



A Survey on Perception about COVID-19 Pandemic and its Effects on Bangladeshi People

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ABSTRACT

Background: The world has been dramatically changed due to the COVID-19 pandemic in terms of socio-economic, cultural, professional and communicative context. Bangladesh as a developing country also experiencing such effects on its citizen.

Methods: An online survey questionnaire is prepared using Google form and circulated over the country using different social media and personal contacts. The questionnaire contains mainly three types of information-demographic, concept about COVID-19 and changes in lifestyle of the participants.

Data collection and analysis: The online form was kept available from July 14, 2020 to July 21, 2020 to get responses from people. A total of 1088 people responded and their responses are analyzed by different statistical tools. The results are shown in different graphs and tables.

Results: Among the participants, 53.3% were male and 46.7% were female which were from village, city and semi-urban area of the country. In context of educational qualification, 46.6% were of undergraduate level, 26.8% were graduated, 6.5% were post graduated and 20.1% were below undergraduate level. Maximum participants reported that they used 'social media' as a source of information for COVID-19 pandemic and they also claimed 'fever' as a symptom of the disease. The number of meetings with friends and relatives have not been decreased significantly ($p=1$) but working condition and employment status have been changed in great extent. Among the participants, 53.5% said that, they have no worries regarding this pandemic, 25% have mild stress and 21.5% have severe worries and stress.

Conclusion: The people of Bangladesh from different areas are largely dependent on social media for updated information about COVID-19. The awareness about COVID-19 is also not sufficient for preventing transmission from community to community. The working schedule of the employees have also been changed in a great extent. All of us in the society should work together to prevent the transmission.

Keywords: COVID-19, Pandemic, Perception, Social media, Stress, Transmission

INTRODUCTION

After the outbreak of the novel coronavirus disease (n-COVID-19), the socioeconomic status, working schedule, psychological behavior and overall lifestyle of people of the entire world has been changed in a great scale.

However, Bangladesh, a South-East Asian, developing country is also facing such changes in the whole frame of the people's day to day life. The virus was first identified in Bangladesh on 08 March 2020, by confirming 3 COVID-19 positive patients. After that, the government of Bangladesh adopted several measures to control the transmission of the virus and to provide necessary health care to the COVID-19 patients. As a part of these measures, all the educational institutions were closed, different hospitals were prepared for isolating the COVID-19 patients, all type of public gatherings were banned and different law enforcement organization worked together to reduce the transmission of the virus [1].

A study performed on Bangladeshi people showed that, the participants of the study were mentally stressed and feared about the COVID-19 outbreak in the country. However, the cause of the fear was related with several factors which includes brittle healthcare management systems, few test rates, weak healthcare infrastructures, fragile planning and implementation by the government of Bangladesh. Another study revealed that, complete lockdown is not followed in the country. As a result, thousands of people are moving to and fro on the street in Dhaka, the capital city of Bangladesh. The study also expressed that, maintaining social distance for people of slum dwellers of the city is practically impossible as every 10 families-16 families have only one common bathroom. The healthcare system of Bangladesh is slightly different from the others country of the world. The hospitals are managed by one umbrella like the European countries. The system is fragmented and the government hospitals are not usually furnished with good equipment. Private hospitals provide good services but limited to rich people only. Due to the lack of COVID- 19 preventing equipment, most of the private hospitals remained closed.

The main focus of the present study were as follows:

- Measuring the people's awareness about the pandemic.
- Understanding the family crisis due to the situation.
- Estimating the changes of day to day life of people during the COVID-19 condition.
- Evaluating mental stress emerged from this situation.

MATERIALS AND METHODS

A google form was created containing the survey questions and distributed to people of all arena through social media (facebook, messenger, whatsapp) and personal contacts. Facebook based survey for health research is becoming more popular nowadays and these are also funded by several funding organizations [2]. The survey questions were selected by the guideline set by 'COVID-19 community response survey guidance' and adjusted as per context of the country. The questionnaire was divided into 3 sections:

- Respondent's demographic data.
- Participant's perception about COVID-19 pandemic.
- Changes in their entire life due to this pandemic.

Under section:

- Participant's age, gender, residential information, educational qualification and employment status were covered.
- Included the basic knowledge of participants about COVID-19 and the source of their acquired knowledge regarding the pandemic.
- Was about the changes in the life style of people during the pandemic, social distancing, family crisis due to the pandemic and changes (if any) in employment status.

The Google form was kept open for accepting responses from 14 July 2020 to 21 July 2020. However, during this time 1088 people of different occupation answered the questionnaire and their responses were recorded. The participants included students, job holder (both Government employee and private employee), businessman and other professionals. For the ease of understanding, the questions were set in very simple and useable words. There was also a contact number in the questionnaire for those who are unable to understand any term used in the Google form [3].

Data Analysis

The data obtained through the survey was raw one and further analysis was performed to make sense from the data. For this purpose, different statistical operations (t-test, ANOVA test etc.) were done on the data by using MS excel. For better representation of numerical data, different graphs and charts were prepared using the MS excel program.

Ethical Issues

In the description of the questionnaire, the objective of the survey was clearly stated and it was clarified that the data given by the participants would not be used in any commercial purposes nor given to third party. The participants remained anonymous and no personal data (email address, password, bank account number, personal photo etc.) was collected during the survey procedure [4].

RESULTS

Demographic Information

Among the total 1088 participants, 53.3% male and 46.7% female were from village, city and semi-urban area of the country. The actual number of participants of different age range are shown in Table 1.

Table 1 Participants number according to their age and gender

Age range (year)	Male (580)	Female (508)	Grand total (1088)
Oct-20	100	102	202
21-30	313	276	589
31-40	73	56	129
41-50	50	35	85
51-60	25	23	48
61-70	14	9	23
71-100	5	7	12

However, from the data it was clear that, participants from urban area were more educated than other areas of the country [5]. Among the participants, 5.7% were primary school certificate passed, 5.7% were high school goers but didn't pass Secondary School Certificate (SSC) examination, 8.6% were SSC passed, 46.6% were of undergraduate level, 26.8% were graduated and 6.5% were post graduated. The details information of the participant's educational qualification is presented in Table 2.

Table 2 Educational and residential information

Residence	Primary school certificate	High school	Secondary school certificate	Higher secondary certificate	Graduate	Post graduate	Grand total
City	18	38	44	266	178	41	585
Semi-urban	11	10	16	79	46	16	178
Village	33	14	34	162	68	14	325
Grand Total	62	62	94	507	292	71	1088

The employment status of the participants before and after of the pandemic were also recorded to compare the situation. Before the pandemic has started, among the participants 25.1% were unemployed, 16.1% were full time employed, 10.8% were part time employed, 31.5% were full time students, 5.1% were part time students and 11.3% were self-employed. The employment status can be easily understood by following graph (Figure 1) [6].

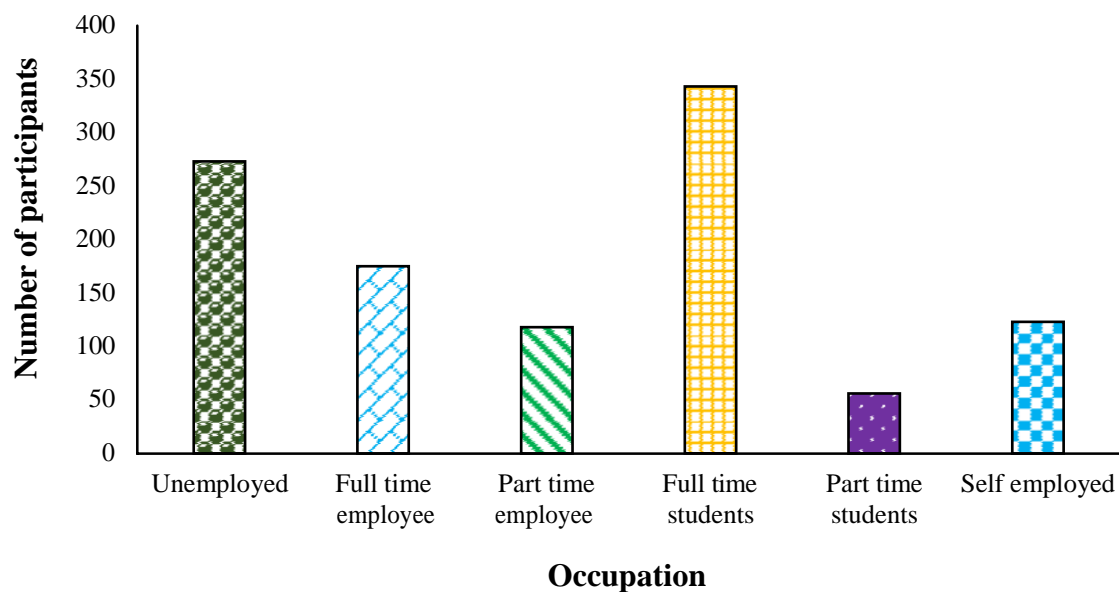


Figure 1 Participants occupation

Note: 273, 175, 118, 343, 56, 123

Perception about COVID-19

People's concept about COVID-19 was measured by some set of questions asked during the survey. In the answer of question about source of information about COVID-19, 11.76% people said that, they uses only social media (face book, twitter, instagram etc.) for getting knowledge about COVID-19. In other cases, people use different sources of knowledge (Television, newspaper, friends and relatives, different websites) along with social media post [7]. A detailed information about the source of COVID-19 knowledge is given in Table 3.

Table 3 Participants' source of knowledge about COVID-19

Source of information	Number of participants
Friends and relatives	10
Social media, Newspaper, television, WHO website	12
IEDCR broad cast	12
Social media, Newspaper, television, WHO website, IEDCR broad cast	13
Social media, Newspaper, television, IEDCR broad cast	13
Social media, Newspaper, television, radio, friends and relatives, WHO website	14
Social media, Newspaper, television, radio, friends and relatives	14
WHO website	14
Social media, WHO website	14
Social media, Television, WHO website, IEDCR broad cast	15
Newspaper, Television, friends and relatives	15
Social media , Television, IEDCR broad cast	15
Social media, Television, friends and relatives, WHO website	18
Social media, Newspaper, television, radio	19
Social media, Newspaper	19
Social media, Newspaper, television, friends and relatives, WHO website, CDC website, IEDCR broad cast	22

Social media, Newspaper, television, friends and relatives, IEDCR broad cast	25
Social media, Television, WHO website	28
Newspaper, television	29
Social media, Newspaper, television, radio, friends and relatives, WHO website, CDC website, IEDCR broad cast	31
Social media, Newspaper, television, friends and relatives, WHO website, IEDCR broad cast	33
Social media, Newspaper, television, friends and relatives, WHO website	34
Newspaper	37
Social media, Newspaper, television, friends and relatives	41
Social media, Television	50
Social media, Television, friends and relatives	52
Television	80
Social media, Newspaper, television	81
Social media	128
Total	888

However, in response to the question regarding the symptoms of COVID-19 disease, the most common single answer was 'Fever.' The other responses also include fever as a common symptom [8]. The most common responses about symptoms of the disease are summarized in Table 4.

Table 4 Peoples' concept about symptoms of the COVID-19 disease

Symptoms	Participants
Fever, general weakness, loss of smell, loss of taste	10
Fever, shortness of breath at rest, loss of smell, loss of taste	10
Sore throat, fever, runny nose, shortness of breath at rest, chills, fatigue, general weakness, loss of appetite, headache	10
Sore throat, fever, shortness of breath at rest, general weakness, headache, loss of smell, loss of taste	10
Fever, runny nose	11
Loss of smell	11
Fever, runny nose, loss of smell	13
Sore throat, fever, loss of smell, loss of taste	13
Loss of taste	15
Sore throat, fever	15
Sore throat, fever, shortness of breath at rest	15
Fever, loss of smell	16
Sore throat, fever, runny nose, shortness of breath at rest	16
General weakness	19
Headache	22
Fever, headache	23
Sore throat, fever, runny nose, shortness of breath at rest, chills, fatigue, general weakness, loss of appetite, headache, loss of smell, loss of taste	26
Sore throat	31
Shortness of breath at rest	32
Fever	156
Total	474

The knowledge about transmission process of the COVID-19 disease of the participants was measured by a set questions. Among the participants, 47.33% thought that, the virus can be transmitted through close contact with infected person, contact of surfaces which are touched by patient and by using the cloths and other things of infected person. The overall result is shown in Figure 2.

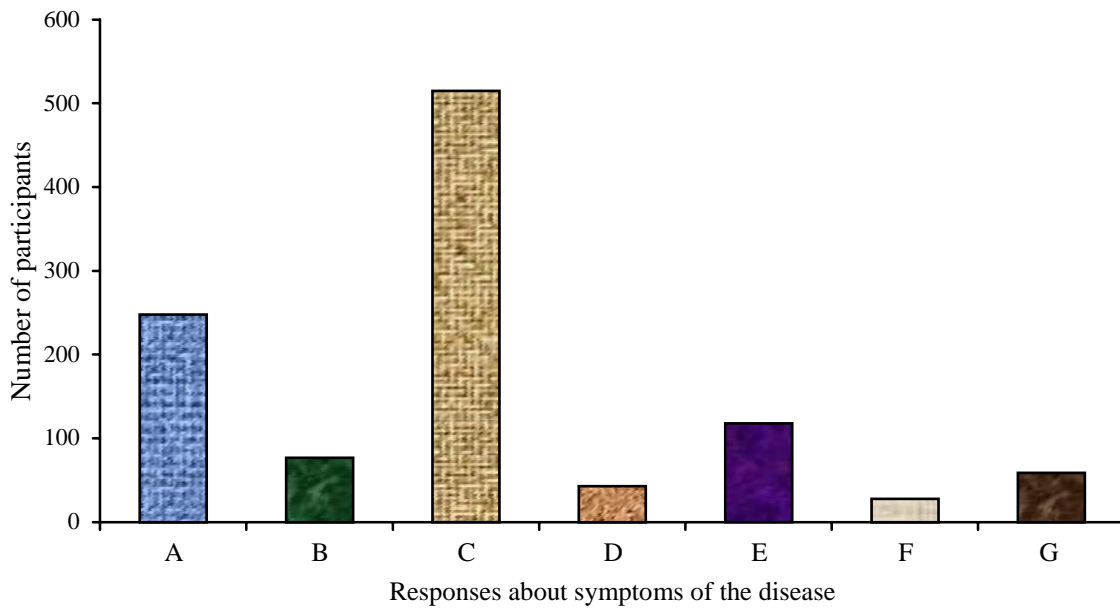


Figure 2 Participant's knowledge about COVID-19 symptoms

Note: A=248, B=77, C=515, D=43, E=118, F=28, G=59

Here, panel A denotes 'Close contact with infected person', panel B denotes 'Close contact with infected person, contact of surfaces which are touched by patient', panel C denotes 'close contact with infected person, contact of surfaces which are touched by patient, using the cloths and other things of infected person', panel D denotes 'close contact with infected person, Using the cloths and other things of infected person', panel E denotes 'contact of surfaces which are touched by patient', panel F denotes 'contact of surfaces which are touched by patient, using the cloths and other things of infected person' and panel G denotes 'using the cloths and other things of infected person'.

Effects of COVID-19 on Peoples' Daily Life

The pandemic has changed the normal life of the people of the COVID-19 affected countries. Bangladesh is also not exceptional from that conditions. Due to lockdown situation, many of the people can't go out for their daily requirements of life [9]. Men are more affected and died from COVID-19 and they are at higher risk. Several offices are run by online and their employees are also working from home. Many of the workers have been suspended due to the pandemic situation. The overall situation of employees are presented in Table 5

Table 5 Change of employment status due to this pandemic

Working condition	Number of participants
Working for same hour but get reduced salary	45
Suspended from work	81
Going to workplace for reduced time	127
Going to my workplace as before	184
Working from home	432
Total	869

The social meeting with friends and relatives have also been decreased in a large extent. The reason behind this may be the awareness about the COVID-19 transmission or the guideline of the government. The decrease in meeting with friends and relatives is not statistically significant ($p=1$). So, people should be more cautious about this. The detailed information about this along with statistical data is given in Table 6.

Table 6 Changes in frequency of meeting with friends and relatives before and after of the pandemic

Frequency of meeting per week	Number of participants (Before pandemic)	Number of participants (After pandemic)	ANOVA test of single factor
0-5	399	799	P-value=1
06-Oct	391	176	F crit=5.9873
Nov-15	106	65	Df=1 (between groups)
15+	192	48	
Total	1088	1088	

To measure the psychological stress, personal and familial data were obtained from the participants. Among the total participants (1088), 64.79% reported that they have no violence or other stress related activities among their family members due to pandemic situation and 23.71% people said that their family members occasionally short tempered with one another [10]. In case of personal mental condition, 53.5% participants reported that they are not tensed at all, 25% of that said to have mild stress and occasional worries and 21.5% people have moderate to severe stress and frequent worries. The result of stress related questions are summarized in the Table 7.

Table 7 Personal and familial psychological stress condition

Personal stress and family stress	Number of participants
No personal stress	582
No family stress	493
Family members frequently short tempered with one another	23
Family members occasionally short tempered with one another	57
Physical violence with one another	9
Mild stress such as occasional worries	272
No family stress	119
Family members frequently short tempered with one another	21
Family members occasionally short tempered with one another	125
Physical violence with one another	7
Moderate stress with frequent worries	105
No family stress	40
Family members frequently short tempered with one another	26
Family members occasionally short tempered with one another	36
Physical violence with one another	3
Severe stress such as constant worries, anxiety, sad or angry	129
No family stress	53
Family members frequently short tempered with one another	26
Family members occasionally short tempered with one another	40
Physical violence with one another	10
Total	1088

From the data shown above, it is clearly indicated that the COVID-19 pandemic has changed the socio-economic and

day to day life of common people of Bangladesh. The changes may bring a devastating outcome in context of social, cultural and economic infrastructure of the country.

CONCLUSION

From the survey it is clear that, most of the people are using social media post and videos regarding COVID-19 disease. So, the concerned authority should review the contents uploaded in those media related to the pandemic. It is also crucial to impose some guidelines about posting contents on social media. The frequency of physical meeting with friends and relatives has not decreased in a significant level. The people should be more careful about going out from home for this purpose. From the WHO, it was said that, to prevent further transmission of the disease, a vibrant and overall society members should be pro-active. The working conditions have been changed in a great extent but many of the workers are not getting the proper wages. A study in Italy revealed the health professionals are in greater risk for infecting the disease as they have to go out regularly for their work. This is also true for Bangladeshi people. Government should take proper actions to keep people in their home and ensure proper personal protection equipment for those who have to go out.

DECLARATION

Conflict of Interest

The authors have no conflict of interest article.

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