

# Gender Difference of Burnout in Physicians Working in Tertiary Care Hospital: A Cross-Sectional Study

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## ABSTRACT

Burnout and emotional exhaustion are becoming common among health workers in the busy teaching hospitals due to increased workload and the dearth of human resource. This study aimed to determine the causes of burnout among doctors and across gender differences. This was a descriptive cross-sectional study conducted in the Fauji Foundation Hospital, Rawalpindi, Pakistan, from 1<sup>st</sup> July to 30<sup>th</sup> September 2022. Two hundred and forty-five randomly recruited doctors who filled out self-administered questionnaires were included in the study. Independent samples t-test was used for comparison of the mean emotional burnout score. Female doctors felt more emotionally drained, more fatigued, and more worn out from work than male doctors ( $p < 0.05$ ). Overall emotional exhaustion was also higher in female doctors ( $p < 0.05$ ). This situation was more serious during the COVID-19 pandemic. Gender-sensitive environments, workplace policies, and necessary interventions will save physicians' burnout and brain drain. Emotional burnout is greater in female doctors as compared to their male counterparts. This evidence not only calls for prevention and treatment but also certain service-related reforms to facilitate female physicians to balance out their work and family lives more effectively.

**Key Words:** Physicians, Emotional exhaustion, Burnout, Gender difference, Pakistan.

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Mental stress and emotional exhaustion are considered one of the major factors that can lead to burnout among employees in any organisation. Burnout is defined as lack of enthusiasm, depersonalisation, emotional exhaustion, and diminished personal accomplishment in context to the work environment.<sup>1</sup> Work-related burnout is recognised internationally in all sorts of workplaces, however, sizeable research shows a greater prevalence among healthcare professionals.<sup>2</sup> It is a major public health concern too. Female doctors are more susceptible to emotional exhaustion and burnout than males, due to their household chores, family matters, health issues, and other preoccupations. This burnout is driven by a difference in the way female physicians communicate with their patients i.e. with care, empathy, and compassion. There is growing evidence that work burnout among healthcare professionals has a negative connotation to their performance and patient outcomes.<sup>3</sup> The well-being of doctors is fundamental for an effective healthcare system.

Existing literature on burnout among doctors does not highlight any gender difference in this regard, in spite of the fact that the number of female doctors is increasing significantly. Gender difference in burnout phenomenon has not been studied in Pakistan, therefore, this study aimed to identify these differences to add to the existing knowledge base on the subject matter.

This is a descriptive cross-sectional study conducted at the Fauji Foundation Hospital, Rawalpindi, Pakistan. The duration of the study was three months from 1<sup>st</sup> July to 30<sup>th</sup> September 2022. The study was started after the ethical review from the Ethical Review Committee. Written informed consent was taken from the participants included in the study. Incomplete responses and those who were on leave as per hospital records were excluded from the study. The doctor who was considered as burnout was further tested based on the emotional exhaustion subscale. The sample size was calculated through the WHO sample size calculator and the total number of study participants reached out was 245 after a random sampling method with a confidence level of 95%, population proportion of 74.4%,<sup>2</sup> and precisions of 4%. Twenty proformas were excluded from the study as they were incomplete and had missing data. The questionnaire was adopted from a study conducted in 2016.<sup>2</sup> The emotional exhaustion (EE) comprised of a 9-item EE subscale of the validated Maslach Burnout Inventory (MBI), and was designed on 7-point Likert scale ranging from 0 (strongly disagree) to 7 (strongly agree).<sup>4</sup> The (Cronbach's) alpha coefficient of the EE subscale was 0.93. Randomisation was performed via computer-generated number entries.

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**Table I: Gender differences in emotional exhaustion scale (n = 205).**

	Male Mean ± SD	Female Mean ± SD	p-value	CI (lower-upper)
Used up/worn out	4.63 ± 1.56	5.91 ± 1.30	< 0.001	-1.685 - 0.889
Emotionally drained	4.48 ± 1.34	5.34 ± 1.51	< 0.001	-1.278 - 0.460
Fatigued in the morning	3.88 ± 2.09	5.22 ± 1.59	< 0.001	-1.852 - 0.830
Frustrated	3.18 ± 1.39	4.59 ± 1.92	< 0.001	-1.908 - 0.926
Burnout	3.44 ± 1.49	4.48 ± 1.88	< 0.001	-1.535 - 0.550
Working too hard	3.91 ± 1.67	3.43 ± 1.83	< 0.001	-0.021 - 0.982
End of my rope	3.33 ± 1.49	3.86 ± 1.70	< 0.001	-0.990 - 0.072
Working with people	3.89 ± 1.96	4.81 ± 1.88	< 0.001	-1.461 - 0.380
Stress	3.89 ± 4.66	4.66 ± 1.74	< 0.001	-1.275 - 0.262
Overall emotional exhaustion	34.60 ± 97.60	42.30 ± 11.63	< 0.001	-10.788 - 4.604

*p-value < 0.05 is significant (Independent-sample t-test).*

SPSS software (21.0) was used for data analysis in this study. Data were presented in terms of frequencies and percentages, mean and standard deviation. Independent Samples test was used for comparison of average emotional burnout scores among male and female gender. A p-value of < 0.05 was taken as the level of significance. Among 245 doctors who reached out, 205 completed the questionnaire, making a response rate of 91.11%. There were 39% males and 61% females enrolled in the study. Most of the participants had an age between 20-30 years. Among the participants, 42.9% were house officers, 41.5% were residents, and 12.7% were consultants/specialists. There were 74.6% participants who had experience of less than 9 years and 19% who had an experience of more than 10 years. Majority of the participants were not married (62.4%).

The items included in the EE (burnout) scale were phrased as questions for participants, such as whether they feel worn out by the end of a day at the hospital, whether they feel emotionally drained/ exhausted due to studies, do they suffer from fatigue in the morning, feel frustrated whether they feel that they are working too hard on studies, and whether they feel that they are at the end of the rope.

In Table I, the differences in the EE (Burnout) scale between male and female doctors were calculated by independent-sample t-test. Female doctors being more affected than male doctors due to work stress ( $p < 0.05$ ). Female doctors felt more fatigued in the morning ( $p < 0.05$ ) than males, whereas male doctors were not as affected as females in being worn-out at the end of the week ( $p < 0.05$ ), overall emotional exhaustion (burnout) was more in female doctors than in male doctors ( $p < 0.05$ ).

Various studies have been conducted around the globe on burnout among doctors but very few studies in Pakistan have discussed this in terms of gender difference. The findings in this study showed that female doctors in Pakistan show considerably high emotional exhaustion in contrast to their male counterparts. The results of this study are in accordance with other international studies on emotional exhaustion or burnout among doctors. A study conducted in Egypt also showed a high level of burnout among doctors i.e., 25%.<sup>5</sup> In a study from Europe, it was seen that female

doctors suffer from a higher level of burnout in terms of emotional exhaustion than male doctors.<sup>6</sup> In the present study, significant emotional exhaustion was seen on nine scales with major gender differences. The female doctors were unable to work daily and experienced a greater level of exhaustion in contrast to male doctors by the end of the week. Therefore, this study is in concurrence with various international studies. Female doctors tend to have better physical health than male doctors, yet they have more tendencies towards depression, anxiety, and mental instability than male counterparts. This study suggests a counter-balance between boundaries in settings of doctors and patients' relationship with empathy. Female doctors have a higher level of emotional exhaustion as they are expected to maintain a balance between work and family life.

This study is a single centric cross-sectional study conducted over a short period of three months therefore, cannot explain the variation of burnout which can happen over time limiting the generalisation of this results with the public and private sectors.

Emotional burnout is greater in female doctors as compared to their male counterparts, and therefore, this evidence not only calls for prevention and treatment but also certain service-related reforms to facilitate female physicians to balance out their work and family lives more effectively.

**PARTICIPANTS' CONSENT:**

Written informed consent was obtained from all the participants to publish the data concerning this manuscript.

**COMPETING INTEREST:**

The authors declared no conflict of interest.

**AUTHORS' CONTRIBUTION:**

MKQ: Conceptualised, designed, and supervised the study.  
 BTS: Critically reviewed the study design and gave feedback on successive drafts of the manuscript.  
 RK, AKQ: Collected data, preliminary analysis, cleaned the data, entered in software, and conducted the in-depth analysis.  
 All authors approved the final version of the manuscript to be published.

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