Cross-Cultural Management of COVID-19 Pandemic

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Abstract: As the novel coronavirus disease 2019 (COVID-19) spread throughout the world and proclaimed a pandemic, governments around the world have implemented countless unparalleled policies in response to the pandemic. Preventative techniques such as close management of infection, patient isolation, and social distancing. However, in the absence of a particular antiviral or vaccine recommended for the treatment of COVID-19, pandemic control often includes minimizing virus transmission by effective policy interventions. Although most of these steps are successful, they bring economic and social burden. The goal of this paper is to analyze, from a cross-cultural viewpoint, the management of the COVID-19 pandemic. The paper comprehensively synthesizes the evidence on conditions during this emergency and suggests several measures to control and mitigate the risks relating to it, taking into account the most recent data presented by agencies such as WHO and CDC. This paper's approach will be a literature review and a critical examination of the results. This analysis might be used by policymakers and health authorities for responding to the global challenges posed by the pandemic, such as strain on health care structure, resource allocation, and supply chain disruptions, for decelerating its propagation, and for planning before similar situations in the future

Keywords: COVID-19; Pandemic Management; Health System Burde; Health Policy

JEL Classification: M11

1. Introduction

The ongoing outbreak of coronavirus disease 2019 (COVID-19) has rapidly reached pandemic proportions, affecting over 200 countries to date. This development has caused social, health, and economic problems at the global level. Governmental authorities throughout the world have enacted unprecedented local and national restrictions on travel in an effort to reduce the spread of the virus. Despite aggressive containment and mitigation strategies, the disease continues to spread, and the number of people who are infected with the virus has reached above 50 million worldwide (World Health Organization, 2020).

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Historically, antiviral vaccines were the most successful tools for eradicating epidemic and pandemic viral diseases and protecting high-risk (Graham, 2013). Already existing knowledge, evidence, and experience in fighting former highly contagious and fatal infectious diseases is a tremendous advantage to address the COVID-19 pandemic.

However, despite the joint efforts of clinical and scientific communities, as the virus and its clinical course are still new, there is currently no internationally accepted antiviral treatment for COVID-19, and no vaccine for mass immunization is developed yet. Most of the precautions taken against the spread of the virus across the world consist of public health containment, quarantine, physical distancing, testing and containing cases, and face masks, which in turn bear a severe economic burden. Thus, cooperation at the local, regional, national, and international levels is needed to manage the severity of this situation and to limit its detrimental effects.

Since COVID-19 is a disaster that affected about 216 countries (Govindan et al., 2020), its management requires fulfillment of countermeasures both before and after the occurrence to curtail its long-term adverse effects (Galindo & Batta, 2013; Oruc & Kara, 2018; Sarma et al., 2019). The aim of this paper is intended to investigate the management of COVID-19 pandemic from a cross-cultural perspective. The paper comprehensively synthesizes the evidence on conditions during this emergency and suggests several measures to control and mitigate the risks relating to it, taking into account the most recent data presented by agencies such as WHO and CDC. This paper's methodology will be a literature review and a critical examination of the results. This analysis might be used by policymakers and health authorities for responding to the global challenges posed by the pandemic, such as strain on health care structure, resource allocation, and supply chain disruptions, for decelerating its propagation, and for planning before similar situations in the future.

2. Health System Management Plans during the Pandemic

The current COVID-19 pandemic has affected health systems adversely both by overwhelming the health system’s capacity to efficiently provide the needs of patients who are infected or need admission to intensive care and place a burden on health care staff, including the risk of infection.

In addition to these difficulties, medical care procedures of patients affected by other diseases have been interrupted due to the pandemic. A global survey of healthcare professionals conducted by Chudasama et al. (2020) reported that the decline of healthcare services has affected patients with diabetes, chronic obstructive pulmonary disease, and hypertension, and the Psychological wellbeing

of these patients has deteriorated since the outbreak. According to the Centers for Disease Control and Prevention's (CDC) evidence-based instructions, hand and environmental hygiene and personal protective equipment (PPE) such as masks, gloves, gowns, N95 respirator plus a face shield, air-purifying respirator (PAPR) unit, or a contained air-purifying respirator (CAPR) unit are recommended in the treatment of patients with COVID-19 to minimize the risk of acquiring the virus. Workers in Health Care should be encouraged to use these barrier precautions even when they are providing regular patients with routine clinical care considering the presence of undiagnosed but infected patients (Adams & Walls, 2020). World Health Organization (WHO) and CDC both endorse the use of advanced aerosol-generating procedures, an airborne infection isolation room. In advancing the safety of health care staff, however there are many obstacles, including the presence of clinically mild cases or atypical manifestations, an inadequate availability of barrier precautions, PPE for medical personnel, ventilators, or respiratory isolation rooms in most hospitals worldwide. High rates of infection and death among health care staff on the front-line in Italy in the early days of the pandemic was due to the shortage of PPE (Balmer & Pollina, 2020). Thus, sufficient the manufacture and sale of both equipment types are essential.

Table 1 presents available intensive care beds and the testing capacity of several OECD countries. The testing strategy consists of 4 points scale: no testing strategy (0), only those who both have symptoms and meet specific criteria (1), anyone showing symptoms (2), and open public testing which is available to asymptomatic people (3).

Table 1. Selected ICU Bed Availability by Country with Testing Measures

Country	Capacity of intensive care beds per 100000 population	Total tests	Test per case	Testing strategy
Belgium	17,4	5,281,944	10	2
Canada	12,9	9,935,221	38	3
China	3,6	160,000,000	4,748	3
Germany	33,9	23,393,311	34	3
Italy	8,6	17,374,713	18	2
Japan	7,3	2,818,683	26	2
Norway	8,5	1,782,611	72	2
Republic of Korea	10,6	2,683,397	97	3
Singapore	11,4	3,879,052	67	2
Spain	9,7	14,345,498	11	2
Switzerland	11,8	2,157,721	9	2
United States	25,8	156,637,891	16	3

Source: World Health Organization

The shortage of these resources has multiple causes, including the failure of authorities to plan health care expenditures and problems with the global supply chain. To address the problems of resource scarcity national governments and the private sector should work in a coordinated manner. Governmental authorities should encourage private companies to maximize the production of equipment needed for pandemic emergencies such as ventilators, N95 respirators, and PPE. State partnership with these companies and loosening of regulatory requirements could prevent prospective supply shortages in health systems.

In addition, authorities must lower the stockpiling of already existing PPE and effectively manage the allocation of the equipment. Furthermore, they must ensure that the hospitals located in areas where the number of cases are high receiving the equipment needed to manage the transmission of the disease (Ranney et al., 2020).

Workforce safety is of the utmost importance to deal with this emergency. To advance the safety of health care personnel, barrier precautions, and hygiene recommendations of CDC and WHO should be followed strictly. Especially in emergency departments, in particular, patients with reported symptoms of COVID-19 should be provided with a facemask at arrival, be immediately screened, and separated from the general population. Caregivers with existing chronic conditions should not treat infected patients directly. Front-line health care personnel should be provided with regular testing and housing opportunities to prevent transmission of the virus to their families.

3. Policy Actions to Manage Covid-19

Preventative actions such as quarantine, lockdown, travel limits have been widely enforced and airport screening for travelers decreases virus transmission to a manageable rate. However, to assess the efficacy of these containment policies in managing the outbreak, more time is still needed. While most of these actions are proving to be successful, their scale may not be as much as intended. For example, current evidence demonstrates that airport screening is only successful at distinguishing 34% by thermal screening, 54% of infected travelers (Koo & Quilty et al., 2020).

As continuous adjustments will be required during the transition process (WHO, 2020), to arrive at a consensus on the legitimacy of the implemented measures will take time measures taken will vary among countries according to their societal tightness and looseness (Gelfand et al., 2011). For instance, the Chinese government imposed severe limitations on residents at the expense of violating their elementary human rights. In Sweden, by contrast, the government has restricted travels outside the European Union and large gatherings of over 50

people but not enforced a lockdown in an effort to encourage each citizen to take responsibility for decreasing the spread of the virus (Iacobucci, 2020).

The actions of German and Swiss governments were effective in slowing the transmission of the virus and in responding to saving the medical need of their citizens (see Figure 1). These countries responded at an early stage by monitoring, testing and controlling cases, and the country's ability to rapidly enforce policies was adequate to cope with an epidemic of infectious diseases (WHO; 2020). For example; in Germany "Covid-19 Hospital Relief Act" was enacted on late March that guaranteed hospitals and other health care providers with funding and included incentive payments for hospitals to increase their ICU capacity. Also, technological solutions like the use telehealth were encouraged in both Germany and Switzerland to advance access to resources for mental and behavioral wellbeing of non-COVID-19 patients (Praxisnachrichten, 2020)

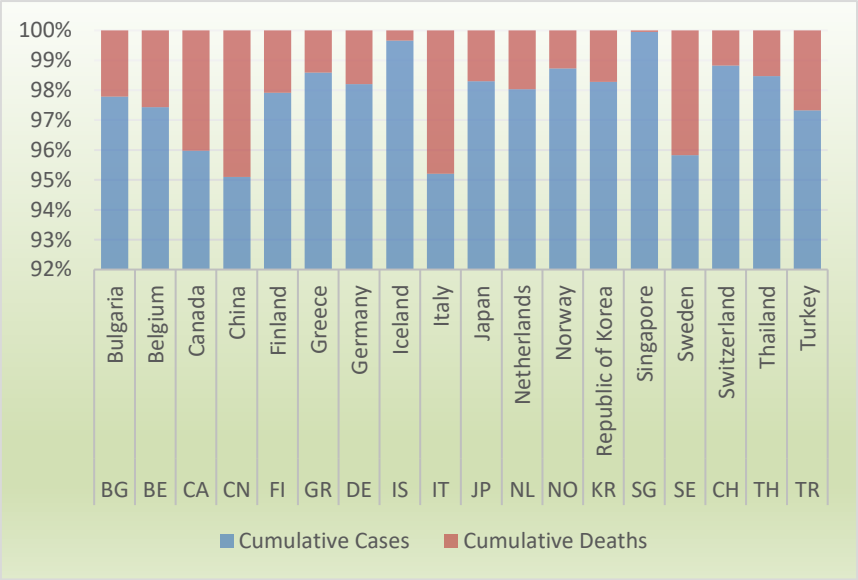

Figure 1. Cumulative COVID-19 Case and Death Numbers as of 5.10.2020
Data: World Health Organization

In Germany, standardized case descriptions and surveillance, diagnostics and contact protocols for the virus were implemented by the Robert Koch Institute (RKI). As the primary public health agency, RKI is the central entity to control COVID-19 data collection and to publish it and is competent at daily reporting comprehensive epidemiological information such as cases and deaths by age and gender.

Similarly, information management controlled by the Federal Office of Public Health (FOPH) has been a priority in Switzerland since the early days of the

outbreak. As can be seen in Figure 2, both countries successfully cut down the daily new infections after an initial rise in cases.

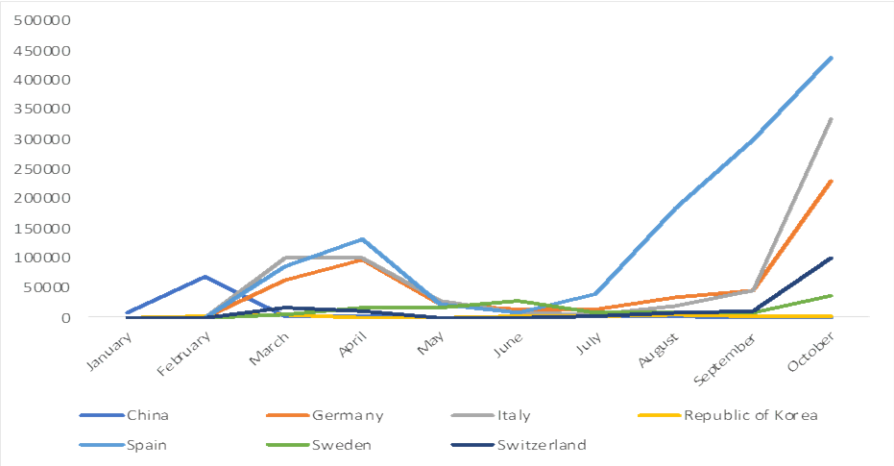

Figure 2. Reported COVID-19 Cases in 2020
Data: World Health Organization

Germany and Switzerland also experienced a relatively low mortality rate, while other European countries like Italy and Spain go through some of the highest Covid-19 mortality rates in the world, as presented in Figure 3.

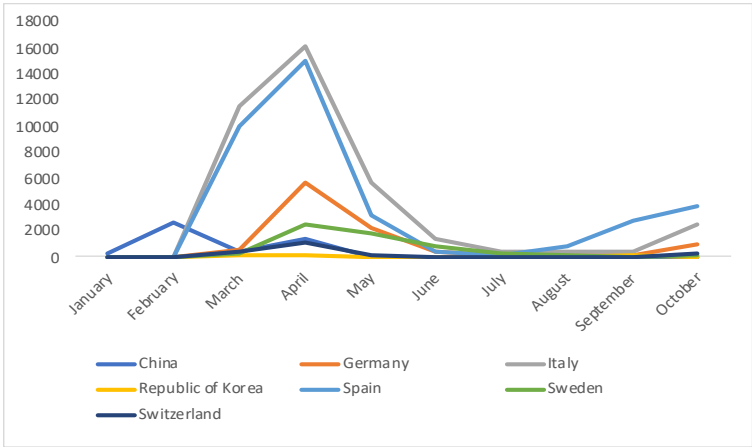

Figure 3. Reported COVID-19 Deaths in 2020
Data: World Health Organization

Trust in institutions is crucial in addressing the inconsistency caused by the pandemics and their perceptions of being professional, trustworthy, and benevolent (Renn, 2008) by people affect the risk perceptions (Dryhurst et al., 2020) which in turn influence the approval of decisions made by authorities (Bennett, 2010).

Therefore, governments should always take action according to the advice of trusted and long-established institutions without political influence when planning pandemic management decisions.

In addition to the above-mentioned problems, since there is no definitive cure available for the disease at this point, the methods used to fight the pandemic disrupt the economies globally. The responses of countries to this emergency is various depending on the country's economic situation, institutions, government agencies, and political regimes. The economic consequences of the pandemic are very hard for each country to manage independently and require coordinate action. A well-prepared, detailed financial crisis plan that considers the supply-side shocks should be made with joint efforts of countries, as the sustainable success of the pandemic response does not seem possible otherwise.

4. Conclusion

Resources of contact tracing, personal protective equipment, and testing are not widely available in all countries. Cross-cultural control of highly infectious COVID-19 therefore often requires the introduction and adherence to tight social distance restrictions in order to limit its spread.

As the world population has not acquired immunity to virus yet, everyone is responsible for following the preventive measures not to add further strain on the healthcare facilities. Officials should guarantee transparency to the public for preventing the emergence of panic and fear that could be in the way of diagnosing and isolating possible cases. Thus, the collective efforts of the public and the governmental authorities are decisive to decrease the severe public social, health-related and economic, and social consequences of the virus.

Clinical evidence such as epidemiological facts, case fatality rate, transmission statistics, has important implications for designing effective control strategies at national and international levels and requires a strong commitment of the scientific community.

The COVID-19 outbreak should be considered a warning sign for possible future infectious pathogens and research to understand the pathogenesis of these new organisms should be prioritized to establish countermeasures beforehand. It is critical to invest in health structure and ensure there are enough resources, including health care personnel, protective equipment, infrastructure and well-equipped intensive care facilities to be prepared for future epidemic diseases. Increasing investments in innovative science and in all sectors associated with global health technology are needed to protect the world population in face of these disasters.

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