Challenges of COVID-19 pandemic and subsequent psychosocial impact on university students of Bangladesh: An explorative study

Nusrat Tasnim

Former Master Student, Department of Rural Sociology Bangladesh Agricultural University, Mymensingh-2202, Bangladesh Email: tasnimnusrat20@gmail.com

Kazi Shek Farid*

Department of Rural Sociology, Bangladesh Agricultural University Mymensingh-2202, Bangladesh Email: ksfarid@bau.edu.bd

Abstract

The devastating outbreak of COVID-19 pandemic has been emerged as a global concern inducing daunting challenges to the world. Bangladesh is also going under this exigency situation. Long term existence of the pandemic has overwhelmed the physical, socio-economic, and mental health conditions of the people. The present study explores the challenges of COVID-19 and its subsequent impact on the psychosocial condition of the university students of Bangladesh by applying qualitative approach. Qualitative data were collected through indepth interviews from the university students using a semi-structured interview guide, which were analyzed through thematic analysis. The findings elucidate the prominent challenges responsible for deterioration of psychosocial state of the students arises due to pandemic and portray the students' personal experience about the impact of this pandemic on their life and psychology. Financial crisis, socio-cultural problems, national and family crisis, domestic violence, virtual communication, fear of death toll, educational crisis, and session-jam have evil dispensation on the mental wellbeing of university students. The impact of these factors is disclosed with loneliness, boredom, anxiety, social media addiction, losing of life, physical disorder, arrogant behavior, depression, suicide, and unusual death etc. It is an exigent need to be aware and conscious about this threatening situation. Effective policy measures including skill development training, entrepreneurial approach, counselling, proper care, religious practices, arranging online seminar and symposium, online based cultural competition, and guidance and motivation of teachers and families should be enacted by the government to combat against this situation.

Key words: COVID-19 pandemic, university students, challenges, impact, mental condition * Corresponding author

Introduction

The detrimental novel corona virus (2019-nCoV), which is officially declared as COVID-19 pandemic by WHO, has spread all over the world (Vara, 2020). It is potentially a severe and acute respiratory infection caused by exaggerated SARS-CoV-2 which is the fifth pandemic after the 1918 flu pandemic (Sohel, 2021). It was first identified as the cause of an outbreak of pneumonia of unknown cause in Wuhan City, Hubei Province, China, in December 2019 (Islam et al., 2020). It has presented unprecedented challenge of health, treatment, livelihood, necessities, and work of the mankind. Bangladesh is also experiencing through this life threatening COVID-19 pandemic. The first coronavirus case was identified in this country on March, 2020. The COVID-19 has not only led to worldwide disruption and loss of human life, but also overwhelmed the normal life-style, livelihood pattern, and socio-economic structure of Bangladesh. At the beginning, the infection rate of this virus was not too high. However, the life of our people has been digressed by its second and third webs. The COVID-19 pandemic has imposed an adverse and intense impact on Bangladesh's economy by affecting millions of people's life and hampering their income sources.

The outbreak of COVID-19 has created more pressure on the labor market. The pandemic reduces employment opportunities as most of the companies have stopped their recruitment process to cut their operational costs (Shahriar, 2021). In response to this, poverty, unemployment and inability to

fulfill basic need have emerged with decreased national growth and development initiatives. Family violence, social unrest, losing cultural tradition, abuse of social media platform, virtual education, life stuck within the fixed territory, and social distancing etc. are the factors arises due to malicious continuation of COVID-19. The impact of these factors is fragile and unstable mental condition of mass people with anxiety, boredom, loneliness, and psychological disorder. Staying home idle and other socio-economic turmoil with high death toll of the people induce depression and suicide.

To avoid the rapid expansion and infection, government has imposed lockdown and also wielded to the closure of the educational institutions, which have threatened the mental development and stability of the young generation who are the future hope and builder of the nation. However, little attention has been paid on the young generation, especially on the students of the public universities of Bangladesh, which resulted tremendous negative consequences on their mental and psychological health. Therefore, the general objective of this study is to find out the challenges of COVID-19 pandemic and examine the impact of COVID-19 on the psychosocial condition of the university students of Bangladesh. Moreover, this study recommends some strategies through which psychological conditions of the university students can be improved.

Research Methodology

This study is based on both primary and secondary data. A qualitative approach was adopted in this study to assess the objectives. In-depth interviews were conducted among the university students of different public universities of Bangladesh. Using a semi-structured interview guide, in-depth interviews were held among the students during September-November, 2021 maintaining health safety issues. These semi-structured interviews consisted of standard questions followed by open ended questions on students' experiences and opinions. Students were asked about their personal experiences with and opinions on the impact of COVID-19 pandemic on their normal life-style and how it is affecting their psychosocial condition. Secondary data source consists of both academic literature and grey literature considering the impact of COVID-19 on the young generation more specifically on the university students of Bangladesh and how it can influence and obsess their mental condition. After collecting necessary qualitative data, these were processed and analyzed through qualitative thematic analysis based on the identification of major themes. These identified themes were separated into different groups related to the main objectives of the present study, which are shown in Table 1.

Issues	Themes	
Challenges arise due to Covid-19	Financial crisis, socio-cultural problems, national & family crisis, domestic violence, virtual communication, death toll, and educational crisis & session-jam	
Impact of COVID-19 on psychosocial condition	Loneliness, lack of bondage, social media addiction, anxiety, boredom, depression, unusual death (suicide), mental degradation	
Possible solutions	Control over virtual communication, family support, guidance of parents and teachers, monitoring and counselling, life-oriented education, entrepreneurial orientation, religious practices, skill development training	

Table 1: Major themes based on specific issues

Results of the study

Challenges arise due to COVID-19 pandemic

COVID-19 pandemic have done overwhelming changes to the general livelihood patterns of people of Bangladesh. Young generation, especially the university students are the worst sufferer for this crisis. The adverse impact of COVID-19 have given birth different factors and challenges in both personal and social life of them which sometimes are creating alarming consequences on their life. Major identified factors under this study which are affecting them are described below:

Unemployment and financial crisis

The sudden expansion of COVID-19 hits regular economic development at a critical situation. Financial progress had already fallen short by rising the public debts and needs. Many people have lost their jobs and became unemployed. Working sectors have been collapsed, which resulted financial crisis. Due to financial crisis people have shifted their habitation. The ultimate result of this crisis situation is decreasing income to fulfill the basic needs. In this socio-economic status, young generation specially the university students are the worst sufferers. Many students were engaged in different part time jobs and tuition. They used to earn good amount of money, which was used for maintaining their educational and livelihood expenses. They also used to provide financial support to their family from their savings in many cases. However, the pandemic reduces employment opportunities of many families as most of the companies have stopped their recruitment process to cut their operational costs. Therefore, many families are not appointing university students as private tutor for their children due to low family earning. These situations have compelled them, to lose their jobs, tuition and other income sources.

"I started a food catering business for the students of my university and I have a Facebook page also with considerable amount of followers. I had a good amount of income before lockdown. But due to COVID-19 pandemic, my university is closed and I had to stop my business."

Many students are facing severe financial crises which are forcing them to quit study life because many students belong to middle class to poor family on the basis of economic condition. These are adversely affecting their smooth progress in the educational life. Moreover, many students after graduation who were preparing them for job examination are still facing troubles. Due to high transmission rate, government imposed lockdown and postponed most of the examinations because of safety issues. Therefore, the age limit of many graduates has crossed or near to cross the limit (age of entry to any government job in Bangladesh is 30 years). This has created uncertainty of life, dream and hope. All their attempts and struggles are going to be nipped in the bud.

"I have already completed my graduation and in the meantime my father is retired from job. Now it is my crying need to get a good job and stand beside my father. But due to long time lockdown and staying at home, I cannot concentrate on my study and another problem is the exam schedules have changed due to health safety issues. I couldn't estimate when these examinations would be held."

The impact of COVID-19 on graduate employability in Bangladesh adversely affects the income of families and also the nation's economy. Bangladesh ranks in the 2nd position regarding the highest graduate unemployment rate in the South Asian countries (Bhuiyan et al., 2020). The rate of graduate unemployment increased from 47% to 58% in 2020 with an expected annual loss estimated at \$53 million (Shahriar et al., 2021). Various initiatives were taken to create jobs and develop professional skills of the youth. But the recent outbreak of COVID-19 has severely affected such initiatives with uncertainty for the graduates to find jobs (Shil, et al., 2020).

Socio-cultural problem

Due to pandemic expansion, the normal movement of people's existences has broken down. National level lockdown and shutdown have fixed as usual dynamism of life of the citizens within four walls of home. Cultural tradition is going to be changed at an alarming state. Celebrating *Pohela Boishakh* (Bengali New Year, 14th April), *Pohela Falgun* (beginning of spring, 14th February), International Mother Language Day (21st February), Victory Day (16th December), Independence Day (26th March), and National Mourning Day (15th August) nationally at a large scale is closely linked to Bangladeshi culture where young generation simultaneously participate with different activities and programs. However, because of halting social gathering the university students failed to organize and participate in such occasion, which is creating socio-cultural problems in Bangladesh.

"Every year we celebrate Pohela Boishakh in our campus with colorful decoration. We participate in different national and social programs. But this year, it was not possible."

Journal of Arts & Social Sciences Vol 5, Issue 2, 58-67 (2022)

Different universities ceremonially arrange and celebrate these programs in their campus. But pandemic outbreak and corresponding lockdown changed the age-old traditional scenario. Isolation, social distancing, and virtual education have made the university campus calm and unwavering. All these are adversely affecting on the youngsters.

"It is a matter of sorrow that I cannot meet with my friends. I want to share a painful experience here; father of one of my friends needs blood for operation. My friend asked help from us. But we could not manage and stay with him because of lockdown."

Job crisis, economic instability, domestic demand and supply disruptions, global economic slowdowns etc. are affecting local market, global trade and international financial flows. Poverty, inability to meet basic needs, population explosion, illegal attempts to earn livelihood to combat against pandemic crisis, all are the factors causing social chaos and discomposure. Young people being idle in the home are getting interested toward many activities like sports gambling, aggressive gaming and unethical social networking and entertaining sites. *Tiktok*, *Likee*, Snapchat are the recent trends of young generation for passing time and creating unwanted social clutter like arrogant activities, women harassment, robbery, murder, and human trafficking etc. These are creating a hostile social condition.

"Due to alluring offer of Tiktok, Snapchat, many of my friends have started opening accounts here and influencing others to do the same. They also asked me to open new accounts using their code. I had to open to keep my friendship. But ultimate result is that I am wasting time watching videos of them to increase their watch time."

National and family crisis

Sustainable development approach is facing major obstructions because of the risks of COVID-19 crisis. Domestic resource mobilization is experiencing difficulties with lessened economic activity (OECD, 2020). Economic growth of Bangladesh was in exemplary expansion before the pandemic. After the hit of the COVID-19, however, currently Bangladesh is undergoing a huge amount of loss and degradation with diminished exports and remittances. The decelerated economic growth in 2020 with the unwanted outburst of COVID-19 has reduced the normal pace of poverty reduction. The ambition of achieving upper-middle income status is not as smooth as before (World Bank, 2021). National crisis is creating daunting challenges to the individual family income. When the main income earning member of a family loses his job or his income level decreases to a non-remunerative level to bear family expenses, it adversely influence the other members. This scenario has become common in many families. All these have constrained the life of young generation. Many students are bound to leave their study for maintaining livelihood and support the family.

Domestic violence

During the COVID-19 the risk of domestic violence has increased at an alarming rate. Numerous reports and unreported cases have shown the minatory situation of domestic violence in Bangladesh, including physical, financial, psychological, and sexual abuse. Women and children are the worst sufferers in this situation with abuse, attack, humiliation, and torture. Victims are perpetrated easily as it is tough to approach other's help and support going outside due to lockdown (Jahid, 2020). Other family clutter like quarrel between parents, child marriage, dowry related violence, extra marital affairs and thus divorce and dispute for guardianship recently have become very common news in the social media. This creates the overwhelming effects on young mind.

Virtual communication

With the height of COVID-19 restrictions, face-to-face interactions are often reduced to core network members, such as partners, family members. Some 'weak' ties are lost, and interactions became more limited to those closest. Physical distancing measures to contain the spread of COVID-19 radically altered the norms of interaction conveying trust, affinity, empathy and respect (Long, et al., 2021). Now people are more likely to confine in virtual communication. Social media like *Facebook, Instagram, YouTube*, and *Imo* are the popular communication medium of Bangladeshi people. But this communication cannot create strong, heart-felt relationship. There is always a communication gap, lack of hearty bondage and cordial friendship. Without face to face communication, actual social connection

and settings cannot be inaugurated and sustained. Young generations do not have enough face-to-face interaction they need in order to learn social skills because of lockdown. As a result, more and more young people are having difficulty interacting with others, which can lead to unsociable behavior.

Educational crisis and discontinuation of session

To avoid physical connection and maintaining social distancing, government of Bangladesh commenced virtual learning platform in all levels of studies in this country for the first time. But this virtual learning cannot be as much fruitful as face to face study. There is always a communication gap between teachers and students. Practical classes on virtual platform can be compared to learning swimming reading a book. Therefore, practical experiment in the virtual class instead of face to face class cannot come to a successful end of the course. Staying at home during class may be hampered by family chaos, concentration break, and absences of friends.

"Online class is not effective because we cannot do anything practically. When there was face to face class, we discussed many things in group study and could make clear understanding. Now we cannot do group study"

Moreover some universities are taking online class regularly maintaining consistency. Most of the universities like to take examination in the classroom instead of online for avoiding unethical issues and opacity. All these create session-jam. Students are staying in the same class long time losing study motive, dreams, and aim in life with continued family pressures. Sometimes relatives and neighbors clutter the situation by reminding their failure and mentioning that job age will not be kept stop like session-jam.

"Sometimes it seems to me that my neighbor is more concern about me than me. They all know well that I couldn't complete degree on time due to COVID-19 pandemic and session-jam. But they continuously recall it in front of me to make me depressed and also recall me that my age is increasing."

The situation gets worst in case of female students. Family continuously imposes pressure for getting married before completing study for settling life. This is a common scene in most of the family in this present pandemic crisis. Many female students are quitting their study due to family responsibility after marriage. Some are struggling against family decision to fulfill their dream to be educated.

Death toll

The death rate due to rapid spreading of corona virus in Bangladesh was high during the second wave in 2021 compared to 2020. The second web has devastating impact on life of the people. An increase in new cases in April 2021 was defined as a second wave. Daily cases increased due to the highly infectious Delta variant of concern having exceptional transmissibility in July 2021 with more than 200 associated deaths in a single day for the first time ever in Bangladesh, which was the starting point of the third wave (Dhaka Tribune, 2021, Debnath et al., 2022 & Kibria et al., 2022). From September 2021, the situation is improving. The last update (up to July 7, 2022) is shown in Table 2.

 Particulars
 Total Number

 Coronavirus cases
 1,986,490

 Deaths
 29,188

 Recovered
 1,910,477

 Active cases
 46,825

 Serious critical
 1,228

Table 2: Coronavirus update in Bangladesh

Source: https://www.worldometers.info/coronavirus/country/bangladesh/

This unwanted deaths and uncertainty of life are creating fear of death among the young. Isolation, distancing from the infected patients, home quarantine; these are well-acquainted terms to the people. Sometimes, people are losing their humanity only due to fear of death and infection. Dying patients are

Journal of Arts & Social Sciences Vol 5, Issue 2, 58-67 (2022)

not getting care, presence or touch of their close relatives. Norms, values, sympathy, and love are now matter of concern and question.

Impact of COVID-19 on psychosocial condition of university students

Financial crisis, socio-cultural problems, national and family crisis, domestic violence, virtual communication, death toll, educational crisis, and session-jam in university life etc. are the major factors which are negatively obsessing the psychological condition of the young generation more specifically the university students who are the next generation to lead the nation. The major impacts of covid-19 on psychosocial condition of the university students include mental degradation, reluctant behaviour, lack of bondage, depression, and suicidal attitude.

Mental degradations

Nowadays, we can see the frail and weak mental condition of the young as COVID-19 pandemic fixed their life within home in order to maintain social distancing and avoid physical touch with others for ensuring health safety. As a consequence, anger, anxiety, loneliness, grief, boredom of life etc. are found to them (Chew, 2020). All these lead to mental degradation like threatening or erratic or unusual behaviour, self-injury, paranoid thinking, and drug addiction among the people (Mamun, 2020). University students of Bangladesh are not exception of this condition. Mentally distressed people cannot concentrate on any effective and fruitful actions for social and national welfare of the country. Sometimes they are liable for family violence and social chaos.

"I am anxious about my life. I don't know when I will complete my study. Sometimes, smoking can reduce my depression of life, boredom and loneliness"

Reluctant behaviour

Deteriorated mental condition may also increase problems like xenophobia, heart problem, insomnia, stroke, chronic pain etc. Staying at home 24 hours without any physical exercise and manual labour may lead to unusual weight gain. Some bad habits like laziness, unwillingness to work, and lack of concentration to study are now common among the university students.

"I couldn't concentrate in any work. Nowadays my only tasks are using phone, scrolling social media and after being tired, I got sleep long time. Sometimes I couldn't get time to have food doing these useless actions"

Lack of Bondage

Virtual communication and changing study pattern are tempting the university students toward virtual life, unrestrained social media addiction, and artificiality. As a result social bondage and brotherhood are diminishing. Deep-felt interaction with family, friends and relatives has been weakened nowadays. Sympathy and support for people in danger are now confined in social media platform within comments and reactions.

"Every person in my family is busy in online. When we are in leisure, we cannot divert our attraction from virtual life because gradually it has become our addiction passing time in online. We cannot enjoy proper quality time with family as like before."

Depression

Loneliness, idle social media involvement and abuse, uncertainty of life due to educational session-jam, lockdown, isolation, financial crisis, family crisis, lack of cultural practices, social conflict, death news of relatives, and job pressures - all the factors are liable to losing attraction of life and hopes. In consequences of these, young generations suffer from severe depression.

"One of my batch-mates died due to corona virus. We were in same floor in the students' hostel. I can't forget her memory and I am now always in fear of death"

In the present study, the word 'depression' was uttered by all the participants, here the university students. Many families don't give any mental support rather they get different kinds of pressure which tend to lose attraction of study and doing something special to be established.

Suicidal attitude

The ultimate result of depression is suicide which has become common at present time. There are around three hundred suicidal deaths among the students in Bangladesh during the last 2 years of Covid-19 pandemic. After the closure of educational institutions due to pandemic, the number of suicide among the students is 201 from March 2020 to August 2021. A statistical observation has been done by popular news channel, "SOMOY TV" by analyzing the popular newspapers' report on students' death, which is shown in Table 3.

Table 3: Recent suicide scenario among students of Bangladesh

Category	Number
School Students	98
College Students	38
University Students	53
Madrasha Students	12
Total	201

Possible solutions to improve the situation

The devastating impact of COVID-19 is adversely alluring the young generation. The changing socio-cultural structure with high death toll and deviation from normal life-style are deteriorating the mental strength and stability of the students. University students are the worst sufferer. Sound, strong and stable mental health is the prior condition of sound physique and healthy body. When a man is in good mental condition, he can unleash his internal potentials and serve the nation with specialization and creative actions. To combat against the loss caused by this pandemic and to keep our young generation in the right track, it is necessary to care and monitor their mental condition.

Electronic media can play a significant role here. Nowadays news channels are more likely to focus on death, sorrow and crisis which create fear of life. So, they can broadcast positive coverage on this pandemic with hope and the recovery story of the previously infected patients, safety strategies and precautionary measures against coronavirus. It is crucial to set a belief among the people that we are eligible to fight against COVID-19.

Government and other non-government organization, international institutions should execute appropriate policy action to create awareness among the people. Another important point is renovating the traditional educational system to avoid session-jam and unemployment as well. Focusing on practical skill development, specialization and training programs in both offline and online can be significant and fruitful policy measures in this situation. Entrepreneurial orientation can add another exemplary dimension here because it will help them to be self-employed and create more job opportunities for others. Young generation should be respectful to any kinds of jobs which will lessen their depression and insecurity with the job.

Proper monitoring and counselling should be done for improving mental health. Family members should not give any pressure to their children; rather they should be conscious and monitor them. Proper family time and enjoying leisure with family members increase love and affection. Students can keep themselves busy with diverse and effective activities. They can help their parents in performing their work. Religious practices can be the feasible and useful medium to cope with the stress because no religion support suicide rather it will furnish their mind with sacred heart.

If anything unusual is found, family should take proper steps and contact with doctors or psychologist. University teachers and authority can arrange seminar and symposium for the students virtually and also offer counselling for them for proper motivation. Online based cultural programs should be arranged for driving monotony of life and enhancing horizon of mind. Staying connected with the friends and other relatives through social media, sharing experiences, discussing about important issues avoiding physical attachment can reduce boredom and monotony of lockdown life. But it is necessary to be concern about the fact that excessive allurement of social media can play detrimental role.

To avoid unusual deaths of the young and to improve their mental condition, it is necessary to take adequate policy measures by the government. Counselling, motivation, quality time with family, effective utilization of time with the motive of enjoying life as much as we can with whatever we have, can improve the mental situation strong and sound. We can hope to have strong, skilled and efficient youth to lead the nation against all disruption and inconformity in a righteous way.

Conclusion & Recommendations

The life threatening dominance of COVID-19 has imposed radical change to our socio-economic structure and normal life-style in both national and global context. It is one of the most devastating pandemics in the 21st century which has already taken more than six million people's lives. Besides this, it has created menacing psychological challenge around the world. Bangladesh is also envisaging this situation. The young generation of Bangladesh is going through mental pressure and abnormality which sometimes turn to severe depression and then unusual death by suicide. It has brought various crises including educational, financial, socio-cultural, national, and family level crisis, which collectively have induced adverse impact not only on physical and socio-demographic existence, but also on psychological status of young generations. Impact of this results in mental disruptions collectively with loneliness, boredom, lack of brotherhood and affection, anxiety, depression etc. In response to depression, they are committing to unusual death like suicide in recent time. Religious practices and being busy with effective activities can diminish the mental stress. Proper guidance and motivation through counseling, effective governmental and non-governmental policy enforcement, technical support and appropriate religious practice can collectively improve and strengthen the mental condition of university students.

References

- Alam, M. N., Alam, M. S., and Chavali, K. (2020). Stock market response during COVID-19 lockdown period in India: An event study. *Journal of Asian Finance, Economics and Business*, 7(7), 131–137. https://doi.org/10.13106/jafeb.2020.vol7.no7.131
- Bank, W. (2020). Global Economic Prospects June 2020. *The World Bank*. https://www.worldbank.org/en/publication/global-economic-prospects#a
- Bhuiyan, A. I., Sakib, N., Pakpour, A. H., Griffiths, M. D., and Mamun, M. A. (2020). COVID-19-related suicides in Bangladesh due to lockdown and economic factors: case study evidence from media reports. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-020-00307-y
- Chew, Q. H., Wei, K. C., Vasoo, S., Chua, H.C. and Sim, K. (2020). Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: Practical considerations for the COVID-19 pandemic. *Singapore Medical Journal*, 61(7), 350–356. https://doi.org/10.11622/SMEDJ.2020046
- Debnath, P., Hossain, M. J., Emran, T. B. and Mitra, S. (2022). Massive third-wave COVID-19 outbreak in Bangladesh: a co-epidemic of dengue might worsen the situation. *Future Virology*, 17 (6), 347-350. https://doi.org/10.2217/fvl-2021-0182
- Fardin, M. A. (2020). Covid-19 and anxiety: A review of psychological impacts of infectious disease outbreaks. *Archives of Clinical Infectious Diseases*, 15. https://doi.org/10.5812/archcid.102779
- Huq, S. M. M., Huque, S. M. R., and Rana, M. B. (2017). Entrepreneurship Education and University Students' Entrepreneurial Intentions in Bangladesh. *Entrepreneurship: Concepts, Methodologies, Tools, and Applications*, 221–246. IGI Global. https://doi.org/10.4018/978-1-5225-1923-2.ch010
- Islam, K. M., Ali, S. M., Akanda, S. Z. R., Rahman S., Kamruzzaman, A. H. M., Pavel, S. A. K., and Baki, J. (2020). COVID-19 Pandemic and Lavel of Responses in Bangladesh. *International Journal of Rare Diseases and Disorders*, 3 (1), 019. doi.org/10.23937/2643-4571/1710019

- Jahid, A. (2020). *COVID-19 and Domestic Violence*. https://www.newagebd.net/article/104901/covid-19-and-domestic-violence
- Khan, K., Zhao, H., Zhang, H., Yang, H., Shah, M. H., and Jahanger, A. (2020). The Impact of COVID-19 Pandemic on Stock Markets: An Empirical Analysis of World Major StockIndices. *Journal of Asian Finance, Economics and Business*, 7(7), 463–474. https://doi.org/10.13106/jafeb.2020.vol7.no7.463
- Kibria, H. B., Jyoti, O., and Matin, A. (2022). Forecasting the spread of the third wave of COVID-19 pandemic using time series analysis in Bangladesh. *Informatics in medicine unlocked*, 28, 100815. https://doi.org/10.1016/j.imu.2021.100815
- Long, E., Patterson, S. and Maxwell, K. (2021). COVID-19 pandemic and its impact on social relationships and health. *Journal of Epidemiology and Community Health*. Retrieved on 19 September, 2021from https://doi.org/10.1136/jech-2021-216690
- Mahmud, M. S., Talukder, M. U., and Rahman, S. M. (2020). Does 'Fear of COVID-19' trigger future career anxiety? An empirical investigation considering depression from COVID-19 as a mediator. *The International Journal of Social Psychiatry*. https://doi.org/10.1177/0020764020935488
- Mallick, U. K., and Biswas, M. H. A. (2020). Mathematical Approach with Optimal Control: Reduction of Unemployment Problem in Bangladesh. *Journal of Applied Nonlinear Dynamics*, 9(2), 231–246. http://dx.doi.org/10.5890/JAND.2020.06.006
- Mamun, M. A. and Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian Journal of Psychiatry*, 51. https://doi.org/10.1016/j.ajp.2020.102073
- Mamun, M. A., and Ullah, I. (2020). COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty? The forthcoming economic challenges for a developing country. *Brain, Behavior, and Immunity*, 87, 163–166
- Mamun, M. A., Chandrima, R. M., and Griffiths, M. D. (2020). Mother and son suicide pact due to COVID-19-related online learning issues in Bangladesh: An unusual case report. *International Journal of Mental Health and Addiction*, 1–4. http://dx.doi.org/10.1007/s11469-020-00362-5
- Manusher Jonno Foundation (MJF) (2020). Violence against Women and Children: COVID 19 A Telephone Survey: Initiative of Manusher Jonno Foundation Survey Period: June 2020. http://www.manusherjonno.org/wp-content/uploads/2020/03/Final-Report-of-Telephone-Survey-on-VAW-June-2020
- Mohiuddin, A. K. (2020a). A Pandemic Review of Covid-19 Situation in Bangladesh. *The American Journal of Medical Sciences and Pharmaceutical Research*, 2(05), 38–50. http://dx.doi.org/10.37547/tajmspr.v2i05.345
- OECD (2020). The Impact of the Coronavirus (Covid-19) Crisis on Development Finance. Retrieved on September 29, 2021 from http://www.oecd.org/coronavirus/en/?_ga=2.62585124.929725216.1634002320-1163423393.1634002320
- Shahriar, S. M., Islam, K. M. A., Zayed, N. M., Hasan, K. B. M. R. and Raisa, T. S. (2021). The Impact of COVID-19 on Bangladesh's Economy: A Focus on Graduate Employability. *Journal of Asian Finance, Economics and Business*, 8(3), 1395–1403. doi:10.13106/jafeb.2021
- Shil, M., Shahriar, M. S., Sultana, S., Rahman, S. N., and Zayed, N. M. (2020). Introduction to University Based Entrepreneurship Ecosystem (U-Bee): A Model Case Study from Bangladesh. *International Journal of Entrepreneurship*, 24(1), 1-9.
- Shimanta, M. L. R., Gope, H., and Sumaiya, I. J. (2020). *Readymade Garments Sector and COVID-19 in Bangladesh*. https://doi.org/10.20944/preprints202006.0336.v1

- Sifat R. I. (2020). Impact of the COVID-19 pandemic on domestic violence in Bangladesh. *Asian journal of psychiatry*, *53*, 102393. https://doi.org/10.1016/j.ajp.2020.102393
- Sohel, M., Hossain, M. A., Hasan, M. K., Haque, A., Islam, M. S., Hossain M. S., Amin, M. N. and Emran T. B. (2021). Management of mental health during COVID 19 pandemic: possible strategies. *Journal of Advanced Biotechnology and Experimental Therapeutics*, 4(3), 276-289. https://doi.org/10.5455/jabet.2021.d128
- Dhaka Tribune (2021). *COVID-19: single-day deaths top 200 for the first time ever in Bangladesh*. https://www.dhakatribune.com/bangladesh/2021/07/07/bangladesh-again-shatters-single-day-death-record-with-201-fatalities
- Ullah, A. M. (2020). Development of Entrepreneurship in Bangladesh: Challenges and Possibilities. *International Journal of Management, IT and Engineering*, 10, 2249-0558.
- Vara, V. (2020). *Coronavirus outbreak: The countries affected*. Accessed on March 2, 2020. https://www.pharmaceutical-technology.com/features/coronavirus-outbreak-the-countries-affected/
- World Bank (2021). *Bangladesh Overview: Development news, research, data.* Retrieved on October 3, 2021 from https://www.worldbank.org/en/country/bangladesh/overview#1