

Assessment of Mental and Physical Health Effects of COVID 19 Pandemic among OPD Patients in a Tertiary Care Hospital, Bangladesh

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Abstract: Background: The recent COVID 19 pandemic has imposed threats on both mental as well as physical health since its ferocious outbreak. This is a new but one of the most serious pandemics in the world now. Although this disease is responsible for very limited symptoms and complications like severe acute respiratory syndrome, fever, headache, diarrhea, malaise, and weakness but its probability of affecting more people is very high. Now it seems COVID 19 is dictating the whole world community. Even OPD patients who have already reached a hospital are not free from the mental and physical health effects of the Covid 19 pandemic. **Aim of the study:** The aim of this study was to assess the mental and physical health effects of the Covid 19 pandemic among OPD patients. **Methods:** This was a prospective interview-based study which was conducted in the Department of Medicine Enam Medical College and Hospital, Savar, Bangladesh during the period from July 2020 to December 2020. In total 118 patients with several health problems, physically or virtually attended the OPD of the mentioned hospital were enrolled as the study population. This study was approved by the ethical committee of the mentioned hospital. A pre-designed questionnaire was used in patient data collection. All data were processed, analyzed, and disseminated by MS Office and SPSS version as per need. **Result:** In this current study, in analyzing the effects on the mental health of participants we observed the feeling of suffocation, feeling of exhaustion, fear of falling ill, anxiety about the future, and feeling of loneliness was found as some major negative mental impacts of Covid 19 on the respondents which were among 12.71%, 11.02%, 8.47%, 7.63% and 6.78% participants respectively. On the other hand, in analyzing the physical health effects among participants we found 22.03%, 14.41%, 8.47%, 5.93%, and 3.39% of participants were with the feeling of physical fatigue, gaining extra body weight, insomnia, general weakness, and chronic diseases respectively. **Conclusion:** It is true that till now as a disease, Covid 19 have not acquired the whole world. But the mental and physical health effects have already covered each and every corner of the globe. Several ill people including OPD patients are in more vulnerable condition now. Government policymakers, as well as world leaders, should be more conscious about these negative impacts to find out the proper way to resolve such a ferocious pandemic.

Keywords: Covid 19, Pandemic, Mental effect, Physical health, OPD patients.

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INTRODUCTION

The recent COVID 19 pandemic has imposed threats on both mental as well as physical health since its ferocious outbreak. This is a new but one of the most serious pandemics in the world now. Although this disease is responsible for very limited symptoms and

complications like severe acute respiratory syndrome, fever, headache, diarrhea, malaise, and weakness but its probability of affecting more people is very high. Now it seems COVID 19 is dictating the whole world community. Even OPD patients who have already reached a hospital are not free from the mental and

physical health effects of the Covid 19 pandemic. The COVID-19 pandemic has led to unprecedented global morbidity and mortality as a growing concern, with mental health [1], and particular risks identified within the family context [2]. Specifically, the COVID-19 pandemic has posed new threats to families through social isolation due to physical distancing measures, housing instability changes to health and social care access, employment & financial insecurity and school/child care closures [3]. Contribute to health and social inequities, these shifts have profoundly interrupted the systems and structures that previously operated to both support the mental health, well-being of families and mitigate the risks. Former infectious disease outbreaks have significantly affected individuals' mental health along with the expected physical health outcomes [1]. The novel coronavirus disease (COVID-19) is by far the most concerning the outbreak of atypical pneumonia since the far less detrimental 2003 outbreak of severe acute respiratory syndrome (SARS) [2]. The COVID-19 pandemic has been declared an international public health emergency by the World Health Organization (WHO) [3]. As of July 1st, 2020, the COVID-19 pandemic has infected over ten million people across the world, causing more than 5,00,000 deaths [4]. Experts are still uncertain of the trajectory of the COVID-19 pandemic, the projected number of cases and deaths, or to what extent quarantine measures will disrupt daily life [5]. The unpredictable nature of this situation and uncertainty regarding COVID-19 can often trigger psychological distress and mental illness, including depression, anxiety, and traumatic stress [5]. A recent survey by the Indian Psychiatric Society shows a twenty percent increase in mental illnesses since the coronavirus outbreak in India [6]. Day by day the Covid situation in Bangladesh is worsening. The government of Bangladesh suspended or closed all educational institutions and both public and private offices on March 16th, 2020 in an effort to contain the outbreak of Covid 19. Public gatherings were also banned [7], and travel from countries with high transmission risk, such as China, Iran, and Italy, was suspended.8 Despite these efforts, COVID-19 has reached all 64 administrative districts in Bangladesh by July 1st, 2020, causing over 145,000 cases and 1,874 deaths so far [9]. The high density of the population, poor hygiene practices, and poor economic conditions make the majority of the Bangladeshi population particularly vulnerable to this virus (Covid 19). Fear of becoming sick, the isolation of lockdown, the financial necessity to work and the inability to avoid venturing out in public for essential items such as food, idle life, the irregular daily routine may increase psychiatric problems within the general population. Recent publications suggest mental health during the COVID-19 pandemic is associated with gender, socioeconomic status, occupation, having COVID-19-like symptoms, perceptions of COVID-19 impacts, interpersonal conflicts, social media use, and social support [10]. Older adults and individuals with low incomes are at increased risk for poor mental health

[11]. There is no information yet on mental and physical health associations with or during this COVID-19 pandemic in the general population of Bangladesh even among the expert communities.

OBJECTIVES

General Objective

- To assess the mental and physical health effects of Covid 19 pandemic among OPD patients.

Specific Objective

- To collect information regarding the socio-demographic status of participants.
- To collect information regarding the effects of Covid 19 on mental health of participants.
- To collect information regarding the effects of Covid 19 on physical health of participants.

METHODOLOGY & MATERIALS

This was a prospective interview-based study which was conducted in the Department of Medicine, Enam Medical College & Hospital, Savar, Bangladesh during the period from July 2020 to December 2020. In total 118 patients with several health problems, physically or virtually attended the OPD of the mentioned hospital were enrolled as the study population. Ethical committee of the concern hospital approved the study. Properly written consent was taken from all the participants before collecting data. A pre-designed questionnaire containing the data options of mental as well as the physical health condition of the participants and socio-economic conditions was applied in patient data collection. According to the inclusion criteria of this prospective study both male patients of several ages and professions attended the mentioned hospital regarding several health problems were included as the study population. On the other hand, according to the exclusion criteria of this study covid 19 confirmed patients, severely ill patients, cases of surgery, very aged geriatric patients, and ICU patients were excluded. Participant's opinions were the basic source of information in this study. All data were processed, analyzed, and disseminated by MS Office and SPSS version as per need.

RESULT

In this study, among total 118 participants 40.68% (n=48) were male and the rest 59.32% (n=70) were female. So female participants were dominating in number and the male-female ratio was 1:1.46. The highest number of participants were from the 41-60 year's age group which was 40.68%. Besides this, 7.63%, 31.36%, and 20.34% participants were from ≤20, 21-40, and >60 years' age groups respectively. In analyzing the family status of the participants according to the monthly income we observed, the highest number of participants were from lower-class families which were 50%. Besides this, 38.14% belonged to middle-

class families and the rest 11.86% belonged to upper-class families. In this study, about two-thirds of respondents were found from rural areas whereas the rest one-third of participants were found from urban communities. In this current study, in analyzing the effects on the mental health of participants we observed the feeling of suffocation, feeling of exhaustion, fear of falling ill, anxiety about the future, and feeling of loneliness were found as some major negative mental impacts of Covid 19 on the respondents which were among 12.71%, 11.02%, 8.47%, 7.63% and 6.78% participants respectively. On the other hand, in analyzing the physical health effects among participants we found 22.03%, 14.41%, 8.47%, 5.93%, and 3.39% of participants were with a feeling of physical fatigue, gaining extra body weight, insomnia, general weakness, and chronic diseases respectively. Besides these, a negative impact on the social life of participants due to Covid 19 continuing remote socialization, intolerance to others, random commitment violation, and ended social life was found among 11.02%, 6.78%, 5.08%, and 2.54% participants respectively. In analyzing the negative impact of Covid 19 on the monthly family income of participants we observed, the monthly family income was decreased up to 25%, 50%, 75%, and even 100% of 22.88%, 11.86%, 4.24%, and 1.69% participants respectively. So, more than 40% of participants were found directly economically affected by the Covid 19 pandemic considering the changes in their family income.

Table-1: Socio-Demographic status of participants (N=118)

Characteristics	n	%
Gender distribution		
Male	48	40.68
Female	70	59.32
Age distribution in year		
≤20	9	7.62
21-40	37	31.36
41-60	48	40.68
>60	24	20.34
Family status (Economic)		
Lower	59	50.00
Middle	45	38.14
Upper	14	11.86
Living are distribution		
Rural	75	63.56
Urban	43	36.44

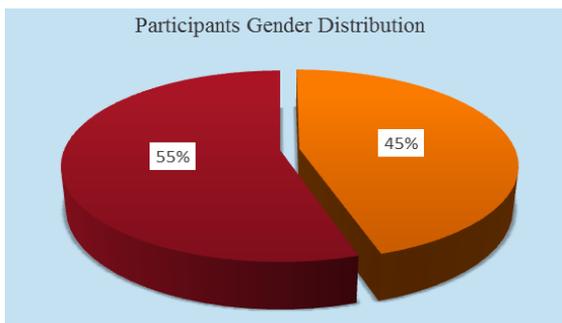


Fig-1: Participants Gender Distribution

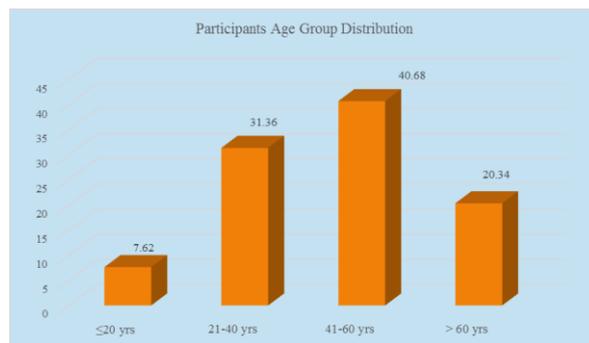


Fig- 2: Participants Age Group Wise Distribution

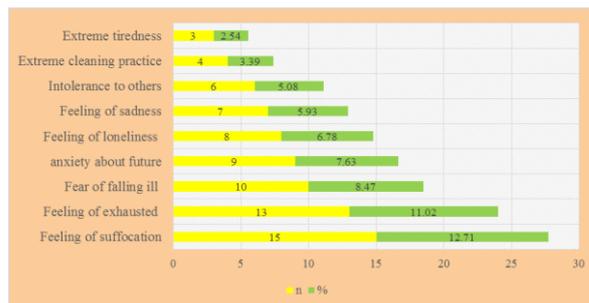


Fig-2: Effects on mental health of participants (N=118)

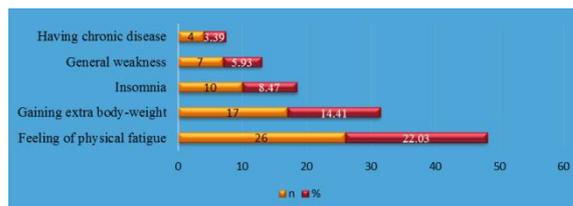


Fig-3: Effects on physical health of participants (N=118)

Table-2: Socio-economic effects among participants (N=118)

Impacts	n	%
Social effects		
Continuing remote socialization	13	11.02
Intolerance to others	8	6.78
Random commitment violation	6	5.08
Ended social life	3	2.54
Changes of family income		
Monthly		
Decreased up to 25%	27	22.88
Decreased up to 50%	14	11.86
Decreased up to 75%	5	4.24
Decreased up to 100%	2	1.69
Total	48	40.68

DISCUSSION

The aim of this study was to assess the mental and physical health effects of the Covid 19 pandemic among OPD patients of a tertiary care hospital of Bangladesh. In Bangladesh because of the physical health effects of the coronavirus and the psycho-social effects of the isolation, quarantine and physical

distancing measures has already been adopted, many people have been facing various type of fear like fear to die, to lose the loved ones or to lose the income. Many of them struggling to survive without the support of their common social networks and with the harsh economic conditions. In terms of the course of the pandemic can lead to triggering dysphoric moods in the current uncertainty. Regarding the specific group and their vulnerabilities, those challenges also can be elaborated. In virtue of social isolation, children, and adolescents have been facing exacerbated psychological problems and affecting their emotional and mental development, and interrupted education and economic stressors of family life. For increased risk of abuse, women and children are facing a vast number of stressors at home, and additionally. Men, on the other hand, having the feeling of uncertainty towards the future are experiencing the deterioration of livelihood opportunities. As briefed by the UN (2020) [12], there is widespread psychological distress within the communities resulted from the pandemic conditions. In our study, a negative impact on the social life of participants due to Covid 19 continuing remote socialization, intolerance to others, random commitment violation, and ended social life were found among 11.02%, 6.78%, 5.08%, and 2.54% participants respectively. To control the spread of this disease, governments all over the world have taken several measures that have had an enormous impact on the lives of billions of people. The impact of the COVID-19 pandemic and of the resulting measures on mental health has also been an important concern and physical health is understandably the first priority during a pandemic [13]. In this current study, in analyzing the effects on the mental health of participants we observed the feeling of suffocation, feeling of exhaustion, fear of falling ill, anxiety about the future, and feeling of loneliness were found as some major negative mental impacts of Covid 19 on the respondents which were among 12.71%, 11.02%, 8.47%, 7.63% and 6.78% participants respectively. On the other hand, in analyzing the physical health effects among participants we found 22.03%, 14.41%, 8.47%, 5.93%, and 3.39% of participants were with the feeling of physical fatigue, gaining extra body weight, insomnia, general weakness, and chronic diseases respectively. Past research has indicated that, compared to adults' mental health, young people's mental health is often disproportionately affected by calamities [14]. In addition, social isolation and loneliness precipitate depression and anxiety in children and adolescents [15]. There are three main ways via which the COVID-19 pandemic can affect mental health [13]. First, creates severe uncertainty about the present and the future this pandemic is a long-term, widespread, high-stakes disaster that disrupts daily routines for a long time. Therefore, for adults and youth alike the pandemic is a significant source of stress. Second, it is a multisystem disaster, as it affects and disrupts individuals, families, communities, states, and economies, having long-term effects on the micro

and macro-system [16]. Finally, the subjective levels of stress regarding COVID-19 explain part of the debilitating effects of the pandemic on psychological well-being [17]. Third, as Gruber *et al.*, [13] points out, this pandemic disrupts several protective factors for mental health supportive social interactions, access to mental health services like under stress, etc. Besides this, economic distress is a potential factor of worsening the pandemic situation. In our study in analyzing the negative impact of Covid 19 on the family income status of participants, we observed the monthly family income was decreased up to 25%, 50%, 75%, and even 100% of 22.88%, 11.86%, 4.24%, and 1.69% participants respectively. It is also said that many of these underlying causes of health inequities will remain after the COVID-19 crisis has subsided.

CONCLUSION AND RECOMMENDATIONS

It is true that till now as a disease Covid 19 have not acquired the whole world. But the mental and physical health effects have already covered each and every corner of the globe. Several ill people including OPD patients are in more vulnerable condition now. Government policymakers, as well as world leaders, should be more conscious about these negative impacts to find out the proper way to resolve such a ferocious pandemic. For getting more reliable information we would like to recommend conducting more studies in several places with a large sample size.

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