Asian Culture and History; Vol. 15, No. 1; 2023
ISSN 1916-9655 E-ISSN 1916-9663
Published by Canadian Center of Science and Education

The Ethical Framework with COVID-19 and Challenges of Bangladesh Government: A Critical Discussion

Abdul Momen[1,2], Mansoureh Ebrahimi[2] & Ahmad Muhyuddin Hassan[2]

[1] Associate Professor, Dept. of Islamic History and Culture, Jagannath University, Dhaka, Bangladesh

[2] Academy of Islamic Civilization, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia

Correspondence: Abdul Momen, Associate Professor, Dept. of Islamic History and Culture, Jagannath University, Dhaka, Bangladesh, and Ph.D. Candidate, Academy of Islamic Civilization, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia.

Received: December 11, 2022 Accepted: February 2, 2023 Online Published: February 20, 2023

doi:10.5539/ach.v15n1p51 URL: https://doi.org/10.5539/ach.v15n1p51

Abstract

To control the spread of nCoV-2 (COVID-19), almost all countries are taking active non-therapeutic measures. COVID-19 has delivered to the fore the long-standing debates on ethics, public health ethics, and moral values. Human life is uncertain and threatened due to no medical invention generally to guard life against this dangerous virus by using social and community protection to be maintained as a safeguard. For affected individuals and fair dealings, ethics, ethical values, and morality are the sole force to dominate this case and are thought-about vital tools. Patients, their relatives, aid workers, policymakers, and the general public face ethical issues due to the pandemic. The foremost attentive ethical problems during this crisis area unit human rights, obligations for healthcare staff, and obligations of nations and intergovernmental organizations. Then, at that point, the test of moral qualities is a unit that has been addressed: the morals of segregation and social separation, the obligation of care of teammates with patients, and admittance to treatment when assets are restricted. This article will clarify the ethical framework and ethical values of the main tools in non-pharmacological and non-vaccine-related situations of this disease. It will provide a basic ethical framework to guide decision-makers at all levels in the preparation and response to COVID-19, with much attention paid to allocating scarce resources. Data was gathered and reviewed from secondary documents, observation, and previous studies such as articles and journals. Bangladesh, one of the foremost inhabited territories in this world, has an extreme challenge to implement mitigation measures for this extensive corruption and mismanagement problem. The findings of this study show that the various ethical aspects are the only power for managing COVID-19. An ethical framework that promotes trust-building and solidarity and guides decision-making can still be developed. This study will play a role in ethically combating this devastating COVID-19 pandemic and creating a model for the authority that will maintain ethical values in numerous segments of the department. This writing will also guide, by the notion of position, notions of trust, ethical behavior, and sensible decision-making and apply these ethical concerns to the present situations for the pandemic, and provide individuals ways to attach and facilitate every other.

Keywords: COVID-19, ethics, monitoring, values, preventive measures, challenges, Bangladesh

1. Introduction

This pandemic is the most severe global disaster in a generation, simultaneously affecting the entire world. On March 11, 2020, the WHO proclaimed the coronavirus, or COVID-19, outbreak a pandemic (Van der Schaar, 2020). In the closing months of 2019, the novel coronavirus SARS-CoV-2 arose in Wuhan Province, China, and has since spread to practically every country on the planet (Johns Hopkins University, 2020). The virus-COVID-19 causes a minor sickness in most infected people, especially those under 50 (Zunyou & Jennifer, 2020). The requirement for hospitalization and the risk of dying climb considerably after this age, nearing 30% and 10% in those with co-morbid diseases, respectively, in people over 80 years old (Ferguson, 2020). The world is concerned about enhancing the medical response to the pandemic in numerous ways, including aiding clinicians by automating elements of diagnosis, prioritizing healthcare resources, and increasing vaccine and medicine development in this dire situation. Coronavirus has brought long-standing discussions in morals, public

health ethics, and ethical values to the front. This pandemic presents moral difficulties for patients, their families, medical services laborers, policymakers, and society. The major mindful moral issues in this unbelievable emergency are fundamental freedoms, commitments of and to medical services laborers, and commitments of nations and intergovernmental associations. So, the challenges of ethical values are cross-examined in such regions: the morals of disconnection and social removing, medical services laborers' obligation of care to patients, and admittance to therapy when assets are restricted. In this COVID-19 circumstance, around the world, billions of individuals remain at home to limit the transmission of the infection. Bangladesh, a lower-centre pay country and one of the world's most populated regions, is grieved to battle the unfurling of the illness. Bangladesh has a high level of corruption, which has impacted relief distribution throughout the crisis, causing tremendous misery and sadness among the people. At the same time, corruption has harmed the government's ability to deliver food and other resources to those who need them the most, thus making the pandemic response ineffective. This study will outline the fundamental framework of ethical issues that should guide decision-makers at all levels as they prepare for and respond to COVID-19. This study uses qualitative content of the methodology, by which the researcher gathers evidence and formulates ideas from secondary documents, observation, and previous studies such as articles and journals and examines to explore and analyze the ethical concerns connected with the pandemic 19. This study will attempt to outline the fundamental framework of ethical issues that should guide decision-makers at all levels as they prepare for and respond to COVID-19 and present the various ethical aspects as the main weapons for managing this concerning atmosphere and how this power facilitates creating trust, solidarity, and guide decision-making for solving fairly in this situation. This write-up will explain the ethical challenges and policies of the Bangladesh government and analyze the corruption that the threat to use ethics during this great crisis. Analyzing these ethical frameworks, this article will provide recommendations on how the countries can preserve ethical values for controlling this covid-19 as vital tools.

2. The Nature of COVID-19 Pandemic

COVID-19 spreads from one person to another through the respiratory system when an infected person breathes, sneezes and coughs, and another contamination happens when the infection contains particles breathed out by a tainted person (Q & A., 2020). In December 2019, a novel genuine, intense respiratory condition COVID (SARS-CoV-2) was first restricted from three patients with pneumonia associated with the group of extreme respiratory disease cases from Wuhan, China. The hereditary examination uncovered that SARS-CoV-2 is firmly identified with SARS-CoV (ECDC, 2020). The World Health Organization awarded the authoritative names of COVID-19 and SARS-CoV-2 on February 11, 2020. WHO boss Tedros Adhanom Ghebreyesus clarified as CO for *corona*, VI for the *virus*, D for *disease* and 19 By the time the outbreak was first detected (December 31, 2019). The WHO also utilizes "the COVID-19 virus" and "the virus liable for COVID-19" in open communications (World Health Organization). According to a recent study, the virus's origin is still unknown. SARS-CoV-2, like SARS-CoV, uses angiotensin-converting enzyme 2 (ACE 2), a membrane exopeptidase, as its receptor for entry into human cells. The infection was first secluded from bronchoalveolar lavage liquid examples, and viral RNA was subsequently found in nasopharyngeal and throat swabs, just as serum (Wei-jie et al., 2019). Though the vaccine has been invented this is not the final solution. So, non-pharmaceutical interventions are being used to postpone and lessen the impact of the COVID-19 outbreak and is followed worldwide by some measures to control this virus. Such as Consciousness for travelling is very important to control and manage riskless travelling to the authorities and researchers (ECDC, 2019); for this, contact tracking and isolation rules are also followed (ECDC, 2020); Disease avoidance and control locally, few rules are winning in this condition. The utilization of individual defensive measures, for example, thorough hand cleanliness, cough etiquette, and face masks, can assist with diminishing the danger of communicating or securing SARS-CoV-2 diseases (ECDC, 2019); maintaining Social distancing is also considered as another vital measure in this pandemic; cautiously keeping up medical services settings-ECDC has distributed a specialized report on IPC for the consideration of patients with COVID-19 in medical care settings as well as specialized report on close to home defensive hardware needs in medical care settings for the consideration of patients with suspected or affirmed COVID-19 (ECDC, 2019); natural cleaning and ventilation purification is another keeping up the issue for this COVID-19. Such: as rooms, public workplaces, transports, schools, etc., where COVID-19-affirmed cases have been prior to being analyzed (ECDC, 2020); Lock-downs are another tool for controlling Coronavirus (Wilder-Smith et al., 2020); the utilization of segregation and quarantine, isolate of gatherings, working isolation, local area wide continue as essential general well-being intercession devices in this pandemic due to their capacity to restrict the spread of illness; and to expand the advantages of this conduct, such measures should be arranged and established from the start of a pandemic.

3. The Ethical Aspects Connected with COVID-19

Ethics, coming from the Greek term ethos, means habit, character, custom, or disposition. It is a game plan of sound principles, the rules of direct apparent as to a particular class of human exercises or gathering, culture, etc. It is concerned with what is good for individuals and society. It underwrites what individuals ought to do, generally to the extent of rights, responsibilities, and benefits to society, sensibility, or express strengths (Markkula Center). Ethics is likewise called the moral way of thinking, the control stressed over what is morally worthy and horrible and tremendous and awful. The term is used for any structure or speculation about outstanding characteristics or principles.

The terms ethics and moral quality are eagerly related. The World is facing a devastating situation from COVID-19. Human life exited with uncertainty and threat because of no medical invention, in general, to protect life from this dangerous virus. Only social and community protection is maintained as a safeguard. So, ethics, ethical values and morality are a soul force for controlling this situation. Below, ethical frameworks, basic principles and moral considerations in this pandemic situation are discussed.

Public health ethics and healthcare are most important in this COVID-19 period. On the other hand, data ethics, in particular, autonomy, justice, non-malfeasance, privacy, and solidarity, are the more considerable ground of ethical values (Mello & Wang, 2020). Based on these moral qualities, there are some moral standards like equity, helpfulness, utility, regard for people, freedom, correspondence, fortitude, and a reasonable portion of scant assets during this COVID-19 episode.

General well-being emergencies are that well-being needs overpower accessible human and material assets. Risk assessment decisions should be made regarding allocating resources to which individuals and where and when. Clinical science gives critical information to help make these decisions; in any event, science alone is deficient. As specific scientists have raised, pandemic masterminding needs to treat moral thoughts fittingly and not grant the criticality of vital and coherent prerequisites to slide line the ethical perspectives (Zoloth L., & Zoloth S., 2006). It is vital to make these presumptions clear because the expenses of not considering moral ethics are intense, like loss of public trust and clinic workforce's confidence, disarray around jobs and duties, criticism of weak networks, and falsehood (Thompson et al., 2006). Fairness is another vital issue during this situation. A few moral standards bear on the conviction of the objectives and standards imagined on top of and serve to tell clinical application, for example:

3.1 Utilitarianism

Utilitarianism's prevalence implies delivering the most excellent satisfaction for the most significant number of individuals and regarding a general well-being emergency, enveloping over the slimly considered boosting the mathematical number of people who can get by to clinic release. Nonetheless, widely acknowledged, the practical guideline could likewise be all through a general well-being crisis; it cannot remain all alone. Morally, abuse exclusively affects the likelihood of endurance to medical clinic release is timid because it lays on a thin origination of achieving the best sensible (White et al., 2009).

3.2 Justice

This standard recognizes no specific regard wherein approaches should be dealt with similarly and gives no measures to decide if at least two people are equivalent. All records of justice in medical care hold that conveying projects and administrations intended to help people of a specific class, like poor people, the old, or the disabled, should have accessibility to all individuals from that class. To deny advantages to some when others in a similar class get benefits is unjust (Beauchamp & Childress, 2009). A legitimate agreement and practice of equity guarantees that people be dealt with genuinely, that weak populaces are ensured, and that every individual is dealt with.

3.3 Autonomy

At its center, individual "self-rule" is liberated from impedance and control by others and from specific impediments as a deficient arrangement that would deny an individual the capacity to settle on significant decisions about his/her life. Moreover, a cycle of addressing, engaging, and overhauling freedom-restricting measures ought to be set up and available when the degree of desperation during an emergency makes this sensible (Kinlaw at el., 2009).

3.4 Human Dignity

The quintessence of regard for human nobility is that every person is essential. Human respect clarifies that our infinite worth as people is not found in any value allowed by others. If equity is at the heart of medication's work,

a careful comprehension of and regard for human respect is its driving force and extreme measure.

3.5 Common Good

The benefit of everyone suggests that singular residents and middle-of-the-road bunches are committed to making their particular commitments to basic welfare (DePergola, 2020). Healthcare associations are resolved to serve the benefit of all of society.

3.6 Providing Care

The commitment to yield care is vital to the clinical profession and essential to its actual pith. Even so, it is anything but a limitless commitment on account of COVID-19; we should likewise think about the issue of openness to irresistible infections. Clinicians should consider the danger to their well-being and, in this way, the soundness of their families. This danger, which is acknowledged as an outcome of an unreservedly picked profession, is a central motivation behind why they ought to get needed in the dispersion of preventives, like antibodies (DePergola, 2020).

3.7 Protecting the Public from Harm

The fundamental rule of general well-being morals guarantees to shield general society from the actual damage. This rule expects residents to follow limitations forced to guarantee government assistance or public well-being (Thompson et al., 2006).

3.8 Community Involvement

Another worry is the requirement for local area inclusion and straightforwardness during the time spent in good thought. The inclusion of different voices in COVID-19 arranging and in making a straightforward procedure for dynamic is fundamental. A harmony between incorporated government control and state and nearby local area execution of focal rules should be viably struck (Kinlaw at el., 2009).

3.9 Assigning Treatment Priority

Focusing on those with the best number of years in front of them, which favors long-haul endurance possibilities and more youthful people and another is the life-cycle, or “fair innings”, contention, which proposes that we favor the individuals who have not yet had the chance to carry on with through life’s stages (Kinlaw et al., 2009). This would prompt perpetual contention about what jobs are fundamental, would be challenging to decide and apply decently, would successfully minimize those whose “social worth” is immaterial, and would be counterproductive to public trust. Even after moral rules have been explained, there will be much space for doctor judgment and carefulness. A few moral qualities for the COVID-19 pandemic are likewise more significantly applicable. For example, Inclusiveness for the dynamic interaction, receptiveness and transparency (Daniels, 2000); reasonableness, implies the choices ought to be founded on reasons (i.e., proof, standards, values); responsiveness, implies that there ought to be freedoms to return to and change choices as new data arises all throughout the emergency just as systems to address debates and grumblings; value the guideline of value holds that, taking everything into account, all patients have an equivalent case to obtain required medical services; security people reserve a privilege of protection in medical care; A proportionate reaction to the requirement for private data necessitates that it be delivered just if there are no less nosy intends to secure general well-being (Thompson et al., 2006); proportionality, it necessitates that limitations of singular freedom and measures taken to shield people in general from hurt; reciprocity, it obviates that society upholds the individuals who face a lopsided weight in securing the public at large and finds a way to limit the widespread effect; fortitude- Coronavirus has elevated the overall thoughtfulness regarding the relationship of prosperity systems and the prerequisite for courage across central and institutional cutoff points in stemming an authentic irresistible sickness.

It advances moral qualities for Good, open, and fair correspondence; open cooperation, in a feeling of basic reason, inside and between medical care foundations; Sharing general well-being data; Coordinating medical services conveyance, movement of patients, and arrangement of human and material assets; Stewardship - the two establishments and people will be depended on the administration over scant assets, like immunizations, antiviral, ventilators, clinic beds, and even medical services laborers. During a COVID-19 eruption, irksome decisions about conveying material and human wealth ought to be made, and there will be blowback due to these assignment decisions. Those dependent on associated occupations ought to be guided by the chance of stewardship. Characteristics in stewardship are the musings of trust, moral direction, and extraordinary dynamics. Trust is a fundamental part of the connection between doctors and patients, employees and associations, ordinary people and medical providers, and associations in the wellness framework.

4. Policies and Ethical Challenges of Bangladesh Government for COVID-19

Bangladesh has followed a similar path to combat the spread of nCoV-2; practically every country has taken active non-therapeutic measures. Nevertheless, there is an ongoing dispute about whether the policies have been implemented correctly and effectively. On March 7, the state announced the first case of COVID-19 on its soil (Perera, 2020). Even so, there have been concerns that more testing examinations must be conducted, allowing numerous instances to go unreported within the country. In light of the development of the infection, Bangladesh avowedly diminished global flights, compulsory warm scanner checking, and shut down schools; in any case, workplaces kept up their standard timetables till March 26. However, mismanagement, half-baked policies and widespread corruption created a more significant threat that destroyed ethical values in Bangladesh. It is mentioned below.

4.1 Failure to Manage Travelers

In the early stages of the pandemic (March, 2020), the nation prohibited all return departures from Europe except for the UK. However, specialists permitted departures from Europe to land at the air terminal (Javed, 2020). Subsequently, over 631 thousand individuals entered the country in the first 55 days from January 21 (Molla, 2020). Despite the Institute of Epidemiology, Disease Control and Research (IEDCR) asserting that it endeavored to test every single person who entered the country, there has been a severe examination of the testing work environments inside the ports of the region (Sujan & Hasan, 2020). Starting on March 16, the nation forced a 14-day mandatory isolation period on any or all explorers who made their way into the territory (Maswood & Chowdhury, 2020). It attempted to transport explorers returning from Italy—at the time, another place of convergence of the pandemic—to a separate location that was highly denounced because there was no action plan.

In addition, the 14 days of self-separation allowed travelers to enter the country. From that point forward, numerous ostracized from COVID-19-influenced nations were seen in the city and social affairs—venturing out to traveler locales and meeting with loved ones (Dhaka Tribune, 2020). On March 19, the nation sent soldiers to screen two remote offices in the Bangladeshi capital (bdnews24, 2020). Later, the govt. restricted all political, social, and restricted meetings and get-togethers inside the country (bdnews24, 2020). in any case, during this emergency, the nation saw casting a ballot in 3 bodies electorate, any place people needed to go to the democratic focus no holds barred to lodge their votes. At the same time, the Ministry of Health stated that nCoV-2 has spread to local transmission levels (Chowdhury, 2020).

4.2 Severe Shortage of Testing Kits

In response to the internal crisis, the country has obtained some test kits, personal protective equipment, masks and infrared thermometers from China. However, this number can only cover a small part of the country's real needs (Chowdhury, 2020). At the same time, using the quick speck smudge procedure, a local health agency, Ganashystha Kendra, guaranteed that it had fostered a testing unit which would notice nCoV-2 out of a few minutes for just BDT 350 (The Daily Star, 2020). Despite the reality that a few advisors scrutinized the viability of the strategy utilized in the Kits, the office is accounted to have acquired government endorsement to import crude materials for large-scale manufacturing of the kits. It should have referenced a truly comparative quick testing pack created and showcased by a Canadian organization, that received approval in some Asian and European countries but was rejected by Canadian health experts because it should fabricate a high pace of bogus negative results (CBC News, 2020).

4.3 Lockdown Failure

On March 25, Bangladesh announced social control of lockdown from March 26 for ten days. After the implementation of this detention order, water, rail, and air travel will be prohibited, and street transportation will be suspended. All insignificant associations, organizations, and the educational foundation's region unit shut, aside from drug stores, food supplies, and diverse ineluctable necessities. After being affirmed, the main urban areas, especially the people of Dhaka, began to leave the city in various ways that, along with stuffed public vehicle administrations, with a danger of procuring COVID-19 and infringing upon the govt. headings.

4.4 Loose Maintaining of Social Distance

Initially, the government did not implement any strict regulations, and Millions of people came to the streets, particularly in Dhaka, which has 46 thousand inhabitants per square kilometer (BBS, 2015). It seems complicated to maintain social distancing when travelling by public transport and living in slums. Dhaka is the capital of the People's Republic of Bangladesh, and there are approximately 1.1 million slum dwellers (BBS, 2015). They battle for their lodging and food, and every 10–16 families approach only one restroom/latrine, any place there is no standard inventory of water (Latif et al., 2016).

4.5 Lack of Testing Facilities

In the first three weeks of the detection of the first case of COVID-19 in Bangladesh, IEDCR was the only diagnostic agency in the state with a population of 180 million, so the rate of daily testing was lower to 100 times a day (Dhaka Tribune, 2020). The centralization of COVID-19 demonstrative offices is somewhat sensible because most medical clinics do not have adequate personal protective equipment (PPE). Due to the lack of PPE and the inability to perform diagnostic tests, dread and nervousness surged among the mass populace, and many of the medical care staff would not offer any support. Confronted with numerous reactions from various divisions, National health professionals planned to increase the number of tests from April. On April 11, 2020, 17 research institutes nationwide were effectively trying for conceivable COVID-19 cases (Rana & Sakka, 2020). Bangladesh's health system relies on approximately 100,000 registered doctors. If compared with the size of the population, these few doctors cannot provide care services due to the lack of access to personal protective equipment, this may have conceivably cataclysmic results. More experts and specialists were dispatched to the detachment, and many tested positive for COVID-19 (Foyez, 2020).

4.6 Inadequate Resources

With no compelling, helpful courses for COVID-19, lockdown may be the most well-known measure to alleviate the circumstance (Lau et al., 2020). Even in Bangladesh, in any spot, a critical degree of the people lives on a shoestring budget, the blockade is unquestionably impossible. This is generally a problem that needs to be resolved when the government describes a closure or emergency that lasts two weeks or more. So far, the country has only organized 112 hospital beds for COVID-19 patients nationwide (Maswood, 2020). The government needs more resources to deal with this situation.

4.7 Mental Stress

Dread and uneasiness concerning the pandemic are causing overpowering pressure for everybody (Cao et al., 2020); while getting blended messages accumulates the pressure, sharing the significant realities and understanding the specific danger decreases the strain. In addition, this assists the specialists with masterminding and better dealing with the emergency. Social campaigners, members of the Information superhighway and news media, and political trailblazers should take the risk of helping the masses of Bangladesh to spread the logical truth about nCoV-2 and COVID-19. Considering the high rate of lack of education among the slum and country populace, the scattering of essential data identified with COVID-19 will be the way to get a handle on the spread of the infection (Zhong et al., 2020). Even so, the public authority has no correct strategy.

5. Government Policy, Corruption and Lose of Ethical Values

From 2001 to 2005, Bangladesh was named the most corrupt country in Transparency International's Corruption Perceptions Index. It is, as of now, evaluated the fourteenth most degenerate country. The lockdown under COVID-19 brings different difficulties that can have long-lasting economic consequences and a significant effect on the metropolitan poor.

As of December 18, 2020, Bangladesh has recorded more than 427,000 cases and 6,140 deaths. It can be calculated that due to the ongoing epidemic, almost 50 million Bangladeshis are at risk of falling into poverty (East Asia Forum, 2020). On March 26, when the government introduced a mandatory 75% public shutdown across the country, 13 million people were suddenly unemployed. Due to a lack of earnings and financial protection walls, the urban poor suffered the most. Most social protection programs have typically been targeted to alleviate poverty in rural areas. Then again, the public authority dispensed Tk. 200 billion in credits for the house, Micro, little and Medium Enterprises (CMSMEs) in the 2021 budget. Due to a lack of guarantees for the legitimacy of their operations, Poor and informal urban workers may need help to resolve issues. Furthermore, query, so this loan plan cannot be obtained. What is more, regardless of the government donated Approximately 11 billion US Dollars to the Social Security fund, which benefits the regions' needy rather than the cities' impoverished.

The measures to mitigate the spread of COVID-19 have affected the global food supply chain. In Bangladesh, the state conducted a unique Open Market Sales (OMS) during the COVID-19 lockdown operation on April 6. The initiative offered rice for as little as approximately usd0.12 per kilogram, but desperate people are attacking relief convoys. Others who begged for food assistance were also attacked, as were a few journalists who covered the misuse of food supplies (East Asia Forum, 2020).

At the end of April, the administration claimed that 35 million individuals had received food aid and that money was being transferred to another 15 million inhabitants. On May 14, the government handed $30 to 5 million underprivileged households using mobile payment ways such as bKash, Rocket, Nagad, and Sure Cash (East Asia Forum, 2020). The government chose these participants with the support of local councils and electoral agents.

However, the selection procedure needed to be more transparent, and a few middle-class members of the ruling coalition also gained. Every impacted household, intended to be the program's benefactors, had to spend additional bribes of Tk220 to get the prime minister's money relief of Tk. 2,500. Vested quarters included the money offers list comprising the names of about 3,000 state workers and 7,000 veterans. Furthermore, 300,000 names were encircled twice (Dhaka Tribune, 2020). Regardless of the public authority's reasonable goals in giving energizer bundles to poor people, it needed to resolve issues identifying with straightforwardness and responsibility.

Due to this pandemic, Bangladesh healthcare industry is riddled with corruption; this turmoil has opened up new avenues for corruption inside the state, in line with a Transparency International Bangladesh (TIB) assessment (Dhaka Tribune, 2020). Anomalies and debasement diminished trust in well-being areas and emergencies in directing research center checks, providing nursing services, and distributing relief to those affected by the economy continue, as shown in a study headed 'Governance challenges in tackling Coronavirus'. This investigation discovered that a tendency to promote self-preferences using anomalies in aid and reward programs prevails, denying the sector's naturally afflicted populations (TIB, 2020). The study likewise found that there was an inclination to shroud anomalies, debasement and the executives by forcing limitations in uncovering data.

Disparity inside the payment of the incitement bundle, like the govt. declared TK 111,141 core in twenty improvement bundles to absorb the monetary stun; nonetheless, up until now, exclusively 26 items have been paid. The Ministry of Health, and during the global epidemic, the management failed synchronization. Several national and regional groups were formed but needed to work together (TIB, 2020). The health sector Syndicates another threat of falling ethical values during this pandemic. It comprises a segment official of the Health Ministry, DGHS, CMSD, ACC, and a couple of senior officials of different clinics controlled all acquisitions inside the well-being area (TIB, 2020).

There is no doubt that the virus testing facility violates the code of ethics. The helped beneficiaries should additionally pay money for the test. They must pay most of TK 3200 in government-run labs and most of TK 7650 simply if private labs arise. On average, the help beneficiaries are required to pay bribes of TK 946 to urge relevant personnel to provide serial numbers in advance for sample testing. Alternatives to smuggling corruption and anomalies in medical care include carelessness, the absence of medical experts, and the supply of poor-quality personal protective equipment (Dhaka Tribune, 2020).

The fact that the government did not send the correct information to people and interact with them to prevent the spread of the virus was combined with the lack of skills of officials from the Ministry of Health and the General Administration of Health Services. They refused to allow patients and selected persons in the COVID-19 facility to enter the hospital. Regent Hospital hoarded features when the fast Action Battalion (RAB)-11 (armed force of Bangladesh) uncovered the anomalies, just as the obscure business of providing counterfeit COVID-19 endorsements and undue advantages delighted in by its proprietor owing to his political clout. Following the illegal behavior of fake N95 masks provided by companies favored by government officials and Regent's sabotage of virus testing scams, more such scams have emerged. Then again, JKG Healthcare (other personal healthcare) was arrested for providing false coronavirus inspection reports (Dhaka Tribune, 2020).

The corruption of the COVID-19 emergency project funded by the World Bank is one uninterrupted aggression after another. However, action has yet to be taken to resolve the dismissal of the project director. Auto parts distributors, clothing distributors, and electronic product distributors obtained agreements with DGHS to deliver medical products involving millions of dollars in cash. Therefore, most provisions conveyed defective items, while specific just made fortunes action counterfeited things by giving less than the amount referenced inside the contract.

After the COVID-19 outbreak, the mismanagement of the country's health department was exposed, one after another. Lack of coordination has always been one of the most critical challenges in restoring moral values. Another deteriorating ethical value is illegally capturing food items for the poor. During the COVID-19 shutdown in Bangladesh, dozens of local politicians from the ruling Awami League and the local administration were jailed on suspicions of corruption and theft of food provided for the poor (UCA News reporter, 2020). An often-overlooked factor in crisis management is the need for better governance in many developing countries. Coronavirus has been no exception. Poor governance and slow decision-making will take a great deal of the fault for the gigantic human and financial setbacks of the pandemic in nations worldwide (APPS, 2020). Nevertheless, in Bangladesh, all parts of morals and virtues are powerless for the blunder and huge defilement.

6. Advanced Policy and Present Condition of Bangladesh

The government of Bangladesh has taken several steps to combat COVID-19 transmission among Bangladeshis, including evacuation orders, transport and arrival regulations; social alienating policies; competing falsehoods;

closing down schools, colleges, universities, and all kinds of academic institutions; halting mass automobiles; and eventually enforcing a crackdown on Dhaka city and then the other localities progressively on the grounds of COVID-19 transmission; securing that COVID-19 patients are tested and treated in government and private hospitals and health centers across the state; recognizing and blocking the homes of returnees from overseas; launching the armed force, as well as police and other enforcement agencies; supplying relief items to the jobless workers during the lockdown; confirming the lockdown; launching the armed force, as well as police and other enforcement agencies; confirming the garment factories, declaring the symptomatic relief of bank interest during the lockdown; offering daily necessities at low prices by TCB; leading mobile trials to maintain market cost controls as regular; and giving rice to the distressed and poor people with 10 TK/kg of rice, asking the moneyed men to help the poor; needy people during the lockdown, etc. are mentionable (Islam et al., 2020a).

The non-government's food and other necessities are provided to the poverty-stricken by private agencies, merchants, politicians, and social workers. In addition, some entrepreneurs were discovered to have donated to Bangladesh's Prime Minister's office. Actions by the World Health Organization to monitor the COVID-19 situation in Bangladesh are ongoing. A joint effort by the WHO and the Bangladeshi government is being made to restrict the spread of COVID-19 infection and transmission. As of this writing, they have provided eleven papers on the current COVID-19 spread in Bangladesh. According to the Institute of Epidemiology, Disease Control and Research (IEDCR), on May 4, 2020, in Bangladesh, there were 10,143 verified COVID-19 infections, including 182 deaths; the Case Fatality Rate (CFR) was 1.79 per cent. Prior to eliminating limitations, each country must achieve six requirements set forth by the World Health Organization (Islam et al., 2020b). These are criteria that any country should use to keep the transmission of COVID-19 low and at manageable levels.

However, even if this country has not entirely gone "digital," it is crucial in the fight against this virus. Even the most isolated parts of the world can benefit from virtual technology like telemedicine, which can help people become more aware of their surroundings (Vaishya et al., 2020). In Bangladesh, various official and non-government broadcast media and social networking sites have been used to raise public awareness and prevent the transmission of COVID-19. On television and Facebook live programs, specialists, qualified doctors, and health professionals explained the dangers of this severe disease. They also trained the public on preventing the disease's spread through proper adherence to public health guidelines. Video broadcasting is another virtual technology used in Bangladesh to combat the COVID-19 outbreak. The government and agencies like UNICEF have made videos advising people how to avoid the spread of the coronavirus. A virtual court was set up in Bangladesh to circumvent the transfer of COVID-19.

Meanwhile, the Ministry of Education urged academic institutions to pursue adopting virtual technologies. The IEDCR and the Ministry of Health and Family Planning often use video conferencing to inform the public of newly COVID-19-positive patients and death tolls. The Prime Minister of Bangladesh is actively monitoring the COVID-19 pandemic situation and has advised the Ministry of Health, district officials, and other government representatives to carry out the government's measures to prevent coronavirus infection in the country via video conference, as well as better coordination among the standing committee formed to overcome the virus (Table 1).

Table 1. Pillar-based coordination for COVID-19

Technical pillar	Link with core committee
Planning, coordination and response strategy	Coordination committee
Surveillance and laboratory support	Committee on COVID-19 Lab testing, quality, pricing and supervision at government and private levels
Contact tracing and mitigating community transmission	Committee for advising and applying zoning system in high risk areas for COVID-19 containment
Points of entry and quarantine	Committee for advising and applying zoning system in highrisk areas for COVID-19 containment
Infection prevention and control	Committee for infection prevention and control at hospital, laboratory, and environment
COVID-19 case management including telemedicine	Committee for clinical guideline and treatment management; and Committee on strengthening healthcare capacity of public and private hospitals
Ensuring essential health, population and nutrition services delivery while responding to COVID-19	Committee for essential and routine health and nutrition services; and Committee for maternal and child healthcare
Procurement, logistics and supply management	Committee on strengthening healthcare capacity of public and private hospitals
Risk communication and community engagement	Committee on information management, mass communication and community mobilization
Research	All core committees

Source: Government of the People's Republic of Bangladesh (2020).

After recording the initial three deaths on March 18, 2020, Bangladesh achieved zero single-day deaths several times in March and April of last year. COVID-19 infections and deaths have decreased dramatically in Bangladesh in recent months as vaccination rates have increased. Bangladesh began distributing vaccines in January of the year (2021). In Bangladesh, the COVID-19 death rate is currently 1.78%, with a cure rate of 97.72 % (*The Xinhua*, 2021). Table 2 explains the better condition of COVID-19 in Bangladesh.

Table 2. COVID-19 situation by country

Name of Countries	Cases-cumulative total	Cases- newly reported in last 7 days (30 Apr-5 May, 2022)	Deaths-cumulative total	Deaths- newly reported in last 7 days (30 Apr-5 May, 2022)	Total vaccine doses administered per 100 population	Persons fully vaccinated with last dose of primary series per 100 population	Persons Boosted per 100 population
USA	83,551,386	698,712	998,070	1849	173.84	65.93	30.49
China	3,184,961	559,151	17,127	869	241.16	89.76	52.43
Italy	17,457,950	122,882	166,835	464	228.4	79.57	66.81
France	28,687,573	126,033	145,123	318	219.2	78.39	59.15
Malaysia	4,510,196	11,139	35,680	24	218.99	83.54	49.72
India	43,168,585	21,055	524,651	112	141.46	64.52	3.76
Pakistan	1,530,453	387	30,379		116.03	55	3.52
Sri Lanka	663,845	41	16,518	4	184.77	67.76	37.28
Nepal	979,182	69	11,952		158.91	68.06	14.03
Bangladesh	1,953,563	207	29,131	1	158.7	71.39	9.13

Source: World Health Organization (2022).

7. Conclusion

Toward the end, tools of ethical values are the main driving force in this distractive condition of the world. A global ethical response needs to pay attention to the needs of all people, regardless of their legal status in each country. Reliable associations like the World Health Organization must take international monitoring measures to ensure that outcasts, immigrants and explorers among countries have access to medical services (WHO, 2007). Extreme general well-being measures ought to be acquainted with contains the spread of the infection. Besides, the public authority and general well-being authorities have made it clear their goal to wish to help individuals instead of rebuffing them. The COVID-19 pandemic is a worldwide catastrophe that uncovered fundamental social factors in our networks. A relationship ethics approach that emphasizes unity, connectivity, transparency, and trust provides the best guidance on how to deal with crises ethically (Jeffrey, 2017). Moral systems that assist in fabricating trust, fortitude, and guided dynamic will keep developing. Fiascoes can uncover stores of human fortitude and consideration amid misfortune and agony. Bangladesh, as a lower-centre paid country and one of the first occupied nations in the world, has varied limitations in confining the unfolding virus. With this limitation and inadequate resources, the government should introduce the correct steps to use lockdown, public interest, demand, and boost testing and care facilities. It is to make sure a relentless offer of PPE for care employees. Applying these ethical considerations to the current scenarios for the pandemic, people will find ways to connect and help each other. Above mentioned recommendation made and convenient measures taken, with appropriate coordination, may assist the country in battling the deadly infection morally. The State alone cannot alleviate this situation; singular endeavors from the residents, direct association of the country's general well-being specialists, strict pioneers, fundamental freedoms laborer and global assistance are earnestly required. Authority should take strong measures to control corruption. Then they will be successful in human rights, health care services, and health care workers, successfully maintaining intergovernmental organizations and preserving public trust, as well as fair distribution of resources in this critical moment and in the future.

References

Asia and the Pacific Policy Society (APPS). (8 August, 2020). *Pandemic insights from Bangladesh-A country in crisis.* Retrieved from https://www.boisestate.edu/news/2020/08/05/saleh-ahmed-publishes-pandemic-insights-from-bangladesh-a-country-in-crisis/

Bangladesh Bureau of Statistics (ABS). (2015). *Population and Housing Census 2011 – National volume 2: Union Statistics. Dhaka*. Retrieved from http://www.bbs.gov.bd/WebTestApplication/userfiles/Image/National Reports/Union Statistics.pdf

Bangladesh Bureau of Statistics (ABS). (2015). *Slum Census and Floating population 2014*. Retrieved from http://203.112.218.65:8008/WebTestApplication/userfiles/Image/Slum/FloatingPopulation2014.pdf

bdnews24.com. (20 March, 2020). *Army to Run Coronavirus Quarantine Units in Dhaka's Ashkona, Diabari*. Retrieved from https://bdnews24.com/bangladesh/2020/03/20/army-to-run-coronavirus-quarantine-units-in-dhakas-ashkona-diabari

bdnews24.com. (20 March, 2020). *Bangladesh to Ban All Rallies After Coronavirus Advice Defied*. Retrieved from https://bdnews24.com/bangladesh/2020/03/20/bangladesh-to-ban-all-rallies-after-coronavirus-advice-defied

Beauchamp, T. L., & Childress, J. F. (2009). *Principles of Biomedical Ethics* (6th ed.) New York: Oxford University Press. P. 342.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J. et al. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res., 287*, 112934. https://doi.org/10.1016/j.psychres.2020.112934

CBC News. (11 April, 2020). *Canada Refuses to Approve Rapid Coronavirus Blood Test*. Retrieved from https://www.cbc.ca/player/play/1722212931886

Chowdhury, S. I. (2020). *China to Give Bangladesh Testing Kits, Protective Gears.* Retrieved from https://www.newagebd.net/article/102576/china-to-give-bangladesh-testing-kits-protective-gears

Chowdhury, T. (2020). *Fears Grow Over Bangladesh's COVID-19 Response.* Retrieved from https://www.aljazeera.com/videos/2020/3/23/fears-grow-over-bangladeshs-covid-19-response

Daniels, N. (2000). Accountability for reasonableness: Establishing a fair process for priority setting is easier than agreeing on principles. *BMJ: British Medical Journal, 321*(7272), 1300-1301. https://doi.org/10.1136/bmj.321.7272.1300

DePergola, P. A. (2020). Ethical Guidelines for the Treatment of Patients with Suspected or Confirmed Novel Coronavirus Disease (COVID-19). *Online Journal of Health Ethics, 16*(1). https://doi.org/10.18785/ojhe.1601.04

Dhaka Tribune. (10 November, 2020). *Report TB: Covid-19 exposed, created opportunities for corruption.* Retrieved from https://archive.dhakatribune.com/bangladesh/corruption/2020/11/10/tib-covid-19-exposed-created-opportunities-for-corruption

Dhaka Tribune. (19 March, 2020). *Coronavirus: Overseas returnees roaming around violating govt. directive, hundreds fined.* Retrieved from https://archive.dhakatribune.com/bangladesh/nation/2020/03/19/expats-roaming-around-in-quarantine-hundreds-fined-over-a-million-taka

Dhaka Tribune. (3 April, 2020). *Bangladesh Expands Covid-19 Testing.* Retrieved from https://archive.dhakatribune.com/bangladesh/2020/04/03/bangladesh-expands-covid-19-testing

East Asia Forum. (13 November 2020). *Economics, Politics and Public Policy in East Asia and the Pacific Corruption complicates Bangladesh's fight against COVID-19.* Retrieved from https://www.eastasiaforum.org/2020/11/13/corruption-complicates-bangladeshs-fight-against-covid-19/

European Centre for Disease Prevention and Control (ECDC). (14 February 2020). *Risk assessment: Outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): Increased transmission beyond China – fourth update.* Retrieved from https://www.ecdc.europa.eu/en/publications-data/outbreak-severe-acute-respiratory-syndrome-coronavirus-2-sars-cov-2-increased

European Centre for Disease Prevention and Control (ECDC). (24 September 2020). *Guidelines for the implementation of non-pharmaceutical interventions against COVID-19.* Retrieved from https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-guidelines-non-pharmaceutical-interventions-september-2020.pdf

European Centre for Disease Prevention and Control (ECDC). (28 October 2021). *Contact tracing in the European Union: public health management of persons, including healthcare workers, who have had contact with COVID-19 cases – fourth update.* Retrieved from

https://www.ecdc.europa.eu/en/covid-19-contact-tracing-public-health-management

European Centre for Disease Prevention and Control (ECDC). Infection prevention and control for the care of patients with 2019-nCoV in healthcare settings. (2 February 2020). Retrieved from https://www.ecdc.europa.eu/sites/default/files/documents/nove-coronavirus-infection-prevention-control-patients-healthcare-settings.pdf

European Centre for Disease Prevention and Control (ECDC). Interim guidance for environmental cleaning in non-healthcare facilities exposed to 2019-nCoV. (2 February 2020). Retrieved from https://www.ecdc.europa.eu/sites/default/files/documents/novel-coronavirus-guidance-environmental-cleaning-non-healthcare-facilities.pdf

Ferguson, N. M. et al. (2020). *Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand.* Retrieved from https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-NPI-modelling-16-03-2020.pdf. DOI: https://doi.org/10.25561/77482

Foyez, A. (12 April 2020). *Over 20 doctors, many health workers infected in Bangladesh.* Retrieved from https://www.newagebd.net/article/104235/over-20-doctors-many-health-workers-infected-in-bangladesh

Government of the People's Republic of Bangladesh. (July 2020). Bangladesh Preparedness and Response Plan for COVID-19, Health Services Division Ministry of Health & Family Welfare.

Islam, M. K., Ali, S., Akanda, S. Z. R., Rahman, S., Kamruzzaman, A. H. M. et al. (2020b). COVID-19 Pandemic and Level of Responses in Bangladesh. *International Journal of Rare Diseases and Disorders, 3*, 019. https://doi.org/10.23937/2643-4571/1710019

Islam, M. T., Talukder, A. K., Siddiqui, M. N., & Islam, T. (2020a). Tackling the COVID-19 pandemic: The Bangladesh Perspective. *Journal of Public Health Research, 9*(4), 1794. https://doi.org/10.4081/jphr.2020.1794

Javed, H. A. (2020). *Passengers From Europe Land in Dhaka Despite Ban.* Retrieved from https://archive.dhakatribune.com/bangladesh/dhaka/2020/03/16/defying-bar-european-flight-lands-in-dhaka

Jeffrey, D. (2017). Communicating with a human voice: Developing a relational model of empathy. *J R Coll Physicians Edinb, 47*(3), 266-270. https://doi.org/10.4997/jrcpe.2017.312

Johns Hopkins University. (2020). *Coronavirus Resource Center 2020.* Retrieved from https://coronavirus.jhu.edu/map.html

Kinlaw, K. at el. (2009). Ethical Guidelines in Pandemic Influenza: Recommendations of the Ethics Subcommittee of the Advisory Committee of the Director, Centers for Disease Control and Prevention. *Disaster Medicine and Public Health Preparedness, 3*(S2), S185-S192. https://doi.org/10.1097/DMP.0b013e3181ac194f

Latif, M. B., Irin, A., & Ferdaus, J. (2016). Socio-economic and health status of slum dwellers of the Kalyanpur slum in Dhaka city. *Bangladesh Journal of Scientific Research, 29*, 73-83. https://doi.org/10.3329/bjsr.v29i1.29760

Lau, H., Khosrawipour, V., Kocbach, P., Mikolajczyk, A., Schubert, J., Bania, J. et al. (2020). The positive impact of lockdown in Wuhan on containing the COVID-19 outbreak in China. *Journal of Travel Medicine*. https://doi.org/10.1093/jtm/taaa037

Markkula Center, for applied ethics. Retrieved from https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/what-is-ethics/

Maswood, M. H. (2020). *Only 112 ICU beds for coronavirus patients in Bangladesh: Lack of treatment preparations may spell disaster.* Retrieved from https://www.newagebd.net/article/104016/only-112-icu-beds-for-coronavirus-patients-in-bangladesh

Maswood, M. H., & Chowdhury, S. I. (2020). *Bangladesh Bans Travellers' Entry from Europe*. Retrieved from https://www.newagebd.net/article/102202/bangladesh-bans-travellers-entry-from-europe

Mello, B., & Wang, C. (2020). Ethics and governance for digital disease surveillance. *Science, 368*, 951-54. https://doi.org/10.1126/science.abb9045

Molla, M. A. M. (2020). Govt. now scrambles for testing kits, PPE. *The Daily Star.* Retrieved from https://www.thedailystar.net/frontpage/news/govt-now-scrambles-testing-kits-ppe-1882633

Perera, W. (2020). *Bangladesh government downplays COVID-19 threat as job losses mount*. Retrieved from https://www.wsws.org/en/articles/2020/03/16/bang-m16.html

Rana, B. J., & Sakka, H. E. (07 April, 2020). *WHO-BAN. COVID-19 Situation Report No. #6*. Retrieved from https://www.who.int/docs/default-source/searo/bangladesh/covid-19-who-bangladesh-situation-reports/who-ban-covid-19-sitrep-06.pdf?sfvrsn=36254da0_6

Sujan, M. A., & Hasan, R. (2020). Coronavirus Outbreak: Screening Still Lax at Dhaka airport. *The Daily Star.* Retrieved from https://www.thedailystar.net/frontpage/news/coronavirus-outbreak-screening-still-lax-dhaka-airport-1878607

The Daily Star. (19 March 2020). *Coronavirus Test in 15 mins for TK 350.* Retrieved from https://www.thedailystar.net/backpage/news/coronavirus-test-15-mins-tk-350-1882597

The Xinhua. (20 November 2021). *Bangladesh records zero daily COVID-19 death for 1st time in 19 months.* Retrieved from http://www.news.cn/english/2021-11/20/c_1310323094.htm

Thompson, A. K., Faith, K., Gibson, J. L., & Upshur, R. (2006). Pandemic influenza preparedness: An Ethical framework to guide decision-making. *BMC Medical Ethics, 7*(12), 1-11. https://doi.org/10.1186/1472-6939-7-12

Transparency International Bangladesh (TIB). *Corona-Covid-19 Crisis Relief Operation: The role of ruling party local committees should be restricted to assisting the administration.* Retrieved from https://www.ti-bangladesh.org/beta3/index.php/en/activities/6057-corona-covid-19-crisis-relief-operation-the-role-of-ruling-party-local-committees-should-be-restricted-to-assisting-the-administration-tib

Transparency International Bangladesh (TIB). *Lack of planning and coordination worsen Corona Virus situation in Bangladesh, finds study.* Retrieved from https://www.ti-bangladesh.org/beta3/index.php/en/activities/6096-lack-of-planning-and-coordination-worsen-corona-virus-situation-in-bangladesh-finds-study

UCA News reporter. (13 April 2020). *Corruption mars Bangladesh's Covid-19 relief efforts.* Retrieved from https://www.ucanews.com/news/corruption-mars-bangladeshs-covid-19-relief-efforts/87700

Vaishya, R., Bahl, S., & Singh, R. P. (2020). Letter to the editor in response to: Telemedicine for diabetes care in India during COVID19 pandemic and national lockdown period: Guidelines for physicians. *Diabetes Metab Syndr, 14*(4), 687-688. https://doi.org/10.1016/j.dsx.2020.05.027

Van der Schaar, M., Alaa, A. M., Floto, A. et al. (2021). How artificial intelligence and machine learning can help healthcare systems respond to COVID-19. *Mach Learn, 110*, 1-14. https://doi.org/10.1007/s10994-020-05928-x

Wei-jie, G., Zheng-yi, N., Yu, H., Wen-Hua, L., Chun-Quan, O., Jian-Xing, H. et al. (2020). Clinical characteristics of 2019 novel coronavirus infection in China. 2020. *medRxiv.* https://doi.org/10.1101/2020.02.06.20020974

White, D. B., Katz, M. H., Luce, J. M., & Lo, B. (2009). Who Should Receive Life Support During a Public Health Emergency? Using Ethical Principles to Improve Allocation Decisions. *Annals of Internal Medicine, 150*(2), 132-138. https://doi.org/10.7326/0003-4819-150-2-200901200-00011

Wilder-Smith, A. et al. (2020). Can we contain the COVID 19 outbreak with the same measures as for SARS? *Infectious Diseases, 20*(5), e102-e107. https://doi.org/10.1016/S1473-3099(20)30129-8

World Health Organization. (2007). *Ethical considerations in developing a public health response to pandemic influenza*. World Health Organization. Retrieved from https://apps.who.int/iris/handle/10665/70006

World Health Organization. (2019). *Naming the coronavirus disease (COVID-19) and the virus that causes it.* Retrieved from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it

World Health Organization. (2022). *WHO Coronavirus (COVID-19) Dashboard.* Retrieved from https://covid19.who.int/table

Zhong, B. L., Luo, W., Li, H. M., Zhang, Q. Q., Liu, X. G., Li, W. T. et al. (2020). Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: A quick online cross-sectional survey. *Int J Biol Sci., 16*, 1745-52. https://doi.org/10.7150/ijbs.45221

Zoloth, L., & Zoloth, S. (2006). Don't be chicken: Bioethics and avian flu. *The American Journal of Bioethics, 6*(1), 5-8. https://doi.org/10.1080/15265160500496658

Zunyou, W., & Jennifer, M. M. (2020). Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a report of 72314 cases from the Chinese Center for Disease Control and Prevention. *JAMA, 323*(13), 1239-1242. https://doi.org/10.1001/jama.2020.2648