electronic informed consent was obtained from all participants before enrolment.

Participation was voluntary, and students were informed of their right to decline participation or withdraw from the study at any stage without academic or personal consequences. Confidentiality and anonymity were ensured by collecting responses without personal identifiers such as names, roll numbers, or institutional identification numbers. All data were stored in a password-protected database accessible

only to the investigators. Participants experiencing discomfort or distress while completing the questionnaire were advised to seek appropriate institutional support services.

Study Instruments

Socio-demographic Proforma

A structured socio-demographic proforma was used to collect information on age, gender, and current Year of MBBS. These variables were included to examine demographic associations with psychological distress, burnout, and general self-efficacy.

Kessler Psychological Distress Scale Plus (K10+)

Psychological distress was assessed using the Kessler Psychological Distress Scale Plus (K10+) (6,7), a self-report instrument designed to measure non-specific psychological distress over the preceding four weeks. The scale comprises 10 core items rated on a 5-point Likert scale ranging from "none of the time" to "all of the time," with higher scores indicating greater distress. Additional items assess functional impairment and health service utilization. The K10+ has demonstrated good reliability and validity in population-based and clinical studies. The K10+ is freely available for non-commercial research use, and no formal permission was required for its use in the present study.

Burnout Assessment Tool – Short Version (BAT)

Burnout was assessed using the Burnout Assessment Tool – Short Version (BAT) (8), a 12-item self-report instrument measuring four core dimensions of burnout: Exhaustion, Mental Distance, Cognitive Impairment, and Emotional Impairment. Items are rated on a 5-point Likert frequency scale ranging from never (1) to always (5).

In accordance with the BAT scoring manual, a mean burnout score (BAT_MEAN) was calculated by summing responses to all 12 items and dividing the total by the number of items i.e. 12, yielding a continuous score ranging from 1.0 to 5.0, with higher scores indicating greater burnout severity. The use of the mean score allows comparability across studies and has been recommended by the scale developers. For descriptive and categorical analyses, the continuous BAT_MEAN score was further classified into burnout risk categories using established cut-off values proposed in the BAT manual: low/no burnout risk (1.00–2.53), moderate burnout risk (2.54–2.95), and high burnout risk (≥2.96). These cut-offs have been used in previous empirical studies to estimate burnout prevalence and to facilitate interpretation at a population level (9). In the present study, the categorical variable (BAT_CATEGORY) was derived from BAT_MEAN for prevalence estimation and categorical comparisons, while the continuous BAT_MEAN score was retained for inferential analyses.

Permission to use the Burnout Assessment Tool for this study was obtained from the scale developers prior to data collection.

General Self-Efficacy Scale (GSE)

General Self-Efficacy was assessed using the General Self-Efficacy Scale (GSE) (10), a 10-item self-report measure assessing an individual's belief in their ability to cope with difficult situations and demands. Each item is rated on a 4-point Likert scale

ranging from "not at all true" to "exactly true," with higher total scores reflecting greater self-efficacy. The GSE has demonstrated robust psychometric properties across diverse cultural settings (11). This scale is freely available for non-commercial research and academic use; hence no specific permission was required for its use in this study.

Statistical Analysis

Data were analyzed using IBM SPSS Statistics, version 26 (IBM Corp., Armonk, NY, USA) (12). All analyses were two-tailed, and an alpha level of 0.05 was used.

Continuous variables were summarized using measures of central tendency and dispersion, including mean with standard deviation (SD), median with interquartile range (IQR), range, and 95% confidence intervals (CI) for means, as appropriate. Categorical variables were summarized using frequencies and percentages. No losses to observation were observed for variables included in the final analysis, as only complete and eligible responses were analyzed.

Distributional characteristics of continuous variables were assessed using the Shapiro–Wilk test (13). As the primary outcome variables did not conform to a normal distribution, non-parametric statistical methods were used for group comparisons and correlation analyses.

Associations between continuous variables were examined using Spearman's rank correlation coefficient (ρ) (14). Differences in continuous outcomes between two independent groups (gender) were assessed using the Mann–Whitney U test (15), while comparisons across more than two independent groups (year of MBBS) were performed using the Kruskal–Wallis test (16). When the Kruskal–Wallis test indicated a difference across groups, Bonferroni-adjusted post-hoc pairwise comparisons were conducted (17).

Burnout risk categories were analyzed as categorical variables. Associations between burnout risk category and demographic variables were examined using the Pearson chi-square test (18). Effect size for categorical associations was estimated using Cramer's V (18).

To identify independent predictors of burnout, multivariable linear regression analysis (19) was performed with the mean burnout score (BAT_MEAN) as the dependent variable. Predictor variables included psychological distress, general self-efficacy, age, gender, and year of MBBS. Regression coefficients are reported with 95% confidence intervals. Multicollinearity was assessed using variance inflation factors (VIF), and model assumptions were evaluated through residual diagnostics.

P values less than 0.001 were reported as $P < 0.001$.

RESULTS

The socio-demographic characteristics of the participants are presented in Table 1. A total of 401 undergraduate medical students were included in the analysis, with no missing data for Age, Gender, or Year of study.

Table 1. *Socio-Demographic Characteristics of the Study Participants (N = 401)*

Variable	Statistic
Age (years)	
Mean ± SD	21.25 ± 1.50
Median (IQR)	21 (2)
Range	18–25
95% CI for mean	21.10–21.40
Gender, n (%)	
Male	142 (35.4)
Female	259 (64.6)
Current Year of MBBS, n (%)	
First year	115 (28.7)
Second year	45 (11.2)
Third year	166 (41.4)
Final year	75 (18.7)

Data are presented as Mean ± Standard Deviation (SD), Median (interquartile range [IQR]), or number (percentage), as appropriate. CI = confidence interval; SD = standard deviation; IQR = interquartile range.

Participants were predominantly in early adulthood, with ages spanning the typical undergraduate medical training range. Assessment of the age distribution using the Shapiro–Wilk test indicated that age did not follow a normal distribution ($P < 0.001$).

The study population showed a female preponderance, and students from all years of the MBBS program were represented in the study. The largest proportion of participants were from the third year, followed by the first, final, and second years, respectively as shown in Table 1.

Psychological distress (K10_TOTAL), burnout score (BAT_MEAN), and general self-efficacy (GSE_TOTAL) were analyzed as continuous variables.

Distress, Burnout, and Self-Efficacy Scores

The descriptive characteristics and distributional properties of distress score, burnout score, and general self-efficacy scores are presented in Table 2. Visual inspection and formal testing indicated non-normal distributions for all three psychological measures, as assessed using the Shapiro–Wilk test ($P<0.001$ for all variables). Thus, non-parametric statistical methods were applied in subsequent analyses while examining associations and group differences involving these scores.

Table 2. *Descriptive Statistics and Distribution Characteristics of Distress, Burnout, and Self-Efficacy Scores (N = 401)*

Variable	Mean ± SD	Median (IQR)	Range	95% CI for Mean	Shapiro–Wilk *P* value
Total Distress Score (K10+)	35.26 ± 8.67	36 (11)	11–55	34.41–36.12	*P* = 0.000
Burnout Score (BAT mean)	3.82 ± 0.83	3.92 (1.17)	1.00–5.00	3.74–3.90	*P* = 0.000
General Self-Efficacy Score (GSE)	24.67 ± 5.58	25 (7)	10–40	24.12–25.21	*P* = 0.000

Data are presented as mean ± standard deviation (SD), median (interquartile range [IQR]), and range, as appropriate. K10_TOTAL = Total Psychological Distress Score assessed using the Kessler Psychological Distress Scale; BAT_MEAN = Mean Burnout Score derived from the Burnout Assessment Tool; GSE_TOTAL =

Total Score on the General Self-Efficacy Scale; SD = Standard deviation; IQR = Interquartile range; CI = Confidence interval.

Group Differences by Gender and Year of MBBS

Non-parametric comparisons of distress, burnout, and general self-efficacy scores by gender and academic year are presented in Table 3. Comparisons by gender did not demonstrate statistically significant differences in any of the three psychological outcomes.

Table 3. *Non-parametric Comparisons of Distress, Burnout, and Self-Efficacy by Gender and Year of MBBS (N = 401)*

Analysis	Outcome Variable	Test Statistic	df / Z	Exact *P* Value	Adjusted *P* Value
Gender comparison (Mann–Whitney U)	Total distress score (K10_TOTAL)	U = 17,979.0	Z = −0.370	*P* = 0.712	—
	Burnout score (BAT mean)	U = 16,642.5	Z = −1.575	*P* = 0.115	—
	General self-efficacy score (GSE_TOTAL)	U = 17,072.0	Z = −1.190	*P* = 0.234	—
Year of MBBS comparison (Kruskal–Wallis)	Total distress score (K10_TOTAL)	H = 0.499	df = 3	*P* = 0.919	—
	Burnout score (BAT mean)	H = 1.245	df = 3	*P* = 0.742	—
	General self-efficacy score (GSE_TOTAL)	H = 11.977	df = 3	*P* = 0.007	—
Post-hoc pairwise comparisons†	1st vs 3rd year (GSE_TOTAL)	—	Z = −1.979	*P* = 0.048	*P* = 0.287
	1st vs 2nd year (GSE_TOTAL)	—	Z = −2.052	*P* = 0.040	*P* = 0.241
	1st vs Final year (GSE_TOTAL)	—	**Z = −3.308**	***P* = 0.001**	***P* = 0.006**
	3rd vs 2nd year (GSE_TOTAL)	—	Z = 0.718	*P* = 0.473	*P* = 1.000
	3rd vs Final year (GSE_TOTAL)	—	Z = −1.804	*P* = 0.071	*P* = 0.428
	2nd vs Final year (GSE_TOTAL)	—	Z = −0.691	*P* = 0.490	*P* = 1.000

K10_TOTAL = Total Psychological Distress Score assessed using the Kessler Psychological Distress Scale; BAT_MEAN = Mean Burnout Score derived from the Burnout Assessment Tool; GSE_TOTAL = Total Score on the General Self-Efficacy Scale; U = Mann–Whitney U test statistic; H = Kruskal–Wallis test statistic; Z = Standardized test statistic; df = Degrees of freedom; P = Two-tailed probability value. †Post-hoc comparisons were conducted only for general self-efficacy.

Similarly, no statistically significant differences in total distress or burnout scores were observed across the four academic years of the MBBS program, as shown in Table 3. In contrast, a statistically significant difference in general self-efficacy scores across academic years was seen. Subsequent post-hoc analyses indicated that this difference was attributable to variation between first-year and final-year students, while no other year-wise comparisons remained statistically significant after adjustment for multiple testing.

Overall, these findings indicate that self-efficacy varies by stage of medical training, whereas distress and Burnout score (BAT_MEAN) appear consistent across gender and academic year in this cohort.

Prevalence of Burnout and Its Association with Demographic Variables

The prevalence of burnout risk categories and their associations with gender and

academic year are summarized in Table 4. A substantial proportion of the study population fell into the high-risk Burnout risk category (BAT category), while comparatively fewer participants were classified as having low or moderate burnout risk.

Table 4. *Prevalence of Burnout Risk Categories and Their Association with Gender and Year of MBBS (N = 401)*

Analysis	Category / Test	Value	df	*P* value
Prevalence of burnout risk	Low risk	37 (9.2%)	—	—
	Moderate risk	20 (5.0%)	—	—
	High risk	344 (85.8%)	—	—
Association with gender	Pearson χ^2	5.439	2	$P = 0.066$
	Cramer's V	0.116	—	$P = 0.066$
Association with year of MBBS	Pearson χ^2	2.757	6	$P = 0.839$
	Cramer's V	0.059	—	$P = 0.839$

BAT = Burnout Assessment Tool; χ^2 = Chi-square statistic; df = Degrees of freedom; *P* = Two-tailed probability value.

Analysis of the association between burnout risk category and gender did not demonstrate a statistically significant relationship. Similarly, burnout risk categories were not significantly associated with the year of MBBS, indicating a broadly comparable distribution of burnout risk across different stages of undergraduate medical training as shown in Table 4.

Overall, these findings suggest that although burnout risk was highly prevalent in the study population, its distribution did not vary significantly by gender or academic year.

Correlation Between Distress, Burnout, and Self-Efficacy

Spearman's rank correlation analysis demonstrated statistically significant positive associations among psychological distress, burnout score, and general self-efficacy as shown in Table 5. Psychological Distress showed a weak positive correlation with Burnout Score and a weak positive correlation with General Self-Efficacy. Burnout score was moderately positively correlated with General Self-Efficacy.

Table 5. *Spearman Correlation Matrix of Distress, Burnout, and General Self-Efficacy Scores (N = 401)*

Variable	K10_TOTAL	BAT_MEAN	GSE_TOTAL
K10_TOTAL	1.000	ρ = 0.105	ρ = 0.195
		P = 0.036	*P* = 0.000
BAT_MEAN	ρ = 0.105	1.000	ρ = 0.281
	P = 0.036		*P* = 0.000
GSE_TOTAL	ρ = 0.195	ρ = 0.281	1.000
	P = 0.000	*P* = 0.000	

K10_TOTAL = Total Psychological Distress Score assessed using the Kessler Psychological Distress Scale; BAT_MEAN = Mean Burnout Score derived from the Burnout Assessment Tool; GSE_TOTAL = Total Score on the General Self-Efficacy Scale; ρ = Spearman's rank correlation coefficient; *P* = Two-tailed probability value; N = Number of observations.

All observed correlations were statistically significant; however, the strength of associations ranged from weak to moderate and should be interpreted cautiously., and that higher burnout scores were associated with higher self-efficacy. The magnitude of these associations ranged from weak to moderate, suggesting that while the relationships are statistically detectable, they account for a limited proportion of shared variance.

Multivariable Predictors of Burnout

Multivariable linear regression analysis identifying factors associated with burnout is presented in Table 6. The overall model demonstrated a statistically significant fit but accounted for a modest proportion of variance in burnout scores. After adjustment for demographic variables and distress, general self-efficacy emerged as the only independent predictor of burnout, whereas distress, age, gender, and year of MBBS were not independently associated with burnout.

Table 6. *Multivariable Linear Regression Analysis of Factors Associated with Burnout (BAT_MEAN) (N = 401)*

Predictor	B (Unstandardized)	SE	β (Standardized)	95% CI for B	Exact *P* value	VIF
Intercept	3.788	0.691	—	2.430 to 5.147	*P* = 0.000	—
Distress (K10_TOTAL)	0.005	0.005	0.056	−0.004 to 0.015	*P* = 0.260	1.028
Self-efficacy (GSE_TOTAL)	0.026	0.007	0.174	0.011 to 0.040	*P* = 0.001	1.047
Gender	−0.108	0.088	−0.063	−0.282 to 0.065	*P* = 0.220	1.079
Year of MBBS	0.015	0.039	0.020	−0.062 to 0.093	*P* = 0.702	1.129
Age	−0.031	0.030	−0.056	−0.089 to 0.027	*P* = 0.298	1.186

R = 0.206, R^2 = 0.043, Adjusted R^2 = 0.030, F (5,395) = 3.512, *P* = 0.004.

BAT_MEAN = Mean Burnout Score derived from the Burnout Assessment Tool; B = Unstandardized regression coefficient; SE = Standard error; β = Standardized regression coefficient; CI = Confidence interval; VIF = Variance inflation factor; R^2 = Coefficient of determination; *P* = Two-tailed probability value.

DISCUSSION

Summary of Key Findings

This cross-sectional study examined burnout, psychological distress, and general self-efficacy among undergraduate medical students. A high prevalence of burnout risk was observed. Although distress, burnout score, and self-efficacy were interrelated, general self-efficacy emerged as the only independent predictor of burnout score after adjustment for distress and demographic variables. Burnout score and burnout risk category did not differ significantly by gender or year of MBBS, whereas self-efficacy varied across academic years, with lower levels observed earlier in training.

Comparison With Existing Literature

The high prevalence of burnout risk observed in this study is consistent with prior research among medical students globally. Findings of our study align with; the systematic review and meta-analysis by Rotenstein et al. which reported high levels of psychological morbidity among medical students, underscoring the widespread nature of distress-related outcomes during medical training (!). The lack of consistent gender or year-wise differences in burnout observed in this study aligns with reports suggesting that burnout may develop early and remain relatively stable across stages of training rather than showing a uniform progression (4). Studies using standardized distress measures such as the Kessler scales have reported substantial psychological burden during

undergraduate medical training, supporting the pervasive nature of stress-related outcomes in this population (6). The independent association between general self-efficacy and burnout score observed here is in agreement with an earlier study indicating that self-efficacy functions as a protective psychological resource, moderating the impact of stressors on burnout-related outcomes among students and healthcare workers (20). Together, these findings reinforce the relevance of personal psychological resources alongside environmental stressors in understanding burnout in medical education.

The findings of the present study are consistent with prior evidence demonstrating substantial psychological burden among medical students, while extending the literature by concurrently examining distress, burnout, and self-efficacy using validated instruments. An Indian study conducted among first-year medical students in New Delhi reported high levels of psychological distress and identified an inverse association between distress and general self-efficacy, underscoring the protective role of psychological resources early in medical training (21). The correlations observed in the current study across all academic years suggest that this relationship persists beyond the initial phase of medical education.

Previous Indian studies assessing burnout using instruments such as the Oldenburg Burnout Inventory have reported very high burnout prevalence among medical students, often with minimal gender-based differences (22). The similarly high burnout risk observed in the present study, along with the absence of significant gender differences in burnout score, supports the notion that burnout is pervasive across demographic subgroups. By employing the Burnout Assessment Tool, the current study adds methodological rigor by distinguishing between continuous burnout score and categorical burnout risk, facilitates clearer interpretation.

International evidence further emphasizes the importance of internal psychological resources in shaping mental health outcomes among medical students. A large cross-sectional study from China demonstrated that self-related constructs, including self-esteem and psychological flexibility, were independently associated with mental health outcomes even after adjustment for demographic factors (23). In line with this evidence, the present finding that general self-efficacy independently predicted burnout score, whereas distress did not remain significant in adjusted analyses, highlights the potential role of self-efficacy as a key correlate of burnout severity across cultural contexts.

Interpretation and Implications

Taken together, these findings suggest that burnout among undergraduate medical students may be influenced not only by exposure to stressors but also by individual psychological resources. One plausible mechanism is that students with higher self-efficacy appraise academic and clinical demands as more manageable, reducing the likelihood that distress translates into burnout-related impairment. This interpretation is consistent with stress–coping frameworks and with empirical work emphasizing the role of personal resources in burnout development.

From an educational perspective, these findings highlight the potential relevance of interventions aimed at strengthening self-efficacy—such as mentorship programs, skills-based coping workshops, and supportive feedback mechanisms—alongside broader institutional strategies addressing workload and learning climate.

Strengths and Limitations

Strengths of this study include the use of validated instruments, a stratified random sampling strategy ensuring representation across academic years, transparent reporting of participant flow, and appropriate non-parametric and multivariable statistical analyses. The distinction between continuous burnout score and categorical burnout risk further enhances interpretability.

Limitations include the cross-sectional design, which precludes causal inference, reliance on self-report measures, and conduct at a single institution, which may limit generalizability. Additionally, the regression model explained a modest proportion of variance in burnout score, indicating that unmeasured factors - such as personality traits, social support, or institutional characteristics - may also contribute.

Controversies and Conceptual Considerations

The finding that distress did not independently predict burnout score after adjustment raises conceptual questions regarding the overlap and distinction between distress and burnout. This supports ongoing debates about whether burnout represents a distinct construct or a stress-related outcome shaped by moderating psychological resources. This interpretation can be viewed as hypothesis-generating, given the study design.

Future Research Directions

Future research should employ longitudinal designs to clarify temporal relationships among distress, self-efficacy, and burnout. Multi-institutional studies would improve generalizability, and intervention studies targeting self-efficacy could help determine whether enhancing this resource leads to meaningful reductions in burnout over time.

CONCLUSION

This study demonstrates a high prevalence of burnout risk among undergraduate medical students and identifies general self-efficacy as a key correlate of burnout score, independent of distress and demographic factors. These findings contribute to the growing evidence emphasizing the role of psychological resources in understanding burnout within the field of medical education.

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MEĐUDJELOVANJE STRESA, OPĆE SAMOEFIKASNOSTI I IZGARANJA KOD STUDENATA PREDDIPLOMSKOG STUDIJA MEDICINE U CENTRU ZA TERCIJARNU ZDRAVSTVENU SKRB

Amit Amit, Geethanjali M. Doddamani, Alladi Vinay Kumar, M. Pramod Kumar Reddy
Department of Psychiatry, Mamata Medical College, 507 002 Khammam, Telangana, India

SAŽETAK

Uvod: Izgaranje i psihološki stres česti su među studentima preddiplomskog studija medicine i povezani su s nepovoljnim akademskim i mentalnim zdravstvenim ishodima. Opća samoefikasnost može poslužiti kao zaštitni faktor; međutim, njezin odnos s psihološkim stresom i izgaranjem među indijskim studentima medicine ostaje nedovoljno istražen.

Ciljevi: Procijeniti prevalenciju i razinu izgaranja, psihološkog stresa i opće samoefikasnosti među studentima preddiplomskog studija medicine te ispitati njihovu povezanost s demografskim varijablama i međusobno.

Metode: Ova bolnička presječna studija obuhvatila je 401 studenta medicine. Psihološka nelagoda mjerena je Kesslerovom skalom psihološkog distresa Plus (K10+), izgaranje pomoću Alata za procjenu sagorijevanja – kratka verzija (BAT), a samoefikasnost pomoću Ljestvice opće samoefikasnosti (GSE). Usporedbe skupina provedene su neparametrijskim testovima, povezanosti su ispitane Spearmanovom korelacijom, a za identifikaciju prediktora sagorijevanja korištena je multivarijantna linearna regresija.

Rezultati: Visok rizik od izgaranja uočen je kod većine sudionika. Stres, izgaranje i samoefikasnost bili su značajno međusobno povezani. Izgaranje i stres nisu se značajno razlikovali po spolu ili godini studija medicine (MBBS - prvostupnik medicine i prvostupnik kirurgije), dok se samoefikasnost razlikovala tijekom godina studija. U prilagođenoj analizi, samoefikasnost se pojavila kao jedini neovisni prediktor sagorijevanja.

Zaključak: Izgaranje je vrlo rašireno među studentima preddiplomskog studija medicine. Opća samoefikasnost čini se važnim korelatom sagorijevanja, neovisno o stresu i demografskim faktorima.

Ključne riječi: izgaranje; psihološki stres; samoefikasnost; studenti medicine; presječna studija

Autor za korespondenciju: Dr. Amit Amit, viši specijalizant; amitdoc7062@gmail.com