Early Response to COVID-19: A Pre-Vaccine Policy Comparison

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INTRODUCTION

When the COVID-19 pandemic swept the globe, governments and healthcare systems scrambled to control it. While most of the global public health community agreed that actions against the COVID-19 pandemic needed to be prompt and efficient, there were disagreements on what those actions should be. Some governments opted to adopt a containment strategy while others implemented mitigation measures; each had reasons to support their course of action, whether rooted in governmental structures, scientific findings, beliefs, or ethical and moral values. However, the dramatically different response strategies may have led to disparate results. This divide is furthered when ethical and moral values and cultural norms are added to this equation. In this paper, I will examine China and Korea, two countries that implemented a preventative containment strategy, and the United States of America and the United Kingdom, which adopted mitigation strategies. I will examine the differences in their outcomes and whether there is a "correct" response to pandemics like COVID-19.

I. Response in China and Korea

After its initial discovery in December 2019, COVID-19 rapidly spread beyond China to surrounding countries, including South Korea, Japan, and Singapore. China implemented swift measures drawing on its experience with the SARS outbreak. Measures included lockdowns, contact tracing, testing all individuals exposed to the virus, and consequently enforcing isolation and quarantine provisions.[1] During the early stages, the public health systems and the national government moved to a "health care to all" system to avoid nationwide spread. The government and all sectors of society were mobilized to track, contain, and adapt to the overall state of the epidemic.[2] COVID-19 continued and spread in China during Lunar New Year

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celebrations when population movement within the country was at its peak. Thus, Wuhan entered lockdown to control the number of infected people leaving the city to contain the virus;[3] even in areas where there were few to no cases, the general population of China voluntarily abided by measures like those implemented in Wuhan. The measures included wearing masks, social distancing, and following stay-at-home orders. Furthermore, healthcare workers from all over the country volunteered to travel to Hubei, where Wuhan is, and assembled several Fangcang shelter hospitals.[4]

Fangcang hospitals were designed based on emergency medical care cabins that were used after two devastating earthquakes in China and served as temporary quarantine housing and hospital facilities.[5] They are mobile, have fast deployment, and can adapt quickly to different environments. At the start of the pandemic, Wuhan converted gymnasiums, convention centers, sports arenas and training centers, factories, and other venues into Fangcang hospitals. Although temporary, these quarantine hospital facilities were equipped with full medical equipment and personnel, allowing for complete medical functions for "treatment, disease monitoring, diagnosis and other clinical tasks."[6] Teams of psychologists were also assigned to each hospital to provide counseling for patients.[7] Beyond separating those who were infected from the rest of the population and thus having more control over the community spread of the virus, Fangcang hospitals played a vital role in reducing patient density in traditional hospitals and medical centers by expanding treatment capacities.[8]

South Korea reported its first COVID-19 case in January 2020, and, within days, the government activated the Central Disaster and Safety Countermeasures Headquarters.[9] Similar to China, South Korea used existing epidemic protocols and implemented the 3Ts strategy, prioritizing testing, tracing, and treatment.[10] High-capacity screening facilities and working with the private sector to ensure an adequate supply of tests made South Korea's efforts successful.[11] The South Korean government strictly regulated self-isolation and quarantine. Contact tracing efforts used various data sources, "including credit card transactions and closed-circuit television footage."[12] The government also placed stringent restrictions on travel, beginning with designated entry lines and questionnaires, but expanding to include temperature checks, testing for all travelers at the border, and a mandatory fourteen-day monitored quarantine for anyone entering the country.[13] The majority of the population responded immediately with compliance, with national weekly movement decreasing by 38 percent between February 24, 2020, and March 1, 2020, compared to the corresponding week the previous month. Schools swiftly closed across the nation, and the entire country transitioned to remote learning until the gradual reopening in May and June 2020.[14]

There was some discontentment within the population, especially with the South Korean government's practice of publicly announcing the names of individuals who tested positive.[15] Critics of this practice say it is an infringement of patient privacy and can even be viewed as an invitation to public bullying.[16] However, even with some dissatisfaction with government regulations, a survey of 1,200 South Koreans in September 2020 asking people to agree if they were satisfied with the government's response showed that the overwhelming majority either agreed or strongly agreed (44.08 percent and 19.75 percent, respectively), and less than 20 percent of the respondents either disagreed or strongly disagreed (11.50 percent and 5.08 percent, respectively).[17]

Regulations surrounding isolation and quarantine were strict and applied to those with confirmed cases of COVID-19, anyone who traveled internationally, or individuals suspected to be infected. Individuals were required to use the Self-Quarantine Safety Protection app that tracked location for fourteen days to ensure that quarantine protocols were followed.[18] Case officers monitored the app, and violators not only faced a

substantial fine but were also required to wear electronic wristbands that would alert the officers if the individual left the location of their mobile device.[19]

II. The Western Response: The UK and US

COVID-19 was reported in many Western nations around January 2020. However, unlike South Korea, many countries did not immediately respond to the outbreak with surveillance and containment strategies but had a wait-and-see approach. As the pandemic worsened, they gradually adopted mitigation strategies to combat the disease as it progressed. While the US adopted a combination of containment and mitigation strategies, a concrete response from state and federal governments did not occur until March 2020.[20] Even then, many states did little to address the pandemic. Although equipped with a robust healthcare system, a shortage of ventilators and hospital beds became evident in some localities early on. The US healthcare system failed to acknowledge the pandemic and prepare a coordinated response in time to stop the momentum of the disease.[21] The goal became "flattening the curve" (keeping the number of cases that needed hospital care low enough to avoid overwhelming the hospital system) as it was clear containment would be impossible. Once tests were developed, poor coordination of testing efforts and insufficient resources to test at the necessary scale to provide comprehensive national surveillance of the disease further hindered efforts to contain infected individuals and decelerate its spread.[22] Eventually, regulations and mitigation measures were implemented, including mask mandates, school closures, caps or bans on in-person gatherings, and the closure of non-essential businesses.[23] However, enforcement of these measures proved difficult, and people instigated protests against many of the recommended policies and requirements.

The UK and the US both encountered a shortage of personal protective equipment for healthcare workers.[24] However, a more prominent problem arose from the UK's initial response to the pandemic. The UK first said COVID-19 was like influenza and therefore did not call for emergency measures to deter its spread.[25] Furthermore, in the first few weeks of the pandemic, the UK government believed herd immunity was the best course of action, stating that most people would have mild symptoms,[26] and the population would become mostly immune to the virus once enough people were infected.[27] In theory, herd immunity was a potentially effective strategy. The public health authorities thought that if the threshold for herd immunity was reached, enough people would have developed protective antibodies against any future infection.[28] However, the risks of COVID-19 were high and the cases "would lead to high rates of hospitalization and need for critical care, straining health service capacity past the breaking point."[29] Furthermore, while getting COVID-19 would offer some natural immunity against reinfection, reinfection remained a possibility, especially during the early stages of the pandemic when vaccines were unavailable.[30] Later, when vaccines were available, a study showed that an unvaccinated person who contracted the virus was more than twice as likely to become reinfected than a fully vaccinated person.[31]

The UK government also expressed concern for "behavioral fatigue."[32] It claimed that if restrictions were enforced pre-emptively and prematurely, people might become progressively "uncooperative and less vigilant."[33] Regarding the concern for "behavioral fatigue," numerous behavioral scientists stated that they were unconvinced that this reason was enough to hold off implementing restrictions. There was a lack of evidence of this phenomenon, and a group of 681 UK behavioral scientists said in an open letter that "[s]uch evidence is necessary if we are to base a high-risk public health strategy on it."[34] Fortunately, this strategy only remained under consideration for a short period. After rapid increases in confirmed cases and deaths due to COVID-19, the UK government implemented more strict measures, like city lockdown, school

closures, and the closure of non-essential businesses.[35] These restrictions took legal effect on March 26th, 2020 – around two weeks after the first proposal of the "herd immunity" strategy.[36]

III. Comparing the Two Approaches

The Eastern and Western countries experienced significant outbreaks of COVID-19. However, looking at the mortality rate and new confirmed cases, the differences between the two categories of response to COVID-19 are significant. As of December 31, 2020, the mortality rate per 100,000 population for China and South Korea were 0.3 and 1.8, respectively, and new confirmed cases per day per 100,000 population were 87 and 1,029, respectively. However, the mortality rates per 100,000 in the US and the UK were 107 and 108, respectively, and they had up to 234,133 and 56,029 new confirmed cases every day, respectively.[37] As of July 2022, total deaths in China were 22, 994[38] (population 1.45 billion)[39] and in South Korea 24,794[40] (population 51.36 million)[41] compared to 1,015,093[42] in the US (population 335.03 million)[43] and 182,727[44] in the UK (population 68.62 million).[45]

Further differences can be seen in the varying sectors of society, such as healthcare systems and authority models, political structures, and cultural customs among these countries, which in turn affect the response and control strategies.[46] In the US and the UK, rights-based political structures affected the response, making tracking and surveillance more problematic early on. But Western countries did have strict lockdowns and quarantines. China and South Korea maintained a proactive approach by "identifying and managing cases, tracking and isolating close contacts, and strictly restricting or controlling population movement when feasible and appropriate."[47] In contrast, the UK implemented nationwide lockdowns early on, and the US restrictions varied among states. Both the UK and the US focused on treating the severe cases and those with underlying conditions rather than proactively preventing new cases from developing in the early pandemic.[48] They did shift gears to mass testing schemes and attempts to slow transmission. By the time they implemented cohesive strategies, COVID-19 was widespread. Due to their slow initial responses, they needed to manage an onslaught of cases while trying to prevent transmission.

IV. Ethical Implications

The "West vs. Rest" culture divide emerges when comparing the COVID-19 response strategies of East Asian countries to those of Western countries. The differences in their strategies further highlight the differences in the prevailing moral values influencing public policy. The preventative stance adopted by many East Asian countries shows a stronger collective identity among citizens. But it also may show more substantial governmental power and less appetite for protest. In contrast, the mostly non-interfering nature of Western governments' actions shows a reliance on the "autonomous and unanimous responsibility of individuals."[49] The moral values in the US also may reflect the prioritized position of personal rights and the suspicion of intrusive government policies.

Culturally, the populations of South Korea and China are generally more tolerant of personal data-sharing and monitoring, suggesting there is less concern for autonomy or privacy. However, many people in the US and UK would consider the use of location tracking apps and electronic bracelets to be violations of individual autonomy and privacy.[50] Sectors of the Western world also argue that mandating masking or social distancing imposes on individual autonomy and free will. Mask-wearing was an existing practice in East Asian countries, even without mandates or pandemics. Individuals wear masks for common colds and influenza and do not consider a mask requirement an infringement of their autonomy. Furthermore, whether it is due to the authoritarian nature of the government or not, there is a general tendency toward public compliance and accepting government policies in many East Asian countries,[51] and the lack of public

dissent played an important part in making combating COVID-19 easier for countries like China and South Korea.

The lack of initiative from Western nations arguably violates the bioethical principles of beneficence and nonmaleficence.[52] For example, the promotion of the "herd immunity" strategy from the UK government and consequently the government's inaction, risked the well-being of its citizens. The government failed to avoid the harm that COVID-19 brought. Similarly, by delaying its response until nearly two months after the initial case was reported, the US also violated the principle of non-maleficence. The success seen in South Korea and China during the early pandemic better exemplifies beneficence and nonmaleficence. The strategy of contact tracing and strict containment saved lives.

The consequences of the restrictions varied across the countries as well. Not everyone can afford to self-isolate or quarantine and being required to do so can significantly impact many individuals' well-being. Furthermore, not everyone's occupation allows them to work from home and business closures disadvantaged portions of the population disparately. For those who are essential workers, school closures may also burden parents who do not have access to affordable childcare. The stringent restrictions regarding quarantine and self-isolation in East Asian countries also harmed people disparately, raising problems surrounding the principle of justice. However, the speed at which China had COVID-19 contained allowed people there to return to their normal lives quickly. Compared to some Western countries' waves of lockdown and reinforcement of restrictions, the "zero-COVID" strategy in countries like China showed success, at least during the early stages of the pandemic. The contact tracing and containment was likely financially beneficial. While the pandemic resulted in substantial economic growth downgrades and global recessions, regions like East Asia were estimated to grow by around 0.5 percent. In comparison, the economy in regions like Europe contracted by around 4.7 percent.[53]

CONCLUSION

China arguably had an advantage in combating COVID-19 since the outbreak was relatively concentrated in one region. This allowed early detection of symptoms and quick containment of the virus. Other countries, like the US, had new cases on both coasts early in the pandemic; thus, containment was more challenging than it was in China. However, the delayed and reluctant response from countries like the US and the UK did not benefit the well-being of their populations and proved to put more stress on their healthcare systems. While mass tracking of people is politically contentious, the promptness of actions many East Asian countries employed at the beginning of COVID-19 seemed to be the more effective course of action that best protected the well-being of their citizens.

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