EXPLORING THE CHALLENGES OF THE IMPLEMENTATION OF PUBLIC HEALTH DIRECTIVES THAT BANGLADESH FACED DURING THE COVID-19 PANDEMIC.

By

TANZIM KHAN
MDS Student ID# 19262027

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It is hereby declared that,

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Student's Full Name & Signature:

Tanzim Khan

_____

TANZIM KHAN
19262027

Approval

The thesis/project titled "Exploring the Challenges of the Implementation of Public Health Directives that Bangladesh faced during the COVID-19 Pandemic." submitted by

1. TANZIM KHAN-19262027

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Examining Committee:

Supervisor:
(Member)

_____
Mirza M. Hassan, Ph. D.
Senior Research Fellow
BIGD, Brac University

Program Coordinator:
(Member)

_____
Mohammad Sirajul Islam
Coordinator (Academic & Training programs)
BIGD, Brac University

External Expert Examiner:
(Member)
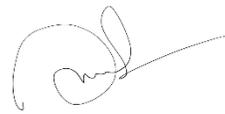
_____
Sakib Mahmood
Research Fellow
BIGD, Brac University

Departmental Head:
(Chair)
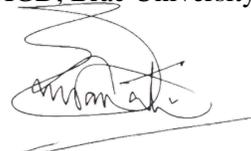
_____
Dr. Imran Matin
Executive Director
BIGD, Brac University

Abstract

Before the identification of the first case of COVID-19 in Bangladesh (on March 8th, 2020), the healthcare system of Bangladesh was already struggling with multiple challenges and limitations. Therefore, with a weaker healthcare system and one of the highest population densities, it was assumed that Bangladesh was going to face an immense challenge in handling the upcoming pandemic crisis (Jamal, 2021). Like many other countries, the spread and surge of COVID-19 cases in Bangladesh have been devastating. It has not only created a health impact but also has harmed the socio-economic situation and therefore, controlling the spread of the virus is very important. Public health directives such as wearing a face mask, maintaining social distancing, and avoiding public gatherings are very effective measures in restricting the spread of the virus. However, despite knowing the effectiveness of the public health directives and the deadly nature of the virus, the general people are very much unwilling to observe such directives. The state of the pandemic is ongoing for more than a year and still, the government of Bangladesh is facing difficulties in implementing public health directives (Haq, 2021) because of which Bangladesh is facing a challenge to restrict the spread of the virus. Therefore, it raises the as to why Bangladesh had faced a challenge in implementing public health directives.

The conception of pandemic governance has emerged after the spread of the SARS virus and during the COVID-19 pandemic, we saw how South Korea and Japan was successful in implementing policies & healthcare directives by following those governance protocols. However, we also saw the other side of the spectrum where such governance strategy was ignored and countries like the USA and India had struggled to implement policies and health-care directives. In this research, we will try to explore the case of Bangladesh. We will look at how the country tried to handle the pandemic crisis, what strategies were planned and how they were implemented and what challenges were there in implementing the healthcare directives. We will also try to understand how those challenges created a problem in implementing public health directives and thereby, understand why pandemic governance was necessary for implementing public health directives.

Keywords: COVID-19, Pandemic, Pandemic Governance, Public Health Directives, Bangladesh

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Exploring the challenges of the implementation of Public Health Directives that Bangladesh faced during the COVID-19 Pandemic.

Introduction

Before the first case of COVID-19 was identified (on March 8th, 2020), it was assumed that Bangladesh might face a greater challenge with the upcoming pandemic, given the fact that, Bangladesh has one of the highest population densities with a weaker healthcare system (Jamal, 2021). Like many other countries, the spread and surge of COVID-19 cases have been devastating. It has not only created a health impact but also has harmed the socio-economic situation and therefore, controlling the spread of the virus is very important. One of the effective forms of controlling the spread of the virus is the implementation of various forms of public health directives such as wearing a mask, social distancing etc. For the first couple of weeks after imposing the first lockdown (March 26th, 2020), people were very much willing to maintain the public health directives (Anwar, et. al., 2020). However, after that, a large number of people were unwilling in following them. The deadly nature of the COVID-19 pandemic is very much visual to most of the people of Bangladesh, especially at the first wave when Italy and Spain experienced the worst form of disaster in their respective health sectors. But people are still reluctant in following public health directives, knowing that the cost would be their life (Dhaka Tribune, 2021). It has been more than a year and still, the government of Bangladesh is still facing difficulties in implementing public health directives (Haq, 2021) for which it is becoming very difficult for Bangladesh to restrict the spread of the COVID-19 virus among the citizens.

As mentioned earlier, the spread of COVID-19 has not only affected the economic growth of many developing countries but also has resulted in a huge life toll. The situation for Bangladesh is no different from those instances. The most effective and widely advocated COVID-19 risk mitigating and prevention strategy is the maintenance of public health directives. Keeping in hindsight mass vaccination is just starting to roll out. Following public health directives prevents the spread of the virus and helps the healthcare system from becoming overwhelmed by a drastic surge of COVID cases. Following those directives not only prevents the COVID-19 virus to spread in the first place but also helps the health care sector to cope up with the situation by not having a drastic surge of

COVID patients. However, like many other countries, Bangladesh is also facing a challenge in implementing those public health directives. Because of that, it is important to understand what challenges and limitations Bangladesh has been facing in implementing such directives. It is important to mention that, by implementing, we don't necessarily mean only to enforce public health directives, but also create that appeal through awareness and transparency of the situation.

It is important to understand the government's limitation in implementing public health directives since this is one of the effective forms of preventing the spread of COVID-19. Bangladesh is a country with a large population and its economy is growing fast. By following public health directives, the infection rate of COVID-19 can be controlled significantly, which will help the economy and livelihood system to continue to work at their normal pace. However, if public health directives are not implemented, the cases for COVID-19 will surge and lockdown or other forms of restrictive measures will be taken. Restrictive measures as such not only affects economic growth but also harms the livelihood of poor people.

Research Objective

The importance of implementing and maintaining public health directives in developing countries like Bangladesh has become very vital in resisting the spread of COVID-19. Therefore, the objective of this research is to explore the challenges and limitations that Bangladesh faced in implementing public health directives during the COVID-19 pandemic.

Bangladesh, like any other developing country, has its limitation in the healthcare sector and on top of it, the country has one of the highest population densities around the world. Therefore, with such a high population density and a weaker healthcare system, it is very difficult for Bangladesh to restrict the spread of such an infectious virus-like COVID-19. Following public health directives prevent the spread of the virus, helps the healthcare system from becoming overwhelmed by a drastic surge of COVID -19 cases and lets the economy & livelihood move at their general nature. However, Bangladesh has been facing challenges in implementing such public health directives; the deadly nature of the virus is known to everyone and yet, the general people are unwilling in observing the public health directives. Therefore, it is important to explore why Bangladesh has been facing challenges in implementing public directives which will eventually help us to form

policies in future to handle such pandemics. Without maintaining such directives, it is hard to restrict the spread of the virus and consequently, if the cases for COVID-19 rise, the government will have no other choice but to impose stricter measures to contain the spread of the virus. Stricter measures such as a lockdown are not only bad for the economy but also create livelihood crises for the poor and low-income groups.

Research Question

The central research question of this research is, why did Bangladesh face challenges to implementing public health directives?

By identifying the challenges and understanding the reasons behind those challenges, it would be easier to determine, why it was difficult to administer public health directives in Bangladesh. It will help us to develop policies to handle future pandemics.

Literature Review

Public health directives such as wearing a mask & social distancing are one of the effective forms of controlling an influenza pandemic and therefore, the implementation of such directives are done systematically with proper influenza governance (Lee & Fidler, 2007). This includes disciplined steps of observing and managing the situation of an influenza pandemic, such as 1) gathering the knowledge of the strain of the virus and identifying the people affected by the virus (surveillance), 2) protecting the population from the strain of the virus with the help of multiple public health agencies in order to restrict the spread of the virus (protection), 3) providing the necessary directives and support to increase the capacity of the health care system, increase diagnosis and clinical treatment and administer necessary antiviral drugs. The procedure of functioning the society, public services and economic activities is also a part of this step (response) and finally, 4) effective public communication with the citizen of the state of the situation with transparency. If this systematic approach is not followed, it becomes very problematic to administer and implement influenza governance (Lee & Fidler, 2007); because of which measures such as public health directives become difficult to implement.

Reich (2020) also emphasized the effectiveness of pandemic governance and explained "Control Tower Metaphor" in this regard. The author tried to understand protocols and measures of pandemic governance used in Japan and the United States during the COVID-19 pandemic through a comparative assessment. He also emphasized the "Control Tower Metaphor" to explain the importance and efficiency of pandemic governance (Reich, 2020).

While explaining the control tower metaphor, the author said that there are 4 aspects of pandemic governance, such as 1) the culture of a specific region or area 2) the social value of the control tower, 3) the role & position of national leadership and 4) the dissemination and clarity of transparent information given by the control tower (Reich, 2020). Although cultural practices vary from region to region and country to country, however, in this case, the general acceptance of using Face masks was very much effective in controlling the spread of the COVID-19 virus in Japan, whereas the United States struggled a lot in terms of accepting wearing face masks "with a persistent difference across the geographic region and political beliefs". Because of the slow acceptance of wearing facing masks the infectious and death rate was much higher in the United States than that in Japan, which explains the cultural context for the control tower of pandemic governance. The social value context of the control tower explains the implementation and obeying government instructions. Japan has a long history of obeying instructions of authority even if the citizen disagrees with the instructions. Unlike Japan, the citizens of the United States were critical in obeying government instructions and the role of President Trump was also damaging in making people follow government instructions (Reich, 2020). This leads us to the role of leadership. In early March the Prime Minister of Japan took the responsibility of guiding the nation and allocating scared resources. By understanding the intensity of the situation, he requested a voluntary school closure overlapping with the year-end vacation. A social distancing campaign was also instituted to make the citizen aware of the necessity and importance of social distancing. The campaign tried to convey the importance of social distancing through appealing phrases like "Avoid the Three C's"; in this case, the three c's refers the closed spaces, crowded places and closed-contact settings (Reich, 2020). This helped the citizens to get a clearer view of social distancing and gave an easier understanding of what places to avoid. In the following month, a national state emergency was declared, followed by a soft lockdown (Reich, 2020). By early May, the transmission rate decreased drastically, and government could lift the national emergency. Unlike the case of Japan, the President of the USA did follow a strategy to guide the citizen, let the market allocate scared

resources (Masks, Ventilators, PPE etc.) and let the states decide policies at their regional level. The government also was not able to generate trust over their vaccine effort and confusion over the procurement of personal protection equipment was widespread across the country because of which the health workers had to buy supplies on their own. This led to a shortage of protective equipment and a rise in the price of such commodities. All in all, the lack of a coordinated and centralized response to a pandemic crisis was very much visual in the United States governance which intensified the whole situation. Lastly, the use and clarity of transparent information are very much needed and based on the information, instructions must be given in such a way so that everyone can understand. In this regard, Japan mobilized a committee of scientific advisors who explained the daily situation to the general people based on scientific facts. On the other hand, the President of the United Stated "Mocked and Rejected" the scientific advisors disregarded their opinion which was based on scientific facts (Reich, 2020). Because of that, a nationwide conflicted narrative of the value of science was spread and that influenced public policy and personal behaviour over the situation. The non-scientific announcement by President Trump over the treatment of COVID-19 not only created confusion in the United States but across the world. The lack of guidance for wearing masks and letting people decide their own rule was also detrimental which created nationwide confusion over and thereby, it spread of the virus was difficult to confine within a particular region. All in all, the 4 control towers of Pandemic Governance was very absent for the case of the United States than that of Japan, and therefore, Japan was much successful in implementing controlling the spread of the virus and implementing public health directives.

The usage of smart governance or using smart technology to administer governance based on the information provided by science was very effective for the case of South Korea (Choi, et. al., 2020). South Korea, during the initial spread of COVID-19 across the world, was able to control the spread of the virus (flattened the curve) without closing down its economy. Based on the conception of "smart tourism", where Information and Communication Technology (ICT) is used to create a platform for knowledge and information for tourism; the government, based on information provided by scientific facts, administered instructions, and restrict the spread of the virus (Choi, et. al., 2020). The government of South Korea was rapid in their action soon after the first case was identified. The usage of scientific facts and proper information was also noticeable. The Korea Centre for Diseases Control and Protection (KCDC), therefore, collected and disseminated data through public health communication on infections (Choi, et. al., 2020). These

data were then further used to address issues related to testing and contact tracing, and thereafter, raise public awareness on crucial measures to restrict the spread of the COVID-19 (Choi, et. al., 2020). South Korea has one of the highest numbers of smartphone & cellphone owners around the world and therefore, the usage of smartphones to communicate & reach the maximum number of people to provide public health information was very effective. Testing, Contact tracing & administering quarantine was rapid and equally effective with the help of smart technology. The government was able to collect data of health information and the location of their citizens and administer testing and quarantine through mobile apps. The distribution of necessary commodities was also administered by the government and the usage of technology was also effective in this regard. Unlike many other developed countries where people were hoarding essential goods (such as toilet paper, hand sanitisers, disinfectants), a 5-day rotation system was introduced by the Korean government where Korean residents could buy two masks from local pharmacies on a designated day (Choi, et. al., 2020). This system was also available for foreign nationals as well. The distribution of necessary commodities such as water, rice, food, toilet paper, face masks, and hand sanitisers to the quarantined people at their designated address was efficient with the usage of smart technology. All these efforts for good administration to restrict the spread of the virus and operating fair distribution of commodities created trust and public confidence among the citizens because of that they obeyed government-directed policy and instructions (Choi, et. al., 2020). Communicating with the citizen was also effective. The government provided transparent and proactive information to the citizen. This was necessary for developing a shared understanding of the situation and compliance with the newly adopted rules and safety measures (Choi, et. al., 2020). Communicating effectively with the citizen with clear and transparent information is key to building trust in the government's abilities to manage a pandemic crisis, which the Korean government did very efficiently.

The opposite side of the spectrum can also be seen where public health directives are not administered properly or even if it is administrated, those decisions eventually led to a politically motivated notion. (Rahman, 2020). By taking the example of India, we can see that lockdowns and social distancing were administered at the beginning of the worldwide spread of COVID-19. Measures such as social distancing eventually exposed the enduring inequality within the society and the political notion embedded in the ruling political party in India (Rahman, 2020). In the early days of the nationwide lockdown in India, religious congregations were not explicitly banned from

the public health directives. However, a religious gathering by the Tablighi Jamaat ended up with more than 400 people getting infected by COVID-19 and the anti-muslim prejudice by many leaders of the ruling party blew the incident out of proportion and created a political notion that the Muslims are responsible for spreading the COVID-19 in India (Rahman, 2020). A similar kind of notion was also seen against the communities of the Northeastern region of India where people are routinely perceived as Chinese rather than Indian because of their ethnic identity. Similar to many other countries' anti-Asian sentiment, racism was also displayed against the people of the Northeastern region of India. Lastly, migrant workers, who are an integral part of the Indian economy faced the greatest problem when a nationwide lockdown was imposed without ensuring food security. Thousands of workers were compelled to move out of the industries cities to their home districts since the government did not provide food or any other necessary goods to the poorest of the poor community, the daily wage earner. Therefore, the political notion and speeches against the Muslims and minority community created misinformation information within the citizen of the country. Information based on scientific facts were disregarded in the political arena of the public health spectrum of India. The minimum income group did not see many contributions from the government's end which also might have lowered people's confidence over the government's decision. Because of all these, a strategic and coordinated approach to combat the spread of the virus was absent at the central administration of India and state-level administration applied certain public health directives through coercion (Rehman, 2020). Initiatives to distribute necessary goods and commodities was insufficient at the state level and rural areas. Gupta, et. al. (2021) in a recent study showed that the local people of the state of Himachal took the initiative to ensure food security during the lockdown period. The national-level scheme was there, but it was insufficient, and it took a long time to reach the locality. Social distancing to restrict the spread of the virus was initiated through an awareness campaign through panchayat (village council) and they also took the responsibility in ensuring the scheme provided by the central government. The role of panchayat can also be seen in Assam where they played an essential role in creating awareness for COVID-19. Similar to Himachal state, the panchayats in Assam helped the local people in receiving government schemes and relief, however, due to having a large population of Muslims in that state and the central government's role in creating an anti-muslim sentiment for the COVID-19 spread, there were discrepancies in the role of panchayats (Barah, 2021). The study conducted by Gupta (2021) also covered the neighboring country of Nepal, where the author

mentioned that, despite not having a wide range safety net, the central government of Nepal ensured relief funds such as food support. The Palikas (Municipal council) was very effective in distributing relief goods to the local people and especially to the daily wage earners (Gupta, et. al., 2021). Therefore, the role of local government is essential, and they play a vital role in implementing the central government's policy, which helps to create trust and public confidence, which we can see in the case of Nepal. However, it is also true that local government has its limitation, and the absence of a coordinated central administration intensifies the situation, which can be observed in the case of Himachal state. Misinformation created by the central government due to political agenda created discrepancies for the role of panchayats in Assam.

The state of a pandemic is ever evolving and therefore, policies and decisions to combat the situation has to be done based on scientific facts. In that regard, Ansell, et. al., (2020) has emphasized the robustness of governance during a pandemic. Countries that followed robustness in governance by having a system of administration with the light of scientific facts were able to control the spread of the virus and administer public health directives.

Given that circumstance, the necessity of pandemic governance for a developing country like Bangladesh is a dying need. As (Anwar, et. al., 2020) rightly mentioned that, due to high population density, it is difficult to administer certain public health directives such as social distancing and lockdown. However, the authors also mentioned that with proper usage of face masks, hand sanitizing and avoiding close places, the impact of COVID-19 can be mitigated at a local level. However, to administer those public health directives, a collaboration of government, health experts and citizens is needed. The testing facility in Bangladesh is low, effective communication for informing the state of the situation is inadequate (Anwar, et. al., 2020). If transparent and clear information is not provided to the citizen in a communicative language, it is difficult to administer public health directives (Reich, 2020).

In Bangladesh, the case was detected on 8th March 2020 and the declaration of the first lockdown (which was announced as a general holiday) on the third week of March. Soon after the declaration, multiple poor assistance programs were announced which will help the poor and low-income people to remain at home. These programs included relief support, cash assistance, Open Market Sales etc. (Moazzem, 2020). However, all of these programs were not implemented effectively due to mismanagement, corruption, and shortages of supply (Moazzem, 2020). In terms of

awareness creation, widespread misinformation regarding the COVID-19 virus and pandemic had been happening before the first case of COVID was detected in Bangladesh and it created a huge impact on people's perception. However, due to a proper awareness program, most of the people were well aware of the safety measures and public health directives. Moreover, the general people also reported their mistrust for the government health update and though the actual number of COVID-19 infected people were far greater than the reported numbers (BIGD & ARC., 2021) which reflects people's understanding regarding COVID-19. Moreover, despite knowing the safety measures and public health directives, a lot of people said that they were confused with the terminologies used to describe the safety measures (BIGD, US & ULAB, 2020) and therefore, it was also difficult for them to keep in track what they should be doing at certain circumstances. Monitoring the general people about the awareness program was also not conducted which made the safety measure and public health directives an everyday business (BIGD, US & ULAB, 2020). Large scale protests from workers of factories, low and middle-income people were also noticeable which showed the insecurity and race for livelihood survival during a pandemic crisis. Shortages of COVID test centres, the low number of test kits and disparity of test numbers according to certain regions was noticeable (BIGD & ARC., 2021). However, the number of tests increased due to the involvement of the private sector and various NGOs, thereafter, the increased numbers were still low compared to the massive population and population density of Bangladesh. Overall, the pandemic management of Bangladesh had few positives and a lot of mismanagements.

To manage and handle a pandemic crisis, it is important to understand the necessity of Pandemic Governance and the importance of Control Tower Metaphor. We can get a clearer idea by looking into the examples of South Korea and Japan. A pandemic crisis has to be managed systematically and the too has to be done with proper scientific facts. However, the examples that we are seeing now did not develop in a day. South Korea suffered the worst during the SARS outbreak and thereafter, developed the protocols for pandemic governance. If such protocols are overlooked, scientific facts are disregarded, a crisis is mismanaged and misinformation and used politically, the strongest economy of the world will still struggle and that we have seen in the above examples. Moreover, with a proper understanding of the crisis and well management, even the small communities can protect themselves from the crisis that we saw in the case of North-Eastern India. Therefore, the importance of Pandemic Governance and following the systematic procedure is necessary, even to overcome the challenge of implementing public health directives.

Methodology

The methodology of this research is based on the Desk Review Approach; therefore, the research has been conducted by analysing secondary data. This includes analysing journal articles for literature review and to have a theoretical understanding of the subject matter. After that, analysing newspaper articles will help us to understand the empirical evidence.

As mentioned earlier, analysing journal articles will help us to understand the subject matter theoretically; as such it gave us a clear idea about how pandemic governance works, how different countries responded to the crisis and how the pandemic governance helped certain countries to handle the crisis successfully. It will also give us insights into why some countries struggled to handle the pandemic crisis despite having a stronger economy and healthcare system. Lastly, it will also help us to understand the importance of the dissemination of information based on scientific evidence and the challenges caused by the spread of misinformation regarding the subject matter.

Newspaper articles will be analysed to get a thorough understanding of how Bangladesh handled the situation of the COVID-19 pandemic. For that, we will be overviewing the events folded after the detection of the first case of COVID-19 in Bangladesh and how the government address the situation. We will have a close look into how the policy evolved, the procedure of announcing the public health directives and the implementation of such directives.

After that, based on the theoretical understanding from the literature review and empirical evidence from newspaper articles, it will be easier for us to identify the challenges and limitations that Bangladesh faced in terms of implementing public health directives.

Empirical Evidence of the event of Pandemic management in Bangladesh

In this section, we are going to observe and understand how the event of the COVID-19 Pandemic has folded during the first wave of COVID-19 in Bangladesh and what initiatives the country has taken to tackle the situation. Before the identification of the first case of COVID-19, Bangladesh was considered as one of the poorly equipped countries to tackle the pandemic (Sakib, 2020) due to its shortage of medical safety equipment. Moreover, the high population density of the country is also a challenge to contain the virus and stop it from spreading all across the region.

On 8th March 2020, the first case of COVID-19 in Bangladesh was identified (The Daily Star, 2020), where 3 patients were found to be contracted with the COVID-19 virus; among them, 2 of the patients were Italy returnees and the other person was a close family member. Health professionals had been advising the government to have a screening process and introducing quarantine facilities for the returnee Bangladesh when countries like Italy and UK were having their first wave of COVID-19; since a large number of Bangladeshi immigrants have been working in both of those countries (Sakib, 2020). However, almost after a month (on April 14th), Bangladesh introduced quarantine centres for immigrants working in different countries (The Daily Star, 2020). Before that, upon returning, immigrants were advised to stay at home quarantine for 7 days before socializing with family members (The Daily Star, 2020); however, this instruction to the returnee immigrant was not monitored by the authority and therefore, we have seen that immigrants were not following the home quarantine instructions and were socializing with family members before the 7-day home quarantine period. The importance of administering and monitoring home quarantine can be understood easily if we focus on the first cases of COVID-19 in Bangladesh who were Italy-returnees and their close family members (The Daily Star, 2020). Therefore, we can observe a slight ignorance of taking the risk seriously at the very beginning of the COVID-19 spread in Bangladesh despite having the fact Bangladesh was not well prepared to tackle the pandemic and had a high density of population.

On March 18th, 2020, Bangladesh reported the first death from COVID-19 (Maswood, 2020). As soon as the news spread, general people started panic-buying hand sanitisers, face masks & other necessary commodities which created a crisis for such goods in the market. COVID-19 test during that time was still conducted centrally by the Institute of Epidemiology Disease Control and Research (IEDCR) and due to the limitation of test kits, COVID-19 tests were only done on people

with flu symptoms (Maswood, 2020). Another aspect to focus on is that contact tracing wasn't being administered, hence it was difficult to understand if the virus has transmitted at a community level, however, IEDCR was claiming that they did not have any information regarding community transmission according to their epidemiology surveillance (Maswood, 2020). Moreover, public health instructions were still limited and the usage of media to spread the public health instruction was also minimal.

Bangladesh declared a 10 day "public holiday" starting from March 26th to April 4th (Mamun, 2020). Speculation regarding such news was circulating in the different media and news channels before the official declaration came and considering the "shutdown" as a public holiday, thousands of people were gathering and coming to tourist spots like Cox's Bazar, Sylhet, Potuakhali and Chittagong. This was also revealed in the Citizens' Perceptions of COVD-19 Governance Survey that declaration of the public holiday created the sense of light regulation and feeling of relaxation which eventually ended up in a lot of people travelling to their hometown or tourist destination (BIGD & ARC, 2021).

Eventually, the local authority and law enforcement understood the situation and imposed a ban on these tourist spots during the announced "public holiday" to control the spread of the virus (The Daily Star, 2020). The declaration of the "public holiday" also came with some additional announcements such as 1) except for emergency services, all public and private sectors will remain close during this "public holiday", 2) Armed forces will be deployed to assist civil administration to administer shutdown and maintain social distancing, 3) Limited public transportation and financial services, 4) measures for the low-income group (Mamun, 2020). For the low-income group, the government also announced that if a family or individual living in cities face difficulties to maintain livelihood, they can return to their hometown or villages, and they will be provided with necessary support under the "Ghore Fera" program. The government also took the initiative to accommodate people from the low-income group in Bhashanchan Char. Open-Market sales service, selling rice at a subsidised price for the low-income group and food support for six months under the social safety net program was also initiated (Moazzem, 2020). However, initiatives taken for the "Ghore Fera" program &accommodating people of the low-income group in Bhashanchan Char had very little utilization in the given situation; the other initiatives taken for the people of

the low-income community also had its limitation & were not implemented effectively (Moazzem, 2020).

As mentioned earlier, at the beginning of the pandemic in Bangladesh, information about the COVID-19 virus, the process through which the virus was spreading and guidelines for resisting the spread of the virus were very limited and the use of media to deliver effective information (dos and don'ts in the time of a pandemic) was also limited (Maswood, 2020). This gap for information was quickly filling up with large numbers of misinformation, especially by the various Islamic religious leaders (Rashid, 2020). Actually, various rumours regarding the COVID-19 virus and the assumption behind its origin has been a matter of discussion for many people around the world and disinformation & various speculation regarding the subject matter was also spreading during that time. However, many countries that were successful in managing the COVID-19 pandemic, tried to handle the situation by following the protocols of pandemic governance. Through informing the citizens with effective & credible information regarding the COVID-19 pandemic in multiple ways, these countries tried to resist the spread of disinformation. In the case of Bangladesh, disinformation and rumours regarding the virus and its origin were spreading before the identification of the first case of COVID-19 in Bangladesh (Rashid, 2020). Islamic religious leaders, in particular, used social media like Facebook & Youtube to spread disinformation regarding the nature of the virus. It was rumoured by these Islamic leaders that the "COVID-19 virus was spread in China to punish the country for torturing Uighur Muslims and the virus will kill one-seventh of the world's population before disappearing" (Rashid, 2020). From claiming to having the cure of the virus from an equation to making the phial of medicine from 6 ingredients, these types of videos were circulating on social media and general people had very little access to the actual & credible news & information regarding the subject matter. Often, the videos were full of racist comments and hatred towards non-muslim communities. In multiple videos posted on social media, it was seen that one narrator was explaining why certain countries were hit hard by the COVID-19 virus; according to him, the virus is infected to those "who are atheists, homosexuals, Non-muslims or Muslims who got distorted from the actual learning of Islam" (Rashid, 2020). One of the narrators also claimed that Bangladesh would not be hit by the COVID-19 virus since the people in this country are "devoted Muslims" and therefore, it is unnecessary to obey public health directives such as wearing a face mask or maintaining social distance. The common people, who had little information regarding the pandemic situation in the country, had

very little reason to have any doubt with these speeches made by the Islamic leaders. Moreover, since there were very limited information and instruction from the government regarding the pandemic, these Islamic leaders became the primary information provider for the common people. Therefore, people started following all the advice & instructions provided by these religious leaders. One other aspect to emphasise is that the way the Islamic leaders narrated the situation regarding the pandemic was easier for their followers to understand. In all of the "Waz-Mahfil", the narrators explained their claims regarding the Pandemic and the situation around the world in such a convincing manner that it was difficult for the common people even to contradict; which is also the reason why these types of disinformations got circulated very easily. When it was asked to the law enforcement, they said that spreading such disinformation in the digital space is a criminal offence under the digital security act. It was also confirmed by law enforcement that they have detained 7 persons for spreading false information regarding the COVID-19 outbreak. However, they were released after "counselling and taking undertakings"; moreover, actions were not taken against them who gathered people for "Waz-Mahfil" overlooking the instruction to avoid public gathering and narrating disinformation regarding the COVID-19 virus and the pandemic (Rashid, 2020). Incidents like this can very much explain why there was an unwillingness to follow public health directives like social distancing & avoiding public gatherings and a massive spread of misinformation regarding the COVID-19 information.

However, the citizens' perspective survey of COVID-19 governance (which had a sample size of 3,856 respondents) also revealed that almost all the respondents who participated in that study were aware of the two preventive measures of the COVID-19, which were, 1) wearing face masks and 2) handwashing; although many of the respondents were not aware of the "social distancing" measure covered in the public health directive. Therefore, we can see that misinformation did spread among the general people, however, the government's awareness program was also able to make people aware of the preventive measures of resisting the COVID-19 virus spread.

On March 27th, a lockdown in the name of "general holiday" started in order the restrict the spread of the virus. As mentioned earlier, initially the "general holiday" was proposed to be observed for 10 days, up until April 4th (Mamun, 2020). Except for emergency services, almost all the public and private offices remained closed and regular services also remained closed. This created a huge problem for livelihood for the low-income people such as rickshaw pullers, roadside tea sellers,

hawkers, slum dwellers etc. It was difficult for them to remain at home to restrict the virus from spreading because it was either "dying without food or dying by getting infected by the virus". It was extremely difficult for the low-income people to sustain during the lockdown as a majority of them earn their livelihood daily and therefore, they hardly had any savings left to live by in that 10-day long lockdown (Sakib, 2020). Workers of the garment & manufacturing factories suffered the most as the factories closed down suddenly without paying the month's wage to the workers and in some instances, factories laid off their workers. To tackle this situation, the government introduced cash & food assistance, food relief under the open market sale (OMS) and stimulus package for different sectors including garment, agriculture, and manufacturing sectors (Sakib, 2020). The local representatives were assigned to provide relief to the low-income people within their constituency. This initiative was particularly very helpful as it addressed the needs of the poor & low-income people and will allow them to stay at home during the lockdown period. However, when it came to implementing those initiatives, we have seen irregularities and corruption. Because of that, we got to see 242 out of 251 protests were staged during the nationwide lockdown (March 27th to May 30th) period (the other 9 protests happened before the lockdown started) (BIGD & ARC., 2021). Out of 251, 31 protests were done due to relief distribution irregularities. Relief goods were distributed by the local representatives and misappropriation of the relief goods (whether it is in terms of relief food or cash distribution), nepotism in distribution, distributing relief based on political idealism & contribution was a few of the irregularities that happened during the lockdown relief distribution program (Ashjad, 2020). Lack of transparency, accountability, inadequate information in terms of allocation of relief goods & distribution guidelines were a few of the major reasons behind the relief distribution irregularities. Although relief irregularities are not a new incident for Bangladesh, however, incidents like these during a pandemic & global crisis shows the lack of seriousness of the authorities (Ashjad, 2020). Another aspect to consider is that, after the first wave of COVID-19, there had been a significant increase in the number of poor populations, where there was a significant number of urban poor. Despite the increase in urban poverty, there were very few initiatives taken for them. Financial assistance of taka 2500/- was given to daily wage-earners such as rickshaw pullers, transport workers, construction workers etc. However, that amount was very limited to sustain a whole month for a family consisting of 4 members; according to Nazneen Ahmed of Bangladesh Institute of Development Studies, a family consisting of 4 members require taka 6000/- to sustain a whole

month in an urban area (Tayeb, 2021). However, it was also reported that many people who fall under the category of daily wage-earners in urban areas did not receive financial assistance. Moreover, the Open Market Sales (OMS), which is the other initiative taken for the urban poor, saw its limitation due to stock shortages of rice (Tayeb, 2021). Overall, the urban poor found themselves in a grey area when it came to receiving assistance from the government, which alienated them from the social security aspect of the country's economic structure.

Going back to the protests staged during the nationwide lockdown period, a majority of the protests were done by factory workers, especially by the RMG workers, demanding wages, resisting layoffs, and insisting on factories reopening (BIGD & ARC., 2021). Despite getting a stimulus package from the government, most of the RMG & manufacturing factories kept refusing or delaying wages for the RMG workers and in many instances, they were laying off the workers (Reuters, 2020). Upon receiving the stimulus package, Bangladesh Garment Manufacturers and Exporters Association (BGMEA) asked the factory owners not to lay off the workers and to pay their due wages. However, news reports suggested otherwise, as thousands of workers were refused to pay their due wages & were laid off for the reason that factories are facing loss due to not being operational during the lockdown and losing international orders (Tithila, 2020). Eventually, we could see that by the end of the first lockdown period (from May 7th to May 30th), there has been a tremendous rise of protests (around 158 protests) done by workers from different factories demanding wages & Eid bonuses and asked to start full-fledged operation of all RMG factories (BIGD & ARC., 2021). There were also incidents where groups from different backgrounds such as teachers, students, shop owners, entrepreneurs also protested to lift the lockdown to let them operate their jobs & businesses to survive the critical financial situation that they were facing due to lockdown. Incidents like this indicate that the urban poor, low-income groups (and in some cases the middle-income group) found themselves in a critical situation during the pandemic & lockdown. Therefore, the only way they could survive in this situation was to start earning by themselves, which can be possible only if the lockdown is lifted and normal business resumes.

One of the major aspects of the COVID-19 pandemic in Bangladesh was the limited number of COVID-19 tests done throughout the country and the availability of the test kits. According to a news report, Bangladesh had the lowest number of COVID tests per million during the first wave

of COVID-19; for every 1 million people, Bangladesh tested 10 people, despite having a high population density (Tithila, 2020). It is important to test more people since Bangladesh had poor preparation to tackle the pandemic crisis and also because of having a higher population density. Without testing more people, it is difficult to administer contact tracing and therefore, it also becomes difficult to control the spread of the virus. Countries such as Japan & South Korea were testing several thousands of people per million which helped them to administer contact tracing to resist the spread of the virus (Tithila, 2020). Apart from the low-test rate in the country, during the second wave of COVID-19 in Bangladesh, Rajshahi had to close down 10 testing booths due to shortages of Rapid Antigen Test Kit, followed by the closure of the RT-PCR lab in the Khulna Medical College (Hossain & Ali, 2021). Both of the regions saw a high infection rate during the second wave of COVID-19 in Bangladesh. The principal of the Khulna Medical College said that they have been testing 600 samples every day and due to logistical reasons, they had to close the operation of the test centre. The chief health officer of Rajshahi City Corporation confirmed the closure of the 10 testing booths due to shortages of the test kits. Virologists & health experts had been repeatedly saying that regions such as Rajshahi and Khulna need 10,000 tests per day to resist the virus from spreading (Hossain & Ali, 2021). The disparity in COVID tests in respect to region and cities is another aspect that was noticeable in both the first & second waves in Bangladesh. In both of the waves, it was seen that almost 50% of the COVID tests were done in Dhaka and Chittagong city, this could be because both of the cities occupy the majority of the countries population; however, despite having a higher infection rate in Rajshahi & Khulna, both of the regions saw a lower test rate compare to the other major cities (Hossain, 2021). It is also important to point out that even after 1 year, in 2021, Bangladesh could not cross its limit to test more than 50,000 tests per day (Hossain, 2021). The COVID test disparity for other cities and regions is also noticeable as people had to wait day after day to get confirmation of their test results. In these cases, samples from out of city areas were collected, then they were sent to nearby city test centres, which already had a limited capacity, therefore, it took several weeks for the test results to come (Hossain, 2021).

There is no doubt that shortages, limitations, and disparity in the COVID test were seemingly harmful in containing the virus from spreading. It was important to address the shortages & limitations during the first wave and prepare accordingly by increasing the capacity of COVID tests for the second wave. Because of the limited number of tests, it was difficult to administer

contact tracing, therefore, the government had to rely on lockdowns, which was also harmful for the socio-economic condition of the people (Nowshin, 2021). Moreover, with limited numbers of tests, it was difficult to understand the level of spread of the virus, which created fear and distrust among citizens. This can also be seen in the Citizens' Perceptions of COVD-19 Governance Survey which showed that around 40% of the respondents believed that the infection rate reported by the government is far higher than what is shown and that a lot of people are being left untested due to limitation of tests (BIGD & ARC, 2021).

Observation and Analysis

In contrast to the finding of the events and situation of the COVID-19 pandemic in Bangladesh, three aspects came under consideration when it comes to managing the situation of Bangladesh during the pandemic. Although the situation has improved quite a lot after the second wave of COVID-19 and the number of COVID tests also improved after the association of private sectors and various NGOs. Having said that, the finding of this research has pointed out a few aspects which indicate the limitation of the pandemic management of Bangladesh. It also shows how the conception & learnings of pandemic governance were overlooked and how it affected the overall pandemic situation of Bangladesh.

One of the key findings of the research was the confusion and race for survival among the citizens of Bangladesh during the pandemic. This happened due to the closure & lay-off conducted by the factory owners, the mismanagement & corruption in relief distribution and irregularities in other assistance programs initiated for the poor and low-income people. Such incidents created a race for livelihood among the citizen and that was also seen in a few of the demands of the protests. At the last few weeks of the first lockdown, there were multiple protests where workers from RMG and various factories, owners of shopkeeps, entrepreneurs etc. were protesting to start regular business operations and letting them the scope to earn their livelihood. In such cases, the public health directives become less priority for their existence and the scope of livelihood becomes a bigger question for survival. This kind of incident also creates a sense of absence of protection among the citizen which was supposed to be provided by the government. Trust among citizens

for their government is important to administer governance especially during an event of a pandemic, as such, it creates a greater impact on citizens' behavior towards policies and directives administered by the government (Jennings, et. al., 2021). If the citizen has a lack of trust over their government, no matter how good the policies and directives are designed, it is going to be difficult to make the citizen obey those restrictions at their own will. In the findings, we also saw similar incidents where we can see that the government was facing a lot of problems in administering lockdown and social distancing. Protests became a regular incident and earning livelihood of the poor and low-income people was a major consideration in imposing strict lockdown. According to a survey, 43% of the respondents believed that lockdown was either relaxed or partially relaxed and most of the rural respondents thought the lockdown was not strictly imposed. As such, most of the respondents who believed that the lockdown was imposed lightly by the government, thought that because of the livelihood crisis of the citizen (BIGD & ARC, 2021). This leads us back to our initial findings. If we look into the findings, we can see that various assistance programs such as cash assistance, food assistance (or relief), Open Market Sales etc. initiatives were taken to keep the poor and low-income people to remain at home. However, it was also shown in the finding that, there were irregularities and corruption in the distribution of relief food, the urban poor found themselves in a grey area in terms of receiving cash assistance and finally, the Open Market Sales eventually had to close down due to shortages of rice and other grains. Therefore, the assistance program designed to keep the poor and low-income people remain in the home during the lockdown did not work out due to mismanagement, lack of monitoring and corruption. Protests by workers from RMG and other factories showed us the helplessness and struggle of livelihood; as such we can see that the protesters mostly demanded wages and not to lay them off. We also saw a spike in protest in the last few weeks of the first lockdown where the workers of RMG and other factories demanded wages & Eid bonuses and also demanded the factories to operate at a regular scale so that the workers can regular wages. Protest demands like these point out the burning necessity of livelihood of the low-income people during the lockdown period. Moreover, we also did see protests from other groups like shopkeepers, shoemakers, owners of restaurants, journalists, teachers, and students where they demanded to discontinue lockdown and let them operate their business and job. These kinds of incidents tell us that the citizen could hardly rely on the government announced initiatives for the poor and low-income people, protests by shop keepers, restaurants owners etc. suggests that middle-income group was

also getting affected by the lockdown and therefore, citizens took the matter at their hand and decided to resolve the livelihood aspect of their life. In such circumstances, the public health directives & the risk of COVID-19 became a minor issue and livelihood became a major issue for the citizens.

The second major finding of this research shows the spread of misinformation related to COVID-19 & Public Health Directives by various religious leaders through social media at the early stage of virus spread. Therefore, before the government started their announcement on the COVID-19 status in the country, many people have already consumed misinformation. People usually have a soft & emotional impression towards religious leaders and therefore, people started believing the misinformation spread by these religious leaders. The use of medium and the form of communication is also necessary. If the proper medium is not used to communicate and the information is not delivered effectively, general people will not be able to pursue and adapt the information provided by the government. And if the actual information is not understood by the general people and hence if they cannot act based on that information, it will be difficult to administer public health directives. In that blank space, misinformation will become easier for the general people to grasp, and people will act based on that information. In the findings section, we have seen the spread of misinformation in various regions of Bangladesh, how the message was delivered and to what extend the misinformation was spreading. When we look at how the actual information regarding COVID-19 and public health directives was delivered, we can see that there was ambiguity in understanding the instruction, lack of clearance in delivering the Dos & Don'ts during the COVID-19 pandemic and therefore, the translation of such information was unclear and difficult for the general people to understand (BIGD, US & ULAB, 2020). According to a recent study, it was found that general people had difficulties in understanding the terms "Lockdown", "Social Distancing", "Quarantine" etc and therefore, following those instructions were also difficult for them in the first place (BIGD, US & ULAB, 2020). Expect for the urban middle income group who had access to various news sources and foreign news channels, for most of the rural and urban poor people, the access to information was Bangladesh Television, miking from mosque & street and interpersonal discussion. Because of the limited source of information, it becomes difficult for the urban poor and rural people to understand and therefore follow those instructions. Moreover, it was also found in the study that, the general people had a hard time understanding the public health directives. According to the study, most of the respondents in rural

areas and slums areas did not fully comprehend the concept of washing hands for 20 seconds, maintaining social distancing from each other and wearing a face mask during the pandemic; in fact, wearing a mask while talking with someone was considered as inappropriate and does not go with the "act of civil gesture"; and some people also was not convinced with the conception that a face mask could save people from catching COVID-19 (BIGD, US & ULAB, 2020). On top of it, the widespread misinformation created by the religious leaders was successful in filling up the void of "lack of understanding" of the actual information of COVID-19. In the findings section, we did see how the religious leaders disregarded the actual information, the government's instruction to restrict the spread of the virus. The government did not put much effort into restricting this spread of misinformation. All these created a mixed opinion among the citizen regarding the COVID-19 virus and therefore we saw a reluctance toward health warnings and the government's public health directives among the general people (BIGD, US & ULAB, 2020). However, it was also revealed in a survey that a majority of the respondents (of that survey) reported that they were well informed about the public health directives and general information regarding the COVID-19 pandemic through the government's awareness program (BIGD & ARC., 2021). Moreover, the respondents also expressed their uncertainty about the government's announcement regarding the health update and COVID-19 news. Therefore, we can see that at the beginning of the pandemic a large scale of misinformation was spread; despite that, the government was successful in making people aware of the public health directives through their awareness program (which was released in the survey), however, there was still confusing and mixed opinion regarding the directives among the general people (which was released in the other qualitative study) and because of that, it was difficult and people were unwilling in following the public health directives.

The final major findings of this research show that there has been a significantly low number of COVID tests despite having a higher population density within the country. The shortage of COVID test centers and test kits made it difficult to operate mass testing. During the first wave of COVID-19, there has been a significantly low number of tests all across Bangladesh, which made it difficult to contact trace and administer quarantine. Although, in the second wave, we did see an increase in COVID tests due to the involvement of various private sectors and NGOs which made it easier for the general people across the country to test themselves for COVID-19. However, despite the small increase in COVID tests, it was still below the required number to understand

the actual situation of the pandemic in Bangladesh. On top of it, the findings also pointed out that, there was a disparity in COVID tests depending on the regions, as such, more tests were administered in Dhaka & Chittagong rather than other regions & districts in Bangladesh. In the second wave, we saw a rise of COVID cases in the Rajshahi & Khulna area, but the capacity to administer the COVID test per day was also limited and we also saw the closure of COVID test centres in those areas as well. If COVID tests are not administered, it becomes difficult to understand the actual situation of the country, let alone administer quarantine. Without proper information regarding the actual situation of the pandemic, limitation of information is created and therefore, it generates room for misinformation. Transparency in communication, providing accurate information and an effective form of communication with the citizen and proper management of crises is necessary to create trust among citizens. Trust among citizens is also necessary to overcome misinformation and make the citizen follow public health directives. It is also an important component of the conception of pandemic governance and the control tower metaphor and therefore, effective communication and implementation of policies are necessary during a pandemic.

If we look closely, these three major challenges were caused due to 1) underestimating the upcoming crisis, 2) mismanagement of the assistance program & crisis management initiative and 3) limitation of resources. Underestimating the crisis let the misinformation circulate even before the spread of the virus, mismanagement of the assistance program & crisis management initiative caused the race for survival during the first wave of the pandemic in Bangladesh and limitation of resources caused low numbers of COVID tests. Although the low number of tests were also caused by underestimating the crisis which was somewhat overcome by the involvement of NGOs and the Private sector, however, disparity of COVID tests still exists. Reasons like this made Bangladesh face challenges in implementing public health directives. Moreover, it is also important to point out that the protocols for pandemic governance were not followed because of which the mismanagements and challenges escalated which made it difficult for Bangladesh to implement public health directives. If we look into the examples of South Korea, we will see that, during the SARS outbreak, South Korea also struggled heavily, however, they identified the challenges, understood the limitations in the policy and thereafter made the framework for pandemic governance. Because of understanding those challenges and policy limitations, the protocols of pandemic governance have developed and therefore, we can see that South Korea was

efficient in handling the COVID-19 pandemic. Similar to that, it is also necessary to figure out and understand the challenges and limitations of implementing public health directives in Bangladesh which will be helpful for future policy development and implications to handle future pandemics.

Conclusion

Pandemic is an unforeseen challenge for any country and therefore, like any other disaster management strategy, it is difficult to create a readiness approach to handle such incidents. However, it is also true that, with proper protocol and governance design, a pandemic can also be handled linearly. We have seen such examples for the cases of South Korea & Japan, and we also saw how countries like the United States & India struggled heavily due to not following such governance protocol. The pandemic governance has helped South Korea to systematically lower the spread of the virus, administer quarantine and public health directives and as a result of that, they were able to quickly resume regular economic activities. However, for the case of the United States, the scientific facts and advised directives were disregarded by the President which created a mixed opinion with the citizen, the pandemic governance protocol was also not followed because of which we saw a large scale of virus spread among the citizens and the healthcare system of the US collapsed due to a large number of COVID-19 patients. Therefore, it's understandable that without following proper governance protocol during a pandemic, a stronger economy can struggle and with proper governance strategy, a country can successfully handle an unprecedented pandemic crisis. Misinformation can prolong the struggle of citizens, disregard scientific evidence and create an information gap among citizens; during the time when actual information is essential which we saw immensely in the case of India. However, with proper crisis management, usage of scientific information and following proper public health directives, the spread of the virus can also be restricted, and the struggle of the citizens can be lowered, which was properly displayed by the cases of Nepal and North-eastern India.

For the case of Bangladesh, the three major findings played a crucial role in understanding why Bangladesh faced a challenge in implementing the public health directives. Misinformation at the beginning of the pandemic played a major role and was somewhat successful in "filling in the void of actual information", however it was also found in multiple surveys that, majority of the

respondents of that survey were well informed about the public health directives and general information regarding COVID-19 virus. Mismanagement during the first wave of lockdown was also a key finding which highlighted the limitation and misconduct of various poor assistance programs. Protests among various income groups and workers for livelihood was highly noticeable which eventually resulted in protests for opening economic activities. These incidents let the citizens believe that they are on their own for surviving this pandemic, which eventually made the "survival for livelihood" more important than "following the public health guidelines" for resisting the spread of the virus. And lastly, the shortages for COVID test centers & test kits, disparity among regions in terms of COVID test played a huge part throughout the pandemic; because of that, it was difficult to understand the actual situation of the pandemic in Bangladesh. Without sufficient tests for such a huge number population, it was difficult to administer quarantine, get a clear picture of the spread of the virus and therefore understand the state of the situation of pandemics in Bangladesh. All these issues created a mixed understanding among the citizen regarding the pandemic & the state of the situation of Bangladesh and therefore it was difficult to administer public health directives among citizens. By understanding and addressing these limitations, we can develop a governance protocol for future pandemics and can successfully tackle economic & livelihood challenges caused by pandemics.

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