

Physicians' Mental Health Conditions at Medical College Hospitals during the COVID-19 Pandemic

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Date of Submission □: □15.05.2024
Date of Acceptance □: □02.06.2024

www.banglajol.info/index.php/CMOSHMCJ

Abstract

Background: The Coronavirus Disease (COVID-19) outbreak in 2019 had a psychological impact on almost everyone, including medical personnel who work mostly in hospitals. Physicians faced incredible levels of workload, which exacerbated many mental health issues in this circumstance. The purpose of the study assess the mental health conditions of physicians at the purposively selected four Medical College Hospitals in Dhaka city.

Materials and methods: During the outbreak of COVID 19 in Bangladesh, a hospital-based cross-sectional study was carried out during the period January to July 2021. 'The Depression, Anxiety, and Stress Scale-21' (DASS-21) scale was used to construct this semi-structured questionnaire for data collection during the study period.

Results: In terms of the physicians' mental health state, one-fourth (25.9%) had extremely severe depression, one-third (36.0%) had extremely severe anxiety and one-quarter (21.8%) experienced severe stress. It was found that doctors who were married, older and had an average monthly income of ≤50,000 BDT were more likely to experience depression. Additionally, there was a significant increase in depression among private hospital employees, who also reported feeling stigmatized by their profession and inadequate Personal Protective Equipment (PPE) at work. Doctors who were married, older, and had an income of ≤50,000 BDT were found to have higher levels of anxiety. Additionally, there was a significant rise in anxiety among private hospital employees, who also reported feeling stigmatized by their profession and having inadequate PPE. Ageing older and having an income of ≤50,000 BDT were found to be associated with higher levels of stress. Inadequate PPE in the workplace, the stigma associated with one's job and employment in private hospitals were all associated with substantially higher stress levels.

Conclusion: In Bangladesh, a significant proportion of doctors experienced anxiety, stress, and depression during the COVID-19 outbreak. To reduce instances of stress, anxiety, and depression in doctors, effective strategies are needed in their workplace.

Key words: COVID-19 Pandemic; Mental health conditions; Physicians.

INTRODUCTION

Since its starting in Gregorian calendar month 2019 in the Hubei province of China, the unconventional COVID-19 was spreading every regionally and internationally. In slightly a span of a month, the ailment as a result of the virus become concept of a public fitness emergency through the World Health Organization (WHO) and become declared a deadly disease through March 2020.¹ Amidst the occasion of this ailment in 206 international locations at some stage in the earth, fitness care personnel live the most humans worried in the screening and remedy of this circumstance at some stage in.² Due to their frequent exposure to high levels of occupational stress, physicians are at risk for a wide range of mental health

conditions, including anxiety, depression and occupational burnout. When it comes to stress, doctors who are under stress typically perform below the mark, which lowers productivity at work and raises rate of absenteeism.³ Conversely, depressive physicians have been associated with substandard medical service and have a negative impact on patient attitudes.⁴

Healthcare Personnel (HCP) who're immediately worried in the screening, diagnosis, remedy and care of sufferers with COVID-19 are in hazard of growing mental misery cherish anxiety, depression, sleep problem related signs and opportunity intellectual fitness signs. The growing variety of cases, overwhelming employment, depletion of personal safety instrumentality, loss of precise remedy and feeling of being inadequately supported would possibly all make contributions to the intellectual burden of those fitness care workers.⁵

Frontline scientific group of workers are in risk of now no longer simply unfavorable bodily effects from COVID-19 but mental ones too records from preceding pandemics, significantly as soon as quarantine, endorse that resource group of workers might in all likelihood expand signs of post-demanding strain problems, depression and substance abuse problems. Preliminary records from China and European country in the course of the COVID-19 pandemic offer greater proof resource people in China reportable depression (50.3%) anxiety (44.6%) and sleep problems (34.0%) concerns regarding those records are mixed through excessive charges of pre-present intellectual fitness and substance use problems at some point of those population, with physicians having charges of suicide most of the nice of any career though evidence primarily based totally powerful interventions and treatments are at the market, limitations cherish stigma and absence of sometime restriction their uptake, even in conventional times. Less is notion regarding interventions for the mental nation of group of workers in the course of pandemics.⁶ The purpose of the study assess the mental health conditions of physicians at the purposively selected four Medical College Hospitals in Dhaka city.

MATERIALS AND METHODS

A hospital-based cross-sectional study in Bangladesh to evaluate the mental health conditions of physicians working at the medical college hospitals in Dhaka city conducted during the COVID-19 pandemic.

A semi-structured questionnaire that had been pretested was used to collect data from the physicians. Face-to-face interviews with participants took place between January and July of 2021. Depending on their convenience, 317 physicians employed by public and private medical college hospitals were interviewed in this study. At a relative precision of 5% and a 95% confidence interval, the sample size was determined. The purposively selected Dhaka Medical College Hospital, Shaheed Suhrawardy Medical College Hospital, Anwer Khan Modern Medical College Hospital, and Holy Family Red Crescent Medical College Hospital, were the sites of the physician's interviews.

This questionnaire was developed through-

A. A semi-structured questionnaire to evaluate the sociodemographic characteristics.

B. The Depression, Anxiety and Stress Scale (DASS) used for diagnosing the mental health status of doctors.

The questionnaire had sociodemographic variables such as age, gender, marital status, education level, residence, monthly income, family history and COVID-19 infection status.

The DASS- 21 items is a fixed of 3 self-document scales designed to degree the emotional states of depression, tension and pressure. Each of the 3 DASS-21 scales incorporates 7 objects, divided into subscales with comparable content. Sum ratings are computed with the aid of using including up the ratings at the objects according to subscale and multiplying them with the aid of using a thing 2. Sum ratings for the entire DASS-overall scale hence variety among '0' and '120', and people for every of the subscales may also variety among '0' and '42'. The DASS has been proven to be a legitimate and dependable degree of the scale of depression, tension, and pressure one after the other however additionally faucets right into a greater popular measurement of mental distress.

The data were checked, cleaned, coded and categorized after the completion of data collection through IBM SPSS v25. Descriptive statistics such as mean, standard deviation, and percent were computed for continuous variables of the participants. Chi-square was used to assess the significance of associations between two nominal variables and a p-value of <0.05 at a 95% confidence interval was taken as significant. The results were presented in different type of tables and charts.

Informed written consent was obtained from each participant. Confidentiality of data was ensured and unauthorized access to data was not allowed. The research proposal was reviewed and approved by the Institutional Review Board (IRB) of North South University, Dhaka 1229, Bangladesh.

RESULTS

Table I describes the socio-demographic profile of the 317 doctors. The mean age of the participants was 40.4±11.2 years, with more than one-third (35.0%) hailing from the 30-39 age group. The majority of doctors (53.3%) were men and 78.9% of them were married. An average monthly income of ≤50,000 BDT was reported by the majority of respondents (41.6%). 83.3% of respondent's family members had a chronic illness, and two thirds of respondents (67.2%) had family members aged 60 or older. Co-morbidities affected more than one-third of family members (35.6%), with bronchial asthma (46.9%), hypertension (40.7%) and diabetes mellitus (38.9%) being the most common co-morbidities (Figure 1 and 2).

Table II shows work-related information about the doctors. A majority of the physicians (58.0%) were employed in private settings. Three-fourths of the respondents (75.7%) stated the PPE supply in the workplace was insufficient. More than half

(57.7%) were stigmatized due to their occupation; and the most prevalent stigmas were their profession (40.1%) and being a carrier of disease (12.0%). Two-thirds of the respondents (65.3%) were working overtime during COVID-19. Only a few doctors (6.6%) were given incentives by the government.

Table III demonstrates the levels of mental health status of the doctors. Among the respondents, one-fourth (25.9%) had extremely severe depression, one-third (36.0%) had extremely severe anxiety and one-fourth (21.8%) had severe stress. The mean DASS-21 scores were 19.7 ± 10.9 in depression, 15.9 ± 10.8 in anxiety and 18.7 ± 11.7 in stress.

Table IV interprets that there were significant changes in the prevalence of depression with age group, marital status, average monthly income, type of workplace, presence of PPE, and experienced stigma due to occupation ($p < 0.05$). Depression was found to be higher in the increasing age group, married doctors, and an average monthly income of $\leq 50,000$ BDT. The depression level was also significantly higher in those who worked in private hospitals experienced stigma due to their occupation, and PPE in the workplace was insufficient.

Table V interprets that there were significant changes in the prevalence of anxiety with age group, marital status, average monthly income, type of workplace, presence of PPE, experienced stigma due to occupation and doing overtime during the pandemic ($p < 0.05$). Anxiety was found to be higher in the increasing age group, married doctors, and average monthly income of $\leq 50,000$ BDT. Anxiety levels were also significantly higher in those who worked in private hospitals experienced stigma due to their occupation, and PPE in the workplace was insufficient.

Table VI interprets that there were significant changes in the prevalence of stress with age group, average monthly income, type of workplace, presence of PPE, experienced stigma due to occupation, doing overtime during the pandemic ($p < 0.05$). Stress was found to be higher in an increasing age group, and average monthly income of $\leq 50,000$ BDT. Stress levels were also significantly higher in those who worked in private hospitals, experienced stigma due to their occupation, and PPE in the workplace was insufficient.

Table I Socio-demographic profile of the physicians (n=317)

Variables	Frequency (n)	Percent (%)
Age groups (Years)		
≤29	65	20.5
30-39	111	35.0
40-49	67	21.1
≥ 50	74	23.3
Mean±SD	40.4±11.2	
Gender		
Male	169	53.3
Female	148	46.7
Marital status		
Married	250	78.9
Unmarried	67	21.1
Average monthly income (BDT)		
≤50,000	132	41.6
50,001-100,000	67	21.1
>100,000	118	37.2
Had family member's aged >60 years		
Yes	213	67.2
No	104	32.8
Family member's had chronic disease		
Yes	264	83.3

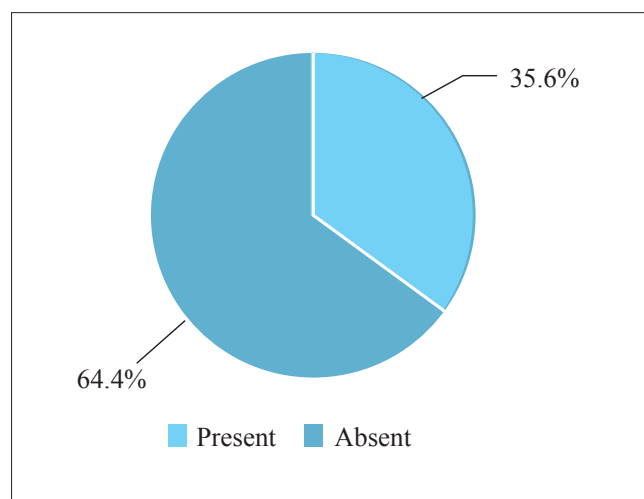


Figure 1 Presence of co-morbidities among the physicians (n=317)

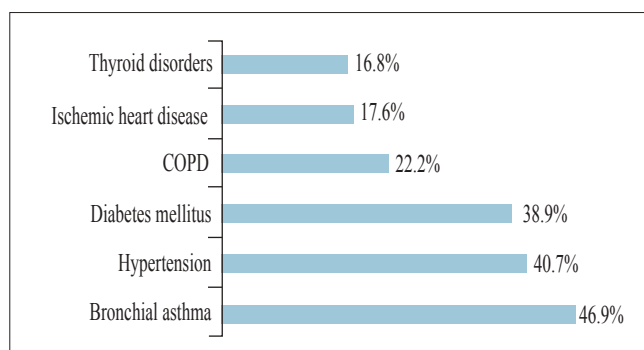


Figure 2 Types of co-morbidities (n=113)

Table II Works related information of the physicians (n=317)

Variables	Frequency (n)	Percent (%)
Type of workplace		
Government	133	42.0
Private	184	58.0
Presence of PPE precautionary measures in workplace		
Sufficient	77	24.3
Insufficient	240	75.7
Experienced of stigma during pandemic		
Yes	183	57.7
No	134	42.3
Types of stigma (n=183)		
Being a doctor	127	40.1
Accused of being a carrier of disease	38	12.0
Threatened not to do job in hospital	15	4.7
Asked to leave rented place	32	10.1
*Multiple responses		
Overtimes during pandemic		
Yes	207	65.3
No	110	34.7
Got incentive by Government		
Yes	21	6.6
No	296	93.4

Table III Levels of mental health status of the physicians (n=317)

Levels of mental health status		Frequency (n)	Percent (%)
Depression	Normal (0-9)	65	20.5
	Mild (10-13)	35	11.0
	Moderate (14-20)	67	21.1
	Severe (21-27)	68	21.5
	Extremely severe (≥28)	82	25.9
	Mean±SD		19.7±10.9
Anxiety	Normal (0-7)	82	25.9
	Mild (8-9)	15	4.7
	Moderate (10-14)	67	21.1
	Severe (15-19)	39	12.3
	Extremely severe (≥20)	114	36.0
	Mean±SD		15.9±10.8
Stress	Normal (0-14)	128	40.4
	Mild (15-18)	38	12.0
	Moderate (19-25)	40	12.6
	Severe (26-33)	69	21.8
	Extremely severe (≥34)	42	13.2
	Mean±SD		18.7±11.7

Table IV Factors associated with levels of depression (n=317)

Factors	Levels of depression					p-value
	Normal	Mild	Moderate	Severe	Extremely Severe	
	n(%)	n(%)	n(%)	n(%)	n(%)	n(%)
Age groups						
≤29	29(44.6)	2(3.1)	2(3.1)	10(15.4)	22(33.8)	65(100) *0.001
30-39	16(14.4)	18(16.2)	24(21.6)	26(23.4)	27(24.3)	111(100)
40-49	9(13.4)	6(9.0)	15(22.4)	18(26.9)	19(28.4)	67(100)
≥50	11(14.9)	9(12.2)	26(35.1)	14(18.9)	14(18.9)	74(100)
Gender						
Male	39(23.1)	17(10.1)	31(18.3)	42(24.9)	40(23.7)	169(100) 0.244
Female	26(17.6)	18(12.2)	36(24.3)	26(17.6)	42(28.4)	148(100)
Marital status						
Unmarried	21(31.3)	3(4.5)	5(7.5)	12(17.9)	26(38.8)	67(100) *0.002
Married	44(17.6)	32(12.8)	62(24.8)	56(22.4)	56(22.4)	250(100)
Average monthly income (BDT)						
≤50,000	38(28.8)	12(9.1)	14(10.6)	27(20.5)	41(31.1)	132(100) *0.002
50,001-100,000	10(14.9)	10(14.9)	21(31.3)	14(20.9)	12(17.9)	67(100)
>100,000	17(14.4)	13(11.0)	32(27.1)	27(22.9)	29(24.9)	118(100)
Had family member's aged >60 years						
Yes	46(21.6)	21(9.9)	39(18.3)	49(23)	58(27.2)	213(100) 0.307
No	19(18.3)	14(13.5)	28(26.9)	19(18.3)	24(23.1)	104(100)
Family member's had chronic disease						
Yes	51(19.3)	32(12.1)	52(19.7)	56(21.2)	73(27.7)	264(100) 0.180
No	14(26.4)	3(5.7)	15(28.3)	12(22.6)	9(17.0)	53(100)
Presence of co-morbidities in the respondent						
Present	24(21.2)	11(9.7)	32(28.3)	20(17.7)	26(23.0)	113(100) 0.177
Absent	41(20.1)	24(11.8)	35(17.2)	48(23.5)	56(27.5)	204(100)

Factors	Levels of depression					p-value
	Normal	Mild	Moderate	Severe	Extremely Severe	
	n(%)	n(%)	n(%)	n(%)	n(%)	n(%)
Type of workplace						
Government	36(27.1)	7(5.3)	21(15.8)	30(22.6)	39(29.3)	133(100) *0.003
Private	29(15.8)	28(15.2)	46(25.0)	38(20.7)	43(23.4)	184(100)
Presence of precautionary measures in workplace						
Sufficient	27(35.1)	5(6.5)	38(49.4)	7(9.1)	0(0.0)	77(100) *0.001
Insufficient	38(15.8)	30(12.5)	29(12.1)	61(25.4)	82(34.2)	240(100)
Experienced of stigma during pandemic						
Yes	31(16.9)	16(8.7)	33(18.0)	42(23.0)	61(33.3)	183(100) *0.002
No	34(25.4)	19(14.2)	34(25.4)	26(19.4)	21(15.7)	134(100)
Overtimes during pandemic						
Yes	40(19.3)	16(7.7)	42(20.3)	45(21.7)	64(30.9)	207(100) *0.014
No	25(22.7)	19(17.3)	25(22.7)	23(20.9)	18(16.4)	110(100)
Got incentive by Government						
Yes	4(19.0)	2(9.5)	1(4.8)	7(33.3)	7(33.3)	21(100) 0.299
No	61(20.6)	33(11.1)	66(22.3)	61(20.6)	75(25.3)	296(100)

*Statistically significant value.

Table V Factors associated with levels of anxiety (n=317)

Factors	Levels of anxiety					p-value
	Normal	Mild	Moderate	Severe	Extremely Severe	
	n(%)	n(%)	n(%)	n(%)	n(%)	n(%)
Age groups						
≤29	26(40.0)	4(6.2)	2(3.1)	5(7.7)	28(43.1)	65(100) *0.001
30-39	21(18.9)	9(8.1)	21(18.9)	13(11.7)	47(42.3)	111(100)
40-49	19(28.4)	1(1.5)	22(32.8)	7(10.4)	18(26.9)	67(100)
≥50	16(21.6)	1(1.4)	22(29.7)	14(18.9)	21(28.4)	74(100)
Gender						
Male	42(24.9)	8(4.7)	33(19.5)	22(13.0)	64(37.9)	169(100) 0.894
Female	40(27.0)	7(4.7)	34(23.0)	17(11.5)	50(33.8)	148(100)
Marital status						
Unmarried	20(29.9)	6(9.0)	4(6.0)	6(9.0)	31(46.3)	67(100) *0.003
Married	62(24.8)	9(3.6)	63(25.2)	33(13.2)	83(33.2)	250(100)
Average monthly income (BDT)						
≤50,000	35(26.5)	10(7.6)	15(11.4)	9(6.8)	63(47.7)	132(100) *0.001
50,001-100,000	17(25.4)	4(6.0)	14(20.9)	15(22.4)	17(25.4)	67(100)
>100,000	30(25.4)	1(0.8)	38(32.2)	15(22.4)	34(28.8)	118(100)
Had family member's aged >60 years						
Yes	55(25.8)	9(4.2)	38(17.8)	30(14.1)	81(38.0)	213(100) 0.190
No	27(26)	6(5.8)	29(27.9)	9(8.7)	33(31.7)	104(100)
Family member's had chronic disease						
Yes	66(25.0)	11(4.2)	59(22.3)	34(12.9)	94(35.6)	94(100) 0.546
No	16(30.2)	4(7.5)	8(15.1)	5(9.4)	20(37.7)	53(100)
Presence of co-morbidities in the respondent						
Present	29(25.7)	6(5.3)	26(23.0)	13(11.5)	39(34.5)	113(100) 0.963
Absent	53(26.0)	9(4.4)	41(20.1)	26(12.7)	75(36.8)	204(100)
Type of workplace						
Government	33(24.8)	10(7.5)	15(11.3)	12(9.0)	63(47.4)	133(100) *0.001
Private	49(26.6)	5(2.7)	52(28.3)	27(14.7)	51(27.7)	184(100)
Presence of precautionary measures in workplace						
Sufficient	31(40.3)	1(1.3)	21(27.3)	11(14.3)	13(16.9)	77(100) *0.001
Insufficient	51(21.3)	14(5.8)	46(19.2)	28(11.7)	101(42.1)	240(100)

Factors	Levels of anxiety					p-value
	Normal	Mild	Moderate	Severe	Extremely	
	n(%)	n(%)	n(%)	n(%)	Severe n(%)	Total n(%)
Experienced of stigma during pandemic						
Yes	36(19.7)	7(3.8)	36(19.7)	19(10.4)	85(46.4)	183(100) *0.001
No	46(34.3)	8(6.0)	31(23.1)	20(14.9)	29(21.6)	134(100)
Overtimes during pandemic						
Yes	45(21.7)	12(5.8)	39(18.8)	25(12.1)	86(41.5)	207(100) *0.016
No	37(33.6)	3(2.7)	28(25.5)	14(12.7)	28(25.5)	110(100)
Got incentive by Government						
Yes	3(14.3)	2(9.5)	4(19.0)	2(9.5)	10(47.6)	21(100) 0.504
No	79(26.7)	13(4.4)	63(21.3)	37(12.5)	104(35.1)	296(100)

*Statistically significant value

Table VI Factors associated with levels of stress (n=317)

Factors	Levels of stress					p-value
	Normal	Mild	Moderate	Severe	Extremely	
	n(%)	n(%)	n(%)	n(%)	Severe n(%)	Total n(%)
Age groups						
≤29	28(43.1)	2(3.1)	6(9.2)	19(29.2)	10(15.4)	65(100) *0.002
30-39	40(36)	11(9.9)	25(22.5)	24(21.6)	11(9.9)	111(100)
40-49	25(37.3)	10(14.9)	5(7.5)	15(22.4)	12(17.9)	67(100)
≥50	35(47.3)	15(20.3)	4(5.4)	11(14.9)	9(12.2)	74(100)
Gender						
Male	69(40.8)	22(13)	18(10.7)	38(22.5)	22(13)	169(100) 0.818
Female	59(39.9)	16(10.8)	22(14.9)	31(20.9)	20(13.5)	148(100)
Marital status						
Unmarried	24(35.8)	3(4.5)	9(13.4)	18(26.9)	13(19.4)	67(100) 0.094
Married	104(41.6)	35(14)	31(12.4)	51(20.4)	29(11.6)	250(100)
Average monthly income (BDT)						
≤50,000	50(37.9)	7(5.3)	19(14.4)	39(29.5)	17(12.9)	132(100) *0.002
50,001-100,000	27(40.3)	10(14.9)	14(20.9)	8(11.9)	8(11.9)	67(100)
>100,000	51(43.2)	21(17.8)	7(5.9)	22(18.6)	17(14.4)	118(100)
Had family member's aged >60 years						
Yes	85(39.9)	26(12.2)	24(11.3)	49(23)	29(13.6)	213(100) 0.824
No	43(41.3)	12(11.5)	16(15.4)	20(19.2)	13(12.5)	104(100)
Family member's had chronic disease						
Yes	104(39.4)	33(12.5)	31(11.7)	56(21.2)	40(15.2)	264(100) 0.182
No	24(45.3)	5(9.4)	9(17)	13(24.5)	2(3.8)	53(100)
Presence of co-morbidities in the respondent						
Present	49(43.4)	16(14.2)	12(10.6)	24(21.2)	12(10.6)	113(100) 0.635
Absent	79(38.7)	22(10.8)	28(13.7)	45(22.1)	30(14.7)	204(100)
Type of workplace						
Government	48(36.1)	10(7.5)	21(15.8)	40(30.1)	14(10.5)	133(100) *0.004
Private	80(43.5)	28(15.2)	19(10.3)	29(15.8)	28(15.2)	184(100)
Presence of precautionary measures in workplace						
Sufficient	51(66.2)	13(16.9)	9(11.7)	3(3.9)	1(1.3)	77(100) *0.001
Insufficient	77(32.1)	25(10.4)	31(12.9)	66(27.5)	41(17.1)	240(100)
Experienced of stigma during pandemic						
Yes	60(32.8)	22(12)	21(11.5)	49(26.8)	31(16.9)	183(100) *0.003
No	68(50.7)	16(11.9)	19(14.2)	20(14.9)	11(8.2)	134(100)

Factors	Levels of stress					p-value
	Normal	Mild	Moderate	Severe	Extremely	
	n(%)	n(%)	n(%)	n(%)	Severe n(%)	Total n(%)
Overtimes during pandemic						
Yes	78(37.7)	16(7.7)	29(14)	52(25.1)	32(15.5)	207(100) *0.002
No	50(45.5)	22(20)	11(10)	17(15.5)	10(9.1)	110(100)
Got incentive by Government						
Yes	8(38.1)	0(0)	4(19)	5(23.8)	4(19)	21(100) 0.504
No	120(40.5)	38(12.8)	36(12.3)	64(21.6)	38(12.8)	296(100)

*Statistically significant value.

DISCUSSION

Healthcare services are overburdened during acute health emergencies, incorporating to the already stressful nature of working life.⁷ During a pandemic, the number of patients in need of care rises rapidly, putting an immense strain on staff and healthcare resources. Doctors also feel more vulnerable to harm since they treat the sickest patients first, which increases stress levels.^{8,9} There is substantial indication that healthcare professionals can benefit from psychosocial approaches for reducing work-related depression, anxiety and stress.¹⁰

The mean age of the participants was 40.4±11.2 years and 35.0% of them belonged to the 30-39 age groups. Two thirds of respondents (67.2%) had family members, who were ≥60 years, and the majority of respondents' family members (83.3%) suffered from a chronic condition and the most prevalent co-morbidities were diabetes mellitus (38.9%), hypertension (40.7%) and bronchial asthma (46.9%). The majority of participants (35.1%) in the Khatun et al. study were over 35 years old and a significant number of respondent's family members had a history of chronic disease.¹¹

In this study, a majority of the physicians (58.0%) were employed in private settings. Three-fourths of the respondents (75.7%) stated the PPE supply in the workplace was insufficient. More than half (57.7%) were stigmatized due to their occupation; and the most prevalent stigmas were their profession (40.1%) and being a carrier of disease (12.0%). Two-thirds of the respondents (65.3%) were working overtime during COVID-19. Only a few doctors (6.6%) were given incentives by the government. These findings were consistent with the studies.^{4,11,12}

Regarding the doctors' mental health state, one-fourth (25.9%) had extremely severe depression, one-third (36.0%) had extremely severe anxiety, and one-fourth (21.8%) experienced severe stress. The mean DASS-21 scores were 19.7±10.9 in depression, 15.9±10.8 in anxiety, and 18.7±11.7 in stress, respectively. Research by Alateeq et al. and associated studies shown that between 35-55% of physicians experience stress, anxiety and depression. The study also revealed that during the outbreak of COVID 19, 20% of doctors experienced significant depression, anxiety and stress.¹³

Age group, marital status, average monthly income, workplaces, presence of PPE and experienced stigma due to

occupation all significantly changed the prevalence of depression ($p < 0.05$). It was found that doctors who were married, older and had an average monthly income of $\leq 50,000$ BDT were more likely to experience depression. Additionally, there was a significant increase in depression among private hospital employees, who also reported feeling stigmatized by their profession and inadequate Personal Protective Equipment (PPE) at work. The prevalence of anxiety increased significantly based on the age group, marital status, average monthly income, type of workplace, presence of PPE, experienced stigma related to occupation, and working overtime during the pandemic ($p < 0.05$). Doctors who were married, older and had an average monthly income of $\leq 50,000$ BDT were found to have higher levels of anxiety. Additionally, there was a significant rise in anxiety among private hospital employees, who also reported feeling stigmatized by their profession and having inadequate PPE. Significant changes emerged in the prevalence of stress in relation to age group, average monthly income, workplace type, presence of PPE, experiencing stigma related to occupation and working overtime during the pandemic ($p < 0.05$). Ageing older and having an average monthly income of $\leq 50,000$ BDT were found to be associated with higher levels of stress. Inadequate PPE in the workplace, the stigma associated with one's job and employment in private hospitals were all associated with substantially higher stress levels.

The employment situation at private hospitals is more precarious than in public hospitals, and private hospitals have patient access restrictions because of their rules about not providing frontline staff with patient amenities.^{14,15} Shortage of staff and infrastructure physicians face challenges in finding resources to manage an increasing number of infected patients, including trained physicians, beds in intensive care units, oxygen supplies, ventilators, etc.¹⁶ Many other nations, including our country, have observed this shortage of resources as a result of global supply chains being badly twisted and the deteriorating mental state of doctors.^{17,18}

CONCLUSION

This study found that throughout the pandemic, a significant proportion of Bangladeshi doctors experienced depression, anxiety, and stress. Healthcare administration need to be aware that there's a risk that the COVID-19 pandemic will make physicians more vulnerable to mental health problems. To enhance the mental well-being and productivity of physicians, cognitive-behavioral therapy and physical and mental relaxation are crucial.

ACKNOWLEDGMENTS

The authors are indebted to all the physicians for participating in this study.

DISCLOSURE

The authors declared no competing interests.

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