

An evaluation of factors affecting the management of COVID-19 in Bangladesh

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Abstract

Purpose – The study aims to gain insights into the management of COVID-19 in Bangladesh to identify the factors that are relevant to managing the pandemic in a developing country.

Design/methodology/approach – The study was carried out by pursuing the archival method. The information was collected from credible newspaper reports over the previous months, as well as articles published on the subject of COVID-19.

Findings – The research revealed important and relevant dimensions of the health sector in managing the COVID-19 pandemic. The major factors were doctors, nurses (health service providers), patients, (customers) and society. This is a pioneering paper, which documents the major lessons learned from the management of COVID-19 in Bangladesh concerning three stakeholders of the health-care system, i.e. providers, patients and society. This paper covers the situation regarding the ongoing pandemic from three perspectives – provider, customers and society, and thus, may help to develop future research regarding the development of health-care management models for addressing the pandemic.

Research limitations/implications – The major limitations of this paper is its over dependence on secondary sources for collecting the information.

Practical implications – This paper presents the learnings from the pandemic in health-care management in different categories (e.g. social, doctor/nurse, patients), which can help the managers in understanding different dimensions of the health-care sector from different perspectives. The problems as well as the learnings stated in the paper can help the policy makers implement such strategies to ensure better delivery of the medical health-care service during a pandemic.

Social implications – This paper clearly reveals the social dimensions of the COVID-19 by assessing the social aspects of COVID-19 management. Both social stigma and support are traced out during evaluating the situation. Thus, the social forces will be able to rethink about their role in addressing the social costs of pandemic.

Originality/value – This is a commentary piece.

Keywords Medical research, Health service, COVID-19, Societal support, Bangladesh

Paper type Commentary



Introduction

Currently, the world is experiencing one of the most contagious and deadliest pandemics in recent history. The experience has left us with several notable lessons. This paper focused on the lessons learned and categorized them into three segments – provider, customer and society.

The second-highest number of global cases have been recorded in the South-East Asia Region, where Bangladesh (Table 1), India and Indonesia are still reporting the highest number of regional cases [1]. The incidence rate of the virus is meaningfully higher than several other communicable diseases, and this can result in the health services becoming overwhelmed, even in the countries that have advanced health-care structures [2]. For now, non-therapeutic interventions to control the spread of the virus are the most effective measures to control the disease [3].

The World Health Organization (WHO) Infection and Prevention Control (IPC) standards [4] suggested that IPC should be in place at the national and facility level to offer minimum protection and safety to patients, health-care workers and visitors. This is based on the WHO core components for IPC programs that include strategies to control the outbreak such as early recognition, source control and taking necessary precautions [5].

Health-care system of Bangladesh during COVID-19

COVID-19 has revealed how severely flawed the national and global health-care system is. Starting from an inadequate number of hospitals, staff and equipment, to misuse of those limited resources, the whole system is about to collapse. According to Hanvoravongchai *et al.* [6], the preparedness of a country for handling a pandemic depends on its health-care system, especially in three major areas: governance, resources and service provision.

In the case of governance, the political system of a country plays a crucial role [6]. Besides, resources are very important to fight against pandemics like COVID-19. Currently, clinicians need to prioritize among patients for treatment because of the lack of resources and time [7]. Hospitals are currently rationing ventilators and space in intensive care units (ICUs) based on priority [8]. If this situation continues, the country may face a shortage of hospital beds, ICUs, ventilators and other types of equipment, and even clinicians and nurses [9]. Countries need to focus on early detection of the outbreak and minimize contamination [6]. In the beginning, the health-care management system failed to quarantine visitors from abroad, and the public did not take precautions despite the pleas of researchers who advocated social distancing, lockdowns and isolation [10].

Kruk and Freedman [11] found that the performance of a health-care system depends on the following: effective treatment, patient satisfaction, access to treatment, ability and utilization, responsiveness, efficacy, quality of care and safety. Health-care workers also suffer from depression, anxiety and heightened stress [12]. The study of Lu *et al.* [13] confirmed the mental burden for the medical workforce.

Findings

The lessons learned from this pandemic are explained using the following framework (Figure 1). The different dimensions of the pandemic are grouped into three categories: providers, customers and society.

Country	Cumulative cases	Cumulative cases per million population	Cumulative deaths	Cumulative deaths per million population	Transmission classification
Bangladesh	336,044	2,040	4,702	29	Community transmission

Table 1. Number of COVID-19 confirmed cases and deaths reported as of 13 September 2020 [1]

Provider end

Protecting the providers: initiatives are taken to protect health-care professionals. A new process has been invented where the doctors can take care of their patients without having any physical contact. A secure chamber called the “Critical Isolation Chamber for Doctors” has been set up so that doctors and service personnel can provide services from a safe location [14].

The readiness of the providers (hospitals and staff). There have been many complaints about hospitals due to inadequate treatment of patients [15]. There was an incident where a woman died of COVID-19, as hospitals in Chittagong refused to give her the ICU treatment she required. A six-year-old disabled child from Patiya died in the same hospital, as he was denied treatment. A woman was reported to have delivered her baby in an auto-rickshaw, as the hospitals were not taking her in [16]. These service providers are not being responsive enough to the problem that people are facing at present. As a result, patients are suffering. Therefore, service providers should be trained in this regard.

Internal service quality: problems regarding test kits and process. Unfortunately, only 4% of the country’s public and private hospitals, clinics and health centers can perform all the five basic tests to diagnose the disease. People have to stand in long queues to take samples at the risk of infection. In addition, it takes a long time to get the results.

This problem on the provider side is related to logistics [17]. Without a smooth supply of these kits and other equipment, the providers cannot deliver good-quality and reliable services.

Customer end

Customer (patients) inertia. As most people have started taking this pandemic too lightly, they are not being admitted into hospitals on time. Customers are the other half of the service delivery process. If the customers do not fulfill their roles properly, it will not be possible to complete the delivery of good service [18].

However, the customers are not solely to blame. They are reluctant to be admitted to hospitals because of reports of negligence in hospitals. When hospitals fail to assure their customers of safe care and treatment, they are then casting doubt on the entire hospital system.

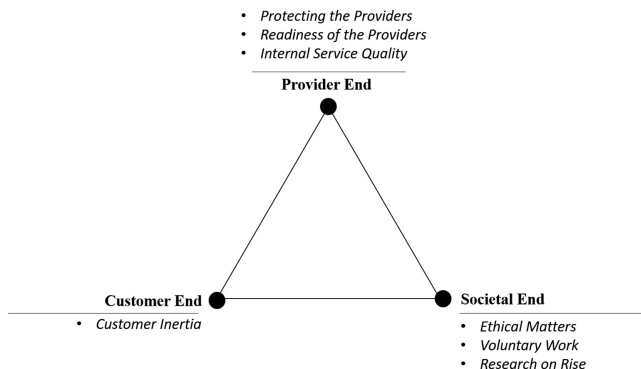


Figure 1.
Factors affecting health-care management during pandemic

Society

Ethics matter. Patients do not feel comfortable in hospitals because even in these dire times, many people are taking advantage of the pandemic and committing fraud.

Listening to the heart: voluntary work. Many people are volunteering their time and skills to ensure successful delivery of medical services, giving way to new expressions of humanity during the pandemic [19]. For example, Sholakbahar Ward Councilor Mohammad Morshed Alam formed a team with three ambulances and ten volunteers to provide a 24 h service for providing oxygen services to patients and transporting them to the hospital. Humanitarian organization Pays It Forward and “Manush Manusher Jonno” are providing the same service in Dhaka and Chittagong. A Facebook group called “Connecting: Connecting People” is working with the slogan “Give the cylinder, deliver oxygen” [20]. Mizanur Rahman Sarkar, a young man studying in a Chinese university, sent 306 KN-95 masks and 100 coronavirus test kits to Bangladesh using his scholarship money.

New and increasing research. Several studies by an organization of undergraduate students at Jahangirnagar University have already been published in foreign medical journals [21]. The government’s National Institute of Preventive and Social Medicine (NIPSOM) also continues to research the disease. The authorities of Bangabandhu Sheikh Mujib Medical University (BSMMU) have finalized the decision to fund 15 research projects for research on the coronavirus. The James P. Grant School of Public Health Authority’s list of coronary studies shows that they have completed 14 studies thus far. In addition, 29 studies are ongoing.

Remeditive injections made by SKF, one of the leading pharmaceutical companies in the country, are showing hope for the treatment of patients infected with COVID-19 [22]. ICDDR, B has launched experimental research to test the safety and efficacy of the use of the parasitic drug Ivermectin in the treatment of COVID-19 patients. Even plasma therapy has been proven to be effective. Globe Biotech Limited (GBL) – a local company – claimed that it has developed a vaccine for the virus and will be launching its first trial soon.

Conclusion

The paper demonstrates some vital dimensions regarding our learnings from this pandemic and its impact on the health sector of Bangladesh. These are categorized into three perspectives – provider, customer and society. This paper discusses how many providers are not showing proper responsiveness to the growing customer need in the medical care sector. They are also missing proper logistics due to faulty equipment. Interestingly, very recent newspaper reports show that COVID-19 patients increasingly mistrust institutionalized health care due to the lack of reliability of the treatment at public and private hospitals caused by testing scandals and a preference for home-based treatment. The stakeholders should take appropriate measures so that patient confidence in the health-care system can be restored. This paper presents the impact of COVID-19 management on the health-care system and the society of Bangladesh.

References

1. World Health Organization [WHO]. Coronavirus disease (COVID-19): weekly epidemiological update. [cited 2020 September]. Available from: <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200914-weekly-epi-update-5.pdf>.
2. Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L, *et al*. Presumed asymptomatic carrier transmission of COVID-19. JAMA. 2020 Apr; 323(14): 1406-7. doi: [10.1001/jama.2020.2565](https://doi.org/10.1001/jama.2020.2565).

3. Bootsma MC, Ferguson NM. The effect of public health measures on the 1918 influenza pandemic in U.S. cities. *Proc Natl Acad Sci USA*. 2007 May; 104(18): 7588-93. doi: [10.1073/pnas.0611071104](https://doi.org/10.1073/pnas.0611071104).
4. World Health Organization [WHO]. Minimum requirements for infection prevention and control (IPC) programmes. Geneva: WHO; 2019.
5. World Health Organization [WHO]. Infection prevention and control during health care when COVID-19 is suspected. [updated 2020 March; cited 2020 August]. Available from: <https://www.who.int/publications/i/item/10665-331495>.
6. Hanvoravongchai P, Adisasmito W, Chau PN, Conseil A, de Sa J, Krumkamp R, *et al*. Pandemic influenza preparedness and health systems challenges in Asia: results from rapid analyses in 6 Asian countries. *BMC Publ. Health*. 2010 Jun; 10: 322. doi: [10.1186/1471-2458-10-322](https://doi.org/10.1186/1471-2458-10-322).
7. Rosenbaum L. The untold toll - the pandemic's effects on patients without Covid-19. *N Engl J Med*. 2020 Jun; 382(24): 2368-71. doi: [10.1056/NEJMms2009984](https://doi.org/10.1056/NEJMms2009984).
8. White DB, Lo B. A framework for rationing ventilators and critical care beds during the COVID-19 pandemic. *JAMA*. 2020 May; 323(18): 1773-4. doi: [10.1001/jama.2020.5046](https://doi.org/10.1001/jama.2020.5046).
9. Emanuel EJ, Persad G, Upshur R, Thome B, Parker M, Glickman A, *et al*. Fair allocation of scarce medical resources in the time of Covid-19. *N Engl J Med*. 2020 May; 382(21): 2049-55. doi: [10.1056/NEJMs2005114](https://doi.org/10.1056/NEJMs2005114).
10. Hick JL, Biddinger PD. Novel coronavirus and old lessons - preparing the health system for the pandemic. *N Engl J Med*. 2020 May; 382(20): e55. doi: [10.1056/NEJMp2005118](https://doi.org/10.1056/NEJMp2005118).
11. Kruk ME, Freedman LP. Assessing health system performance in developing countries: a review of the literature. *Health Pol*. 2008 Mar; 85(3): 263-76. doi: [10.1016/j.healthpol.2007.09.003](https://doi.org/10.1016/j.healthpol.2007.09.003).
12. Tan BYQ, Chew NWS, Lee GKH, Jing M, Goh Y, Yeo LLL, *et al*. Psychological impact of the COVID-19 pandemic on health care workers in Singapore. *Ann Intern Med*. 2020 Aug; 173(4): 317-20. doi: [10.7326/M20-1083](https://doi.org/10.7326/M20-1083).
13. Lu W, Wang H, Lin Y, Li L. Psychological status of medical workforce during the COVID-19 pandemic: a cross-sectional study. *Psychiatry Res*. 2020 Jun; 288: 112936. doi: [10.1016/j.psychres.2020.112936](https://doi.org/10.1016/j.psychres.2020.112936).
14. Hossain M. Physicians can see patients sitting in this chamber without PPE. Prothom Alo. [Internet]. 2020 May 18.
15. Morol S. Health care centres not ready to deliver required services. Prothom Alo. [Internet]. 2019 December 6. [cited 2020 August]. Available from: <https://en.prothomalo.com/bangladesh/Health-care-centres-not-ready-to-deliver-required>.
16. Childbirth in the car as she was not admitted to the hospital. Prothom Alo. [Internet]. 2020 April 7.
17. Deb B. Coronavirus test terminated as PCR machine malfunctions in Jamalpur. Dhaka Tribune. [Internet]. 2020 May 29. [cited 2020 August]. Available from: <https://www.dhakatribune.com/bangladesh/nation/2020/05/29/coronavirus-test-terminated-as-pcr-machine-malfunctions-in-jamalpur>.
18. Morol S. Over half of Bangladesh patients do not get proper treatment. Prothom Alo. [Internet]. 2019 November 8 [cited 2020 August]. Available from: <https://en.prothomalo.com/bangladesh/Half-of-the-patients-do-not-get-proper-treatment>.
19. Chowdhury M. The participation of the whole society is needed to deal with Corona. Prothom Alo. [Internet]. 2020 June 6. [cited 2020 August]. Available from: <https://www.prothomalo.com/bangladesh> (in Bangladesh).
20. Kabir F. Give us the cylinder, we will deliver oxygen. Prothom Alo. [Internet]. 2020 June 9. [cited 2020 August]. Available from: <https://www.prothomalo.com/bangladesh/> (in Bangladesh).

21. Morol S. Not enough researches in facing coronavirus in the country. Prothom Alo. [Internet]. 2020 September 20. [cited 2020 September]. Available from: <https://www.prothomalo.com/bangladesh/coronavirus/> (in Bangladesh).
22. Eskayef's Remivir is a ray of hope: Experts. Prothom Alo. [Internet]. 2020 May 11. [cited 2020 August]. Available from: <https://en.prothomalo.com/bangladesh/eskayefs-remivir-is-a-ray-of-hope-experts>.

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