

Psychological Impact after COVID-19 Infection among Bangladeshi Ex-patriot working in Kuwait Armed Forces: A Cross-sectional Study

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Abstract

Background: The Covid-19 pandemic had a huge impact on the mental health and caused strong psychological stress with depression to the people. After recovery from COVID-19, many patients were prone to develop emotional distress and even disaster mental health which might have relation with this disease.

Objective: To assess the psychological impact (depression) after covid-19 amongst the Bangladeshi personnel in Kuwait.

Methods: This cross sectional study was carried out among Bangladeshi military persons working in Kuwait Armed Forces from July 2021 to June 2022. Total 108 persons were randomly selected, who have suffered in Covid-19. Data were collected by structured questionnaires and analyzed by SPSS v21.

Results: The respondents' mean (\pm SD) age is 37.75 (\pm 5.48) years; ranged from 30 to 51 years. The CSE depression scale, the scores (sum of the 20 questions) range is 11-25. The mean score in 14.40 \pm 2.96. The difference of Depression Scale in relation to staying with family were significant by t test. In case of financial loss due to Covid-19, significant association was found with Depression Scale score. There was positive correlation between Depression Scale with Days of sufferings. Post-covid complications had statistically significant difference with poor appetite, feeling of fear and disturbance of sleep. Health condition had significant positive correlations with feeling of fear and sadness. As score of 16 points or more is considered depressed, so 29(16.9%) persons are found to be depressed.

Conclusion: This study focused on the psychological status, especially depression of recovered COVID-19-infected patients. These findings inform the necessity of psychological interventions that will reduce psychological impact and depression during the epidemic. Health care providers will have important role to address these emotional outcomes as part of the pandemic response.

Keywords: Covid-19, Depression, Psychological impact, Mental health.

Introduction

The Covid-19 (Corona virus disease-2019) is a recent threat in global health, that was first revealed in late December 2019.¹ This pandemic disease emerged as a global public health emergency and extended a challenge to every sector.² The Covid-19 pandemic had a huge impact on the mental health of people in many countries around the world causing similar reaction in terms of emotions.^{3,4} These effects gradually lead to emotional repercussion, mental instability, psychological distress and impaired behaviors. So, a timely understanding of mental health status is urgently needed for society.⁵ Mental conditions after revival from natural life-threatening condition may carry psychical trauma, such as depressive and anxiety disorders.⁶ Similarly, during post-covid period, some were found to develop emotional distress and even disaster mental health.

During the SARS outbreak, many studies investigated the psychological impact, revealing significant psychiatric morbidities.⁷ But, there are few known information on the psychological impact and mental health of the general public during the Covid-19 epidemic.⁸ But if we try to find out the alarming impact of Covid-19 for collective health, that include physical, emotional and social functioning; then monitoring psychosocial needs and delivering psychosocial support to them can be achieved.

A number of experts across the world anticipated that COVID-19 will affect the population's health in psychological, social and neuroscientific dimensions.⁹ In China, more than half of the respondents rated their psychological impact as moderate-to-severe and about one-third reported moderate-to-severe anxiety and depression.¹⁰ The impact of the COVID-19 pandemic on psychological well-being in an Italian university found 72.93% as depressed.¹¹ This present survey provides the information on psychological impact; by measuring level of depressive symptomatology, on which a diagnosis of clinical depression is based. This research was conducted among the expat Bangladeshi population staying in Kuwait, who have recovered from Covid-19. This study aims to establish the prevalence of psychological symptoms and identify some factors contributing to stress. This may assist the healthcare professionals to offer suggestions for

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stress management and coping the patients to social and mental health services. Besides, other connected persons will counsel patients to seek professional mental health assistance when needed, in safeguarding the psychological wellbeing of the community.

Materials and Methods

This descriptive cross-sectional study was conducted between July 2021 and June 2022, among 108 military persons of Bangladesh, working in Kuwait Armed Forces. All participants were male and they have suffered in covid-19 and diagnosed by RT-PCR. Approval was taken from ethical committee in Kuwait Armed Forces and questioner were prepared using free self-report depression scale. Participants were selected by purposive sampling and informed consent were taken from the individuals. Data was collected through face to face interview by semi-structured questionnaire and analyzed with the support of SPSS v21. The level of statistical significance was set at p<0.05.

The level of anxiety and depression was assessed (after pre-test) with the Center for Epidemiological Studies Depression Scale (CES-D), which was developed by the Center for Epidemiologic Studies.¹² This self-report depression scale was composed of 20 components: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. Each response scored from zero to three on a scale of frequency of occurrence of the symptom.¹² Possible range of scores was zero to 60. A score of 16 points or more was considered depressed.¹³⁻¹⁵ All the 20 answers were divided in 4 choices: Rarely (Less than 1 day), Some (1-2 days). Occasionally (3-4 days) and Most (5-7 days) in a week; with a scoring from 0 to 3. Questions 4, 8, 12 and 16 were marked reversely. Score range may be 0 to 60 and 16 points or more is considered depressed. The objective of the study was to assess the psychological impact after covid-19 amongst the Bangladeshi personnel in Kuwait.

Results

The sample comprised 108 Bangladeshi military participants, deputed in Kuwait Armed Forces. The respondents' age ranged from 30 to 51 years, having mean (±SD) age 37.75 (±5.48) years. All are married; but only 7(6.5%) persons are staying with their families in Kuwait and rest of the participants' (93.5%) families are in Bangladesh.

Table-I: Frequency and distribution of demographic characteristics (n=108)

Variables		n (%)	Range	Mean ± SD
Age	Upto 40 years	63 (58.3)	30 – 51 years	37.75 ± 5.48
	Above 40 years	45 (41.7)		
Educational level	SSC	37 (34.3)	SSC to Masters and above	1.75 ± 0.61
	HSC	61 (56.5)		
	Graduate and higher	10 (9.3)		
Staying with family	Not staying	101 (93.5)		1.06 ± 2.47
	Staying	7 (6.5)		
Change of lifestyle	No Change	87 (80.6)		34.69 ± 2.95
	Changed	21 (19.4)		
Financial loss due to Covid-19	No financial loss	70 (64.8)		34.26 ± 2.7
	Minor loss	38 (35.1)		

Table-II: Association between demographic characteristics and differences in depression scale

Variables	Test	P value
Age	correlation test =0.79	.421 (NS)
Educational level	Anova, f= 5.05	.001 *
Staying with family	t test = 5.49	.021 *
Financial loss due to Covid-19	t test = 4.91	.029 *

*=Significant, The level of significance is .05 (5%)

Table-III: Association between issues related to the COVID-19 and depression screening scales

Variables	Depression	Feel depressed (q-6)	Feel fearful (q-10)	Sleep disturbance (q-11)	Feel lonely (q-14)	Feel sad (q-18)	Disliking by others (q-19)	Total Score
Financial loss	χ²= 1.209 p=.271	f= 0.12 p=.26	f= 0.31 p=.58	f= 6.61 p=.11	f= 0.25 p=.13	f= 3.66 p=.58	f= 12.8 p=.01*	f= 0.69 p=.40
Days of suffering	t= 0.17 p=.004*	t=-17.46 p=.001*	r= 0.18 p=.15	r= 0.13 p=.18	r= 0.06 p=.48	r= 0.04 p=.96	r= 0.02 p=.79	r= 0.36 p=.01*
Place of treatment (Home/Quarr/Hosp)	χ²= 32.13 p=.01*	t= 0.02 p=.78	r= 0.38 p=.01*	t= 0.26 p=.79	t=-0.57 p=.01*	t=-0.05 p=.61	t= 0.04 p=.97	t=-0.21 p=.02*
Complication	χ²=.82 p=.01*	t= 0.98 p=.03	t=-.38 p=.01*	t= 2.42 p=.01*	t= 1.01 p=.02	t= 0.44 p=.36	r= 1.01 p=.99	t= -0.1 p=.26
Vaccination	f=3.378 p=.158	r= 0.22 p=.02*	r=-0.18 p=.06	r=-0.10 p=.29	r=-0.22 p=.01*	r=-0.10 p=.31	r= 0.07 p=.47	r=-0.29 p=.21
Health condition (Good or poor)	χ²=5.128 p=.041*	t= 0.1 p=.3	t= 0.34 p=.00*	t=-0.06 p=.51	t= 0.05 p=.95	t= 0.24 p=.01*	t= 0.07 p=.42	t= 0.12 p=.01*

In this depression scale, the scores (sum of the 20 questions) range is 11-25. The mean score in 14.40 ± 2.96. As score of 16 points or more were considered to be depressed; so 29 (16.9%) persons are found depressed (who scored 16 or more points).

Association between Demographic Characteristics and Depression Scale: CES-D Scale has 20 questions and finally a summation of the questions may be within 0 to 60. In this study, the range is 11-25 and the mean score in 14.40 ± 2.96 . The education is highest (61) in the HSC passed persons and lowest (10) among the highly educated persons. The education level is statistically significant with Depression Scale ($F= 5.05, p=.001$). Regarding the staying with family, the difference of Depression Scale in relation to staying with family is significant ($t= 5.49, p=.021$) (Table-II).

Table-III shows the association between Issues related to the COVID-19 and Depression screening scales including Total Depressive score. The quantitative 'Depressional score' was transformed in a categorical variable 'Depression', having a cut point 16 (more than 16 are considered as depressed).

Financial loss: Anova was done and found that there is a variation in the mean of disliking by others ($f= 5.83, p=.01$) among the different groups of the respondents, which is statistically significant.

Days of suffering: A positive correlation was found between Days of sufferings and the depression score ($r= 0.36, p=.01$) which is statistically significant. That means, with the increase of days of sufferings, the depression also increases. Similarly the difference of days of sufferings, in relation to depression is statistically significant ($t= 0.17, p=.004$).

Place of treatment: Marjory took treatment at home or quarantine center, rather than hospital and the association between place of treatment of the respondent and depression was statistically significant (chi-square = 32.13, $p= 0.01$).

Complications: Chi-square test revealed significant association between covid complication and level of depression ($\chi^2=.82, p=.01$). T-test was done and found that there are statistically significant difference of Poor appetite ($t= -0.49, p=.01$), feeling of fear ($t= -0.38, p=.01$) and disturbance of sleep ($t= 2.42, p=.01$), in relation to developing complication.

Vaccination: A significant positive correlations between vaccination (number of doses) with feeling of depressed ($r= 0.22, p=.02$). On the other hand, significant negative correlations are seen between vaccination with feeling of loneliness ($r= -0.22, p=.01$) and total score ($r= -0.29, p=.01$).

Health condition: Proportion of depression has increased with changing the level of health condition from good to poor and the association between health state and the depression was statistically significant ($\chi^2=5.128, p=.041$).

Discussion

This study was conducted as an effort to research on mental health of Covid-19 sufferers, by assessing psychological impact after suffering from Covid-19. The respondents' age ranged from 30 to 51 years. The education level is from SSC to Masters and that has a statistically significant difference in relation to Depression Scale. The mean depression level increases with the decrease of educational level. It corresponds with the finding showing education play an important role in psychological consequences.^{16,17} Regarding financial loss due to Covid-19, significant association was found with Depression. Similarly, a study found that, income loss during COVID-19 was associated with greater depressive symptoms.¹⁸ Few (9.3%) participants reported for post-covid complications. Furthermore, these complications have statistically significant difference with poor appetite, feeling of fear and disturbance of sleep.

Due to COVID-19, the participants have suffered within a period of 3 to 32 days. There is positive correlation between days of sufferings and depression; indicating that with the increase of days of sufferings, the depression also increases. An online survey study on depression, showed a significant relationship between generalized anxiety, and psychological distress with sufferings related to COVID-19.¹⁹

Most of the participants (93.5) were staying without their families and only 6.5% (officers) were staying in Kuwait along with their families. We found the difference of Depression scale in relation to staying with family is significant. Findings from a survey in London, UK indicate that an increase in loneliness was most likely due to the circumstances surrounding COVID-19 social isolation and was not pre-existing.²⁰ Regarding receiving covid vaccine, 60.2% were unvaccinated and significant positive correlation was found between Vaccination with Feeling of depressed. Similarly a study showed that those having been vaccinated improved mental health.²¹

While suffering from Covid-19, Majority of the sufferers took treatment stayed in Quarantine centers. We found that, place of treatment has positive correlations with poor appetite; but negative correlations with loneliness and depression score. In 2020, Tull MT found positive correlations between home confinement during COVID-19 pandemic and perceived loneliness.²²

Considering the health condition after recovery from covid-19, most the participants were in good health. health condition and the depression has increased with changing the level of health condition from good to poor. This finding is in line with other studies where majority presented with sadness and depressed in self-rated poor health status.^{10,23}

Finally, our study revealed that 12% persons felt unhappy or depressed and 28% felt disturbance of sleep in most of the time. Also, a good number of persons (16.9%) are found to have psychological impact by developing depression, after suffering from Covid-19. This statistics is very similar to a study in China; where 16.5% had moderate to severe depressive symptoms after COVID-19 outbreak.¹⁰

Conclusion

The COVID-19 pandemic threat remains standing and might have long-term effects on mental health. Our findings inform that a considerable number of persons were suffering from post-covid depression and other components of depression scale, like feeling of unhappy or sad, feeling of fear, loneliness, sleep disturbance. This findings can be used to formulate precautionary measures during covid attack and also psychological interventions to improve depressive illness in post-covid periods. The health authorities and health professionals will provide imperative guidance to develop a strategy of psychological support and service to affected population.

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