

A Cross-sectional Study considering Sleep Disturbances, Cognitive Efficiency, and Emotional Well-being as Determinants of Burnout Among Pakistani Physicians

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ABSTRACT:

Background: Occupational stress especially Burnout often affects physicians psychologically. It not only impairs personal wellbeing but also compromises patient care, increases medical errors, and contributes to workforce attrition. These risks are significant in countries like Pakistan, where physicians face long working hours, inadequate mental health support, and high patient volumes in under-resourced settings. Ethical approval for this study was obtained from BMY Pakistan and Canada.

Objective: To assess the relationship between sleep disturbances, cognitive efficiency and emotional well-being as determinants of burnout among physicians working in tertiary care hospitals in Pakistan.

Methods: This cross-sectional study was conducted among physicians working in public and private tertiary hospitals in Pakistan having at least three years of continuous service and aged under 60 years. Data was collected through a self-administered online survey comprising the Copenhagen Burnout Inventory, Cognitive Failures Questionnaire, Pittsburgh Sleep Quality Index, and the Kessler Psychological Distress Scale. Multiple linear regression was used to assess the association between burnout and independent variables using STATA 17 software.

Results: The mean age of participants was 36.8 years (SD±6.2), with a majority being female (67.6%). The average burnout score was 53.7 (SD±12.4), indicating moderate to high levels of burnout. In the univariate analysis, cognitive failure ($\beta=1.67$), poor sleep quality ($\beta=12.86$), and severe psychological distress ($\beta=16.88$) were significantly associated with increased burnout. In the adjusted model, cognitive failure ($\beta=1.12$), longer working hours ($\beta=0.42$), and fewer years of experience ($\beta=-0.46$) remained significant. Interaction analysis showed that physicians with severe psychological distress had significantly higher burnout, even with good sleep quality.

Conclusion: Burnout is highly prevalent and significantly associated with cognitive inefficiency, emotional strain, and work burden. Interventions targeting these modifiable factors are urgently needed to protect the wellbeing of physicians in Pakistan.

Keywords:

Burnout, Physicians, Pakistan, Psychological Distress, Sleep Quality, Cognitive Failure, Healthy Workforce, Occupational Stress