

Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

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ABSTRACT

The work intended to determine the effects of fear of COVID-19 on mental health consequences among the participants living in Rajshahi, Bangladesh. Data were collected from Rajshahi division age between 16-51 years surveyed online during the COVID-19 pandemic among the demographic subgroups (gender, educational background, socioeconomic status, marital status, occupation, family types, residential area, getting out of the house or not, income level, health condition, and contamination history). The cross-sectional study was conducted on 641 individuals and the sample comprised 51.3% female and 48.7% male. Personal information form, FCV-19 scale, and GHQ-12 scale were applied to collect relevant data. Data were analyzed by SPSS through t-test, ANOVA, and Pearson's correlation tests. There was a significant difference among the mean scores of the respondent's fears of COVID-19 and gender, marital condition, outing during COVID-19 situation, income status. The present study found the fear of COVID-19 negatively affected mental health. Health care providers must take into account the vulnerable groups.

Keywords: *Fear, COVID-19, Fear of COVID-19, Mental health*

The World Health Organization has already declared that COVID-19 is a global pandemic (WHO, 2020). The spread of COVID-19 is related to mental health problems. And people face many psychological distress and symptoms (Bao et al., 2020). Along with the fear of infection to the present highly contagious virus, fear of losing beloved ones, the COVID-19 related misinformation spreading, the limitation of medical support, and therefore the shortage of properly equipped units to treat the patients, the lockdown-related issues (i.e., prolonged home isolation, social distancing, fear of unemployment, food insecurity, etc.) are being sought to be related to mental distresses like depression, anxiety, phobia, trauma, insomnia, etc. (Ahorsu et al., 2020; Brooks et al., 2020; de Lima et al., 2020; Hossain et al., 2020a; Naser et al., 2020; Pakpour and Griffiths, 2020;

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Received: February 19, 2023; Revision Received: April 15, 2023; Accepted: April 18, 2023

Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

Pakpour et al., 2020; Rahman et al., 2020; Sakib et al., 2020; Tasnim et al., 2020). The fear of COVID-19 has a positive impact on anxiety and depression (Belen, 2021). Zeynep et al., (2021) demonstrated a study and found fear of COVID-19 strongly related to anxiety, traumatic stress, distress, and insomnia. The fear of COVID-19 is associated with hopelessness. On the contrary, it is negatively related to mindfulness (Saricali et. al., 2020). On the other hand, more extroverted people are more threatened by COVID-19. At that time those who are less emotionally stable they experience more negative emotion (Basileyo and Garcia, 2021). Mertens et. al., (2020) reported that the risk for loved ones, health anxiety, information through regular media and social media are predictors for fear of COVID-19. Pramath et al. (2022) suggested that a high level of mental health is impacted by a low level of fear of COVID-19. Aknin et al. (2022) indicated that anxiety, depression, and distress increased in the early months of the pandemic.

METHODS AND MATERIALS

The sample was collected through snowball sampling techniques. The respondent was requested to send the questionnaire to his/her familiar person by social media, email, and the internet. This collection process was running from November 15, 2020 to December 22, 2020 among the Rajshahi people. The purpose was cleared in the introduction paragraph of the questionnaire (google form) and the consent was taken from the respondent. The information will be kept confidential and it only will be used for research purposes. 650 data was collected but we worked with 641 data, which is normally distributed. The age of the subject was 16 to 51 years old. The demographic information and the characteristics of the respondent was given below in Table 1.

Table 1. Distribution of Sample (n=641) according to selected demographic information and other characteristics.

Characteristics	N	%	
Gender	Male	312	48.7
	Female	329	51.3
Education Background	Secondary	17	2.7
	Higher Secondary	176	27.5
	Hon's and Masters	445	69.4
	Others	3	0.5
Socioeconomic class	Lower Class	96	15
	Middle Class	542	84.6
	Upper Class	3	0.5
Marital Condition	Married	103	16.1
	Unmarried/single	534	83.3
	Divorced/separated	4	0.6
Occupation	Student	561	87.5
	Non-Government	20	3.1
	Self	13	2
	Govt. Job	22	3.4
	Housewife/husband	8	1.2
	Part-time Job	4	0.6
	Unemployment	13	2
Family Types	Single	492	76.8
	Joint Family	149	23.2
Residential Area	Rural Area	368	57.4
	Sub-district area	115	17.9

Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

	District Area	56	8.7
	City/Metropolitan Area	102	15.9
Outing from home	Decreased Greatly	546	85.2
	Hardly Changed	52	8.1
	Increased greatly	11	1.7
	Don't know	32	5
Income	Decreased	333	52
	No Change/don't know	294	45.9
	Increased	14	2.2
Health Condition	Good/normal	611	95.3
	Illness	30	4.7
Contamination history	Affected with family members	13	2
	only family members affected	38	5.9
	Neighbor affected	142	22.2
	No familiar person affected	448	69.9

Research Tools

- **A personal information form:** This form was developed by the investigator to collect the relevant data for the research purpose.
- **The Fear of COVID-19 Scale (FCV-19S):** To measure the level of COVID-19 fear, an adapted Bengali version of the FCV-19S scale (Sakib et al., 2020), originally developed by Ahorsu et. al. (2020), Cited by Sarker et al. (2022). The FCV-19s is a 5-point Likert-type unidimensional scale with seven items (ranging from 1: Strongly disagree to 5: Strongly agree) and its score range is 7 to 35. The scale's total score is obtained by adding all items, and the higher score of this scale is the higher levels of COVID-19 fear. Bangla's adaptation of the scale confirmed acceptable psychometric properties (Sakib et al., 2020). Sakib et al., (2020) reported that the Bangla form of the FCV-19S has acceptable reliability (Cronbach's alpha: .871, corrected item-total correlations: .72 to .80) and validity (CFA: CFI = 0.946, TLI = 0.947, RMSEA = 0.071, WRMSR = 0.889). Cronbach's alpha in the study was 0.85.
- **Description of General Health Questionnaire (GHQ-12):** An adapted Bengali version of the GHQ-12 scale (Sorcar & Rahman, 1989), Cited by Sarker et. al. (2022), originally developed by Goldberg (1972) was used to measure the mental health of the participant. GHQ-12, while translating into Bengali, Sorcar & Rahman (1989) adopted the scoring system and they scored 0, 1, 2, and 3 for the positive items and reverse score for negative items. It is a scale of 12 items where 1 = not at all to 4=to a great extent. The probable score on this scale is 0 to 36. High scores are an indicator of good mental health. Cronbach's alpha in the present study was .86.

RESULTS AND DISCUSSION

A total of 641 respondents were enrolled in the present study. And the study helped us understand the influential factor that affects fear of COVID-19 and its impact on mental health. Descriptive statistics (frequencies, percentages), T-test, one-way ANOVA, and Pearson correlation were employed to analyze the responses of the subject.

Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

Table 2. Mean, Standard deviation, t/F value, and the P-value of Fear of COVID-19 in respect of the characteristics of the respondent.

Characteristics		N	Mean	SD	t/F value	P value
Gender	Male	312	21.76	5.623	3.58	0.00
	Female	329	23.36	5.697		
Education	Secondary	17	21.47	6.336	0.353	0.787
Background	Higher Secondary	176	22.39	5.819		
	Hon's and Masters	445	22.71	5.670		
	Others	3	22.33	2.309		
Socioeconomic class	Lower Class	96	22.31	6.015	1.60	0.204
	Middle Class	542	22.66	5.641		
	Upper Class	3	17.00	8.185		
Marital Condition	Married	103	23.76	5.348	3.13	0.045
	Unmarried/single	534	22.34	5.755		
	Divorced/separated	4	25.25	6.292		
Occupation	Student	561	22.56	5.696	1.86	0.085
	Non-Government	20	22.55	5.501		
	Self	13	21.38	3.885		
	Govt. Job	22	22.68	6.614		
	Housewife/husband	8	28.13	5.592		
	Part-time Job	4	25.50	4.435		
	Unemployment	13	20.38	5.810		
Family Types	Single	492	22.56	5.665	0.19	0.844
	Joint Family	149	22.66	5.889		
Residential Area	Rural Area	368	22.62	5.974	0.05	0.986
	Sub-district area	115	22.65	5.139		
	District Area	56	22.34	5.371		
	City/Metropolitan Area	102	22.52	5.620		
Outing during COVID-19	Decreased Greatly	546	22.88	5.646	4.39	0.05
	Hardly Changed	52	20.02	5.312		
	Increased greatly	11	21.09	7.217		
	Don't know	32	22.13	6.042		
	Decreased	333	22.90	5.587		
Income	No Change/don't know	294	22.44	5.767	5.19	0.05
	Increased	14	18.00	5.870		
Health Condition	Good/Normal	611	22.54	5.671	0.93	0.351
	Illness	30	23.53	6.543		
Contamination history	Affected by family members only	13	26.69	6.460	2.92	0.033
	family members affected	38	23.71	5.029		
	Neighbor affected	142	22.37	5.694		
	No familiar person affected	448	22.44	5.715		

Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

Among the demographic characteristics, the maximum mean scores of fear of COVID-19 with the housewife/househusband who have no job. The mean score of COVID-19 fear was 28.13, which is not statistically significant. Similarly, the person who's affected by the COVID-19 virus showed also greater fear of COVID-19. The score was 26.69 and it was obviously significant. Minimal fear was found among the groups who had increased their income in the pandemic situation. The mean score of them was 18.00 which is statistically reliable.

Considering the gender, there was a significant difference between males ($M= 21.76$; $SD= 5.62$) and females ($M= 23.36$; $SD= 5.70$). The females are feeling more fear than their counterparts. The feminine is more vulnerable to new threats. The marital condition was another important factor that contributed to fear of COVID-19. The person who separated from his/her spouse showed a higher amount of fear ($M= 25.25$; $SD= 6.29$). The single person ($M=22.34$; $SD= 5.75$) showed relatively little fear than the married ones ($M=23.76$; $SD= 5.35$). And the result was significant ($P<0.05$).

As well as the outing condition affected the fear of COVID-19. The person felt some little fear whose movement hardly changed ($M= 20.02$; $SD= 5.31$). And the people who couldn't move out and stay at home had also a greater fear ($M= 22.88$; $SD= 5.65$). Besides, Money had a vital role in fear of COVID-19. Those who are financially prosperous and their income increased during this pandemic. They had minimal fear or anxiety. The mean score was 18.00 ($SD= 5.87$). In contrast, the mean score of those whose income had decreased and whose had not changed was 22.90 ($SD= 5.59$) and 22.44 ($SD= 5.77$).

The contamination history also generated the fear of COVID-19. The person who was affected by his/her family members showed greater anxiety ($M= 26.69$; $SD= 6.46$). As well as, the only person who is contaminated in the family also showed a higher amount of fear ($M= 23.71$; $SD= 5.03$) than the person who is not contaminated with the COVID-19 virus.

Table 3. Pearson Correlation between fear of COVID-19 and age

Variable	Fear of COVID-19	Age
Fear of Covid-19	1	-.031
Age	-.031	1

$p>0.05$

The above result was not statistically significant. So, there was no significant relationship between an individual's age and fear of COVID-19.

Table 4. Pearson Correlation between fear of COVID-19 and mental health

Variable	Fear of COVID-19	Mental health
Fear of COVID-19	1	-.192
Mental health	-.192	1

$P<0.05$

Note: correlation is significant at the 0.00 level. (2 tailed).

Table 4 showed that there was a significant negative relationship between the fear of COVID-19 and mental health. The novel coronavirus affected individuals' physical health as well as their mental health. The state of mental health decreases with the rising fear of COVID-19.

CONCLUSION

The present study emphasized the importance of mental health. The ongoing pandemic situation had played a negative role in mental state. And this study will be helpful for the respective person who worked with mental health. The mental health caregivers must take into consideration the vulnerable groups in terms of gender, marital condition, level of income, outing during the pandemic situation, and contamination history. Divorced/separated people may feel more at risk than single and married people. Fitzpatrick et al., (2020) also found a significant relationship among vulnerable groups with fear of COVID-19.

Ultimately the fear was high among them. Similarly, money became a big issue. Whose income had increased during the pandemic, they had less fear of COVID-19. On the contrary, individuals who become bound in the house face more mental health problems than the person who could go out. People became bored staying at home. And the most serious part is the contamination history. Whose family members were being attacked or themselves were more vulnerable in this pandemic. This situation accelerated the fear of COVID-19. With which mental health had a significant negative relationship. All of the groups of people need more psychological support, especially women who were more vulnerable in any fearful situation. In addition, these studies may explore the ways to reduce fear of COVID-19 and mental health issues by modifying their lifestyles and other related risk factors or behaviors. But in-depth psychosocial research is essential with nationally representative samples that can help to inform potential mental health risks.

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Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

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Factors Contributing to Fear of COVID-19 and its consequence in Mental Health

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Nishad, F. R., Sarker, P. C. & Sugawara, D. (2023). Factors Contributing to Fear of COVID-19 and its consequence in Mental Health. *International Journal of Indian Psychology*, 11(2), 173-180. DIP:18.01.014.20231102, DOI:10.25215/1102.014