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Burnout among Physicians Working during the COVID-19 Pandemic in Bangladesh: A Hospital-Based Cross-Sectional Study

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Abstract

Background: Physician burnout during the COVID-19 pandemic has been a significant global concern, but data from Bangladesh are limited. **Objective:** The purpose of the present study was to assess burnout levels and identify associated factors among physicians working in tertiary hospitals in Dhaka, Bangladesh, during the COVID-19 pandemic. **Methodology:** This cross-sectional study was conducted from July to December 2020 with 313 physicians from five tertiary hospitals in Dhaka, Bangladesh. Burnout was measured using the Oldenburg Burnout Inventory, which was rescaled to a 0–100 metric. Multiple linear regression analysis was performed to identify the predictors of burnout. **Results:** More than half of the physicians (57.5%) experienced severe burnout, while 29.7% and 12.8% had mild and moderate burnout, respectively. Female physicians reported significantly higher burnout scores than males (B = 4.17; 95% CI: 1.82–6.52; $p = 0.001$). Poor work–life balance ($\beta = 0.292$, $p < 0.001$), COVID-19–related anxiety ($\beta = 0.214$, $p < 0.001$), and hypertension ($\beta = 0.131$, $p = 0.008$) were positively associated with burnout. In contrast, higher levels of organizational ($\beta = –0.242$, $p < 0.001$) and social support ($\beta = –0.276$, $p < 0.001$) were protective factors. Younger physicians also reported more severe burnout symptoms ($\beta = –0.128$, $p = 0.011$). The final model explained 42.7% of the variance in burnout scores (adjusted $R^2 = 0.412$). **Conclusion:** Severe burnout was highly prevalent among physicians during COVID-19, with female physicians disproportionately affected. Poor work–life balance was the strongest risk factor, whereas social and organizational support was protective. Strengthening gender-sensitive interventions and institutional support is essential to safeguard physicians' well-being and build resilience for future pandemics. [*Bangladesh Journal of Infectious Diseases, December 2025;12(2):285-293*]

Keywords: Burnout; Physicians; COVID-19; Mental Health; Work–life balance; Bangladesh

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Introduction

The novel coronavirus (COVID-19), initially identified in Wuhan, Hubei Province, China, in December 2019, rapidly spread to other countries[1]. The World Health Organization (WHO) officially declared it a pandemic on March 11, 2020[2]. More than 93 million people have been confirmed as COVID-19 positive patients with two million deaths worldwide as of January 18, 2021[3]. The first confirmed COVID-19 patient in Bangladesh was diagnosed on March 7. Between March 8, 2020, and January 17, 2021, according to the Directorate General of Health Services (DGHS) press release, 527,632 COVID-19 cases were confirmed by RT-PCR, GeneXpert, and Rapid Antigen tests, including 7,906 deaths[4].

At the initial stage of the COVID-19 pandemic, several hospitals were dedicated to treating COVID-19 patients from across the country. However, most hospitals eventually opened COVID-19 wards to treat COVID-19–infected patients. During the pandemic, the frontline health workforce experienced a high workload and multiple psychosocial stressors, which may have affected their mental and emotional health, leading to burnout symptoms. Physicians worried about their families, and some hesitated to go home for fear of exposing their family members to infection[5,6,7].

Physician fatigue negatively impacts not only one's well-being but also patient care and the healthcare system, with evidence linking burnout to low job satisfaction, decreased work productivity, medical errors, poor quality of patient care, early retirement, and failure of the healthcare system[8]. Burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and a sense of reduced accomplishment in day-to-day work[9]. Among physicians, emotional exhaustion refers to feelings of being overextended and the depletion of one's emotional and physical resources, making them feel drained and "used up." This can sometimes lead to negative, cynical, and hostile attitudes and detached feelings toward patients, known as depersonalization, and treating patients as objects rather than as human beings. Reduced personal accomplishment implies negative self-appraisal, feelings of incompetence, and inefficiency in daily work.

Global evidence informs the need to adopt multipronged, evidence-based approaches to address burnout during the pandemic[5,6,7]. Such interventions may include increasing awareness of work-related stress and burnout, promoting mindfulness and self-care practices to improve mental well-being, ensuring optimal mental health services, using digital technologies to address workplace stress and deliver mental health interventions, and improving organizational policies and practices that emphasize burnout among healthcare providers[7].

To our knowledge, no significant steps have been taken by the authorities to minimize the COVID-19–specific contributing factors for burnout. As physicians are the frontline healthcare workers responding to the COVID-19 outbreak, it is of paramount importance that we invest immediately in the wellness of physicians to avoid shortages due to burnout. In this context, this study aimed to assess the level of burnout among physicians during the COVID-19 pandemic and identify its influencing factors.

Methodology

Study Settings: This cross-sectional study was conducted over six months, from July to December 2020. The study was conducted in five major tertiary care hospitals located in Dhaka city: Bangladesh Medical University (Formerly Bangabandhu Sheikh Mujib Medical University), Sir Salimullah Medical College and Mitford Hospital, Kurmitola General Hospital, Sheikh Russel Gastro Liver Institute and Hospital, Dhaka, Bangladesh and Mugda 500-bed General Hospital, Dhaka, Bangladesh.

Study Population: The target population for this study included all registered medical doctors working in the hospitals mentioned above. These physicians were actively engaged in clinical care and were directly involved in managing patients. Owing to the challenges of face-to-face interaction during the COVID-19 pandemic, participants were approached through an online platform. A digital questionnaire was developed using Google Forms and distributed via WhatsApp groups of physicians in each institution, facilitated by designated focal persons at each institution. To enhance the response rate, a follow-up reminder was sent three days after the initial invitation was sent. Ultimately, 313 physicians completed the survey and were included in this analysis. Participation in the study was voluntary and limited to physicians who met the specific eligibility criteria. Only those who held a valid medical registration number, were actively involved in patient care, and provided informed consent to participate in the study were considered eligible.

Data Collection: Data were collected using a semi-structured questionnaire designed to capture information on sociodemographic characteristics, burnout, social and organizational support, and work–life balance.

Socio-Demographic Characteristics: Socio-demographic data included participants' age, sex, professional designation, and living arrangements during the COVID-19 pandemic. Additionally, job-related information was collected, such as years of experience in the medical profession and whether they were assigned to work in areas outside their expertise during the pandemic.

Burnout: Burnout was assessed using the Oldenburg Burnout Inventory (OLBI), a validated 16-item instrument that conceptualizes burnout in two dimensions: exhaustion and disengagement from work[10]. Exhaustion reflects the physical, emotional, and cognitive strain of sustained work demands, whereas disengagement represents emotional distancing and negative attitudes toward the work. OLBI's two-factor structure has been widely validated across various occupational settings[11]. The instrument includes eight items assessing exhaustion and eight assessing disengagement. Negatively and positively worded items were appropriately reverse-coded so that higher scores consistently indicated greater burnout. In this study, Cronbach's alpha coefficients were 0.732 for the exhaustion subscale and 0.683 for the disengagement subscale, indicating acceptable internal consistency[12]. Item scores were averaged and rescaled to a 0–100 metric for interpretation. Burnout severity was subsequently categorized into mild, moderate, and severe levels using distribution-based classification informed by previous literature[12].

Other Psychosocial and Organizational Measures: Organizational support was assessed using items adapted from Kirmeyer and Dougherty[13] and Eisenberger et al.[14], capturing PPE adequacy, infection control, counseling, and institutional responsibility in case of infection. Work–life balance was measured using items adapted from Kossek and Ozeki[15], reflecting how the hospital workload interfered with personal life and leave-taking. Social support was assessed using items adapted from Greenglass et al.[16].

Statistical Analysis: Descriptive statistics were used to summarize the characteristics. Burnout scores derived from the Oldenburg Burnout Inventory (OLBI) were rescaled to a 0–100 metric and categorized into mild, moderate, and severe burnout based on score distribution informed by previous literature. Burnout categories were derived using distribution-based cutoffs of the rescaled OLBI score informed by previous literature and sample score distribution[12]. Multiple linear regression with backward elimination was used to identify the factors associated with burnout. The independent variables included demographic, occupational, psychosocial, and health-related factors.

Participants with incomplete data on regression variables were excluded from the multivariable analysis using complete-case analysis. Model assumptions, including normality, homoscedasticity, and independence of residuals, were assessed before analysis. Standardized beta coefficients (β), unstandardized coefficients (B), 95% confidence intervals (CIs), and p-values were reported. Statistical significance was considered at $p < 0.05$. All analyses were performed using SPSS version 26.

Ethical Consideration: Ethical approval for this study was obtained from the Institutional Review Board of Bangladesh Medical University (formerly Bangabandhu Sheikh Mujib Medical University). Informed consent was obtained from all participants following a detailed explanation of the study's objectives, procedures, potential benefits and risks, confidentiality of data, and the right to refuse or withdraw at any stage without consequences. Participants were informed of their freedom to skip any question or to discontinue participation at any point. All collected data were handled with strict confidentiality, and participants' identities and responses were kept strictly confidential.

Results

Among the 313 respondents, most (59.1%) were aged 30–40 years. More than half (56.2%) of the respondents were men. Most of the participants were married (71.2%). Prior to the pandemic, 83.4% of respondents lived with their families, and during the COVID-19 period, 74.8% continued to do so. Participants were recruited from five tertiary care hospitals in Dhaka, with the highest proportions from the Bangladesh Medical University (33.2%) and Mugda 500 Bed General Hospital (32.9%). In terms of professional designation, 78.6% were Medical Officers, Residents, Lecturers, or equivalent, followed by Intern Doctors (11.2%). A smaller proportion held senior positions, including Assistant Professors/Junior Consultants (4.8%) and Associate Professors/Senior Consultants (1.6%) (Table 1).

Table 1: Socio-Demographic and Clinical Characteristics of the Participants (N = 313)

Variable	Frequency	Percent
Age Group		
• Less than 30 Years	95	30.4
• 30 to 40 Years	185	59.1
• More than 40 Years	33	10.5
Sex		
• Male	176	56.2
• Female	137	43.8
Marital Status		
• Unmarried	87	27.8
• Married	223	71.2
• Divorced	3	1.0
Usually lives with family	261	83.4
Living with family during COVID-19 Pandemic	234	74.8
Institution		
• Bangladesh Medical University	104	33.2
• Mugda 500 Bed General Hospital	103	32.9
• Sir Salimullah Medical College	50	16.0
• Kurmitola General Hospital	36	11.5
• Sheikh Russel Gastro Liver Institute and Hospital	20	6.4
Designation		
• Intern Doctor	35	11.2
• Medical Officer / Resident / Lecturer or Equivalent	245	78.6
• Registrar / RP / RS	12	3.8
• Assistant Professor / Junior Consultant	15	4.8
• Associate Professor / Senior Consultant	5	1.6
Work experience during the COVID-19 pandemic		
• Already infected with COVID-19	66	21.1
• Experience working in COVID-19 Ward	162	51.8
• Worked outside area of expertise	148	47.3
• Made life-prioritizing decisions	172	55.0
• Faced social avoidance	192	61.3
Burnout		
• Mild	93	29.7
• Moderate	40	12.8
• Severe	180	57.5

Overall, 21.1% of the participants reported a prior COVID-19 infection. Of the respondents, 51.8% had worked in dedicated COVID-19 wards, and 47.3% had been required to work outside their usual areas of expertise. In addition, 55.0% reported making life-prioritizing decisions because of scarce resources, and 61.3% experienced social avoidance related to their profession (Table 1).

For positively worded OLBI items, higher agreement indicated lower burnout prior to reverse coding for the composite burnout score. Table 2 shows the participants' responses to the disengagement and exhaustion subscales of the Oldenburg Burnout Inventory. For the disengagement dimension, 65.5% of physicians agreed or strongly agreed that their work contained *new and interesting aspects* (mean score = 2.42, SD = 0.99). Approximately 32.9% reported that they *talked about work in a negative way* (mean = 2.80, SD = 1.14). Nearly half (47.3%) stated that they performed *their job mechanically* (mean = 2.91, SD = 1.26), and 61.7% indicated that they had *become disconnected from their work* (mean = 3.73, SD = 0.89). In addition, 67.1% reported feeling *sickened by their work tasks* (mean = 3.40, SD = 0.95). While 55.9% stated that this was the *only type of work for them* (mean = 3.10, SD = 0.96), 64.2% reported being *more engaged in their work* (mean = 2.32, SD = 1.01).

For the exhaustion dimension, 53% of respondents reported feeling *tired before starting work* (mean = 3.12, SD = 1.11), and 82.1% agreed or strongly agreed that they *needed more time to relax* (mean = 2.80, SD = 1.14). A total of 61.3% stated that they *could tolerate work pressure* (mean = 2.91, SD = 1.26), and 44.4% reported feeling *emotionally drained* (mean = 2.82, SD = 1.17). Regarding energy, 25.2% of the participants indicated that they had *sufficient energy for leisure* (mean = 3.73, SD = 0.89). More than six in ten (64.3%) felt *worn out and weary* (mean = 3.40, SD = 0.95). Most physicians (80.8%) reported that they *could manage their workload well* (mean = 3.10, SD = 0.96), and 35.2% felt *energized while working* (mean = 2.32, SD = 1.01).

Table 3 shows the participants' responses regarding organizational support, social support, and work–life balance.

Organizational Support: The majority of respondents (95.6%) agreed or strongly agreed that they *worried about infecting their family with COVID-19* (mean score = 4.43, SD = 0.77). Only 34.2% agreed or strongly agreed that their *hospital followed infection control guidelines* (mean = 2.80, SD = 1.14), and 44.7% indicated that they had *access to adequate PPE* (mean = 2.91, SD = 1.26). Approximately 39.6% reported that their *organization shared up-to-date information* (mean = 2.82, SD = 1.17).

In terms of testing, 72.2% stated that *rapid testing was available if they developed COVID-19 symptoms* (mean = 3.73, SD = 0.89). A total of 49.2% agreed or strongly agreed that their *organization would support them if they were infected* (mean = 3.40, SD = 0.95), while 32.9% believed their *family's needs would be supported if they became infected* (mean = 3.10, SD = 0.96). Only 16.9% reported that *mental health support was available* from their institution (mean = 2.32, SD = 1.01).

Social Support: High levels of family and peer support were also reported. A total of 86.3% agreed or strongly agreed that *family members helped with chores or care during illness* (mean = 4.08, SD = 0.94), whereas 84.3% reported that *friends or colleagues helped during duty* (mean = 3.90, SD = 0.81). More than 91% of the participants indicated that they received *emotional support from their families* (mean = 4.18, SD = 0.74), and 85.0% reported *receiving emotional support from their friends or colleagues* (mean = 3.93, SD = 0.78). In addition, 87.2% agreed or strongly agreed that they could *discuss decisions with their family* (mean = 4.04, SD = 0.73), and 83.1% indicated that they could *discuss decisions with their friends or colleagues* (mean = 3.87, SD = 0.76).

Work–Life Balance: Regarding work–life conflict, 61.4% of physicians agreed or strongly agreed that their *workload hampered their personal lives* (mean = 3.47, SD = 1.04). Only 15.4% reported that *family responsibilities hampered their hospital work* (mean = 2.19, SD = 0.94). However, 70.3% of respondents indicated that it was *difficult to take time off for personal needs* (mean = 3.68, SD = 1.03).

Table 2: Responses to Disengagement and Exhaustion Items of the Oldenburg Burnout Inventory (N = 313)

Item	Mean (±SD)
Disengagement	
New and interesting aspects in work	2.42 (±0.99)
Talk about work negatively	2.80 (±1.14)
Do job mechanically	2.91 (±1.26)
Work is a positive challenge	2.82 (±1.17)
Become disconnected from work	3.73 (±0.89)
Sickened by work tasks	3.40 (±0.95)
This is the only type of work for me	3.10 (±0.96)
More engaged in work	2.32 (±1.01)
Exhaustion	
Tired before work	3.12 (±1.11)
Need more time to relax	2.80 (±1.14)
Can tolerate work pressure	2.91 (±1.26)
Feel emotionally drained	2.82 (±1.17)
Enough energy for leisure	3.73 (±0.89)
Worn out and weary	3.40 (±0.95)
Can manage workload well	3.10 (±0.96)
Feel energized while working	2.32 (±1.01)

Items were rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Positively worded items were reverse-coded only during calculation of the composite burnout score. Therefore, higher composite burnout scores indicate greater burnout.

Table 3: Organizational Support, Social Support, and Work–Life Balance among Participants (N = 313)

Items	Mean(±SD)
Organizational support	
I worry about infecting my family with COVID-19	4.4(±0.77)
My hospital follows infection control guidelines	2.8(±1.14)
I have access to adequate PPE	2.9(±1.26)
Organization shares up-to-date information	2.8(±1.17)
Rapid testing if I show COVID-19 symptoms	3.7(±0.89)
Organization will support me if infected	3.4(±0.95)
Family's needs will be supported if infected	3.1(±0.96)
Mental health support is available	2.3(±1.01)
Social support	
Family helps me with chores/illness care	4.1(±0.94)

Items	Mean(±SD)
Friends/colleagues help during duty	3.9(±0.81)
I get emotional support from my family	4.2(±0.74)
I get emotional support from friends/colleagues	3.93 (±0.78)
I can discuss decisions with my family	4.04 (±0.73)
I can discuss decisions with friends/colleagues	3.87 (±0.76)
Work–life balance	
Workload hampers my personal life	3.47 (±1.04)
Family responsibilities hamper my hospital work	2.19 (±0.94)
Difficult to take time off for personal needs	3.68 (±1.03)

Items were rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Higher scores indicate stronger agreement with the statement.

More than half of the physicians (57.5%) fell into the severe burnout category, while 29.7% experienced mild, and only 12.8% reported moderate levels. This distribution highlights the predominance of severe burnout among physicians during the COVID-19 pandemic (Table 4).

Table 4: Distribution of Burnout Scores among Physicians (N = 313)

Burnout Category	Frequency	Percent
Mild	93	29.7
Moderate	40	12.8
Severe	180	57.5

Burnout categories were derived using distribution-based classification of rescaled OLBI scores informed by previous literature[12].

A multiple linear regression analysis was conducted to examine the predictors of physician burnout (OLBI converted 0–100 score). The final model explained 42.7% of the variance in burnout scores ($R^2 = 0.427$, adjusted $R^2 = 0.412$, $F(7, 299) = 27.8$, $p < 0.001$). Poor work–life balance ($\beta = 0.292$, $p < 0.001$) emerged as the strongest predictor of burnout. COVID-19–related anxiety ($\beta = 0.214$, $p < 0.001$) and a history of hypertension ($\beta = 0.131$, $p = 0.008$) also contributed positively. Conversely, organizational ($\beta = –0.242$, $p < 0.001$) and social support ($\beta = –0.276$, $p < 0.001$) were protective factors. Younger physicians reported greater burnout ($\beta = –0.128$, $p = 0.011$) than older physicians. Additionally, female sex was associated with higher burnout ($\beta = 0.159$, $p = 0.001$) (Table 5).

Table 5: Multiple Linear Regression Analysis of Factors Associated with Burnout (N = 307)

Predictors	OR	p-value	95% CI
Constant	–	<0.001	47.07, 72.63
Age (years)	–0.128	0.011	–0.49, –0.06
Sex (female)	0.159	0.001	1.82, 6.52
Hypertension (yes)	0.131	0.008	1.51, 9.76
Organizational support	–0.242	<0.001	–0.83, –0.37
Social support	–0.276	<0.001	–1.36, –0.69
COVID-19–related anxiety	0.214	<0.001	1.00, 2.51
Work–life imbalance	0.292	<0.001	1.20, 2.29

Model statistics: $R = 0.654$, $R^2 = 0.427$, Adjusted $R^2 = 0.412$, Std. Error = 9.98; B = unstandardized regression coefficient; β = standardized coefficient; CI = confidence interval. Model adjusted for demographic, psychosocial, and organizational factors; Six participants with incomplete data on regression variables were excluded from the multivariable analysis using complete-case analysis.

Discussion

This study revealed a high burden of burnout among Bangladeshi physicians during the COVID-19 pandemic, with more than half of the respondents classified as having severe burnout. Such prevalence is striking when compared with international estimates, where rates of severe burnout among healthcare professionals ranged from 30% to 50% during the pandemic[17]. These findings align with the global trend of increased physician burnout observed during the COVID-19 crisis[18,19] where the unprecedented strain on healthcare systems significantly affected the mental health of frontline workers worldwide [20,21]. The results highlight the urgent need to address physician well-being in low- and middle-income countries (LMICs), where healthcare resources are already strained, and institutional investment in physician well-being, including mental health services, organizational support systems, and family-friendly policies, is paramount.

Gender differences were prominent, with female physicians reporting significantly higher burnout than male physicians. Similar patterns have been reported in previous studies, where female physicians consistently exhibited higher fatigue, exhaustion, and emotional strain than their male counterparts[22]. Work–family conflict plays an

important role, as women often bear disproportionate household and caregiving responsibilities, leading to greater psychological stress[15,23]. This imbalance has also been highlighted in gender-focused research, which shows that women's multiple roles can increase their vulnerability to emotional exhaustion[24,25]. Culturally, in South Asian contexts where traditional gender roles remain deeply rooted, women often face a "double burden" of professional and domestic responsibilities. This heightened role conflict can intensify stress and emotional exhaustion, thereby amplifying the effects observed in this study and hindering their overall recovery. Age and health status also contribute to the risk of burnout. Younger physicians reported higher burnout levels, consistent with other studies[14,15,16,17], indicating that early career doctors face increased stress due to a lack of experience, high workload, and limited coping strategies. Additionally, physicians with hypertension reported higher burnout scores, underscoring the interplay between physical and mental health during high-stress conditions, such as a pandemic. This finding is important for policy-making, as occupational health programs should address both physical and psychological well-being.

Social support is a strong protective factor. Physicians who perceived higher family and peer support reported significantly lower burnout. This aligns with prior literature indicating that social support buffers occupational stress[16,26] and reduces the negative psychological impact of high job demand. In the Bangladeshi context, where family ties and community networks are often strong, social support mechanisms may play a vital role in resilience. However, social avoidance and stigma have also been widely reported. Although these factors did not independently predict burnout in the regression models, they represent important psychosocial challenges that can undermine healthcare workers' morale.

Organizational support is another critical determinant. Access to personal protective equipment (PPE), effective infection control guidelines, and rapid testing facilities were significantly associated with reduced burnout. However, fewer than half of the respondents reported confidence in their institutions' adherence to infection control protocols or the availability of mental health support. Similar findings have been reported in other LMICs, where insufficient resources and weak organizational systems have contributed to higher burnout among frontline workers. Supervisor support and perceived organizational responsibility are well-known protective factors[13,14]. Building organizational resilience through the implementation of capital and social capital frameworks[27] could enhance healthcare institutions' ability to support staff during crises.

Among all the predictors, work–life balance was the strongest determinant of burnout. Physicians who reported difficulties in balancing their professional workload and personal life had substantially higher burnout scores. This finding is consistent with studies linking work–family conflict to increased stress and reduced job satisfaction[15,19]. During the pandemic, long working hours, disrupted schedules, and the emotional toll of treating critically ill patients may have exacerbated these issues. Interventions such as flexible scheduling, adequate rest periods, and supportive workplace policies that acknowledge family responsibilities may be essential for mitigating physician burnout in Bangladesh.

The strengths and limitations of this study must be acknowledged. The use of a validated burnout instrument (OLBI), sampling from multiple tertiary hospitals, and the inclusion of psychosocial and organizational factors strengthen the study's contribution. However, the cross-sectional design prevented causal inference, and reliance on self-reported data may have introduced reporting bias. Additionally, the study was limited to physicians in urban tertiary hospitals, potentially underrepresenting the experiences of rural healthcare workers.

The implications for policy and practice are clear. Institutional investment in physician well-being, including mental health services, organizational support systems, and family-friendly policies, is essential. At the individual level, strategies that promote resilience, social support networks, and stress management may reduce the risk of burnout. Future research should employ longitudinal designs to track burnout trajectories over time and explore the effectiveness of organizational interventions in reducing burnout among healthcare workers.

Conclusion

These findings underscore the urgent need for targeted, gender-sensitive interventions at both the institutional and policy levels to safeguard physicians' mental health. Strengthening organizational capacity, ensuring adequate protective resources, and embedding family-

supportive workplace policies are critical. Importantly, the lessons from this study should inform future preparedness efforts. Building resilient health systems that prioritize physician well-being is essential not only for managing current challenges but also for protecting frontline healthcare providers in future pandemics and other public health emergencies.

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Conflict of Interest
The authors declare no conflicts of interest.

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Authors' contributions
Khan MM contributed to the conception and design of the study; Tasnim A, Mousum S, Salwa M, Ahmed F, Bushra T, and Sultana S contributed to data acquisition and organization; Islam MT, Haque MA, Khan MM, and Tasnim A contributed to data analysis and interpretation; Khan MM, Tasnim A, and Mousum S drafted the initial manuscript; and Salwa M, Ahmed F, Bushra T, Sultana S, Islam MT, and Haque MA revised the manuscript critically for important intellectual content. Statistical analyses were performed by Islam MT and Haque MA. All authors reviewed and approved the final manuscript.

Data Availability
Any inquiries regarding supporting data availability of this study should be directed to the corresponding author and are available from the corresponding author on reasonable request.

Ethics Approval and Consent to Participate
The Institutional Review Board granted the study ethical approval. Since this was a cross-sectional study, every study participant provided formal informed consent. Each method followed the appropriate rules and regulations.

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