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ASSESSMENT OF BURNOUT DUE TO SHIFT LOAD AND ITS IMPACT ON PSYCHOLOGICAL WELL-BEING OF YOUNG DOCTORS IN RAWALPINDI. A CROSS-SECTIONAL STUDY

Original Research

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ABSTRACT

Background: Burnout is a chronic occupational stress syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. It is increasingly recognized among healthcare professionals worldwide and is linked to diminished well-being, medical errors, and workforce attrition. In Pakistan, the healthcare system's heavy workloads, extended shifts, and limited institutional support heighten the risk of burnout, particularly among young doctors at the beginning of their careers.

Objective: This study aimed to assess the prevalence of burnout and its association with shift workload and psychological well-being among young doctors in Rawalpindi, Pakistan.

Methods: A descriptive cross-sectional study was conducted from March to May 2025 among 400 doctors aged 25–35 years working in public and private hospitals. Data were collected using a self-structured questionnaire based on the Maslach model of burnout, assessing Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA), along with the WHO-5 Well-Being Index. Statistical analysis was performed in SPSS version 27 using descriptive statistics, chi-square tests, ANOVA, Pearson correlation, and multiple linear regression.

Results: High burnout levels were found in 59.0% for EE, 58.8% for DP, and 69.3% showed low PA. Poor well-being (WHO-5 score <50) was observed in 65.3% of respondents. Burnout differed significantly by shift length ($p < 0.001$), whereas shift pattern showed no significant association. Correlation analysis revealed a weak but significant negative relationship between EE and well-being ($r = 0.113$, $p = 0.023$). Regression analysis demonstrated that burnout dimensions collectively explained only 1.1% of the variance in well-being ($R^2 = 0.011$, $p = 0.210$).

Conclusion: Burnout is highly prevalent among young doctors in Rawalpindi, with longer working hours strongly associated with increased burnout. Although burnout adversely affects well-being, other organizational and psychosocial determinants also contribute. Comprehensive institutional interventions focusing on shift regulation, mental health promotion, and emotional resilience are essential to protect the psychological health and efficiency of the medical workforce.

Keywords: Burnout, Depersonalization, Emotional Exhaustion, Pakistan, Personal Accomplishment, Psychological Well-being, Shift Work.

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INTRODUCTION

Burnout is a multifaceted psychological syndrome resulting from chronic occupational stress, characterized by emotional exhaustion, depersonalization, and diminished personal accomplishment (1,2). In recent years, it has emerged as a critical global concern, particularly among healthcare professionals who are continuously exposed to emotionally demanding situations, extended work hours, and intense clinical pressures. The World Health Organization's recognition of burnout as an occupational phenomenon in the International Classification of Diseases (ICD-11) underscores its profound impact on healthcare workers and the urgent need for systemic responses (3). Within Pakistan's healthcare system, multiple structural and operational deficiencies amplify this problem. Overcrowded hospitals, limited staffing, insufficient institutional support, and high patient-to-doctor ratios collectively contribute to overwhelming workloads and sustained psychological strain, especially among young doctors at the start of their professional careers (4,5). These early-career physicians often bear disproportionate responsibility for patient care while enduring erratic and prolonged duty hours, creating an environment conducive to burnout. Research indicates that repeated exposure to night duties, excessive shifts, and inadequate rest disrupt circadian rhythms, leading to emotional fatigue and reduced psychological resilience (5,6). A study from Gaza demonstrated that irregular work schedules negatively affected the quality of life of healthcare workers (6), while regional evidence from Peshawar revealed that nearly one-quarter of physicians experienced high burnout, and an additional one-third were at risk (7). The psychological implications of burnout extend far beyond personal distress. It compromises job satisfaction, heightens the likelihood of medical errors, and fosters professional disengagement and attrition (8).

Moreover, the physiological disruption associated with shift work—through altered sleep cycles and hormonal imbalance—has been linked with metabolic, cardiovascular, and gastrointestinal disorders, further aggravating the burden on mental well-being. Night-shift workers frequently report elevated stress, anxiety, and depressive symptoms compared to those working regular hours (6,9). While psychological resilience serves as a partial buffer against such pressures, its protective effects are often inadequate without supportive institutional and policy-level interventions (10,11). The interplay between burnout, depression, and suicidal ideation among medical trainees and young physicians reflects the gravity of the issue and highlights a neglected public health concern requiring immediate attention (12). Studies among Pakistani healthcare professionals, including anesthesiologists, have shown a significant correlation between extended working hours and heightened burnout levels (13). However, despite the growing body of global evidence, empirical data from Pakistan remain limited, especially concerning the association between shift work and the psychological health of young doctors. Considering the unique socio-cultural, institutional, and workload-related stressors in Pakistan's healthcare system, investigating these associations is essential for designing targeted mental health strategies and workforce sustainability measures. The present cross-sectional study aims to assess the prevalence of burnout among young doctors working in shift-based schedules in Rawalpindi and to examine its relationship with their psychological well-being. By identifying the underlying risk factors and their magnitude, this research seeks to inform evidence-based policy formulation and promote interventions that safeguard the mental health and professional efficacy of Pakistan's future medical workforce.

METHODS

The study employed a descriptive cross-sectional design to evaluate the prevalence of burnout associated with shift workload and its subsequent impact on the psychological well-being of young doctors working in Rawalpindi, Pakistan, between March 2025 and May 2025. The study population included young medical physicians aged 22 to 35 years, encompassing medical officers, postgraduate trainees, and consultants who were actively serving in selected hospitals at the time of data collection. Participants were eligible if they had completed at least six months of continuous service in their current position and provided informed consent. Exclusion criteria comprised doctors who were on long leave during the study period or those with a known history of psychiatric illness or who were currently receiving psychiatric treatment. The sample size was determined using the World Health Organization (WHO) sample size calculator, with parameters set at a 95% confidence level, 5% margin of error, and an assumed prevalence rate of burnout of 50% (4). The calculated minimum sample size was 384, and to account for non-response or incomplete data, 400 participants were approached. A stratified random sampling technique was applied to ensure proportional representation across clinical departments and professional designations. The strata were categorized based on specialties such as medicine, surgery, and pediatrics, as well as designations including

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medical officers, trainees, and consultants. Within each stratum, participants were randomly selected to minimize selection bias. Data collection was conducted through a standardized, self-administered questionnaire divided into four sections: demographic information, shift pattern characteristics, burnout assessment, and psychological well-being evaluation. The demographic section recorded participants' age, gender, marital status, years of professional experience, department, and designation. Shift-related data included shift type (fixed day, fixed night, or rotating), average weekly working hours, and the number of night shifts per month.

Burnout was assessed using a self-formulated tool based on the three-dimensional model of burnout proposed by Maslach and colleagues, encompassing Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA) (1,14). The instrument comprised 22 items rated on a 7-point Likert scale ranging from 0 ("Never") to 6 ("Every day"), with higher EE and DP scores and lower PA scores reflecting higher burnout levels. The tool was pretested on a subset of 20 participants to ensure clarity and cultural relevance. Internal consistency was evaluated using Cronbach's alpha coefficients for each subscale, and construct validity was supported through expected correlations with psychological well-being scores. Psychological well-being was measured using the WHO-5 Well-Being Index, a validated and widely used five-item instrument employing a 6-point scoring scale. Scores below 50 indicated reduced well-being, while scores below 13 suggested probable depression (15). The WHO-5 instrument was selected for its simplicity, reliability, and cross-cultural applicability in healthcare populations. Data collection was facilitated by trained research assistants who briefed participants on study objectives, provided instructions for questionnaire completion, and ensured response completeness before submission. Ethical approval for the study was obtained from the Institutional Review Board (IRB) of the concerned institute. Written informed consent was obtained from all participants prior to enrollment, and confidentiality and voluntary participation were maintained throughout. No identifying information was recorded to preserve anonymity. Data were entered and analyzed using SPSS version 27. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were computed to summarize demographic data, shift characteristics, burnout dimensions, and well-being scores. Inferential analyses were performed using independent t-tests, one-way ANOVA, and Pearson's correlation to explore associations between shift variables, burnout subscales, and well-being outcomes. Multivariate linear regression was employed to identify independent predictors of burnout and psychological distress while adjusting for confounding variables. A p-value of less than 0.05 was considered statistically significant for all analyses.

RESULTS

The study results indicated that the respondent group represented a young, professionally active cohort of medical doctors (n = 400), with a mean age of 29.78 years. Age distribution showed 47.8% between 25–30 years and 52.3% between 31–35 years. Males comprised 53.5% of the sample, while females constituted 46.5%. More than half of the participants (53.8%) were married. Institutional affiliation was nearly balanced, with 47.0% employed in public and 53.0% in private healthcare sectors. The departmental representation was diverse, led by Obstetrics & Gynecology (12.3%), General Surgery (11.8%), Urology (11.8%), and Cardiology (11.3%), while the remaining belonged to Emergency Medicine, Medicine & Allied, Pediatrics, Orthopedics, and Nephrology. Professionally, 39.5% were Medical Officers, 24.5% were Postgraduate Trainees, and 36.0% were Consultants. The mean professional experience was 6.62 years, with 42.0% having 0–5 years, 38.5% having 6–10 years, and 19.5% possessing ≥11 years of experience. Regarding work patterns, 36.8% worked shifts lasting ≥12 hours, and 70.3% reported non-standard shifts—46.3% rotating and 24.0% permanent night shifts. The prevalence of burnout was high across all dimensions. Emotional Exhaustion (EE) was elevated in 59.0% of respondents, indicating significant emotional fatigue from workload pressures. Similarly, 58.8% experienced high Depersonalization (DP), reflecting emotional detachment or cynicism toward patients. A striking 69.3% reported low Personal Accomplishment (PA), signifying feelings of inefficacy and dissatisfaction, while only 27.8% reported high accomplishment. When aggregated, total burnout levels showed that 16.0% experienced high burnout, 15.0% moderate, and 69.0% low. Despite the overall majority categorized under low total burnout, the high prevalence of EE and DP indicated a major emotional strain within the cohort.

Psychological well-being, measured by the WHO-5 Index, showed that 65.3% (n = 261) of doctors reported poor well-being, while only 34.8% (n = 139) indicated good well-being. This reveals that nearly two-thirds of participants experienced low morale, fatigue, or depressive symptoms, aligning closely with the burnout trends observed in EE and DP domains. Analysis of shift length revealed statistically significant associations ($p < 0.001$) with all burnout dimensions. Among doctors working ≥12-hour shifts, 83.0% had high EE, 81.6% high DP, and 45.6% low PA. In contrast, those with ≤8-hour shifts had substantially lower EE (15.2%) and DP (31.1%) and higher PA (94.7% low, implying stronger sense of accomplishment). High total burnout was most common among those working >8–<12 hours (24.8%) and ≥12 hours (22.4%). This relationship underscores that longer working hours markedly increased the risk of emotional exhaustion and depersonalization, confirming shift duration as a major determinant of burnout. Conversely, no statistically

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significant relationship was found between shift pattern (day-only, rotating, or permanent night) and burnout levels ($p > 0.05$). While higher burnout frequencies were numerically more common among permanent night workers (67.7% EE, 50.0% DP), these differences did not achieve statistical significance. The results therefore indicated that shift length had a stronger influence on burnout than shift pattern type.

One-way ANOVA confirmed significant between-group variations for all burnout dimensions—EE ($F = 228.384$, $p < 0.001$), DP ($F = 50.059$, $p < 0.001$), PA ($F = 59.659$, $p < 0.001$), and Total Burnout ($F = 27.759$, $p < 0.001$). However, no significant group differences were detected for psychological well-being ($F = 2.492$, $p = 0.084$), suggesting that while burnout dimensions were strongly influenced by shift-related variables, general well-being might depend on external or moderating factors. Correlation analyses demonstrated significant positive associations between the burnout subscales. Emotional Exhaustion correlated positively with Depersonalization ($r = 0.273$, $p < 0.001$) and Total Burnout ($r = 0.676$, $p < 0.001$), while Personal Accomplishment was inversely correlated with Total Burnout ($r = –0.303$, $p < 0.001$). However, correlations between burnout and psychological well-being were weak and statistically insignificant ($p > 0.05$), implying that individual coping mechanisms or support systems may moderate the psychological effects of burnout. Regression analysis further revealed that none of the burnout dimensions—EE, DP, or PA—significantly predicted psychological well-being ($p > 0.05$). Although the model intercept was significant ($p < 0.001$), the overall explanatory power was low ($R^2 = 0.011$), suggesting that other unmeasured variables likely influence well-being. The internal consistency of the instruments was acceptable, with a Cronbach's alpha of 0.773 for 27 items, indicating good reliability. The scales demonstrated strong internal coherence for measuring burnout and psychological well-being among young physicians.

Table 1: Demographic Characteristics of Respondents

Demographics	Subgroup	Frequency (n)	Percentage (%)
Age	Mean Age: 29.78 Yrs		
	25-30	191	47.8
	31-35	209	52.3
Gender	Male	214	53.5
	Female	186	46.5
Marital Status	Single	185	46.3
	Married	215	53.8
Institute	Public	188	47.0
	Private	212	53.0
Department	Emergency Medicine	41	10.3
	Medicine and Allied	37	9.3
	Obs & Gynae	49	12.3
	Orthopedics	32	8.0
	General Surgery	47	11.8
	Pediatrics	37	9.3
	Cardiology	45	11.3
	Urology	47	11.8
	Nephrology	39	9.8
	Other	26	6.5
Designation	MO	158	39.5

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Demographics	Subgroup	Frequency (n)	Percentage (%)
	Physicians	98	24.5
	Consultant	144	36.0
Experience	Mean Experience: 6.62 Yrs		
	0-5	168	42.0
	6-10	154	38.5
	>=11	78	19.5
Shift Length	<=8 Hrs	132	33.0
	>8 Hrs - <12 Hrs	121	30.3
	>=12 Hrs	147	36.8
Shift Pattern	Day Only (Including evening)	119	29.8
	Rotating (Including Night)	185	46.3
	Permanent Night	96	24.0

Table 2: Burnout Levels among Young Doctors (n = 400)

Burnout Dimension	Level of Burnout	Frequency (n)	Percentage (%)
EE	Low	132	33.0
	Moderate	32	8.0
	High	236	59.0
DP	Low	95	23.8
	Moderate	70	17.5
	High	235	58.8
PA	Low	277	69.3
	Moderate	12	3.0
	High	111	27.8
Total Burnout	Low	276	69.0
	Moderate	60	15.0
	High	64	16.0

Table 3: WHO-5 Well-being Index among the study population

Scale	Level of Well-Being	Frequency (n)	Percentage (%)
WHO-5 Well-Being	Poor Well-Being	261	65.3
	Good Well-Being	139	34.8

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Table 4: Relationship Between Work Schedule (Shift Length and Pattern) and Burnout Dimensions among Young Doctors

Dimension	Levels	≤8 Hrs	>8–<12 Hrs	≥12 Hrs	p-value (Shift Length)	Day Only	Rotating	Permanent Night	p-value (Shift Pattern)
EE	Low	112 (84.8%)	17 (14.0%)	3 (2.0%)	<0.001*	47 (39.5%)	61 (33.0%)	24 (25.0%)	0.235
	Moderate	0 (0.0%)	10 (8.3%)	15 (15.0%)		9 (7.6%)	16 (8.6%)	7 (7.3%)	
	High	20 (15.2%)	94 (77.7%)	122 (83.0%)		63 (52.9%)	108 (58.4%)	65 (67.7%)	
DP	Low	60 (45.5%)	26 (21.5%)	9 (6.1%)	<0.001	27 (22.7%)	43 (23.2%)	25 (26.0%)	0.270
	Moderate	31 (23.5%)	21 (17.4%)	18 (12.2%)		17 (14.3%)	30 (16.2%)	23 (24.0%)	
	High	41 (31.1%)	74 (61.2%)	120 (81.6%)		75 (63.0%)	112 (60.5%)	48 (50.0%)	
PA	Low	125 (94.7%)	85 (70.2%)	67 (45.6%)	<0.001	82 (68.9%)	131 (70.8%)	64 (66.7%)	0.836
	Moderate	6 (4.5%)	6 (5.0%)	0 (0.0%)		5 (4.2%)	4 (2.2%)	3 (3.1%)	
	High	1 (0.8%)	30 (24.8%)	80 (54.4%)		32 (26.9%)	50 (27.0%)	29 (30.2%)	
Total BO	Low	120 (90.9%)	65 (53.7%)	91 (61.9%)	<0.001	80 (67.2%)	131 (70.8%)	65 (67.7%)	0.948
	Moderate	11 (8.3%)	26 (21.5%)	23 (15.6%)		19 (16.0%)	27 (14.6%)	14 (14.6%)	
	High	1 (0.8%)	30 (24.8%)	33 (22.4%)		20 (16.8%)	27 (14.6%)	17 (17.7%)	

Note: EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment; BO = Burnout.

Table 5: Burnout Dimensions and Psychological Well-Being (WHO-5) (One-Way ANOVA)

Variable	Source of Variation	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
Emotional Exhaustion (EE)	Between Groups	182.415	2	91.207	228.384	< 0.001*
	Within Groups	158.545	397	0.399		
	Total	340.960	399			
Depersonalization (DP)	Between Groups	56.592	2	28.296	50.059	< 0.001*
	Within Groups	224.408	397	0.565		
	Total	281.000	399			
Personal Accomplishment (PA)	Between Groups	73.745	2	36.872	59.659	< 0.001*
	Within Groups	245.365	397	0.618		
	Total	319.110	399			
Total Burnout (TBO)	Between Groups	27.929	2	13.964	27.759	< 0.001

Variable	Source of Variation	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
	Within Groups	199.711	397	0.503		
	Total	227.640	399			
Well-Being (WHO-5)	Between Groups	1.124	2	0.562	2.492	0.084
	Within Groups	89.573	397	0.226		
	Total	90.697	399			

Table 6: Correlation between burnout and psychological well-being

			Emotional Exhaustion (EE)	Depersonalization (DP)	Personal Accomplishment (PA)	Total Burnout score	Well-being Index
Spearman's rho	Emotional Exhaustion (EE)	Correlation Coefficient	1.000	0.273**	0.245**	0.676**	0.092
		Sig. (2-tailed)	.	0.000	0.000	0.000	0.067
	Depersonalization (DP)	Correlation Coefficient	0.273**	1.000	0.220**	0.545**	0.074
		Sig. (2-tailed)	0.000	.	0.000	0.000	0.142
	Personal Accomplishment (PA)	Correlation Coefficient	0.245**	0.220**	1.000	-0.303**	0.073
		Sig. (2-tailed)	0.000	0.000	.	0.000	0.144
	Total Burnout score	Correlation Coefficient	0.676**	0.545**	-0.303**	1.000	0.073
		Sig. (2-tailed)	0.000	0.000	0.000	.	0.143
	Well-being Index	Correlation Coefficient	0.092	0.074	0.073	0.073	1.000
		Sig. (2-tailed)	0.067	0.142	0.144	0.143	.

Table 7: Predictors of Psychological Well-being (Regression Analysis)

Model		Unstandardized Coefficients		Standardized Coefficients			t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta					Lower Bound	Upper Bound
1	(Constant)	1.281	.087				14.757	.000	1.110	1.451
	EE_DIS	.016	.029	.029			.540	.590	-.042	.073
	DP_DIS	.040	.032	.067			1.265	.207	-.022	.102
	PA_DIS	.027	.030	.048	.898	.370	-.032			.085

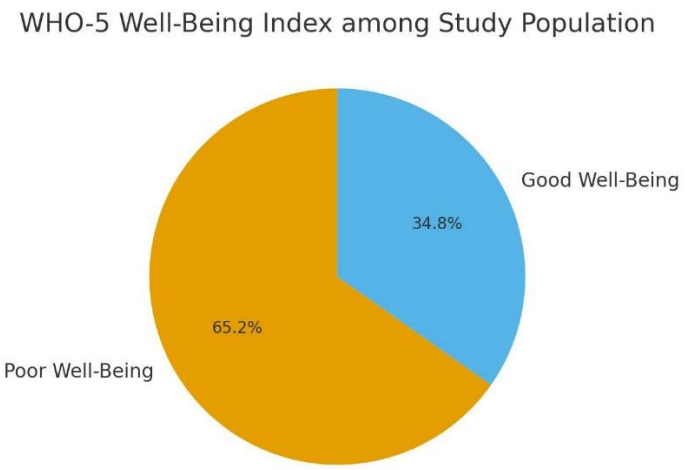

Figure 2 WHO-5 Well-Being Index Among Study Population

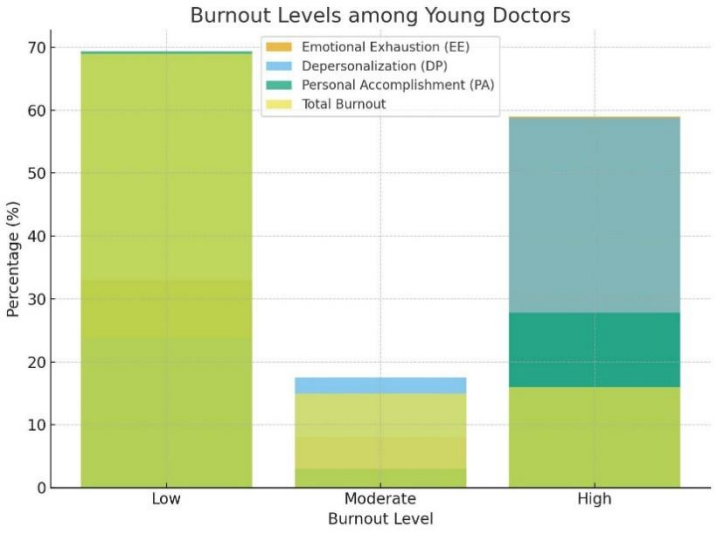

Figure 2 Burnout Levels Among Young Doctors

DISCUSSION

The study demonstrated a substantial burden of burnout among young doctors in Rawalpindi and clarified how workload characteristics related to this burden while psychological well-being remained only weakly explained by the measured dimensions of burnout. More than half of participants reported high emotional exhaustion and depersonalization and nearly seven in ten reported low personal accomplishment, a pattern that paralleled the high proportion screening positive for poor well-being on WHO-5. These findings aligned with regional and international reports that documented widespread burnout in health professionals working under resource strain and high clinical throughput (16). The observed profile also resonated with evidence from national surveys and hospital-based cohorts in other settings that reported similarly high levels of emotional exhaustion and depersonalization (17,18). Consistent with prior literature, the present results suggested that prolonged working hours—rather than nominal shift pattern—were the principal workload correlate of burnout, with ≥12-hour shifts associating with markedly higher emotional exhaustion and depersonalization and lower personal accomplishment, while day-only, rotating, and permanent night patterns showed no statistically significant differences after grouping (19). Taken together, the data supported the interpretation that dose (total hours) mattered more than schedule configuration for young doctors in this context, a conclusion that mirrored observations from studies of nurses and physicians exposed to extended shifts in comparable systems (20,21).

The relationship between burnout and psychological well-being required careful interpretation. Correlations indicated that higher emotional exhaustion and depersonalization clustered with higher total burnout, whereas personal accomplishment moved inversely. However, the multivariable model explained only 1.1% of the variance in WHO-5 scores ($R^2 = 0.011$) and the joint contribution of

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emotional exhaustion, depersonalization, and personal accomplishment did not reach statistical significance, implying that unmeasured factors—such as organizational support, staffing adequacy, perceived fairness, leadership style, sleep quality, debt burden, family responsibilities, and individual coping resources—likely accounted for most of the variance in well-being ($p = 0.210$) (22,23). The inference that personal accomplishment associated with better well-being aligned with the view that professional efficacy functions as a protective element against the emotional toll of clinical work, especially in junior cadres navigating hierarchical environments and limited mentorship opportunities (7,23). The descriptive tendency toward higher emotional exhaustion among rotating or night workers remained plausible physiologically via circadian disruption, although in this dataset shift pattern effects were not statistically significant once categorized, reinforcing the primacy of total hours rather than timing alone (24). The implications for clinical services and workforce policy were direct. High frequencies of emotional exhaustion and depersonalization pointed toward risks for reduced job satisfaction, impaired attentional control, and turnover intentions, each of which jeopardized continuity of care in already stretched systems (18,22). The finding that extended shift length, rather than specific pattern, associated with worse burnout suggested that capping total hours, guaranteeing protected recovery time, and enforcing minimum rest between duties may be the most impactful scheduling levers. Concurrently, programs that enhance professional efficacy—supervision, feedback, mentoring, and recognition—appeared likely to bolster personal accomplishment and may buffer distress even when workload relief is imperfect (23). Screening for poor well-being using brief tools such as the WHO-5, coupled with clear referral pathways and stigma-reducing messaging, represented pragmatic steps in hospitals with limited specialist mental health capacity (20,25).

Several strengths increased confidence in the findings. The sample size was large and drawn via stratified random sampling across departments and designations, improving representativeness for young doctors working in the participating hospitals. Measurement incorporated a widely used well-being instrument with established cross-cultural performance, and internal consistency estimates suggested acceptable reliability of the combined toolset in this population. Analyses proceeded from descriptive summaries to group comparisons and multivariable modeling, which permitted convergent assessment of associations across methods. At the same time, important limitations tempered inferences. The cross-sectional design precluded causal attribution and could not capture temporal dynamics of burnout or recovery. Self-report measures introduced risks of common-method variance and social desirability bias. The burnout instrument was described as self-structured while also mirroring the three-subscale structure of a standardized 22-item tool; absence of explicit citation, scoring rules, and local validation metrics limited interpretability against external benchmarks and may have produced misclassification (1,14). The single-city setting constrained generalizability to other provinces and hospital tiers. Potentially relevant confounders—including sleep duration, on-call intensity, patient load per shift, perceived organizational support, and household demands—were not modeled, which plausibly explained the low variance in well-being accounted for by burnout scores alone (21,22). Finally, subgroup analyses by gender, specialty, institution type, and career stage were not reported; such analyses could have identified higher-risk segments for targeted interventions (13,20). Future work would benefit from prospectively measuring sleep, recovery time, and patient-to-doctor ratios; formally validating the burnout instrument against a gold standard; and testing multilevel intervention packages that combine hour caps, recovery periods, protected mentorship, and access to psychological support. Longitudinal designs could evaluate whether reducing extended shifts and strengthening professional efficacy produce durable improvements in both burnout domains and well-being. Implementation research within lower- and middle-income contexts remains essential to tailor feasible interventions under resource constraints while preserving patient safety and clinician vitality (4,23).

CONCLUSION

The findings of this study concluded that shift workload played a pivotal role in shaping burnout among young physicians in Rawalpindi. Emotional exhaustion, depersonalization, and reduced personal accomplishment were markedly influenced by shift duration, indicating that longer working hours placed a considerable psychological burden on doctors. In contrast, overall psychological well-being appeared less sensitive to variations in shift pattern, suggesting that burnout manifests more directly from occupational strain than from general mental health changes. These insights underscore the necessity for institutional reforms focused on balanced scheduling, adequate rest periods, and the incorporation of structured wellness programs. Strengthening workplace support systems, promoting resilience-building interventions, and optimizing shift management policies could substantially mitigate burnout, enhance job satisfaction, and safeguard both physician health and the quality of patient care.

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AUTHOR CONTRIBUTION

Author	Contribution
Mushda Jamal	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Aakash Kumar	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Muneeba Zubair	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Komal Jahanzeb	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Warda Nasir	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Naureen Kanwal	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published
Hamza Jamal Khattak	Contributed to study concept and Data collection Has given Final Approval of the version to be published
Syed Jawad Ali Bukhari*	Writing - Review & Editing, Assistance with Data Curation

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