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# Burnout and Suicidal Ideation among Gynecology and Emergency Medical Professionals: A Cross-Sectional Study in Pakistan

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#### **Abstract**

**Background:** Burnout is an important concern among healthcare workers, specifically those in gynecology and emergency departments. However, little is known about burnout syndrome and suicidal ideation among healthcare workers in Pakistan. This aim of this study was to investigate burnout and suicidal ideation among medical professionals working in gynecology and emergency departments in Pakistan.

Methods: This cross-sectional study on 300 medical professionals working in gynecology and emergency departments was conducted at five tertiary care hospitals in Rawalpindi and Islamabad. Healthcare workers were invited to complete study questionnaires including demographics, *Maslach Burnout Inventory*, and *Suicidal Ideation Attributes Scale*. We performed descriptive statistics along with an *Independent Sample T-Test, Multiple Regression*, and *Chi-Square* test. Results: The results indicated that 32.3% of the participants expressed significant emotional exhaustion, 38.7% experienced a high level of depersonalization, and 78.3% felt a low sense of personal accomplishment. In addition, 13.7% of the participants were identified as having a high risk for suicidal thoughts. The subscales of burnout, including emotional exhaustion ( $\beta$ =0.17, p < .001), depersonalization ( $\beta$ =0.27, p < .001), and personal accomplishment ( $\beta$ =0.16, p < .001) were found to positively predict suicidal ideation. Female professionals, specifically those employed in the field of gynecology, as well as nurses, exhibited elevated levels of burnout.

**Conclusion:** The study has shown an association between burnout syndrome and suicidal ideation among medical professionals working in gynecology and emergency departments. Public health interventions are warranted to address the mental well-being of medical professionals working in the Gynecology and Emergency departments in Pakistan.

#### **Keywords**

Burnout Syndrome, Suicidal Ideation, Medical Professionals, Emergency, Gynecology, Pakistan

### INTRODUCTION

# Burnout and Suicidal ideation among Medical Professionals

Long-term stress in the workplace marked by emotional exhaustion, depersonalization, and reduced personal achievement causes burnout. Emotional exhaustion refers to the condition of experiencing emotional depletion and extreme fatigue as a result of one's professional obligations. Depersonalization is characterized by a sense of detachment or a diminished sense of personal connection with both patients and colleagues (Maslach & Leiter, 2016). Ultimately, a reduced feeling of personal achievement suggests a decline in feelings of competence and successful completion in one's interpersonal endeavors. Burnout is a prevalent issue among healthcare professionals

due to the demanding nature of their duties, and it can have serious repercussions, such as suicidal ideation (Tan et al., 2022). The relationship between burnout and suicidal ideation among healthcare professionals has been extensively researched and documented. As an illustration, a recent study by Ryan et al. (2023) undertook a systematic review and discovered a noteworthy correlation between burnout and suicidal ideation among physicians. This underscores the pressing need for mental health support in this domain (Ryan et al., 2023). In addition, suicidal ideation is an extreme consequence that arises from prolonged stress and burnout (Dres et al., 2023). So, experiencing burnout can lead to serious mental health issues, including feelings of sadness and thoughts of suicide (Stehman et al., 2019; Zaheer et al., 2020).

# Factors Associated with Burnout among Medical Professionals

Gynecology and emergency medical personnel's mental and physical well-being is significantly influenced by extended working hours, professional experience, and various demographic factors that can contribute to burnout (Smith & Rayburn, 2021; Stehman et al., 2019). These specialties are characterized by long hours and high patient volumes, as noted in recent studies (Alrawashdeh et al., 2021; DeLucia et al., 2019). As highlighted by Wright and Katz (2018), certain medical fields often necessitate healthcare professionals to work long hours without adequate breaks, leading to chronic fatigue and heightened stress levels. This results in both physical and mental fatigue (Wright & Katz, 2018). The emotional strain associated with these occupations exacerbates burnout. Emergency medical technicians and gynecologists encounter serious and potentially life-threatening situations, often involving traumatic experiences (Algahtani et al., 2019; Khan et al., 2020). The demanding nature of emergency care, characterized by heavy workloads, extended hours, and regular exposure to distressing situations, has been identified as a contributing factor (Khan et al., 2020) that led to emotional distress and professional burnout. In addition, the COVID-19 pandemic has worsened the already heavy workload and psychological stress experienced by medical personnel (Ahmed et al., 2021).

Numerous studies carried out globally have consistently indicated elevated levels of burnout in certain specific fields. One study in the US found that 54% of emergency medicine doctors were showing signs of burnout (West et al., 2016). Emergency medical workers often face burnout because of frequent exposure to traumatic events and the need to make quick decisions in high-stress circumstances (Stehman et al., 2019). Smith and Rayburn (2021) found that a significant number of gynecologists suffered from burnout due to the significant constraints connected with their profession. Similarly, the insufficient resources, demanding workloads, extended workdays, and overwhelming patient-todoctor ratios in Pakistan contribute significantly to the emotional exhaustion and depersonalization experienced by medical professionals, including those in high-stress specializations such as emergency medicine and gynecology (Andlib et al., 2022; Hussain et al., 2023; Zaheer et al., 2020).

Suicidal ideation is one of the many mental health difficulties that can arise from working in such a stressful setting. While limited in breadth, current research on this connection suggests an alarming tendency. Qureshi et al. (2020) study found that a large number of healthcare professionals in Karachi had suicide ideation, which was strongly connected with elevated levels of work-related burnout. Existing research suggests a strong link between burnout and suicidal thoughts among medical workers in Pakistan. This connection needs to be investigated more to fully understand it.

Furthermore, cultural and socioeconomic variables have a significant impact on burnout, particularly in Pakistan. High professional standards and prevalent societal attitudes concerning mental health might create difficulties for medical practitioners seeking therapy. Zaheer et al. (2020) determined that such circumstances increase the likelihood of suffering burnout and considering suicide. Furthermore, various studies have consistently found that demographic characteristics such as gender and marital status are associated with burnout levels among medical professionals (Ahmad et al., 2022; Malik et al., 2023). According to a recent study by Hussain et al. (2023), female doctors face elevated levels of stress and emotional exhaustion as a result

of the added responsibilities imposed by societal and familial expectations. Furthermore, an individual's marital status can have an impact on burnout because married people may face different stressors than unmarried people (Shaikh et al., 2019). Another study suggests that marriage can give emotional support, potentially protecting against burnout (Kesarwani et al., 2020). According to Ahmad et al. (2022), marital status might have varying effects on burnout, which are impacted by the support networks available at home and work.

In Pakistan, there have been serious concerns raised about burnout and suicide ideation. This study aims to address gaps in the current understanding of burnout and its correlation with suicidal ideation among emergency medical and gynecological practitioners in Pakistan. By focusing on this specific group, the study seeks to provide important insights into this critical issue.

## **OBJECTIVES**

- To assess the level of burnout dimensions and suicidal ideation among medical professionals.
- To determine the role of burnout dimensions in predicting suicidal ideation among gynecology and emergency medical professional.
- To assess the association of demographic factors with burnout levels among medical professionals working in gynecology and emergency departments.

### MATERIAL AND METHODS

### Participants and Procedure

This cross-sectional study was conducted from December 2022 to March 2023 in 5 tertiary care hospitals located in Rawalpindi and Islamabad. A total of 385 medical professionals including physicians, nurses, and administrative staff working in gynecology and emergency departments were approached for data collection by using a purposive sampling technique. 85 respondents' data were removed due to incomplete data. Medical professionals working in these two departments on contractual and permanent employment were included, whereas those who are

in an ad hoc job or suffering from medical or mental health issues were excluded from the study.

### **Study Instruments**

A demographic sheet was designed including age, gender, employment status (contract or permanent), department, professions (physicians, nurses, or administrative staff) working hours per day, working experience, organization type (private, government, or semi-government), and marital status.

## Maslach Burnout Inventory

Maslach Burnout Inventory (MBI) is based on 22 items with three subscales used to assess burnout among study participants (Maslach et al. 2001) The first subscale, Emotional Exhaustion (EE) includes 9 items assessing emotional and mental exhaustion, loss of interest, and physical problems. The second subscale, depersonalization (DP) contains 5 items assessing detachment, cynicism, and negative attitude towards patients. The third subscale Personal Accomplishment (PA) based on 8 items evaluates one's sense of professional competence and achievement in work life. MBI scores are determined by the frequency with which respondents experience burnout sensations. The rating scale ranges from 0 (never) to 6 (every day). For Emotional Exhaustion (EE), scores over 30 indicate a 'High' level of burnout, scores ranging from 18 to 29 suggest a 'Moderate' level, and scores below 17 indicate a 'Low' level. Similarly, for the DP subscale, scores less than 5 indicate 'Low-level burnout', scores between 6-11 show 'Moderate burnout', whereas scores 12 and above show 'High level burnout'. PA scoring is the reverse of both subscales EE and DP. PA categorizes burnout as 'High' for scores below 33, 'Moderate' for scores between 34-39, and 'Low' for scores above 40. The presence of burnout syndrome is indicated by high mean scores on the EE and DP subscales, together with low scores on the PA subscale as mentioned in the MBI scoring manual (Maslach, 1997). The scale has high reliability with Cronbach's alpha coefficient of 0.85 (Hussain et al., 2023).

#### Suicidal Ideation Attributes Scale

The suicidal ideation attributes scale was used to assess the presence and severity of suicidal ideations.

This scale consists of a total of five attributes, namely, the presence of suicidal thoughts, controllability of thoughts, closeness to suicidal attempts, distress associated with these thoughts, and their effect on daily functioning. It is a reliable and validated scale with a Cronbach alpha of 0.91 (Van Spijker et al., 2014). Responses of participants were assessed on a 10-point rating scale that ranged from 0 (never) to 10 (always). The total score ranges between 0 to 50 with which the highest score indicated the greatest suicidal ideation among participants.

## Data Analysis

Data analysis was conducted using version 24 of the Statistical Package for Social Sciences (SPSS). Data analysis involved the utilization of both descriptive and inferential statistics. The analysis employed descriptive statistics to compute the frequency and percentages of demographic characteristics among the respondents. An independent sample T-test was used to assess the significant differences in the score of burnout and suicidal ideation between gynecological and emergency medical practitioners. The researchers used multiple regression analysis to determine the role of burnout subscales in predicting suicidal ideation among medical professionals. Chi-square statistics were employed to determine potential connections between burnout dimensions and respondent demographics.

## Ethical approval and consent

This study was conducted in accordance with the Declaration of Helsinki. Ethical approval from the institutional review board (Ref. FUSST/IRB/089) was obtained for this study. Written informed consent was taken before collecting data from the participants. Confidentiality and anonymity were assured to participants.

Table 1: Demographic Characteristics of Study Respondents

Variable	Category	n (%)
Gender	Male	73 (24.3)
Genuel	Female	227 (75.7)
Department	Emergency	188 (62.7)
Department	Gynecology	112 (37.3)
	Nurse	213 (71.6)
Profession	Physician	68 (22.7)
	Administrative Staff	19 (6.3)
	Government	217 (72.3)
Organization Type	Private	48 (16.0)
	Semi-Government	35 (11.7)
FI	Contract	79 (26.3)
Employment Status	Permanent	221 (73.7)
	Fewer than 5 years	93 (31)
Washing Functions	5-10 years	78 (26)
Working Experience	11-20 years	114 (38)
	More than 20 years	15 (5)
Working hours	Fewer than 10 hours	238 (79.3)
per day	More than 10 hours	62 (20.7)
	Married	234(78)
Marital Status	Unmarried (Never Married)	59 (19.7)
	Single (Divorced or Widow)	7 (2.3)

### **RESULTS**

The final sample comprised 300 individuals. Of these, 75.7% were female, 62.7% were employed in the emergency department, and the remaining 37.3% were from the gynecological department. The majority of participants, specifically 79.3% of individuals, worked fewer than 10 hours per day (Table 1).

Table 2 shows that the respondent score of burnout subscales and suicidal ideation. 46.7% indicated a low degree of Emotional Exhaustion, while 21.0%

reported moderate levels and 32.3% reported high levels. Regarding Depersonalization, 27.7% of participants exhibited low levels, 33.7% showed moderate levels, and 38.7% displayed high levels. In terms of Personal Accomplishment, 7.0% of respondents indicated low levels of burnout, 14.7% identified moderate levels, and 78.3% expressed high levels of burnout. Regarding Suicidal Ideation, out of the total 300 respondents, 86.3% were classified as being at low risk, while 13.7% were classified as being at high risk.

Table 2: Respondent score of Burnout subscales and suicidal ideation

Variables	Range	n (%)
	Low-Level Burnout	140 (46.7%)
Emotional Exhaustion	Moderate Level Burnout	63 (21.0%)
	High-Level Burnout	97 (32.3%)
	Low-Level Burnout	83 (27.7%)
Depersonalization	Moderate Level Burnout	101 (33.7%)
	High-Level Burnout	116 (38.7%)
	Low-Level Burnout	21 (7.0%)
Personal Accomplishment	Moderate Level Burnout	44 (14.7)
	High-Level Burnout	235 (78.3%)
Suicidal Ideation	Low risk of Suicidal Ideation	259 (86.3%)
Suiviual luedlivii	High Risk of Suicidal Ideation	41 (13.7%)

Table 3 shows that medical professionals working in gynecology departments had significantly higher burnout with  $73.3 \pm 18.6$  than those working in emergency departments (p =0.002). However, no

significant difference in mean score on suicidal ideation was observed between medical professionals working in either department. (Table 3).

**Table 3:** Comparison of Burnout Syndrome and Suicidal Ideation in Medical Professionals working in the Emergency and Gynecology Departments

Variables	Emer	gency 188	Gynec N=		t	р	Cohen's d
	М	SD	М	SD			
Burnout Syndrome	65.1	16.9	73.3	18.6	-3.81	.002	0.46
Suicidal Ideation	18.8	6.5	19.0	6.9	-0.23	.82	0.03

Table 4 shows the impact of occupational exhaustion, depersonalization, and personal accomplishment on Suicidal Ideation among medical professionals. The  $R^2$  value of .21 revealed the predictors explained 21%

variance in the outcome variable with F (3,296) = 16.68, p <.001. The findings revealed that emotional exhaustion ( $\beta$ =.17, p < .001), depersonalization ( $\beta$ =.27, p < .001), and low personal accomplishment

 $(\beta=.16, p < .001)$  positively predicted suicidal ideation among medical professionals working in emergency

and gynecology department.

Table 4: Association between the domains of burnout and Suicidal Ideation revealed by Multiple Regression Coefficients

Variables	Unstandardized	coefficients	Standardized coefficients		_
Variables	В	SE	β	ι	p
Constant	24.0	3.2		11.5	<.001
Emotional Exhaustion	.9	.1	.17	2.2	<.001
Depersonalization	24	.3	.27	3.3	<.001
Personal Accomplishment	.2	.2	.16	2.8	<.001

Table 5 highlights the associations between burnout dimensions and sociodemographic factors. Regarding emotional exhaustion, males showed a fairly even distribution, with 45.2% at low, 26.0% at moderate, and 28.8% at high levels. In contrast, females had 47.1% at low, 19.4% at moderate, and 33.5% at high levels. However, a significant disparity emerged between males and females in terms of depersonalization and personal accomplishment. Specifically, 38.8% of females experienced high depersonalization (p = 0.001), and 81.9% had a low sense of personal accomplishment (p = 0.025) compared to males. The department also played a key role in burnout levels. Emergency staff exhibited a more balanced distribution of emotional exhaustion, with 48.9% at low, 24.5% at moderate, and 26.6% at high levels, compared to the Gynecology department (p = 0.013). However, the Gynecology department reported a significantly higher level of depersonalization (51.8%) on the burnout subscale (p < 0.001) than the Emergency department. Significant differences were also observed between nurses and physicians concerning emotional exhaustion and depersonalization. Nurses showed a balanced distribution in emotional exhaustion, with 46.5% at low, 26.8% at moderate, and 26.8% at high levels. In contrast, physicians had a higher prevalence of high emotional exhaustion at 51.5% (p = 0.001). Additionally, nurses demonstrated significantly higher rates of depersonalization burnout at 29.1% (p < 0.001) compared to physicians and administrative staff. However, no significant differences were reported on the personal accomplishment subscale.

#### **DISCUSSION**

# Burnout and Suicidal Ideation in Gynecology and Emergency Departments

This study looked at the level of burnout and suicidal ideation among medical professionals working in gynecology and emergency departments in Pakistan. Our research findings indicated that medical professionals had significant moderate to severe emotional exhaustion and depersonalization.

Out of all the respondents, strikingly, 78.3% reported experiencing a significant degree of burnout when it came to their achievements. These findings are consistent with the literature, which emphasizes the prevalence of burnout among healthcare workers. Tan et al. (2022) found that 37.8% of Singaporean healthcare professionals reported emotional exhaustion.

The elevated level of burnout among healthcare practitioners can be attributed to various cultural and institutional factors such as limited resources, insufficient support networks, and socio-cultural pressures (Alanazi et al., 2021). Burnout among healthcare professionals in Pakistan can also be attributed to a variety of cultural and societal concerns. Limited resources, a lack of support networks, and social pressures are all factors that can lead to feelings of ineffectiveness and failure (Andlib et al., 2022). Furthermore, the study found that 13.7% of participants were at high risk of suicidal ideation.

Table 5: Association between the domains of burnout and socio-demographic characteristics

		Emotional Exhaustion	austion			Depersonalization				Personal Accomplishment	plishment	
Variable	low	moderate	High	d	low	moderate	High	d	low	moderate	High	d
Gender	(%) u	(%) u	l (%)		(%) u	[%] u	[%] u		l (%)	(%) u	[%] u	
Male	33 (45.2)	19(26.0)	21(28.8)	0 220	21(28.8)	24(32.9)	28(38.4)	0.001	49(67.1)	17[23.3]	7(9.6)	0.025
Female	107 (47.1)	44 (19.4)	76 (33.5)	7 77.0	62(27.3)	77(33.9)	88(38.8)	00:0	14(6.2)	27(11.9)	186(81.9)	2000
Department												
Emergency	92 (48.9)	6(24.5)	50(26.6)	0.013	62(33.0)	68(36.2)	8(30.9)	<0.001	16(8.5)	32(17.0)	140(74.5)	0.105
Gynecology	48 (42.9)	17(15.2)	47(42.0)		21(18.8)	33(29.5)	58(51.8)		5(4.5)	12(10.7)	95(84.8)	
Profession												
Nurse	99 (46.5)	57(26.8)	57(26.8)	100 0	59(27.7)	92(43.2)	62(29.1)	100 0,	17(8.0)	30(14.1)	166(77.9)	187 0
Physicians	27 (39.7)	(8.8) 9	35(51.5)	0000	24(35.3)	4(5.9)	40(58.8)	00.07	3(4.4)	13(19.1)	52(76.5)	0.40
Administrative Staff	14 (73.7)	0(0.0)	5(26.3)		0(0.0)	5(26.3)	14(73.7)		17(89.5)	1(5.3)	1(5.3)	
Employment Status												
Contract	31(39.2)	12(15.2)	36(45.6)	0.012	13(16.5)	16(20.3)	50(63.3)	<0.001	3(3.8)	14(17.7)	62(78.5)	0.32
Permanent	109(49.3)	51(23.1)	61(27.6)		70(31.7)	85(38.5)	66(29.9)		18(8.1)	30(13.6)	173(78.3)	
Working Experience												
Less than 5 years	39(41.9)	13(14.0)	41[44.1]		19(20.4)	19(20.4)	55(59.1)		5(5.4)	14(15.1)	74(72.9)	
5-10 years	42(53.8)	19(24.4)	17(21.8)	0.010	24(30.8)	32(41.0)	22(28.2)	0.001	6(7.7)	15(19.2)	57(73.1)	0.62
11-20 years	53(46.5)	30(26.3)	31(27.2)		34(29.8)	50(43.9)	30(26.3)		10(8.8)	13(11.4)	91(79.8)	
More than 20 years	(40.0)	1(6.7)	8(53.3)		(40.0)	0(0:0)	(0'09)6		0(0.0)	2(13.3)	13(86.7)	
Working hours per day												
Less than 10	127(53.4)	41(17.2)	70(29.4)	0.001	62(26.1)	94(39.5)	82(32.5)	0.001	119(50)	33(13.9)	86[36.2]	0.004
More than 10	13(21.0)	22(35.5)	27(43.5)		21(33.9)	7(11.3)	34(54.8)		2(3.2)	11(17.7)	(0.67)64	
Marital Status												
Married	106(45.3)	61(26.1)	67(28.6)	70 07	64[27.4]	86(36.8)	(6'38)78		179(76.5)	36[15.4]	19(8.1)	70 007
Unmarried	28(47.5)	1(1.7)	30(50.8)	0000	19(32.2)	9(15.3)	31(52.5)	0.001	49(83.1)	8(13.6)	2(3.4)	000
Single	0(0.0)	1[14.3]	6(85.7)		0(0.0)	6(85.7)	1(14.3)		7(100.0)	0(0.0)	0(0.0)	

This raises serious concerns about the mental health of healthcare practitioners, particularly given the demanding and high-pressure work environments.

Consistent with prior research the current study suggests that healthcare staff in gynecological departments are more likely to experience burnout than those in emergency departments. Suicidal thoughts did not vary significantly across medical professions, most likely due to the emotionally stressful nature of their work (Balie et al., 2019; Hussain et al., 2023; Stehman et al., 2019; Ventriglio et al., 2020). In contrast, some studies have shown contradictory results (Alqahtani et al., 2019; Bragard et al., 2015), demonstrating that emergency departments are more stressful than other medical departments, with emotional depletion and a substantial degree of depersonalization.

A study conducted in Poland found that a significant majority of emergency department workers, around 98%, reported experiencing burnout and suicidal ideation (Witczak-Błoszyk et al., 2022). This resulted in heightened psycho-physical exhaustion due to the limited availability of psychological support. A study conducted in Pakistani tertiary care institutions in 2023 revealed that 55% of individuals in gynecology department were experiencing high emotional exhaustion (Hussain et al., 2023).

# Role of Burnout Subscales in Predicting Suicidal Ideation

In addition, our study revealed that emotional depersonalization, exhaustion, and personal accomplishment strongly correlate with suicidal ideation in medical health professionals. With regards to the findings, depersonalization emerged as the strongest predictor ( $\beta$ =.27) for suicidal ideation, closely followed by emotional exhaustion ( $\beta$ =.17) and personal accomplishment ( $\beta$ =.16). The results of our study align with the research conducted by Dres et al. (2023), which also identified a notable correlation between burnout and suicidal ideation. It is crucial to prioritize the implementation of mental health assistance and preventive measures in healthcare settings. The findings from various studies conducted in different countries (Balie et al., 2019; Khan et al., 2020; Stehman et al., 2019)

reported significant work-related burnout and a higher risk of suicidal ideation. In line with recent studies by Berardelli et al. (2022) and Menon et al. (2020) it has been found that medical professionals working in demanding environments experience a notable decline in personal achievement when they are exposed to moderate to high levels of emotional exhaustion and depersonalization. Experiencing a decrease in personal achievement can lead to feelings of hopelessness, inadequacy, and despair, which can increase the risk of considering suicide (Jesus et al., 2023; Stehman et al., 2019). Ali and Saleem (2024) discovered similar trends of burnout and thoughts of suicide among healthcare workers in Pakistan which is consistent with our findings.

## Association between Demographic Variables and Burnout Level

Our research revealed significant gender disparities in burnout subscales. Specifically, 38.8% of female healthcare professionals reported higher levels of depersonalization compared to their male counterparts but no significant results had been observed on emotional and personal accomplishment subscales among participants. Furthermore, a substantial majority of females, specifically 81.9%, indicated a low level of personal success. The findings suggest that female healthcare practitioners may experience emotional detachment and reduced effectiveness, which are common symptoms of burnout.

Similar patterns have been observed in previous studies conducted in Pakistan. Research conducted by Ahmed et al. (2021) and Malik et al. (2023) revealed that female physicians experienced higher levels of emotional exhaustion and depersonalization compared to male physicians. The study attributed this difference to the combined burden of professional responsibilities and cultural expectations placed on women in Pakistan. It is common for women in Pakistan to balance their professional duties with traditional household chores, leading to increased stress and fatigue (Zaheer et al., 2020). According to the findings of this study, the gynecology department experienced a significant rise in depersonalization burnout, with 51.8% of individuals reporting this particular form of burnout. This is in line with the understanding that gynecological practitioners face unique stressors related to patient demands and societal influences. The prevalence of burnout in the gynecology department in Pakistan aligns with findings from previous studies (Hussain et al., 2023; Khan et al., 2020; Smith & Rayburn, 2021).

Other notable findings of our study found that majority of nurses showed low emotional whereas physicians had a higher prevalence of high emotional exhaustion. This finding can be justified by considering the differences in the roles and responsibilities of nurses and physicians. Nurses often have more direct and continuous patient interactions, which can provide them with immediate emotional support and a sense of accomplishment from patient care, potentially mitigating emotional exhaustion. In contrast, physicians often face higher levels of responsibility, decision-making pressures, and longer working hours, which can lead to increased emotional exhaustion (Menon et al., 2020). The demands of diagnosing and managing complex medical conditions, combined with the stress of high-stakes decision-making, may contribute to the higher prevalence of emotional exhaustion among physicians. Moreover, the current study showed that nurses experienced a significantly higher rate of depersonalization burnout (29.1%) compared to physicians and administrative workers. The findings highlight the challenges faced by nurses, who often have the most frequent and direct contact with patients (Algahtani et al., 2019). The hierarchical structure of healthcare establishments in Pakistan may contribute to the high burnout rates among nurses. One reason for this is the comparatively restricted autonomy, high patient-to-nurse ratios, and a lack of professional recognition and decisionmaking authority of nurses when compared to doctors and administrative staff (Kousar et al., 2017).

Overall, the current the findings of this study highlight the significant association of burnout with suicidal ideation among medical professionals working in the gynecological and emergency departments in Pakistan.

### LIMITATIONS AND RECOMMENDATIONS

Several limitations should be taken into account in the present study. The study employed a cross-sectional study design. To obtain a more thorough understanding of these variables, it may be beneficial for future researchers to utilize a mixed method approach or triangulation method. In addition, this study focused solely on two specific specialties: emergency medicine and gynecology. To improve the overall scope of future research, it is advisable to include data from a broader array of departments. In addition, additional research could explore potential risk factors, such as longer work hours, and analyze the impact of work experience on suicidal ideation.

### CONCLUSION

Our study indicates a positive association between occupational burnout syndrome and suicidal ideation among medical professionals in Pakistan. Furthermore, the medical professionals in gynecology departments tend to face high-level burnout as compared to emergency departments. Pakistan, being a developing country, is facing daunting challenges in the healthcare sector. Therefore, current findings tend to highlight the strong need to incorporate mental health services and assessments to reach out to individuals who are undergoing stress and exposed to burnout.

### **DECLARATIONS**

## Acknowledgment

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## **Author Contribution**

Conceptualization and Literature: SK, ZN, NS, SS

Data Collection: SK & ZN

Data analysis and Manuscript Writing: SK, ZN, NS

Final Draft Review: SMYA, AB, SS

### **Conflicts of interest**

The authors declare they have no competing interests.

### **Ethical Approval**

This study was approved by the research ethical committee of Foundation University Islamabad (FUSST/IRB/089). In addition, a formal letter was sent to the hospitals to get permission for data collection. Permission to administer MBI was obtained from Mind Garden.

### **Funding**

None

#### **Informed Consent**

Written and verbal informed consent was attained from all participants. All methods were performed per relevant guidelines and regulations.

### Study registration

None

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