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Original Research

Quality of life among Bangladeshi Youth during the early stage of the COVID-19 pandemic: A single-site survey

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ABSTRACT

Objectives: This study aimed to determine the impact of the COVID-19 pandemic on the psychological, mental health and quality of life among Bangladeshi residents.
Study design: A purposive cross-sectional study of quality of life during the COVID-19 pandemic was performed.
Methods: Respondents completed a modified questionnaire that determined the Impact of Event Scale (IES), indicators of psychological distress impact, impact on government strategies, awareness and lifestyles, and impact on expectation of quality life change. A total of 465 (male = 330 and female = 135) respondents participated in this study.
Results: The overall mean age of respondents was 28.42 ± 7.07 years, and 63.4%, 44.1% and 50.3% were unmarried, were in the middle-income family group and had a masters or PhD qualification, respectively. The overall mean IES score of respondents was 80.89 ± 8.91, which reflects a stressful impact of the COVID-19 pandemic on physical and mental health problems. Only 27.75% of respondents had an IES score ≥75. More than half of respondents (57.8%) reported that they did not feel lonely and hopeless. In terms of preventative measures, the majority of the respondents (80.2%) reported that they did not wash their hands frequently with soap and sanitiser for at least 20 s to reduce spread of the virus. During the pandemic, more than half of the respondents (56.8%) claimed that they faced serious problems in education.
Conclusions: The ongoing COVID-19 pandemic has resulted in significant mental and physical health problems.

1. Introduction

In December 2019, an unknown disease resulting in pneumonia was first identified in Wuhan, Hubei Province, China [2]. The COVID-19 pandemic has subsequently resulted in a global public health problem and threat to human health [1]. COVID-19 is a highly infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [1]. On 12 February 2020, a total of 43,103 COVID-19 cases were recorded; 42,708 of these cases (99.1%) in China [3]. On the 19th March 2020, the World Health Organisation (WHO) declared COVID-19 to be a pandemic, with 118,000 cases and 4291 deaths in 114 countries [4]. The Johns Hopkins University database revealed that due to the COVID-19 pandemic, the worldwide case-fatality ratio increased by 6.2% (120,450/1,930,780) as of 14 April 2020 [5].

Recently, several studies have started to explore tension, anxiety, psychological symptoms and other mental health manifestations during the COVID-19 pandemic [6–12]. According to a British Medical Journal report, the psychological impact of the COVID-19 pandemic is being observed among residents in the UK [13]. China's National Health Commission (NHC) has published various guidelines at different times during the pandemic [14] following identified psychological stress from home quarantine, effective treatment procedures for COVID-19 patients, and side effects of treatment or fear of the infection itself [15]. Recent studies have reported that ≥50% of respondents report stresses or

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uneasiness during pandemic situations [16–19]. Nonetheless, to date, there remains an absence of data on particular elements of vulnerability (e.g. trait health anxiety), amplification (e.g. cyberchondria) and adaptation (e.g. emotional regulation) with respect to wellbeing during the COVID-19 pandemic [12,20,21].

Major pandemic and epidemics are thought to have extreme negative effects on society and personal life [22]. Similarly, the ongoing COVID-19 pandemic has been reported to aggravate psychological vulnerability throughout the world. Several features of the pandemic have been shown to facilitate mental instabilities, such as fear of COVID-19 infection and panic towards it, economic recession and distress [23–25]. In addition to being infected with the virus, being in isolation or quarantine, and the fear of transmitting the virus to family members may also contribute to mental health problems [2,26,27]. However, various health bodies are now focusing on the mental health aspect of the COVID-19 pandemic. Guidelines include strategies relating to early diagnosis of mental health disorders, related social awareness and alternative treatments (e.g. telemedicine), with the aim of reducing unexpected loss of life. Early detection of mental health disorders can be useful in supporting the organisations and government who are trying to alleviate these issues.

Bangladesh reported a total of 398,815 COVID-19 cases according to a WHO report. As the number of infected patients and death rate continues to rise along with economic uncertainty, people are experiencing panic, anxiety, fear, adjustment disorder, depression, insomnia and other psychological problems, with extreme cases resulting in suicide [23,27–29]. There are a few prior studies conducted in Bangladesh; for example, Hossain et al. [30] examined the effects of social and electronic media in generalised anxiety disorder, whereas Islam et al. [31] studied depression and anxiety, Sakib et al. [32] looked at fear and depression and Mamun et al. [33] investigated suicidal behaviour. However, studies relating to the impact of the COVID-19 pandemic, government strategies and quality of life have not yet been investigated.

The aim of the current study is to investigate the links between psychological distress, awareness and quality of life during the COVID-19 pandemic. It was hypothesised that health anxiety moderates the level of psychological behaviour (i.e. an increase in COVID-19 leads to an increase in health anxiety).

2. Methods

A purposive cross-sectional study utilising Google form was conducted between 25 May 2020 and 26 July 2020. The online survey was distributed via the most popular social media platforms in Bangladesh, such as Facebook, Instagram and WhatsApp. The inclusion criteria were as follows: (i) being a Bangladeshi resident; and (ii) having no history of mental health problems. A total of 465 complete responses were collected (mean age 28.42 ± 7.07 years).

The survey included questions on basic sociodemographic information, measures to combat the COVID-19 pandemic, impact of the COVID-19 pandemic and quality of life. Sociodemographic information included gender, age group, and marital and education status. In addition, a number of self-developed items were used to assess overall strategies of combating the pandemic. For assessing COVID-19 impact, 25-items of the Impact of Event Scale (IES) were used [34] (5-point Likert scale, ≥75 is the cut-off point for moderate-to-severe impact).

2.1. Statistical analyses

Microsoft Excel 2019 and IBM SPSS version 20.0 (Chicago, IL, USA) were used for data analysis. A Microsoft Excel file was used for online data collection, which was subsequently imported into SPSS. A descriptive analysis (frequencies, percentages, means and standard deviation), and Chi-square tests and reliability tests were performed using SPSS software. The Chi-Square test of independence was used to determine if there was a significant association between two nominal (categorical) variables [35]. An unpaired *t*-test (an independent *t*-test) was used to determine whether there was a statistically significant difference in the IES scores between categorical variables and gender. Generalized linear model (GLM) multivariate analysis was employed to assess the difference in dependent variables and independent variables, including age groups. A *P*-value <0.05 was considered to be statistically significant.

Table 1
Association between gender and sociodemographic characteristics of participants.

Variables	Total (n = 465)	Males (n = 330)	Females (n = 135)	Chi-Square Value	P-Value
Age of Respondents in years (mean ± SD)					
	28.42 ± 7.07	29.53 ± 7.09	25.73 ± 6.28		0.000
Marital Status [n (%)]					
Married	170 (36.6)	134 (40.6)	36 (26.7)	8.026	0.005
Unmarried	295 (63.4)	196 (59.4)	99 (73.3)		
Monthly Family Income Status [n (%)]					
Low-income family (Below 30,000 tk)	151 (32.5)	108 (32.7)	43 (31.9)	0.093	0.954
Middle-income family (30000–60000 tk)	205 (44.1)	144 (43.6)	61 (45.2)		
High-income family (Above 60,000 tk)	109 (23.4)	78 (23.6)	31 (23.0)		
Educational Qualification [n (%)]					
Below Bachelor	64 (13.8)	29 (8.8)	35 (25.9)	35.45	0.000
Bachelor	167 (35.9)	110 (33.3)	57 (42.2)		
Masters or PhD	234 (50.3)	191 (57.9)	43 (31.9)		

tk, Bangladeshi taka.

3. Results

3.1. Sociodemographic characteristics

Table 1 shows the sociodemographic characteristics of respondents. In total, 465 respondents participated in the study, the majority of whom were male (n = 330, 70.97%). The overall mean age of respondents was 28.42 ± 7.07 years, but mean age varied between males (29.53 ± 7.09) and females (25.73 ± 6.28). More than half (63.4%) of respondents were unmarried. In terms of monthly family income, 44.1% of respondents belong to middle-income family group (30,000–60,000 Bangladeshi taka). Additionally, half of the respondents (50.3%) had a masters or PhD qualification.

3.2. Impact of Event Scale (IES)

The total mean IES score of respondents was 80.9 ± 8.9, which reflects the impact of mild stress among respondents (Table 2). There was no statistically significant difference in mean IES scores between gender (male vs female: 81.1 vs 80.4, respectively) ($P = 0.235$). Overall, only 27.0% of respondents had an IES score >75. There was no statistically significant association between the percentages of respondents with an IES >75 and gender (male vs female: 27.0% vs 29.6%, respectively) ($P = 0.561$). Several other sociodemographic variables (i.e. age group, educational qualification and marital status) were not statistically associated with IES score or the percentage of respondents with an IES >75. Additionally, none of these variables statistically significantly predicted the IES score in the multiple regression analysis (Table 3).

Table 2
Impact of Event scale (IES) and psychological distress impacts by sociodemographic factors.

Variables	Gender (n = 465)		P –value[a]	Age Group (Years) (n = 465)		P –value[a]	Educational Qualification (n = 465)			P –value[a]	Marital Status (n = 465)		P –value[a]
	Male (n = 330)	Female (n = 135)		Below 25 (n = 212)	Above 26 (n = 253)		Below Bachelor (n = 64)	Bachelor (n = 167)	Masters or PhD (n = 234)		Married (n = 170)	Unmarried (n = 295)	
IES	81.1 ± 9.0	80.4 ± 8.7	0.235[b]	80.4 ± 9.6	81.3 ± 8.3	0.189[b]	81.5 ± 7.8	80.9 ± 9.4	80.9 ± 8.4	0.568[c]	81.5 ± 7.8	80.5 ± 9.5	0.256[b]
IES >75	89 (27.0)	40 (29.6)	0.561	65 (30.7)	64 (25.3)	0.198	19 (29.7)	48 (28.7)	62 (26.5)	0.825	42 (24.7)	87 (29.5)	0.267
Depression													
Feel sad, dirty or unwell [n (%)]													
Yes	80 (24.1)	46 (34.1)	0.061	66 (31.1)	60 (23.7)	0.167	23 (35.8)	45 (26.9)	58 (24.8)	0.486	39 (22.9)	87 (29.5)	0.268
Neutral	52 (15.8)	23 (17.0)		30 (14.2)	45 (17.8)		10 (15.6)	28 (16.8)	37 (15.8)		27 (15.9)	48 (16.3)	
No	198 (60.0)	66 (48.9)		116 (54.7)	148 (58.5)		31 (48.4)	94 (56.3)	139 (59.4)		104 (61.2)	160 (54.2)	
Feel no interest to do work [n (%)]													
Yes	135 (40.9)	41 (30.4)	0.103	75 (35.4)	101 (39.9)	0.552	30 (46.9)	58 (34.7)	88 (37.6)	0.215	62 (36.5)	114 (38.6)	0.478
Neutral	51 (15.5)	24 (17.8)		34 (16.0)	41 (16.2)		12 (18.8)	23 (13.8)	40 (17.1)		24 (14.1)	51 (17.3)	
No	144 (43.6)	70 (51.9)		103 (48.6)	111 (43.9)		22 (34.4)	86 (51.1)	106 (45.6)		84 (49.4)	130 (44.1)	
Feel lonely and hopeless [n (%)]													
Yes	85 (25.8)	48 (35.6)	0.078	56 (26.4)	77 (30.4)	0.390	24 (37.5)	39 (23.4)	70 (29.9)	0.140	61 (35.9)	72 (24.4)	0.030
Neutral	44 (13.3)	19 (14.1)		26 (12.3)	37 (14.6)		11 (17.2)	22 (13.2)	30 (12.8)		20 (11.8)	43 (14.6)	
No	201 (60.9)	68 (50.4)		130 (61.3)	139 (54.9)		29 (45.3)	106 (63.5)	134 (57.3)		89 (52.4)	180 (61.0)	
Feel valueless [n (%)]													
Yes	135 (40.9)	42 (31.1)	0.010	53 (25.0)	124 (49.0)	0.000	20 (31.2)	44 (26.3)	113 (48.3)	0.000	89 (52.4)	88 (29.8)	0.000
Neutral	65 (19.7)	19 (14.1)		36 (17.0)	48 (19.0)		12 (18.8)	30 (18.0)	42 (17.9)		32 (18.8)	52 (17.6)	
No	130 (39.4)	74 (54.8)		123 (58.0)	81 (32.0)		32 (50.0)	93 (55.7)	79 (33.8)		49 (28.8)	155 (52.5)	
Anxiety													
Feel really tense [n (%)]													
Yes	50 (15.2)	14 (10.4)	0.113	30 (14.2)	34 (13.4)	0.850	12 (18.8)	18 (10.8)	34 (14.5)	0.128	21 (12.4)	43 (14.6)	0.778
Neutral	58 (17.6)	17 (12.6)		32 (15.1)	43 (17.0)		5 (7.8)	34 (20.4)	36 (15.4)		27 (15.9)	48 (16.3)	
No	222 (67.3)	104 (77.0)		150 (708)	176 (69.6)		47 (73.4)	115 (68.9)	164 (70.1)		122 (71.8)	204 (69.2)	
Feel nervous [n (%)]													
Yes	90 (27.3)	24 (17.8)	0.096	56 (26.4)	58 (22.9)	0.675	19 (29.7)	46 (275)	49 (20.9)	0.122	38 (22.4)	76 (25.8)	0.319
Neutral	65 (19.7)	31 (23.0)		42 (19.8)	54 (21.3)		11 (17.2)	41 (24.6)	44 (18.8)		31 (18.2)	65 (22.0)	
No	175 (53.0)	80 (59.3)		114 (53.8)	141 (55.7)		34 (53.1)	80 (47.9)	141 (60.3)		101 (59.4)	154 (52.2)	
Feel spells of panic [n (%)]													
Yes	68 (20.6)	25 (18.5)	0.832	46 (21.7)	47 (18.6)	0.545	15 (23.4)	40 (24.0)	38 (16.2)	0.258	23 (13.5)	70 (23.7)	0.017
Neutral	49 (14.8)	19 (14.1)		33 (15.6)	35 (13.8)		8 (12.5)	27 (16.2)	33 (14.1)		23 (13.5)	45 (15.3)	
No	213 (64.5)	91 (67.4)		133 (62.7)	171 (67.6)		41 (64.1)	100 (59.9)	163 (69.7)		124 (72.9)	180 (61.0)	
Somatisation Problem													
Feel weak [n (%)]													
Yes	171 (51.8)	63 (46.7)	0.469	101 (47.6)	133 (52.6)	0.289	27 (42.2)	87 (52.1)	120 (51.3)	0.143	92 (54.1)	142 (48.1)	0.321
Neutral	63 (19.1)	32 (23.7)		50 (23.6)	45 (17.8)		20 (31.2)	35 (21.0)	40 (17.1)		29 (17.1)	66 (22.4)	
No	96 (29.1)	40 (29.6)		61 (28.8)	75 (29.6)		17 (26.6)	45 (26.9)	74 (31.6)		49 (28.8)	87 (29.5)	
Feel numbness, emotionlessness [n (%)]													
Yes	214 (64.8)	84 (62.2)	0.369	116 (54.7)	182 (71.9)	0.001	40 (62.5)	96 (57.5)	162 (69.2)	0.179	125 (73.5)	173 (58.6)	0.005
Neutral	58 (17.6)	20 (14.8)		44 (20.8)	34 (13.4)		11 (17.2)	35 (21.0)	32 (13.7)		20 (11.8)	58 (19.7)	
No					37 (146)		13 (20.3)	36 (21.6)	40 (17.1)		25 (14.7)	64 (21.7)	

(*continued on next page*)

Table 2 (*continued*)

Variables	Gender (n = 465)		P –value[a]	Age Group (Years) (n = 465)		P –value[a]	Educational Qualification (n = 465)			P –value[a]	Marital Status (n = 465)		P –value[a]
	Male (n = 330)	Female (n = 135)		Below 25 (n = 212)	Above 26 (n = 253)		Below Bachelor (n = 64)	Bachelor (n = 167)	Masters or PhD (n = 234)		Married (n = 170)	Unmarried (n = 295)	
	58 (17.6)	31 (23.0)		52 (24.5)									
Feel dullness and exhaustive [n (%)]													
Yes	180 (54.5)	50 (37.0)	0.003	89 (42.0)	141 (55.7)	0.006	28 (43.8)	75 (44.9)	127 (54.3)	0.345	97 (57.1)	133 (45.1)	0.040
Neutral	51 (15.5)	30 (22.2)		38 (17.9)	43 (17.0)		12 (18.8)	31 (18.6)	38 (16.2)		27 (15.9)	54 (18.3)	
No	99 (30.0)	55 (40.7)		85 (40.1)	69 (27.3)		24 (37.5)	61 (36.5)	69 (29.5)		46 (27.1)	108 (36.6)	

[a] Chi-square test or Chi-square test for trend was used for variables except for IES score.
[b] P-value was based on unpaired *t*-test.
[c] P-value was based on GLM univariate analysis test.

Table 3
Multiple linear regression analysis.[a].

Variables	B	Std. Error	Beta	t	*P*-Value
Constant	12.245	0.632	–	3.214	0.027
Age	1.362	0.035	0.058	0.862	0.428
Marital Status	- 0.952	0.236	−0.145	- 1.26	0.075
Monthly Family Income Status	2.351	0.152	0.074	1.364	0.049
Educational Qualification	1.924	0.965	0.087	1.954	0.235
Gender	0.921	0.036	0.635	1.756	0.541

[a] IES score as a dependent continuous variable IES, Impact of Event Scale.

3.3. Several indicators of psychological distress impacts

During the COVID-19 pandemic, in terms of depression levels, just over half of the respondents (56.8%) reported that they did not feel sad, dirty or unwell during daily life activity (Table 2). Additionally, 46.01% of respondents reported that they did not feel 'no interest to do work'. More than half of the respondents (57.8%) reported that they did not feel lonely and hopeless. Also, 43.9% of respondents reported that they did not feel that their life was valueless because of the COVID-19 pandemic.

However, when looking at anxiety levels, most of the respondents (70.1%) did not feel really tense during daily life activities. A little over half of respondents (54.8%) were not seriously nervous about the COVID-9 pandemic. Also, the majority of the respondents (65.4%) mentioned that they did not experience much more panic in daily life.

Table 4
Awareness and lifestyles by sociodemographic factors.

Variables	Gender (n = 465)		P –value[a]	Age Group (Years) (n = 465)		P –value[a]	Educational Qualification (n = 465)			P –value[a]	Marital Status (n = 465)		P –value[a]
	Male (n = 330)	Female (n = 135)		Below 25 (n = 212)	Above 26 (n = 253)		Below Bachelor (n = 64)	Bachelor (n = 167)	Masters or PhD (n = 234)		Married (n = 170)	Unmarried (n = 295)	
Frequently washing hand [n (%)]													
Yes	25 (7.6)	9 (6.7)	0.091	11 (5.2)	23 (9.1)	0.037	4 (6.2)	7 (4.2)	23 (9.8)	0.025	15 (8.8)	19 (6.4)	0.305
Neutral	48 (14.5)	10 (7.4)		20 (9.4)	38 (15.0)		4 (6.2)	17 (10.2)	37 (15.8)		25 (14.7)	33 (11.2)	
No	257 (77.9)	116 (85.9)		181 (85.4)	192 (75.9)		56 (87.5)	143 (85.6)	174 (74.4)		130 (76.5)	243 (82.4)	
Stay home or self-quarantine [n (%)]													
Yes	9 (2.7)	1 (0.7)	0.402	1 (0.5)	9 (3.6)	0.045	1 (1.6)	1 (0.6)	8 (3.4)	0.418	3 (1.8)	7 (2.4)	0.802
Neutral	18 (5.5)	7 (5.2)		14 (6.6)	11 (4.3)		4 (6.2)	9 (5.4)	12 (5.1)		8 (4.7)	17 (5.8)	
No	303 (91.8)	127 (94.1)		197 (92.9)	233 (92.1)		59 (92.2)	157 (94.0)	214 (91.5)		159 (93.5)	271 (91.9)	
Maintain social distance [n (%)]													
Yes	11 (3.3)	5 (3.7)	0.968	12 (5.7)	4 (1.6)	0.034	4 (6.2)	6 (3.6)	6 (2.6)	0.397	3 (1.8)	13 (4.4)	0.243
Neutral	36 (10.9)	14 (10.4)		19 (9.0)	31 (12.3)		6 (9.4)	14 (8.4)	30 (12.8)		21 (12.4)	29 (9.8)	
No	283 (85.8)	116 (85.9)		181 (85.4)	218 (86.2)		54 (84.4)	147 (88.0)	198 (84.6)		146 (85.9)	253 (85.8)	
Disinfectant use [n (%)]													
Yes	12 (3.6)	7 (5.2)	0.383	6 (2.8)	13 (5.1)	0.455	3 (4.7)	4 (2.4)	12 (5.1)	0.721	7 (4.1)	12 (4.1)	0.346
Neutral	73 (22.1)	23 (17.0)		44 (20.8)	52 (20.6)		12 (18.8)	36 (21.6)	48 (20.5)		29 (17.1)	67 (22.7)	
No	245 (74.2)	105 (77.8)		162 (76.4)	188 (74.3)		49 (76.6)	127 (76.0)	174 (74.4)		134 (78.8)	216 (73.2)	

[a] Chi-square test or Chi-square test for trend was used for variables except for IES score.

Table 5
Expectation of Quality Life by sociodemographic factors.

Variables	Gender (n = 465)		P –value[a]	Age Group (Years) (n = 465)		P –value[a]	Educational Qualification (n = 465)			P –value[a]	Marital Status (n = 465)		P –value[a]
	Male (n = 330)	Female (n = 135)		Below 25 (n = 212)	Above 26 (n = 253)		Below Bachelor (n = 64)	Bachelor (n = 167)	Masters or PhD (n = 234)		Married (n = 170)	Unmarried (n = 295)	
Educational barrier [n (%)]													
Yes	188 (57.0)	76 (56.3)	0.440	119 (56.1)	145 (57.3)	0.900	33 (51.6)	95 (56.9)	136 (58.1)	0.628	94 (55.3)	170 (57.6)	0.859
Neutral	56 (17.0)	29 (21.5)		38 (17.9)	47 (18.6)		10 (15.6)	31 (18.6)	44 (18.8)		33 (19.4)	52 (17.6)	
No	86 (26.1)	30 (22.2)		55 (25.9)	61 (24.1)		21 (32.8)	41 (24.6)	54 (23.1)		43 (25.3)	73 (24.7)	
Income and consumption obstacles [n (%)]													
Yes	229 (69.4)	85 (63.0)	0.035	153 (72.2)	161 (63.6)	0.006	42 (65.6)	120 (71.9)	152 (65.0)	0.049	109 (64.1)	205 (69.5)	0.023
Neutral	44 (13.3)	31 (23.0)		37 (17.5)	38 (15.0)		15 (23.4)	27 (16.2)	33 (14.1)		23 (13.5)	52 (17.6)	
No	57 (17.3)	19 (14.1)		22 (10.4)	54 (21.3)		7 (10.9)	20 (12.0)	49 (20.9)		38 (22.4)	38 (12.9)	
Lost job opportunities [n (%)]													
Yes	164 (49.7)	66 (48.9)	0.082	94 (44.3)	136 (53.8)	0.006	24 (37.5)	74 (44.3)	132 (56.4)	0.002	94 (55.3)	136 (46.1)	0.049
Neutral	92 (27.9)	49 (36.3)		80 (37.7)	61 (24.1)		26 (40.6)	64 (38.3)	51 (21.8)		40 (23.5)	101 (34.2)	
No	74 (22.4)	20 (14.8)		38 (17.9)	56 (22.1)		14 (21.9)	29 (17.4)	51 (21.8)		36 (21.1)	58 (19.2)	
Healthy lifestyle changes [n (%)]													
Yes	194 (58.8)	74 (54.8)	0.021	117 (55.2)	151 (59.7)	0.324	31 (48.4)	94 (56.3)	143 (61.1)	0.249	100 (58.8)	168 (56.9)	0.786
Neutral	81 (24.5)	48 (35.6)		66 (31.1)	63 (24.9)		23 (35.9)	51 (30.5)	55 (23.5)		44 (25.9)	85 (28.8)	
No	55 (16.7)	13 (9.6)		29 (13.7)	39 (14.6)		10 (15.6)	22 (13.2)	36 (15.4)		29 (15.3)	42 (14.2)	
Fulfilment of basic rights [n (%)]													
Yes	175 (53.0)	68 (50.4)	0.132	110 (51.9)	133 (52.6)	0.173	30 (46.9)	86 (51.5)	127 (54.3)	0.186	86 (50.6)	157 (53.2)	0.248
Neutral	85 (25.8)	46 (34.1)		67 (31.6)	64 (25.3)		23 (35.9)	53 (31.7)	55 (23.5)		44 (25.9)	87 (29.5)	
No	70 (21.2)	21 (15.6)		35 (16.5)	56 (22.1)		11 (17.2)	28 (16.8)	52 (22.2)		40 (23.5)	51 (17.3)	
Child maternal health problems [n (%)]													
Yes	148 (44.8)	66 (48.9)	0.224	81 (3802)	133 (52.9)	0.003	30 (46.9)	60 (35.9)	124 (53.0)	0.003	99 (58.2)	115 (39.0)	0.000
Neutral	75 (22.7)	36 (26.7)		64 (30.2)	47 (18.6)		17 (26.6)	54 (32.3)	40 (17.1)		31 (18.2)	80 (27.1)	
No	107 (32.4)	33 (24.4)		67 (31.6)	73 (28.9)		17 (26.6)	53 (31.7)	70 (29.9)		40 (23.5)	100 (33.9)	

[a] Chi-square test or Chi-square test for trend was used for variables except for IES score.

Due to the COVID-19 pandemic, in the somatisation levels, just 50.3% felt weak, but 64.1% of respondents reported that they felt numbness and emotionlessness due to the pandemic. Just under half of respondents (49.5%) felt dullness and exhaustive due to the COVID-19 pandemic. There was a significant association between different marital status and some of the responses including 'Feel lonely and hopeless because of the COVID-19 pandemic' ($P = 0.000$), 'Feel valueless because of the COVID-19 pandemic' ($P = 0.000$), 'Feeling spells of panic because of the COVID-19 pandemic' ($P = 0.017$), 'Feeling numbness, emotionlessness because of the COVID-19 pandemic' and 'Feeling dullness and exhaustive because of the COVID-19 pandemic'. On the other hand, sociodemographic variables such as gender, age group and education qualification were not associated with the indicators of psychological distress impacts.

3.4. Impact on awareness and lifestyles

During the COVID-19 pandemic, the majority of the respondents (80.2%) reported that they did not wash their hands frequently with soap and sanitiser for at least 20 s to reduce spread of virus. The majority of respondents (92.5%) mentioned that they did not stay home or self-quarantine to prevent the spread of COVID-19. An important preventative measure for the COVID-19 pandemic is maintaining social distance; however, 85.8% of respondents did not maintain social distance of at least 3 m from other people to reduce transmission. There was a statistically significant association between different age groups and several opinions of the respondents including 'frequently washing hand because of the COVID-19 pandemic' (P = 0.037), 'stay home or self-quarantine because of the COVID-19 pandemic' (P = 0.045) and 'maintain social distance because of the COVID-19 pandemic' (P = 0.034) [see Table 4].

3.5. Impact on expectation of quality life

During the COVID-19 pandemic, more than half of respondents (56.8%) claimed that they faced serious problems in education (Table 5). The majority of respondents (67.5%) reported some obstacles faced in income and consumption in daily life. The most serious issue was respondents losing their jobs (49.5%) as a result of the COVID-19 pandemic. In total, 52.3% of respondents reported that basic needs were not being fulfilled. Child health related problems (46.01%) frequently occurred during the COVID-19 pandemic.

4. Discussion

To gain a greater understanding about the impact of the COVID-19 pandemic, this study investigated the immediate effects on human health and quality of life of people in Bangladesh [31]. Since the COVID-19 pandemic is not yet over and it has spread worldwide, additional panic and anxiety has been reported throughout the globe [8,13,36–38]. The Bangladesh government locked down the entire country to control COVID-19 and, at the same time, declared a complete shutdown of major religious ceremonies and activities throughout the country. All schools, colleges and universities in the country were declared closed indefinitely to deal with the pandemic. People were not allowed to go to religious places of worship and all religious observances were instructed to be performed at home [39]. The aim of this study was to investigate the links between psychological distress, awareness and quality of life during the COVID-19 pandemic. In particular, a possible unfavourable effect of health anxiety, as well as favourable effects on psychological distress and a significant relation with mental health problems of the COVID-19 pandemic were examined in this study.

Result revealed that, due to the COVID-19, about half of participants experienced severe anxiety associated with the pandemic, which is in line with results from previous studies on anxiety in pandemics or epidemics [17,18]. In the COVID-19 outbreak, Wang et al. found that in a local Chinese population, around 30% detailed anxiety side effects in a normalised self-report measure with no solid reference to the pandemic and 75% were worried that relatives may get infected with SARS-CoV-2 [9,10]. Our study results fit well into these findings, as we posed a more broad question about anxiety related to SARS-CoV-2. The current study identified the IES score from the entire questionnaire, so that the analysis could determine if a participant was suffering from mental and physical problems as a result of COVID-19. Possible reasons for concern and anxiety about COVID-19 are that the virus is new, there is currently no treatment or cure, no vaccine has yet been discovered and the pandemic has increased mental and physical illness in the population. The study results are very similar to the findings of Zhand and Ma who looked at the effects of the COVID-19 pandemic on mental and physical health problems in China [12].

A few limitations to this study should be mentioned. Data were collected through Google questionnaire, which resulted in mostly educated people participating in this research. In addition, the sample size is small and the convenience sampling method used limited the participation of people from elsewhere in Bangladesh.

5. Conclusions

The COVID-19 pandemic has been shown to have a mild impact on psychological and physical stress. However, because the COVID-19 pandemic is still ongoing, the current study is not sufficient to reach a conclusion. Further investigations should take place with larger population groups. The current study has revealed the positive and negative mental health effects of COVID-19 on certain people in a particular area of Bangladesh. This study has provided important evidence on the effects of COVID-19 on various aspects of human mental and physical health problems. This study has been able to show the positive and negative effects of human psychological and physical stress during this pandemic.

Ethical approval

The survey was conducted according to the ethical guidelines. Additional formal ethical issues, as well as formal ethics permission, were reviewed and approved by the 'Group of Bio-photomatiχ', Tangail-1902, Bangladesh. All respondents were informed about the purpose of the study and their verbal and formal consent was obtained prior to participation. Participants were informed that all their information would be kept anonymous and confidential, and they were provided with information about the nature and purpose of the study, the procedure and the right to withdraw their data.

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Author contributions

Conceptualisation: A.G. Khan, K Ahmed; Data curation, Formal analysis, Investigation: S.K. Mondal, M.M. Ali, A.G. Khan, M.K. Ahamed; Methodology: A.G. Khan, K Ahmed; Funding acquisition, A.G. Khan, K Ahmed; Project administration: A.G. Khan; Resources, Software: S.K. Mondal; Supervision, Validation: A.G. Khan, K Ahmed; Visualisation, Writing - original draft: S.K. Mondal, A.G. Khan, M.K. Ahamed; Writing - review editing: A.G. Khan, K Ahmed. The final version of the manuscript has been read and approved by all authors.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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