



# Psychological Impact of COVID-19 Among People from the Banking Sector in Bangladesh: a Cross-Sectional Study

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## Abstract

Despite the pandemic, the Government of Bangladesh decided to keep the banks open to a limited extent to keep the country's economy afloat. The aim of this study is to assess the psychological impact of COVID-19 among the bankers who are usually more exposed to random people that put them at great risk to be affected. A total of 248 bankers willingly answered our questionnaire consisting of DASS-21 and relevant questions. Cronbach's reliability coefficient for the DASS-21 scale ranges from 0.84 to 0.90 which advocates that DASS-21 scales are highly reliable measures for this study. Results show that among participants, 11.1% were severe to extremely stressed, 10.6% of bankers were severe to extremely anxious, and 12.1% of them were severe to extremely depressed. The study illustrated, among the Bankers whose colleagues were infected ( $B=2.251$ , 95% CI:  $-1.473$ ,  $3.029$ ), who smoking more ( $B=1.505$ , 95% CI:  $0.411$ ,  $2.599$ ), who wake up from sleep having a bad dreams ( $B=1.018$ , 95% CI:  $0.057$ ,  $1.979$ ), their fear of getting infected ( $B=1.717$ , 95% CI:  $0.392$ ,  $3.04$ ), who use public transportation ( $B=1.378$ , 95% CI:  $0.430$ ,  $2.236$ ), who misbehave with family members ( $B=1.033$ , 95% CI:  $0.071$ ,  $1.995$ ) and who beaten children ( $B=1.210$ , 95% CI:  $0.141$ ,  $2.279$ ) were responsible for higher stress, depression and anxiety scores respectively. Whereas, taking nutritious food ( $B=-0.229$ , 95% CI:  $-0.30$ ,  $1.763$ ), doing physical exercises ( $B=-0.325$ , 95% CI:  $-1.158$ ,  $0.508$ ) reduced depression, stress and anxiety scores. The authors believed that the result of the study will be beneficial for the government and its policymakers to take psychological intervention strategies and to make certain sufficient corporal settlement of the banking professionals.

**Keywords** COVID-19 · Pandemic · DASS-21 · Psychological health · Banker's · Bangladesh

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In December 2019, a new coronavirus disease (COVID-19) (initially named 2019-nCoV) outbreaks as a cluster of severe pneumonia cases of unrevealed cause among adults in Wuhan, Hubei province, China (Huang et al. 2020; Zhu et al. 2020). The COVID-19 was considered a new public health crisis intimidating the world with the emergence, and on March 11, 2020, it has been declared as a global pandemic by the World Health Organization (WHO) (Cucinotta and Vanelli 2020). The first confirmed cases of COVID-19 in Bangladesh was identified on March 8, 2020 (Banik et al. 2020), and since then the total number of confirmed case spiked swiftly and already crossed 100,000 landmarks with a death toll of 1343 on the 100th day following the advent of COVID-19 transmission in Bangladesh (Sakib 2020). In responding to this pandemic, the Government of Bangladesh has taken unprecedented control and preventative measures, along with the shutdown and suspension of all international and domestic flights, prayer at mosques, the closure of all workplaces and academic institutions, as well as lockdown and social distancing measures (WHO 2020). Furthermore, it is also evident that unpredictability, unreliability, the extremity of the COVID-19 pandemic along with the deception, and social isolation measures contribute to widespread stress apart from the escalation in human welfare (Zandifar and Badrfam 2020). This pandemic further triggers a significant global economic recession (Thunström et al. 2020) that adversely impacts psychological health and induces a wide variety of emotional depression and mental problems such as stress, depressive symptoms, and anxiety (Bao et al. 2020; Brooks et al. 2020; Rajkumar 2020).

The shutdown and social distancing steps are effective in grappling with infectious disease outbreaks, like COVID-19, which have a debilitating impact on businesses across the country, and the economy has almost come to a standstill, and remittance inflow, export profits, industrial development, and services sector, in particular, have worsening implications (Global Times 2020). The Bangladeshi government has eased the lockdown mechanism to hold the economic situation viable from May 31, 2020, thereby restarting workplaces, industries, and transport after suspending it for more than 2 months (Shahidul 2020). It is found that 98% of transactions of the state-owned banks are not digital where 99% of the country's banking is branch-based (Hossain 2020). So banks are kept open in this lockdown period. Nearly 110,000 people are employed at 41 commercial banks in the country (Hasan 2020). To support the bankers, the central bank announced that the officers and employees who are working in this pandemic situation will get special incentives. It was assured to some professionals to some extent (bdnews24.com 2020). But recently, the authority has declared that this incentive offer was valid until May 29 (The Business Standard 2020a). So this type of rapid policy changing is making the bankers' psychological state vulnerable. Meanwhile, new cases and deaths of COVID-19 are increasing day by day in Bangladesh, which magnifies fear and stress among people from different governmental and private officials bound to compulsory office tasks particularly people from banking sectors due to direct exposure with the public and not being able to maintain proper social distance. Furthermore, a recent report also indicates a significant number of positive cases of COVID-19 related to people from Bangladesh's banking sector (Central Banking 2020). Bangladesh Association of Banks (BAB), a form of bank directors, decided to cut down the salary of staff as high as 15% for the next year from July 2020 (Hasan 2020). As a consequence, people in the banking sector are in extreme stress due to fear of becoming infected with COVID-19 and spreading this virus to their family members as well as financial insecurity which may contribute to detrimental psychological effects. Earlier research has shown that a certain degree of workplace stress among people in the banking sector contributing to psychological disorders (Akther and Akter 2017; Manjunatha and

Renukamurthy 2017; Ukil and Ullah 2016) and pandemics such as COVID-19 inevitably aggravates this circumstance by rising the psychological stress severity within this population.

While being in such a precarious condition, there is no research assessing the effect of the COVID-19 pandemic on the psychological distress of people in Bangladesh's banking sector. The study is therefore the first attempt to explore the effect of this COVID-19 pandemic on the psychological health of people from Bangladesh's banking sectors. This study would investigate the socio-demographic and health-related association of psychological consequences such as depression, anxiety, and stress among bankers during the COVID-19 pandemic, and the analysis results would visualize the significance of research in the field of mental health.

## Methods

### Participants

To consider the psychological health appraisal in the COVID-19 pandemic, a cross-sectional study was conducted among the Bankers of Bangladesh from June 17, 2020, to June 25, 2020. Considering the 5% level of significance and 6% acceptable margin of error ( $d = 0.06$ ), the desired sample size has been estimated using the following Cochran's formula:

$$n = \frac{z^2 p(1-p)}{d^2}$$

The sample proportion was assumed as 0.5 since this value provides the maximum sample size. Hence, the required sample size was 248. A total of 248 respondents that completed the questionnaires were included in the final analysis.

### Study Design and Procedure

A purposive sampling technique was adopted for selecting the sample from our target population. Thereby, the questionnaires were administered to bankers belonging to different public and private banks. Prior to the survey, bankers were informed about the purpose of the research and assured about the confidentiality of their feedback. The form starts up with two options (Yes/No) agreement questions to take the verbal consent of the bankers; however, a couple of bankers declined to complete the survey by selecting the No option and were allowed to drop out. For the purpose of the survey, a self-administered questionnaire was utilized and shared with the respondents by using email and social media especially (Facebook).

### Instruments

The instrument had three parts consisting of demographic Information, information related to COVID-19, and psychological health assessment.

### Demographic Information

Demographic information of the respondents was obtained by some questions involving their age, gender, marital status, living status, monthly income, type of bank, the position of job,

working area, working place, get salary regularly, have a child at home, have an elder person at home, and any pregnant woman at home.

### **Information Related to COVID-19**

This section provides the following question about banker's information related to COVID-19: knowledge level about COVID-19, family member or relatives affected by COVID-19, colleague affected by COVID-19, fear of getting infected, reason behind fear, smoking habit, smoke more in this epidemic, sleeping activity, and taking nutritious food to boost immunity. This section also contains the activity of banker's such as washing hand, using a mask or hand gloves, maintaining social distance, wake up from sleep to see bad dreams, misbehave with family, beaten children, participating in household chores, involvement in religious activities, and physical exercise during this pandemic situation categorized as scales 0–2 (0 = always, 1 = sometimes, 2 = never).

### **Psychological Health Assessment**

The depression, anxiety, and stress scale (DASS- 21) was used to reflect the mental health of the Banker. Each of the three DASS-21 scales contains 7 items, divided into subscales of similar content. The score of DASS-21 scale was measured by a 4-point scale (0 = never, 1 = sometimes, 2 = often, and 3 = almost always), where total scores represented as 0–9 = normal, 10–13 = mild, 14–20 = moderate, 21–27 = severe, and 28 + = extremely severe (Lovibond and Lovibond 1995).

### **Statistical Analysis**

To analyze the data, a set of statistical tools have been applied. Descriptive statistics consisting of frequencies and percentages of categorical data have been used to obtain the characteristics of the participants. For checking the reliability and consistency of study variables, scores of Cronbach's alpha coefficient (range 0 to 1) have been determined. Statistically significant variables were used in ordinal logistic regression analyses. The estimates of the strength of associations were illustrated by beta coefficients with a 95% confidence interval (CI). The level of significance was set at  $p < 0.01$ . Statistically significant variables were showed graphically using relatives weighted scores. Data analysis was conducted using IBM SPSS (Statistical package for social science) for Windows (Version 26.0).

## **Result**

### **Reliability of Study Variables**

The reliability of the study questionnaire was measured using Cronbach's alpha. It demonstrated the individual differences concerning the amount of assent or dissent of the study variables. The reliability coefficient for factors related to COVID-19 variables and preventive practices and activities during COVID-19 variables were 0.47, 0.49 respectively. Depression scale questionnaire depicts Cronbach's alpha of 0.897 which was more than the standard recommended value of more than 0.60 for the scale to be reliable (Malhotra 2002). The

reliability of the anxiety scale with Cronbach's alpha was 0.844. The reliability of the stress scale with Cronbach's alpha was 0.843. Hence, the statistics of reliability analysis recommended that the DASS-21 scales are highly reliable measures for this study.

### Association among Depression, Anxiety, and Stress Scales

There is a significant positive correlation between depression and anxiety scale with ( $r = 0.687$ ,  $p < 0.01$ ). Anxiety shows a significant positive correlation with stress scale ( $r = 0.678$ ,  $p < 0.01$ ). Also, a significant positive correlation between stress and depression exists ( $r = 0.729$ ,  $p < 0.01$ ) (Table 1).

### Demographic Variables and Mental Health Impact

Most of the participants were male (73.5%) and aged 31 to 35 (46.5%), unmarried (71.8%), and living with family (80.8%). About 74.3% of those living in urban areas with children (59.6%), elder people (67.3%), and pregnant women (20.0%). Details of all demographic variables are illustrated in Table 2. Multivariate ordinal logistic regression analysis was done to find the significant factors, and it was found that bankers who were male were significantly associated with low anxiety than the female ( $B = -0.764$ , 95% CI: 1.342,  $-0.186$ ). On the other hand, participants who were unmarried compared to divorced were significantly associated with higher stress scores ( $B = 19.970$ , 95% CI: 19.206, 20.735). Participants living with relatives in contrast to living alone had a significantly higher score for both anxiety and depression ( $B = 2.191$ , 95% CI: 0.619, 3.763, and  $B = 1.552$ , 95% CI: 0.037, 3.067). Working in rural areas with respect to urban areas was significantly associated with lower depression scores ( $B = -0.751$ , 95% CI:  $-1.427$ ,  $-0.076$ ). Having an elder person and a pregnant woman at home was a significantly high score for depression ( $B = 0.600$ , 95% CI: 0.020, 1.180) and stress ( $B = 0.839$ , 95% CI: 0.166, 1.511) among bankers respectively. Other demographic variables such as age and children at home had no significant relationship with higher or lower DASS subscale scores (Table 2).

### Factors Related to COVID-19 and Mental Health Impact

Table 3 shows the relationship between factors related to COVID-19 and mental health among bankers. Only a few (7.7%) bankers had excellent knowledge about COVID-19. About 40% of bankers had a family member or relatives, and 55.6% had a colleague affected by COVID-19. The majority of the bankers (88.3%) were in the fear of getting infected by COVID-19 due to the rapid spread of the virus (60.5%). Around 37% of participants were involved in regular smoking, and surprisingly 75.4% of participants smoked more frequently during this pandemic. Furthermore, 93.1% were concerned about eating nutritious food to boost their immunity to

**Table 1** Correlation matrix between different scales (depression, anxiety, and stress)

Scales	Depression	Anxiety	Stress
Depression	1		
Anxiety	0.687**	1	
Stress	0.678**	0.729**	1

\*\* $p < 0.01$

**Table 2** Association among demographics information and mental health impact among bankers

Factors	<i>n</i> (%)	Stress <i>B</i> (95% CI)	Anxiety <i>B</i> (95% CI)	Depression <i>B</i> (95% CI)
Age				
26–30	87 (35.5%)	–0.441 (–1.974, 1.091)	.774 (–0.741, 2.290)	–.226 (–1.795, 1.343)
31–35	114 (46.5%)	0.307 (–1.144, 1.759)	1.137 (–0.319, 2.593)	.526 (–0.977, 2.028)
36–40	35 (14.4%)	–0.030 (–1.562, 1.502)	1.057 (–0.471, 2.585)	.369 (–1.195, 1.934)
More than 40	9(3.7%)			
Gender (ref: female)				
Male	180 (73.5%)	–0.299 (–0.879, 0.280)	–0.764* (–1.342, –0.186)	–.322 (–0.880, 0.236)
Female	65 (26.5%)			
Marital status (ref: divorced)				
Unmarried	176 (71.8%)	19.970* (19.206, 20.735)	1.175 (–1.972, 4.32)	–.677 (–3.548, 2.195)
Married	67 (27.3%)	19.819 (19.765, 21.525)	1.630 (–1.556, 4.815)	.209 (–2.691, 3.109)
Divorced	2 (0.8%)			
Living status (ref: alone)				
With family	198 (80.8%)	–0.497 (–1.310, 0.317)	0.610 (–0.200, 1.419)	.532 (–0.257, 1.322)
With relatives	9 (3.7%)	0.485 (–1.075, 2.046)	2.191* (0.619, 3.763)	1.552* (0.037, 3.067)
Alone	38 (15.5%)			
Working area (ref: urban)				
Rural	63 (25.7%)	0.080 (–0.598, 0.758)	–0.982 (–1.675, –0.289)	–0.751* (–1.427, –0.076)
Urban	182 (74.3%)			
Children at home (ref: no)				
Yes	146 (59.6%)	–0.093 (–0.659, 0.47)	0.344 (–0.210, 0.898)	0.019 (–0.518, 0.556)
No	99 (40.4%)			
Elder person at home (ref: no)				
Yes	165 (67.3%)	–0.249 (–0.839, 0.341)	0.327 (–0.263, 0.917)	0.600* (0.020, 1.180)
No	80 (32.7%)			
Pregnant women at home (ref: no)				
Yes	49 (20.0%)	0.839* (0.166, 1.511)	0.421 (–0.242, 1.083)	0.539 (–0.101, 1.179)
No	196 (80.0%)			

\**p* Value < 0.01, *B* beta

**Table 3** Association among information related to COVID-19 and mental health impact among bankers

Factors	<i>n</i> (%)	Stress <i>B</i> (95% CI)	Anxiety <i>B</i> (95% CI)	Depression <i>B</i> (95% CI)
Knowledge about COVID-19 (ref: excellent)				
Fair	29 (11.7)	2.460* (0.371, 4.548)	0.073 (-3.317, 0.145)	0.021 (-1.831, 1.673)
Good	112 (45.2)	1.178 (0.684, 3.039)	-0.995 (-2.437, 0.446)	0.010 (-1.366, 1.386)
Very good	88 (35.5)	1.362 (-0.534, 3.259)	-1.095 (-2.580, 0.389)	4.48 (0.960, 1.957)
Excellent	19(7.7)			
Family member affected (ref: no)				
Yes	98 (39.5)	0.121 (0.827, 1.069)	0.624 (-0.260, 1.507)	0.507 (-0.331, 1.345)
No	150 (60.5)			
Colleague is affected (ref: no)				
Yes	138 (55.6)	2.251* (-1.473, 3.029)	-0.509 (-1.702, 0.682)	-0.025(-1.368, 0.867)
No	110(44.4)			
Fear of infected (ref: no)				
Yes	219 (88.3)	0.944 (-0.419, 2.307)	1.742 (0.483, 3.002)	1.717*(0.392, 3.04)
No	29(11.7)			
Reason behind fear (ref: rapid spread of virus)				
Using public transportation	43 (17.3)	0.112 (-0.973, 1.197)	2.185* (1.060, 3.309)	0.807 (-0.201, 1.82)
Colleague is affected	51 (20.6)	0.303 (-0.681, 1.267)	2.897* (1.855, 3.940)	1.027 (0.141, 1.91)
Rapid spread of virus	150 (60.5)			
Smoking habit (ref: no)				
Yes	90 (36.3)	-0.881 (-2.019, 0.257)	-0.218 (-1.218, 0.782)	-0.652 (-1.59, 0.290)
No	158 (63.7)			
Smoking more in pandemic (ref: no)				
Yes	187 (75.4)	1.505* (0.411, 2.599)	0.020 (-0.952, 0.991)	0.873* (-0.041, 1.787)
No	61 (24.6)			
Nutritious food to boost immunity (ref: no)				
Yes	231 (93.1)	-0.229* (-0.30, 1.763)	-0.872 (-2.212, 0.467)	-0.380* (-0.43, 1.673)
No	17 (6.9)			

\**p* Value < 0.01, *B* beta

fight against COVID-19. Results of ordinal logistic regression analysis illustrated that bankers having a fair knowledge about COVID-19 had significantly high-stress scores ( $B = 2.460$ , 95% CI: 0.371, 4.548), although no significant factor was found between COVID-19 knowledge for anxiety and depression scales. Bankers whose colleagues were infected with COVID-19 were significantly associated with higher stress scores ( $B = 2.251$ , 95% CI:  $-1.473$ , 3.029). Fear of getting infected by COVID-19 was significantly associated with higher depression scores ( $B = 1.717$ , 95% CI: 0.392, 3.04). The reason behind fear who use public transportation ( $B = 2.18$ , 95% CI: 1.060, 3.309) and whose colleague infected ( $B = 2.897$ , 95% CI: 1.855, 3.940) in distinction with the rapid spread of the virus was significantly associated with higher anxiety scores. Those who were smoking more frequently had a significantly high score for stress ( $B = 1.505$ , 95% CI: 0.411, 2.599) and depression ( $B = 0.873$ , 95% CI:  $-0.041$ , 1.787). Bankers who were taking nutritious food were also significantly associated with lower scores for stress ( $B = -0.229$ , 95% CI:  $-0.30$ , 1.763) and depression ( $B = -0.380$ , 95% CI:  $-0.43$ , 1.673) in contrast to not taking

**Table 4** Association among daily activities and mental health impact among bankers

Factors	<i>n</i> (%)	Stress <i>B</i> (95% CI)	Anxiety <i>B</i> (95% CI)	Depression <i>B</i> (95% CI)
Washing hands after reaching home (ref: never)				
Always	214 (86.3%)	1.251 (−1.591, 4.092)	0.902 (−1.682, 3.487)	1.957 (−0.926, 4.840)
Sometimes	30 (12.1%)	1.823 (−1.140, 4.787)	1.534 (−1.182, 4.251)	1.783 (−1.205, 4.771)
Never	4 (1.6%)			
Use masks or gloves (ref: never)				
Always	171 (69%)	−0.540* (−1.202, 1.784)	0.413 (−1.514, 2.341)	−0.679* (−1.138, 1.782)
Sometimes	72 (29%)	0.966 (−1.297, 3.229)	1.017 (−0.932, 2.966)	0.924 (−1.184, 3.032)
Never*	5(2%)			
Maintain social distance (ref: never)				
Always	146 (58.9%)	−.325 (−1.773, 1.123)	1.135 (−0.336, 2.605)	0.209 (−1.235, 1.652)
Sometimes	89 (35.9%)	−.391 (−1.888, 1.105)	0.453 (−1.063, 1.970)	−0.232 (−1.724, 1.260)
Never	13 (5.2%)			
Wake up seeing bad dreams (ref: never)				
Always	32 (12.9%)	1.018 (0.057, 1.979)	1.261* (0.283, 2.239)	1.378* (0.430, 2.326)
Sometimes	144 (58.1%)	0.44 (−0.209, 1.086)	0.725 (0.084, 1.366)	0.806* (0.176, 1.437)
Never*	72(29%)			
Misbehave with family members (ref: never)				
Always	43 (17.3%)	0.563 (−0.404, 1.531)	1.033 (0.071, 1.995)	0.912 (−0.021, 1.845)
Sometimes	112 (45.2%)	−0.059 (−0.664, 0.546)	0.265 (−0.334, 0.864)	0.670 (0.081, 1.259)
Never*	93 (37.5%)			
Beaten your children (ref: never)				
Always	25 (10.1%)	0.246 (−0.813, 1.306)	1.210 (0.141, 2.279)	0.832 (−0.195, 1.858)
Sometimes	65 (12.1%)	−0.199 (−0.959, 0.56)	0.724 (−0.017, 1.465)	1.1* (0.390, 1.810)
Never	158 (63.7%)			
Participation in household chores (ref: never)				
Always	92 (37.1%)	0.135 (−0.777, 1.048)	0.264 (−0.66, 1.187)	0.769 (−0.173, 1.710)
Sometimes	127 (51.2%)	−0.240 (−1.106, .627)	0.375 (−0.495, 1.246)	0.961* (0.062, 1.859)
Never	29 (11.7%)			
Involved religious activities (ref: never)				
Always	115 (46.4%)	0.639 (−0.406, 1.684)	−0.100 (−1.113, 0.913)	−0.565 (−1.571, 0.441)
Sometimes	111 (44.8%)	0.77 (−0.950, 1.105)	−0.050 (−1.041, 0.941)	−0.011 (−0.982, 0.959)
Never*	22 (8.9%)			
Doing physical activities (ref: never)				
Always	48 (19.4%)	−0.325* (−1.158, .508)	−0.011* (−0.844, 0.823)	−0.371 (−1.191, 0.449)
Sometimes	138 (55.6%)	−0.463 (−1.132, 0.206)	−0.071 (−0.735, 0.593)	−0.340 (−0.989, 0.308)
Never*	62 (25%)			

\**p* Value < 0.01, *B* beta



nutritious food, although factors related to COVID-19 including family members or relatives affected and smoking habit had no significant effect on DASS-21 subscale scores.

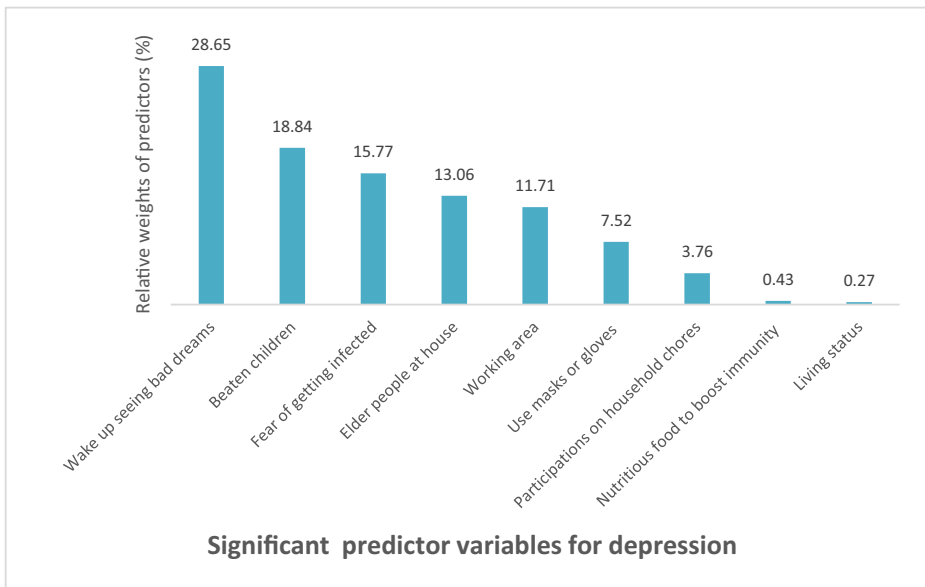
## Preventive Practices and Activities During COVID-19 Outbreak and Mental Health Impact

The association between preventive practices and activities during the COVID-19 outbreak and mental health among bankers is shown in Table 4. Only 86.3% of bankers always wash their hands with soap or sanitizer after reaching home where only 2% never use masks or hand gloves. In the case of maintaining social distance, a majority of them (58.9%) do so. Only 12.9% of bankers wake up from sleep seeing bad dreams, and 17.3% misbehave with family members where a large portion (63.7%) of them never beat up their children. In daily activities, 37.1% of bankers always participated in household chores; only 9% of them are never involved in religious activities where about 19.4% always do physical exercise. Results from ordinal logistic regression analysis found that bankers using masks or gloves had a significant low scores for stress ( $B = -0.540$ , 95% CI:  $-1.202, 1.784$ ) and depression ( $B = -0.679$ , 95% CI:  $-1.138, 1.782$ ), and those who wake up from sleep due to seeing bad dreams had significantly higher score for stress ( $B = 1.018$ , 95% CI:  $0.057, 1.979$ ), anxiety ( $B = 1.261$ , 95% CI:  $0.283, 2.239$ ), and depression ( $B = 1.378$ , 95% CI:  $0.430, 2.236$ ). Meanwhile, bankers who sometimes had a bad dream had significantly higher scores for anxiety and depression respectively ( $B = 0.725$ , 95% CI:  $0.84, 1.366$ , and  $B = 0.806$ , 95% CI:  $0.176, 1.437$ ). Respondents always misbehave with family members in contrast to who never misbehave were significantly associated with high anxiety scores ( $B = 1.033$ , 95% CI:  $0.071, 1.995$ ). Beating children always in contrast to never beaten was significantly associated with high anxiety scores ( $B = 1.210$ , 95% CI:  $0.141, 2.279$ ). Those who sometimes participated in household chores in contrast who never involved significantly high scores for depression ( $B = 0.961$ , 95% CI:  $0.62, 1.859$ ). However, the bankers who had always been involved in physical exercise in contrast to those never involved in the physical exercise were significantly associated with lower scores for stress and anxiety ( $B = -0.325$ , 95% CI:  $-1.158, 0.508$ , and  $B = -0.11$ , 95% CI:  $-0.844, 0.823$ ) respectively. Despite this, factors including washing hands regularly, maintaining social distance, and involved in religious activities had no significant association among stress, anxiety, and depression among bankers.

Ranking of relatively important scores allowed an ordering of the significant factors in terms of their efficiency to predict the outcome. We calculated the importance score to help us to identify the significant predictor variables which most likely to influence the outcome. Waking up seeing bad dreams, beaten children, fear of getting infected, smoking more in this pandemic, colleagues being infected, elder people at house, pregnant women at house and using masks, eat nutritious food, and doing physical activities were always important significant variables in predicting anxiety, depression, or stress (see Figs. 1, 2, and 3).

## Discussion

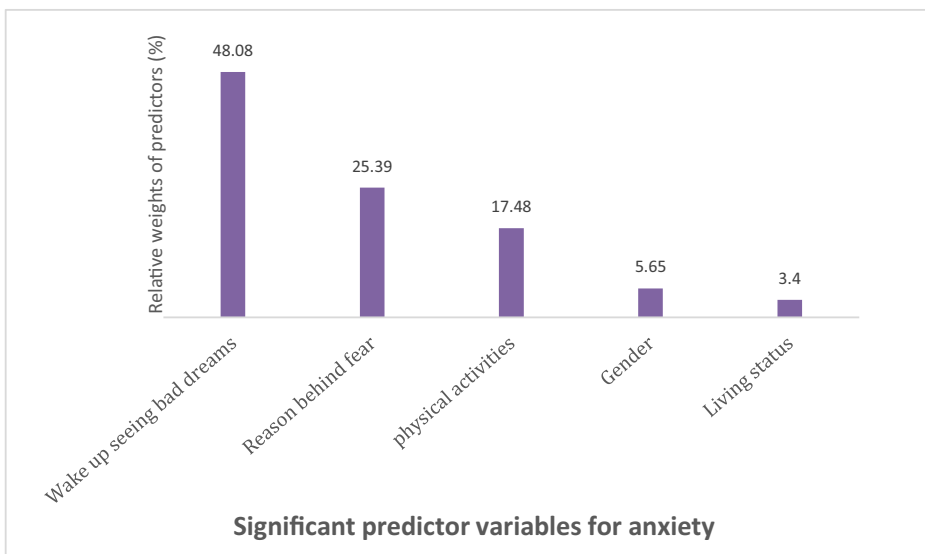
As a part of protective actions against the extent of the COVID-19 pandemic, the Bangladesh government had stated a general holiday in Bangladesh for almost 2 months from March 26 to May 30, although most of the banks had continued their work on a limited scale in this crisis situation (Shawon 2020). When people around the country were locked down and viruses



**Fig. 1** Significant predictor variables in terms of mild to severe depression

spread more rapidly all over the country caused fear, anxiety, depression among bankers (Khaled Hossain and Akhter 2020). We, therefore, decided to assess the mental health condition of bankers by DASS-21.

The result of the study indicated that almost all bankers are suffering from stress, anxiety, and depression where 11.1% of bankers were severely stressed to extremely stressed which can cause serious mental health problems. Besides, 11.4% of bankers were severely anxious to



**Fig. 2** Significant predictor variables in terms of mild to severe anxiety

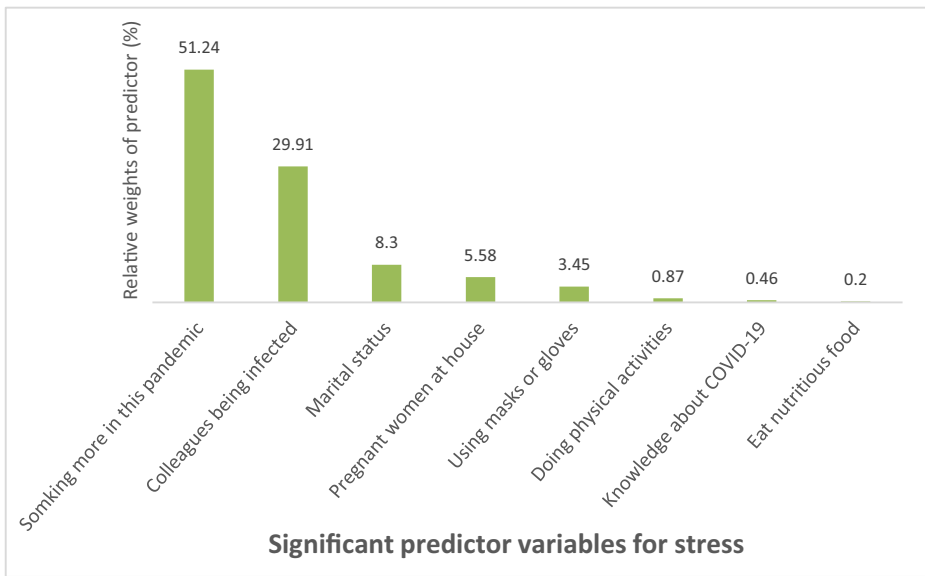


Fig. 3 Significant predictor variables in terms of mild to severe stress

extremely anxious, and 12.1% of them were severely depressed to extremely depressed (Fig. 4). The United Nations addressed governments, civil society, and health authorities to come together to reduce the mental health extent of the COVID-19 pandemic. Although the spread of viruses is under control, anxiety and depression will affect most people and communities (UN 2020). The significant effects on stress, anxiety, and depression on gender, living status, marital status, using public transportation, the rapid spread of the virus, fear of getting infected, taking nutritious food, using masks, doing physical activities observed in this study ( $p < 0.01$ ).

In our study, most of the respondents were aged 31–35 (46.5%), unmarried (71.8%), and working in the urban area (74.3%). The result of multivariate ordinal logistic regression

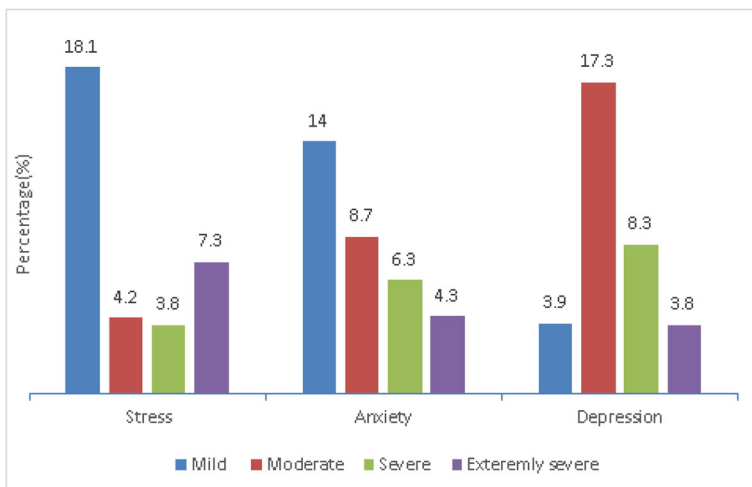


Fig. 4 Prevalence of stress, anxiety, and depression related to COVID-19 among bankers

indicated that bankers were working in urban areas and significantly associated with lower DASS depression subscale scores. The situation is even inferior for bankers who are working outside of Dhaka, according to some officials (Masum 2020). About 80.8% of bankers are living with family members, besides 3.7% of them living with relatives with high anxiety and depression scores. Only 59.6% of respondents had children, 67.3% had elder people, and 20% had pregnant women at home. Having an elder person and pregnant women had higher depression and stress scores respectively and had a significant association with both stress and depression scales. These factors caused fear among bankers. Fears of being getting infected by the COVID-19 are in a row present among bankers in Dhaka on the condition of a recent wave in the number of infections (The Financial Express 2020).

Results of banker's information about COVID-19 suggested that most of the bankers had good knowledge (45.2%) about COVID-19, and this knowledge about COVID-19 had higher stress value. Besides, 55.6% of banker colleagues were affected which had a negative impact, significantly associated with stress score. Bankers also stated that many banks do not have enough security actions to protect their workers and clientele from coronavirus (The Business Standard 2020b). Most of the bankers were fearful of getting infected (88.3%), which results in a higher depression score. The rapid spread of the virus (60.5%) had mostly been feared about this virus, but no significant effects among DASS-21 scales with that. Fear of getting infected being burrowed at residence to sluggish the increase of virus can make it hard for families to remain sagacity of composed and manage robust all the time (Healthy Children.org 2020). Although using public transportation (17.3%) and whose colleagues were affected (20.6%) had a significant association with lower anxiety scores. As a result, bankers smoked more (75.4%) in this pandemic with a high anxiety and depression score. Most of the bankers were worried about going to the office during this pandemic situation (Saif and Hossain 2020). Additionally, those who took nutritious food had a significant relationship with both anxiety and depression. COVID-19 can result in a negligible infection, providing hearty protection by taking nourishment food (Narayan Health 2020). Significant effects among types of banks, age, gender, and education were observed in a previous study (Lopes and Kachalia 2016).

In this study, the results of daily activities of bankers indicated that 69% of bankers used masks and gloves that had a significant association with depression and stress. In the early stage of the pandemic, Singapore distributed safety material such as a thermometer, surgical masks, hand sanitizer, and vitamin C for employers (Avery 2020). Waking up from sleep due to bad dreams (12.9%) indicated higher anxiety and depression scale, and there was a significant relationship among them. Almost 46% of bankers (45.2%) misbehaved with family members, but there was no significant relationship among DASS-21 subscales. A group of people in lockdown ensuing from the COVID-19 outbreak have unavoidably distorted the method family members act together (Leon 2020). Only 12.1% of bankers who beaten up their children had a higher depression score and significant relationship with depression scale. Only 37.1% of bankers always participated in household chores, and 51.2% of them sometimes involved in household activities, and those involved in rational activities had a significant relationship with DASS-21 depression subscale. Besides, 19.4% of bankers always did physical activities and had lower scores in both stress and anxiety scales. Doing physical activities was a protective factor against stress, anxiety, and depression. It reduces the mental health problem of the respondent. Studies found that physical activity and exercise can be practical cure strategies for symptoms of both depression and anxiety (Michigan Medicine 2020).

Several international banks have proclaimed mental health consciousness programmers and preparation. Besides, banks provided tips regarding staying healthy at home as well as seminars for better sleeping, meditation, yoga, and breathing breaks provided online (Avery 2020). The psychological health condition of Bangladeshi bankers caused a gigantic collision in their regular activities, and there is a need to better appreciate mental health. However, the study suggested several factors responsible for the mental health problems of bankers which should be considered for the betterment of them. The government should take the necessary steps to avoid the barriers which cause mental health problems for bankers. The government should consider several programs or seminars online to provide mental health related tips for workers that might release their stress, anxiety, and depression. The government and its strategy makers might bring into play the outcomes of this investigation so as to make certain sufficient fiscal and corporal settlement to the banking professionals. Researchers have extensive potential to kick off additional make inquiries on job-related stress in a mixture of fields of employment to make possible human resources as well as the organization in Bangladesh.

## Conclusion

The research findings reveal that the COVID-19 pandemic has a significant influence on psychological distress among the people of banking sectors in Bangladesh. The analysis indicated that some study variables had increased the level of stress, anxiety, and depression among bankers: whose colleagues were infected, who had used public transportation and smoked more during the pandemic, woke up from sleep seeing bad dreams, and beaten up children. The study found the importance of having sound knowledge about the outbreak. Being involved in physical exercises and taking nutritious food to boost immunity, bankers can improve psychological conditions to endure this COVID-19 pandemic.

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Muhammad Khairul Alam: Conceptualization, Formal analysis, Writing—original draft  
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Nahid Salma: Conceptualization, Supervision, Writing—review and editing

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethics and Consent to Participate** Participants were informed about the aim of research and information on the safeguarding of confidentiality and privacy before the survey. The participants were assured about the anonymity of their names and any other identifying information. It was also notified that at any time, participants could withdraw from the survey without giving any justification. All the participants willingly participated by giving their consent. This study was carried out online in full conformity with the provisions of the Helsinki Declaration on human participant research.

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