THE REPUBLIC OF TÜRKİYE
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THESIS SUPERVISOR
ASSOC. PROF. DR. MURAT BAYAR

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MASTER'S THESIS
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PLAGIARISM

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name and Surname: Munise TUTUCU

Signature:

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ÖZET

COVID-19 salgını Mart 2020'de başladığından beri birçok ülkenin sağlık sistemleri ve altyapıları benzeri görülmemiş zorluklarla karşı karşıya kalmıştır. Buna bağlı olarak hükümetler COVID-19 ile mücadele etmek ve vatandaşlarının sağlık durumlarını takip etmek için çeşitli önlemler almıştır. Bu araştırma, Güney Kore ve Türkiye'nin bu süreçteki kamu politikaları arasındaki temel farklılıkları ve benzerlikleri belirlemeyi amaçlamaktadır. Bu tezde, biri gelişmekte (Türkiye) ve diğeri gelişmiş (Güney Kore) ülke olan iki OECD üyesinin kamu politikaları ve kriz yönetimi önlemlerini nasıl bütünleştirdikleri karşılaştırılmaktadır. Ayrıca, pandemi boyunca politika farklılıklarının ve benzerliklerinin nasıl bir seyir izlediği araştırılmaktadır. Son olarak, bu tez politika oluşturma süreçlerini, teknolojik farklılıkları ve diğer ülkeler için politika sonuçlarını tartışmaktadır.

Anahtar Kelimeler: COVID-19, Güney Kore, Türkiye, Kamu Politikası, Pandemi, Karşılaştırmalı Siyaset

ABSTRACT

Since the COVID-19 pandemic started , the healthcare systems and infrastructures of several countries have faced unprecedented challenges. Accordingly, governments have taken different measures in order to tackle with COVID-19 and to follow their citizens' health situations. This research aims to identify the key differences and similarities between the public policies of South Korea and Turkey in dealing with this challenge. In this thesis, I compare how two OECD members —a developing (Turkey) and a developed (South Korea) country- integrated their public policies and crisis management measures. Also, I investigate how their policy differences and similarities changed over the course of the pandemic. Finally, this thesis discusses policy-making processes, technological differences, and strategies with policy implications for other countries.

Key Words: COVID-19, South Korea, Turkey, Public Policy, Pandemic, Comparative Politics

CHAPTER I

1. INTRODUCTION

COVID-19 pandemic and the associated challenge of developing effective public policies constitute the motivation for this study. My primary goal is to address this problem by comparing and contrasting South Korea's and Turkey's public policy approaches. These policies cover a broad range of issues ranging from health, security, economy, and education. Furthermore, the global exposure to this challenge within the same time frame provides a rare 'natural experiment,' in which the policy responses of different countries can simultaneously be compared and contrasted with the aid of daily statistics. This study's main goal is to add to the body of knowledge about this ongoing problem while offering policymakers advice.

While the most significant health crisis of the twenty-first century has affected almost all countries, studying this kind of crisis has critical importance by including these two countries within the framework of public policies. Since the COVID-19 crisis is still an ongoing process, the resources written in this area have a short history. A public policy analysis that includes Turkey's and South Korea's experiences in the process is not done before. The reasons that I chose these two countries under this title are both countries are OECD and G20 members from different geographies and have been the subject of comparative analysis since the 1960s. In this context, this study plans to make a new contribution to the existing literature. In this regard, this study aims to accelerate issue solutions and help create more helpful public policies for potential future crises that are comparable to the current ones.

In this context, I have mentioned in the first part of the literature review, a historical background of some of the epidemics and pandemics that left marks on human history was

given. The second part of the literature review represents a transition period. The AIDS case in the US was told in this part since it represents the beginning period of the golden age of neoliberal globalization. In the third part of the literature review Mexico and Swine Flu was told. This part represents the first pandemic of the 21st century and Mexico is the beginning point of this pandemic. After that I compared and analyzed the communication policies of the two countries. In the next part, I continued with the contagion policies, including evaluation and testing, contact tracing, treatment, public health policies, and isolation/quarantine policies. Anti-Contagion Policies/NPIs (Non-pharmaceutical interventions) is the next part and have two titles under it: Mobility, Migration, and Social Distance Policies which cover work policies, transportation, and travel Policies, border control, and curfew policies, and face-mask policies. Economy policies and public-private partnership (PPP), vaccination policies, Education policies, post-COVID-19 policies, and return to normal life are the next chapters. In the last chapter concluded my analysis by giving policy recommendations for future crises.

My research question is What are the public policy responses of South Korea and Turkey against COVID-19? This question addresses the similarities and differences between the public policy responses of Turkey and South Korea to COVID-19. This is a comparative public policy study. For this exploratory research, I applied a qualitative comparative analysis that covers the two countries I have specified. I used secondary sources. Lastly, data from previous health crises, natural disasters, and outbreaks, especially in Turkey and South Korea were incorporated into my analysis for historical comparison. With an emphasis on health, economics, technology, and education policy, this multidisciplinary research used the ideas and techniques of political science and public administration. Addressing the similarities and differences between the public policy responses of Turkey and South Korea to COVID-19 with the help of resources like; newspapers, articles, reports, social media, data from previous health crises, natural disasters, outbreaks, etc.

CHAPTER II

2. LITERATURE REVIEW

I will begin by explaining the words epidemic, endemic, and pandemic and define them. In this sense, a short definition is "endemic, in which the usual prevalence of a disease or condition is within a given population or geographic area; epidemic, in which the new causes of a disease or condition exceed the normal prevalence in a given population or geographic area; and pandemic, which is an epidemic that crosses geopolitical boundaries and sometimes is global in scope" (Lackland, 2005). There are epidemics like the tobacco epidemic or diseases that kill millions of people like cancer. However, I will not include those epidemics or diseases since my research is about contagious diseases because my main job is not to talk about the history of all contagious diseases but draw a proper background in the reader's mind.

There are three parts to my literature review. The first part is a historical background of some of the epidemics and pandemics that left marks on human history. In this part, I will talk about multiple major outbreaks in human history and, some of them may be the same disease. The reason for this situation is that I want to talk about them chronologically. If I move on to the issue, of disease by disease, I will have to include multiple dates in one disease, but I will not do that because I want to show the evolution of precautions and numbers in a timeline. So, it will be seen different outbreak names with the same diseases, but I will specify which disease I talk about an outbreak.

The second part represents a transition period. In this sense, my year zero year is 1990. The reasons why I choose this date are many. The conclusion of the Cold War and the onset of globalization are two of them. After this date, the circulation of people around the world increased dramatically. Also, the 1990s are always thought of as the beginning

period of the golden age of neoliberal globalization that faded with the 2008 crisis (Chaudry, 2013). The AIDS case in the US is what will I talk about in this part. The reason why I choose AIDS is that it represents the transition period perfectly because it started in 1981 and it is still affecting lives. Additionally, the United States is a good example of one of the countries that still fighting AIDS. As proof of this, it is the largest donor in the fight against AIDS in the world (Kates et al., 2020). In the third part, I will talk about Mexico and Swine Flu. This part represents the first pandemic of the 21st century and Mexico is the beginning point of this pandemic.

In short, I will mention contagious diseases historically until 1990, and then I will analyze public policies of pandemics and epidemics that occurred or continued in or after 1990. Until 1990, respectively, these are the diseases that I included in my literature review: The Athenian Plague (BC 430), the Antonine Plague (165), Plague of Justinian (541), Black Death (1347), Italian plague (1629), the Great Plague of London (1665), Third Plague Pandemic (1894), Russian Flu (1889), Typhus World War I Outbreak, Spanish Flu (1918), Asian Flu (1957), Hong-Kong Flu (1968). And then there are the ones after 1990: HIV/AIDS (1981-present), SARS (2002), Avian Influenza (Bird Flu) (2004), Swine Flu (2009), Ebola (2014), Zika Outbreak (2015), MERS-Cov (Middle East Respiratory Syndrome) (2015-present), cholera (1817-present), and COVID-19 (2019-present). However, I only included Swine Flu and HIV/AIDS.

2.1. HISTORICAL BACKGROUND UNTIL 1990

The word plague comes from Doric Greek *plaga* means strike/blow and is generally used to define any epidemic with a high mortality rate or a sudden outbreak of a catastrophic thing. (*Plague*, n.d.). The Athenian Plague occurred between the years 430 and 426 B.C. It started in Ethiopia and expanded to Egypt and Greece. Then, affected people started to show coughing up blood, stomach cramping, vomiting, and “ineffectual retching” (Thucydides, 2017). Unfortunately, most of the affected people ended up dead, and some of those who survived lived with permanent damage to their bodies. (Huremović, 2019). Even though the

cause of this plague is not clear, Olson and some other experts think that the cause of the plague was Ebola virus hemorrhagic fever (Olson et al., 1996).

Another big plague is The Antonine Plague (Plague of Galen) which occurred in 165-180 AD (Sabbatani, 2009). During Marcus Aurelius' reign in the Roman Empire, it occurred, and smallpox is thought to be the cause (Fears, 2004). Contrary to the Athenian Plague (which occurred in a limited area), this one reached broad territories of the Roman Empire. This was because the Roman Empire had connected relations in a big region (Geoffroy, 2016). The plague reduced the Roman Empire's economic and military power (Huremović, 2019).

The Justinian Plague emerged in the sixth century AD and the starting point was either Ethiopia or Central Asia. As in most outbreaks, this plague too expanded through trading routes, so it was inevitable to be severe in coastal cities (Huremović, 2019). Also, the Justinian Plague is known to be the first recorded bubonic plague (Horgan, 2014). The victims of the illness suffered from hallucination in the early stages, and then later fever, and fatigue. It was followed by buboes appearing on certain areas of the body and patients mostly ended up dead. In one of the severely affected places, the Byzantine Empire, after a while, the cemeteries overloaded, and people had to throw bodies on streets or onto seashores, the empire started to dig big holes for mass graves but, even these graves were not enough, and eventually the towers had been used by the authorities to stock bodies. After all, effective public policies and establishments of the empire had been damaged (Huremović, 2019). For example, the ones who got through the illness had to carry the tax burden that made life harder for them. (Smith, 1997). According to estimates, the plague in the Byzantine Empire claimed the lives of 40% of the entire population and 50% of the city of Constantinople in 600, 59 years after the epidemic first started (Dewing, 1914).

The Black Death is another well-known scourge. One of the worst things that had happened to humanity was known by its other name, "The Plague." This bubonic plague had begun in China, in 1334 and spread throughout the entire world. It nearly killed almost 150 million people. It's interesting to note that the plague was seen to be a punishment for "sinners" in Catholic Europe. These sinners were mostly minority groups like Jews or

women (Huremović, 2019). In other parts of the world, there existed also another comparable belief. For instance, in Cairo, the sultan banished women from going out because they could provoke men to sin (Byrne, 2004). Also, sometime after the start of the plague, with the number of doctors have become insufficient, forgers emerged and sold things of no use with supposedly magical protection (Oosterwijk & Knoell, 2011). Social and economic results were also severe. The density of trade dropped so people had difficulties reaching even basic goods (Huremović, 2019).

Italian Plague in 1575-77 was the most severe in sixteenth-century Italy however the affected area was so limited when compared to the later ones (Alfani & Percoco, 2019). The 1629-31 plague, for example, was the most severe one in seventeenth-century Europe. It probably started in France, in 1623, and then spread to lower parts of the continent (Alfani, 2013). In the same century, there was another big plague which was the Great Plague of London. Before 1665, English people had gotten through sixteen plagues in the sixteenth and seventeenth centuries and the one in 1665 was the greatest one among them. It caused 200,000 people to flee from the city during the plague (Moote, 2004). Within the rest, the number of deaths was approximately 100,000 which covered of third of the population of London. When the plague ended in 1666, there was another 100,000 death in the countryside (Moote, 2004). The causes of both the Italian and London Plagues were Yersinia pestis bacteria carried by rats and fleas (LePan, 2020).

When we come to the nineteenth century, we see The Third Plague Pandemic. Even though there is no agreement about the date, roughly it occurred between 1894 and the 1930s and started in China (Symes, 2019). The cause of the plague was *Yersinia pestis.* This plague spread all around the world and took nearly 15 million people's lives, most of them were from India (Frith, 2012). In the same century, the Russian Flu occurred in 1889, in Russia and quickly spread through Western Europe (Pyle, 1986). Only four months after the beginning in St. Petersburg, it had already walked around the world and come to the US (Valleron et al., 2010). Although not as much as the Spanish Flu in 1918-19, the pandemic had high mortality with approximately 250,000 deaths in Europe (Tognotti, 2009). It was the last pandemic of the nineteenth century (Valleron et al., 2010) possibly caused by an

H3N8 virus. Also, it was the first one that occurred in a highly integrated world because by then, there was 202,887 km of railroads that covered 19 different European countries (Taubenberger et al., 2007).

Another dangerous disease is typhus. There are multiple outbreaks of typhus, but it is unlikely for me to tell all of them here. That is why I will give the outbreak that occurred in World War I as an example. Another reason that I give this example is that the typhus epidemic probably had been more effective in the war than among people who had fought. The disease emerges generally in winter or spring when living in indoor areas or conditions of low hygiene during times of war or in other extreme situations (Raoult et at., 2004). In World War I that was the situation. Serbia was where it began, and from there it expanded to the rest of Central and Eastern Europe. (Raoult et al.,2004). Approximately 25 million persons were infected with typhus between 1915 and 1927, and 3 million of them died as a result, according to studies. (Raoult & Roux, 1999).

Spanish Flu Pandemic in 1918–1920 was the first global pandemic that occurred in the times of modern medicine encountered with the existing fields like epidemiology and infectious diseases and the cause of this pandemic was H1N1 (a type of influenza virus). The pandemic's fatality rate was between 10 and 20 percent, and there may have been 100 million fatalities (Huremović, 2019). It means that the Black Death had killed more people in a century than the Spanish Flu had in one year (Kates et al., 2014). Since the epidemic affected the German and Austrian-Hungarian forces more than their adversaries, it may have altered the outcome of World War I (Price-Smith, 2008). The results of this pandemic are seen more clearly after decades. For example, research revealed that “cohorts in utero during the pandemic displayed reduced educational attainment, increased rates of physical disability, lower income, lower socioeconomic status, and higher transfer payments compared with other birth cohorts” (Almond, 2006).

The 1957-58 Asian Flu pandemic caused by the H2N2 virus came up in China and then respectively passed to Eastern Asia, the Middle East, North America, and Europe (Dunn, 1958). This pandemic is probably responsible for more than a million dead worldwide (Kuszewski & Brydak, 2000). Another pandemic is the Hong-Kong Flu which

was among three influenza pandemics that occurred in the twentieth century. H3N2 was the cause of the pandemic (Peckham, 2020). Both Asian and Hong-Kong Flu were responsible for nearly two million deaths worldwide. The H2N2 and H3N2 viruses that are responsible for these pandemics are descendants of the H1N1 which is responsible for the Swine Flu pandemic that started in 2009 (Guan et al. 2010).

2.2.AIDS in the US (1981-Today)

AIDS remained undiscovered until 1981 (Office of Technology Assessment, 1985). The first AIDS case in the US was reported in 1981 and, at the end of 1994, the total number was 442,000. 271,000 of 442,000 had died because of the illness (Office of Technology Assessment, 1995). According to Kuller and Kingsley, the reason for the AIDS epidemic occurring in the US is because the country has a big amount of group of high-risk men and IV drug abusers (Kuller & Kingsley, 1986).

In the early stages of the AIDS epidemic in the US, there were a lot of policy problems. For instance, the HIV-antibody test was not in wide use until 1985 (Bayer, 1991). Besides, DHHS (The U.S. Department of Health and Human Services) did not focus on the related issues with AIDS, like educating people, prevention of the disease, or social factors as much as focusing on its biology of it. Moreover, the unbalanced dispersion of money to the PHS agencies increased tension among them (Office of Technology Assessment, 1985). In its 1985 memorandum, The U.S. Office of Technology Assessment (OTA) stated that the U.S. Public Health Service (PHS) agencies (Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA); Centers for Disease Control (CDC); Food and Drug Administration (FDA), National Institutes of Health (NIH): Division of Research Resources, National Cancer Institute, National Eye Institute, National Heart, Lung, and Blood Institute, National Institute of Allergy and Infectious Diseases, National Institute of Dental Research, and National Institute of Neurological and Communicative Disorders and Stroke) had issues to organize their works about AIDS because of uncertainties in budget and number of staff (Office of Technology Assessment, 1985).

The miscommunication between the DHHS, PHS agencies, and Congress was another issue. According to the DHHS, the PHS agencies could have managed AIDS research without an extra budget if they take money from their other businesses. But the truth is that the existing and possible cuts in income and staff were making it difficult to do it (Office of Technology Assessment, 1985).

It is mentioned in the article that funding was not enough to cover to give education for people, especially the ones who were at high risk (Office of Technology Assessment, 1985). Without sufficient resources, giving education to the public about AIDS by the PHS included the AIDS hotline, Facts About AIDS newsletter, financing (not all of it) a television documentary, NIH radio programs, a videotape about AIDS, periodic announcements by DHHS Secretary Heckler, and the publishing of manuals. Also, the National Institute on Drug Abuse (NIDA) published and delivered its AIDS-related informative kits to drug abuse treatment and counseling centers (Office of Technology Assessment, 1985).

In 1985, it had been guessed that an AIDS patient's expenses from diagnosis to death were between $60,000 and $70,000 and, the Social Security Administration had two options, which are Disability Insurance and Supplemental Security Income to provide federal help to the patients. However, they were not enough to help patients because to be eligible for those financial support programs an AIDS patient should have met some criteria, which were not easy. For instance, the definition of AIDS by the CDC (Centers for Disease Control) was controversial and slowed down the process. Also, these programs covered only standard ones and excluded the most important ones, which were at the testing step (Office of Technology Assessment, 1985).

Discrimination against AIDS patients, especially drug abusers and gay men, brought the issue of confidentiality. Gay organizations tried to encourage people about their test results being done under anonymous conditions and doctors wanted tests to be done like other tests, with consent (Bayer, 1991). The Public Health Service Act included two sections to protect patients' confidentiality in federal research. However, these sections did not include all AIDS research. This problem led the National Gay Task Force and Lambda

Legal Defense and Education Fund to propose to widen those sections to include AIDS-related studies too (Office of Technology Assessment, 1985). In 1990, although there was not an endorsement from all circles, the Centers for Disease Control announced its support for reporting the patients' names. Approval from the House of Delegates of the American Medical Association followed the news (Bayer, 1991).

During the presidential era of William Jefferson Clinton, the perspective on fighting AIDS changed. In 1995, the Presidential Advisory Council on HIV/AIDS (PACHA) was established to analyze AIDS policies' effectiveness (Presidential Advisory Council on HIV/AIDS, 2000). Between the years 1995 and 2001, the annual budget for HIV/AIDS reached a 73 percent increase (Summers et al., 2003). In 1997, Clinton started the Vaccine Research Center (VRC) for vaccine research for AIDS (Padamsee, 2020).

40,000 persons were diagnosed with HIV/AIDS annually up to 1995, despite awareness of the virus's methods of spread. The federal government funded the Centers for Disease Control and Prevention in particular to promote AIDS prevention efforts (CDC). In 1985, the amount of funding was $33 million, and this number reached $589 million in 1995 (Office of Technology Assessment, 1995). A certain amount from the funding has been used to inform the people and one of the ways for it was the tv. According to surveys, television is the source that is most frequently referenced when discussing AIDS. With this information, The CDC created America Responds to AIDS (ARTA) to inform the public via electronic and print media about HIV operated from 1987 to 1991 (Office of Technology Assessment, 1995). The National Institute on Drug Abuse (NIDA) developed programs to contact individuals and provide them with the required information and assistance about HIV/AIDS to prevent AIDS among injecting drug users. The results were hopeful because they showed that there was a drop in needle sharing and a rise in the use of a sterile needles at the same time (Office of Technology Assessment, 1995).

The route for the prevention of the disease was also changed. The CDC decided that the communities could do their policies with the federal budget as soon as they provided sufficient information. However, the debates about the needle exchange program cast a shadow over the efficiency of the policies because opponents of the program were thinking

that it was damaging to the 'War on Drugs. Congress decided to stop funding for the program in 1988 (Padamsee, 2020). Several years after the ban, the HIV/AIDS advocacy groups succeeded in starting the program in their states with the special funds under the previous federal decision (Collins & Aragón, 2002). Also, in the 1990s, Minority AIDS Initiative (MAI) was established to focus on AIDS patients in minority groups (Farmer, 2000). In 1993, NIH started research to find out the background of HIV in women and then, in 1994, included minorities too (*HIV Pathogenesis in Women's Interagency*, 1997). However, despite all of these efforts, minorities and women still needed assistance (Padamsee, 2020).

During President George W. Bush-era, the approach to AIDS changed and vice versa. For example, in 2001, the CDC started to apply Serostatus Approach to Fighting the HIV Epidemic (SAFE) which was about focusing on HIV-positive people's behaviors. They were to blame since they were the ones who transmitted the disease (Padamsee, 2020). Also, unlike the previous policies, the CDC was told to spread abstinence-based education for prevention (Lewin, 2010). Besides, information about condoms was deleted from the federal websites (Kaiser, 2002). In 2003, HHS wanted foreign NGOs that took HIV/AIDS prevention funds to embrace anti-prostitution policies, and, after 2005, domestic NGOs had to do the same. The CDC advised clinicians to screen expectant mothers for HIV in the same year unless they objected (Padamsee, 2020).

When we look at President Obama's policies about AIDS, there is a return to focusing on the US and treatment (Padamsee, 2020). For example, the law of not accepting people to the country with HIV positive, canceled (President Bush initiated cancellation) (Preston, 2009). The focus of policies had gone from abstinence-based to educational ones. The government increased sex-education funding by $190 million and dropped the funding of abstinence-based policies by two-thirds (Sexuality Information and Education Council of the United States, 2018). In 2009, the Obama administration canceled the federal ban on the funding of the needle exchange program (Egelko, 2009). However, it did not stop congress to re-enact the ban in 2012 (Barr, 2011). Also, in 2013, the policy of anti-prostitution pledge, which was an obstacle to reaching prevention methods for people, had

been dropped by the court (Wetzstein, 2013). During these years, the White House Office of National AIDS Policy (ONAP) was focused to find new strategies to fight HIV/AIDS. The results were collected in a report called National *HIV/AIDS Strategy for the United States* (2010). This report had 4 aims which were, decreasing the number of new patients; easier access to care and better health conditions for the patients; decreasing disease-related unbalances; and answering the epidemic with a stronger strategy (Padamsee, 2020).

Since 1981, approximately 700,000 people died because of HIV/AIDS, and as of 2019, it was estimated that nearly 1.1 million people carry HIV with 15% of them not knowing (Department of Health and Human Services, 2019). In 2015, before President Donald Trump's administration had started, he said that the HIV epidemic will be done in 10 years. Within five years, the US Department of Health and Human Services (HHS) aimed to reduce the number of new cases by 75%, and within ten years, by 90% (Frieden et al., 2015). On the other hand, the Trump administration shut down the Office of National AIDS Policy (ONAP) and the Office of Pandemics and Emerging Threats (OPET) when he was in office (Beyrer et al., 2020).

To sum up, the numbers state that despite some major successes, inequalities are still a big problem. HIV diagnoses among non-Hispanic white men who have sex with men (MSM) declined by 25% between 2009 and 2018, however, this figure climbed by 20% among Hispanic MSM and remained the same in Black MSM (Beyrer et al., 2020). It seems that political conflicts and changes of power between elections are critical factors for health policies and probably these policies will change once more by the time Joe Biden starts his term.

2.3. 2009 SWINE FLU PANDEMIC/H1N1 (MEXICO)

The first cases of H1N1 were discovered in Mexico in February 2009 (Fineberg, 2014). In June 2009, the first pandemic of the 21st century had been announced by WHO after the H1N1 virus was seen in 74 countries (Prati et al., 2011). There were 213 impacted nations at the start of 2010 (World Health Organization, 2010). Mexico, as the first country that encountered the virus, was already preparing itself for a possible pandemic. In 2003,

the Mexican government built a National Preparedness and Response Plan for an Influenza Pandemic in case of a possible one (Córdova-Villalobos et al., 2009). This plan included several things like preparedness for prevention, disease control, education, healthcare, etc. In this way, institutions inside the government were informed what to do in a possible pandemic (Fraser et al., 2009).

By 2008 before the Swine Flu, the Mexican government was already ready to vaccine people with seasonal influenza vaccines which gave the government experience for the pandemic. They also made a deal with Sanofi-Pasteur for influenza vaccines as a matter of national security (Cordova-Villalobos et al., 2017). By the time Swine Flu (a more common name for the H1N1 pandemic among people) hit Mexico prevention plans entered force and surveillance mechanisms had been started. At that time, the Mexican government had built connections with international organizations for collaboration and help. One of the most effective prevention methods was the one that the government announced which was a "state of sanitary contingency" to stop a possible pandemic. With this announcement, all education activities stopped for a while in some regions of the country. Following that, social distance-based prevention had been put into place all around the nation. The National Health Council and the General Health Council held an Extraordinary Meeting to coordinate efforts with other sectors and the general public to limit future viral spread. The federal minister of health was given increased power. By that time, further precautions entered the work like the ban of all possible events or gathering in large groups (Córdova-Villalobos et al., 2009).

Communication was another key factor. Authorizations did not stop informing the public and kept giving news on daily occasions. A phone line opened to the public's service for coming questions and it received more than 5 million calls (Córdova-Villalobos et al., 2009). Also, the government kept advertising individual measures, with the help of the mass media, that the public could apply. These measures included warnings like wearing masks, washing hands regularly, using hand sanitizers, application of the "etiquette sneeze", the use of disposable tissues and how to dispose of them, avoiding crowded and/or closed areas, and staying at home, unless it was urgent (*General Directorate of Health Promotion*, 2009).

Health-care workers were informed too about how to approach patients and suspected patients, treatment ways, and reporting cases. To make works organized and cases followable, The National Epidemiological Surveillance System (SINAVE) and Influenza Surveillance System (SISVFLU) were used (Córdova-Villalobos et al., 2009).

About two weeks after taking such steps, life returned to normal and school activities resumed (Córdova-Villalobos et al., 2009). As we see, all institutions were aware of each other's plans and worked coordinately and the biggest reason for this success was probably early preparation. Also, cooperation between government, private sector, and international organizations lifted the progress on research activities that are necessary for good results. According to the estimates, 20-50% of the Mexican population was infected with the H1N1 virus just in the first year and during the pandemic, the Mexican government reported 1,316 laboratory-confirmed deaths (Cordova-Villalobos et al., 2017). Without the prevention, the number of deaths could have been much higher than the reality.

CHAPTER III

3. COVID-19

Covid-19 is a highly contagious disease caused by a type of virus called SARS-CoV-2. The disease is mostly more dangerous for old people or people with chronic illnesses. On January 10, China announced the first COVID-19 fatality. Thailand reported the first confirmed case outside of China's borders on January 13, 2020, followed by Japan on January 14, and South Korea on January 20 (Kang, 2020). The authorities in Turkey declared the first Covid-19 case on March 10, 2020. The first fatality occurred on March 16 and the first case that was recovered was discovered on March 26, 2020 (Kınacı et al., 2021).

Regarding how the epidemic unfolded, scientists generally used two strategies. The first of them, which we might refer to as the passive method, try to build population immunity, whereas the hard approach contends that more extreme measures like lockdowns, travel restrictions, and curfews should be implemented. However, in this pandemic, South Korea's used a different approach which is the agile-adaptive approach Moon called (2020). This strategy places a strong emphasis on immediately identifying everyone who is or could be contaminated. To do this, a significant role of technology, thorough testing, and intensive epidemiological survey has been made, which was highly successful at the start of the pandemic in Korea (Moon, 2020). Such a large-scale test epidemiological survey capacity was possible thanks to policy changes in KCDC after MERS. To take agile actions a government should be open to new policy actions and ideas as well as non-rigid decision-making structures. These characteristics are evident in Korea, where the government began to employ training centers and other public institutions for patients who only had moderate symptoms to prevent the virus from spreading further within hospitals. Owing to the agile-adaptive approach, South Korea did not need to take rigid precautions since it started to act fast and early (Moon, 2020). However other countries

like China, Italy, and France had to imply further restrictions on their citizens as the cases increased because they missed the opportunity of acting early. Turkey was one of them. Making health services available to the general population and ensuring that people follow the measures were Turkey's two primary tactics throughout the epidemic (Cakir, 2020).

In the first two months of the pandemic, South Korea came after China in the ranking of the country with the most cases. However, Korea was able to reverse this trend in a short time by lowering the death rate and the number of new cases. Early reaction; rapid diagnosis; measures such as quarantine, contact tracing, and isolation to prevent the virus's spread within the community, and mobilizing the necessary resources by activating the modified triage and treatment system are the most critical factors in this decline (Oh et al., 2020).

South Korea took six-core precautions to efficiently deal with future COVID-19 cases (Oh et al., 2020). First, triage centers were built in district health centers and hospitals with which all personnel was supplied with personal protective equipment (PPE) Level D. Secondly, multiple negative pressure intensive care units had been designated in several university hospitals and university-affiliated hospitals. Third, certain general hospitals were equipped with negative pressure units with respiratory medicine and infectious disease subspecialists to treat COVID-19 patients who were severely ill but not in critical condition. For mild and moderate patients, 16 dormitories were transformed into temporary isolation units for those in three provinces which provided 3,818 extra beds (Oh et al., 2020). National Medical Center arranged the transfers of patients to different health care centers according to their needs. Lastly, the Korean government had scaled the importance of needs for treatment like medical equipment and so protecting the staff to not suffer from insufficient medical doctors. Despite all of these early precautions, there were shortages of PPE, negative pressure rooms, and medical personnel at the start of the epidemic (Oh et al., 2020).

The 2003 SARS and 2015 MERS crises taught some policy lessons to Korea. The Korean government has begun to rely more on scientific knowledge coming from medical expertise and communities. The creation of KCDC (the Korean Centers for Disease Control

and Prevention) and the recognition of the detrimental impacts of the politics of epidemics are two concrete instances of this predicament. After the 2015 MERS outbreak, KCDC became autonomous, and its status has been upgraded (Jae Moon et al., 2021).

KCDC's risk assessment system was created in 2016 which was after MERS (Kim et al., 2020). The initial version was a modified one of the European Centre for Disease Prevention and Control's (ECDC) risk assessment procedures in the Korean system. Eight risk assessments have been done between January 8th and February 19th, 2020. The purpose of these risk assessments is to evaluate changes and the situation as fast and accurately as possible to inform policymakers correctly for them to take precise actions. In this case, during the pandemic, these policymakers of Korea are the KCDC and the Ministry of Health and Welfare (Kim et al., 2020).

Some scholars define Korea's policy stages until July 2020 in three stages (Jo et al., 2021). January 20 and March 21 involves the early period which was the time Korea did not have a certain policy road just like many other countries. The biggest aim was the track the infected people and stop the spread. The social distancing period covers the dates of March 22 to May 5. In this period, the public utilities operated with minimum personnel and time while the schools were closed. Also, private sectors were recommended to either call off or limit their operations and several personal precautions were advised to individuals. During the distancing in daily life period between May 6 and July 19, the Korean government eased the social distancing advice while some of the private and public institutions returned to their old routines (Jo et al., 2021).

In this context, between January 7, 2020, and April 5, 2021, there were different measures taken by the Korean Government (Oh et al., 2020). There were no cases until January 19, and the Korean government spent this time preparing for the further days. Agreements between the government and private companies and developing ways of early diagnosis like test kits were two of them. Until the 30th case, which was February 18, the national epidemic crisis level was first raised to yellow and then to orange; test kits were distributed all around the country, and vaccine studies started. Until the time of February 29, the epidemic alarm was raised to red, and the first death occurred from the virus, the

national center for disaster relief was established by the Prime Minister. As well as measures like contact tracing, quarantine, and social distancing were established to prevent community spread. Between February 29 and March 14, with the decrease in the number of cases, the National Human Rights Commission made a statement emphasizing that the privacy of patients should be given importance. In the weeks until April 5, while the downward trend in the number of cases continued in Korea, diagnostic tests for passengers from Europe and quarantine for those coming from the USA were obligatory. After the increase in cases in these regions, self-quarantine via the phone application became mandatory for all visitors as of April 1 (Oh et al., 2020).

Turkey started to take precautions at an early date. As Professor Mustafa Necmi İlhan, who is on the advisory board of the Ministry of Health, stated, Turkey's action plan, which is already ready for possible influenza, has been adapted to the COVID-19 pandemic (Genç, 2021). In this sense, The "National Preparation Plan for Pandemic Influenza" had been released in 2019 under the guidance of the Turkish Red Crescent, the Presidency of Disaster and Emergency Management (AFAD), the Council of Higher Education (YÖK), and the Ministry of Health (Koca, 2020). However, like many countries, Turkey was late in taking some measures such as border closure due to economic reservations and uncertainties (Gülseven, 2020).

Health Minister Fahrettin Koca gathers Turkey's initial struggle with the pandemic under three headings. The protection period, which covers January and February 2020 and includes preparation, increasing public knowledge about the virus, and securing borders; A period of active struggle focused on preventing the spread of the disease, contact tracing, and treatment, covering the months of March, April, and May. Finally, the normalization process that started in June is called "Controlled Social Life" (Koca, 2020).

In Bakir's exact words, "The Turkish state is a hierarchically centralized unitary state with a president-directed policy network.". The Ministry of Health (MoH) comes first in implementing health policies under this system (2020). Turkey has a strong leadership effect that reaches institutions in their policy-making processes. In this sense, decisions are taken quickly which is a plus in a crisis environment where precautions should be taken

fast. Like South Korea, Turkey also learned lessons from its past experiences. For example, after the loss of 17000 lives in the 1999 Marmara earthquake, improvements were made in the health system (Bakir, 2020). The World Bank also supported this process, the Health Transition Project, between 2003 and 2013 including Moh's and Social Security Institute expansion (*Turkish Health Transformation Program and Beyond,* 2018).

Many measures had been taken in Turkey since March 21, 2020. For example, people with chronic diseases and citizens over 65 were prohibited from going out. The hours of public transport had been changed, and they started to operate with 50 percent passenger capacity. The number of simultaneous customers in the markets was limited to certain numbers in a way new customers couldn't shop until someone left. Another ban was that tables in restaurants, patisseries, and similar places were removed and only take-away service had been started. The activities of hairdressers were suspended indefinitely and alternate working hours and working from home practice were introduced in private companies as well as in government institutions. As of April 3, 2020, the curfew began to apply to those under the age of 20 (Şimşek, 2020).

3.1. COMMUNICATION POLICIES

Reliable authorities must provide information in the case of unusual and unexpected abrupt occurrences as correctly and fast as possible so that the public does not panic and takes the appropriate safeguards. Turkey and Korea had initially taken distinct approaches to the epidemic in this regard.

Effective communication comprises transparency as well as advertising of health protection with proven methods. Together with transparency, public trust increases, as well as persons' tendency to follow leaders too. In South Korea, where the government publicized the regulations that must be observed, the majority complied without the need for further limitations (Nicola et al., 2020).

People will follow a credible leader so, giving false information may lead the country to chaos in many ways during a pandemic (Nicola et al., 2020). So, unlike previous

experiences, the Korean government decided to keep the public and media fully informed about the pandemic. Because back in the MERS outbreak informative failures resulted in a worse scenario in the outbreak course as the government did not share the full number of hospital outbreaks which was the biggest factor in the outbreak (Kim et al., 2020). In the MERS outbreak, South Korea was the second most affected country. The distrust and absence of transparency during the MERS created disagreements among central and local governments. For instance, mayor of the Seoul wanted to disclose the information about exposed hospitals that the central government kept (Moon, 2020). Fear of economic backlash against private hospitals was the motive of the government's behavior but it worsened the course of the outbreak. Due to this reason, after the MERS, the Infectious Disease Control and Prevention Act included public disclosure provisions (Kim et al., 2020). So, in COVID-19, the Korean government shared up-to-date statistics with the public to stay in touch and build trust. Also, citizens constantly have been notified when they are close to infected people (Moon, 2020).

According to a study, in South Korea, people who have lower knowledge about COVID-19 are less likely to behave responsive and, people who know about the virus are prone to take self-precautions like wearing a facial mask, practicing hand hygiene, or avoiding crowded places (Lee et al., 2021). The study also shows that to motivate people to take precautions, policymakers should convince them that those precautions work (Lee et al., 2021). The KCDC and the Ministry of Health and Welfare in Korea have been holding news conferences on television live streaming twice a day since January 2020, when the warning level was increased to yellow, to notify the public. Up-to-date statistics, government policy and guidance, personal hygiene recommendations, and vaccine progress were among the information that had been shared (Lee & Choi, 2020). That information is provided in Korean, English, Chinese, and Japanese (Santi, 2022). Also, daily notifications on important news about the pandemic are sent to citizens (Zastrow, 2020).

Although the Korean government's early pandemic measures generated some criticism, they eventually won the approval of the populace. For instance, when the number of cases rose, the media and opposition harshly condemned the administration for failing to

seal the nation's borders. Later, when the number of instances was reduced, people's views of the government became more favorable, but their confidence in the media and religious organizations that are harshly critical of the government declined (Kye & Hwang, 2020). The outcomes of the elections also demonstrated this confidence in the government. As other nations postponed their elections (Asplund, 2022), South Korea became the first nation to hold elections since the outbreak. The public's satisfaction with the effectiveness of the response by the Korea Centers for Disease Control (KCDC) made a positive effect on the Moon Jae-in administration (Park & Chung, 2021). The 21st general election held on April 15, 2020, resulted in the victory for President Moon Jae-in's ruling party (Jae Moon et al., 2021). Moon's party which is the Democratic Party of Korea, acquired 163 seats along with a satellite party's (the Platform Party) seventeen seats in the National Assembly out of a total of three hundred seats (Park & Chung, 2021). President Moon's positive endorsement stayed high even after the pandemic's pressure declined as international sources made positive statements about South Korea's success in its fight against COVID-19 (Park & Chung, 2021).

Although the first case in Turkey emerged on March 11, 2020, the government did not begin to disclose the data before March 27 (Ayhan Başer et al., 2020). Although the Turkish government has stated that it is sensitive about transparency, did not share information indicating the age, sex, and symptom ranges of the cases. While the Turkish government focused on justifying and eliminating any criticism that might come about in its fight against the pandemic, they followed a communication strategy to emphasize how successful they were in the fight against COVID-19, whenever possible (Zahariadis et al., 2020).

When the thought that the number of cases announced in the country did not reflect the truth began to prevail, the Ministry of Health made a statement confirming the situation and stated that the number of cases announced until that date included only sick people, not asymptomatic people. On September 30, 2020, Turkish Minister of Health Fahrettin Koca, at the press conference held after the Coronavirus Scientific Committee Meeting, said, "Not every case is sick. Because there are those who do not show any symptoms even though the

test is positive, and they are the majority." made a statement (AA, 2020b). Explaining the distinction between patient and case definitions, Koca said, "The number of new patients that are announced every day and that we focus on should be a matter of attention." (Evrensel Gazetesi, 2020). On November 25, 2020, the Turkish Minister of Health Fahrettin Koca stated that they will begin to announce asymptomatic (asymptomatic, mild) cases that they had not announced before (Kasap et al., 2020). Already later, the number of cases began to be announced without excluding asymptomatic patients. On 25 November, 28,351 new positive cases and 6,814 new patients were announced. Considering that the number of cases announced on November 24 was 20,079, it is better to see how this decision made a difference (Worldometer, 2022).

Later in the pandemic, the Turkish government tried to be more transparent in sharing information. The Turkish government actively used the site covid19.saglik.gov.tr to inform the public. Health Minister Koca also shared this information for a long time on his Twitter account. On this site, the daily COVID-19 table (vaccination rate of each province, daily test, case death, and recovery number, including population over the age of 18 who have received at least two doses), weekly COVID-19 table numbers, the average number of severe patients and the total number of cases and deaths), weekly case numbers by provinces, posters, brochures, billboard-CLP, videos, COVID-19 dictionary, COVID-19 epidemic management, and study guide and more contains a lot of content.

3.2. CONTAGION POLICIES

3.2.1. Evaluation and Testing

Korea contended with COVID-19 with three Ts (testing, tracing, treating) (Jae Moon et al., 2021). A key figure in the prompt response of the Korean government was the amendment of the Infectious Diseases Prevention and Control Act (IDPCA) that passed in the National Assembly on February 26, 2020, which allowed the government to implement nationwide free-of-charge testing for all citizens (Park & Chung, 2021). However,

diagnostic tests are free if the patient has a referral from a doctor or the test, which she/he paid which is approximately US$132 becomes positive (Lee & Choi, 2020). Moreover, the KCDC declared the Emergency Use Authorization (EUA) process to fasten the production of test kits without tackling bureaucracy. The EUA came in force after the MERS outbreak and was first used in the Zika outbreak back in 2016 (Kim et al., 2020). Following these developments, to expand diagnostic capacity, the South Korean government took 3 steps. First, real-time polymerase chain reaction (PCR) technology was used to produce breakthrough diagnostic tests as part of the government-private partnership that KCDC spearheaded. After that, the Korean Food and Drug Administration accelerated the process of approval of those test kits for use in possible cases. Then, studies were started to distribute these tests throughout the country (Fisher & Sang-hun, 2020). In January 2020, the South Korean government made agreements with the private sector to produce test kits (Kim et al., 2020). In this way, the first COVID-19 test was approved by February 7, 2020, even though there were only a few positive cases in South Korea at the time (Choi, 2020). Eventually, with its 50 million population Korea applied 600,000 tests with a daily number of 15,000 just in a couple of months (Kim et al., 2020).

In evaluation and testing, South Korea embraced a different approach. Patients who have COVID-19-related symptoms were canalized to COVID-19-focused healthcare centers that have special entrances. It's called the Public Relief Hospital System which aims to reduce the transmission of the virus from COVID-19 patients to non-COVID-19 patients. 'Public Relief Hospitals' system in South Korea kept the death rate at a certain level even though the positive cases were high (Yoo et al., 2020).

To prevent home-isolated patients from dying, KCDC announced a 4-stage patient classification system on March 2, 2020. This classification system's four stages are asymptomatic, mild, moderate, and severe. Patients that meet the criteria for being classified as asymptomatic include those who are awake, younger than 50, not smokers, do not have any underlying diseases, and have a temperature of less than 37.5 without the use of antipyretics. Mild patients are those who are conscious and one or more of the following conditions are met. Patients who are older than 50 years old, own at least one chronic

disease, and have a fever equal to or less than 38°C with antipyretics. These two categories of patients stay in quarantine hotels. Patients in the third stage are moderately ill but aware, and they show at least one of the symptoms listed below. A fever is higher than 38°C even with antipyretics and the other is respiratory difficulty. These patients were being treated in infectious disease hospitals and negative pressure intensive care units. The last stage is severe which includes unconscious patients who are taken care of in negative pressure intensive care units. All these care and quarantine costs for COVID-19 were covered by the Korean government (Chang et al., 2020). This evaluation and classification system allowed the Korean Government to act rapidly to give the necessary care to the patients.

In testing, South Korea's Those drive-through and walk-through testing stations decrease the contact and possibility of transmission among medical staff and test givers as well as among test givers. These centers have four parts which are registration, examination, specimen collection, and further instructions, and all services can be given in 10 minutes which is six times faster than normal testing centers (Lee & Choi, 2020). In these centers, unlike normal testing procedures, it is not necessary to ventilate and disinfect the test area (Lee & Lee, 2020). High test numbers appear to lower the frequency of new cases, as seen during the first month of the epidemic in South Korea. The extensive testing at the start of the pandemic in South Korea led to a low transmission and fatality rate as of April 2020. (2.1 percent) (Lee et al., 2020).

In Turkey, as cases increased, the daily death toll surpassed 400, and test capacity fell from 61 028 on April 20, 2021, to 38 553 on April 25, 2021 (Genç, 2021). According to a study released by the Ministry of Health's General Directorate of Public Health in October 2021, while the contact people are being examined Individuals who have had contact within 2 days (48 hours) of the onset of symptoms in symptomatic cases and 2 days (48 hours) prior to the sample being collected for PCR testing in asymptomatic instances are assessed when contact evaluation is made. If PCR tests are negative; persons are not taken into isolation, HES codes do not become risky, and the registration of these persons in the system is terminated on the 6th day. However, these individuals monitor themselves for symptoms for 14 days. Until the end of the 14th day, these people should not give care

to groups at risk for COVID-19, such as people over 65 years of age or immunosuppressed, and people staying in nursing homes. A respiratory tract sample (with a VTM that can carry samples suitable for study in terms of variant and sequencing) and a blood sample (separating the serum) are sent to the General Directorate of Public Health for antibody testing by PCR and ELISA from people who are diagnosed with infection for the second time. No action is taken for contacts with negative PCR test results. If the PCR test is positive, the contacts are identified and recorded in the system within 2 days (48 hours) of the onset of symptoms in symptomatic patients and 2 days (48 hours) before the collection of a sample for PCR testing in asymptomatic cases. In the contact evaluation, contact status (close contact/contact) is questioned. Persons who are considered to be close contacts are recorded in the system as a contact. For vaccinated people, PCR testing is performed if people develop symptoms compatible with COVID-19, regardless of the time elapsed after vaccination. If the PCR test is positive, their isolation and treatment are done by the Ministry of Health guidelines (TC Sağlık Bakanlığı, 2021).

According to the contact algorithm, contacts are divided into close contact (high risk) and contact (low risk). For the first, people who are reported to be in contact within 2 days (48 hours) before symptoms appear in symptomatic cases and 2 days (48 hours) before sample collection for PCR testing in asymptomatic cases are detected by the Provincial/District Health Directorate and where they are isolated. The contact status (close contact/contacted) is evaluated by visiting them. Persons identified as close contacts are marked as a contact in the HSYS Case Tracking Module/FITAS. Close contacts are urged to stay at home for 10 days and informed of the isolation restrictions if they do not need to be hospitalized for another reason. Persons who are registered as close contacts are followed up by the relevant unit/persons over the phone within 14 days from the date of contact. During follow-up by telephone, they are questioned for symptoms of COVID-19. If people with close contacts develop symptoms of COVID-19 during the follow-up period, samples are taken by the filiation teams. For the latter, no additional measures are taken against Contacts. Compliance with the social distance rule in the society, are reminded to pay

attention to personal hygiene rules, especially wearing masks and hand hygiene. Contacts are asked to follow themselves for 14 days for the development of COVID-19 symptoms and to apply to the nearest health institution with a mask if one of these symptoms develops (TC Sağlık Bakanlığı, 2021).

As the course of the pandemic changed, so did the protocols. For instance, as of January 2022, all positive cases can exit isolation without testing after 7 days of isolation. The PCR test requirement for screening and contacting persons was also abolished, and the PCR test would be performed only on those who show symptoms (İnal Kamacı, 2022).

3.2.2. Contact Tracing *(This section is an extended version of my article titled "Comparison of COVID-19 Contact-Tracing Apps in the Context of Public Policy: The Cases of Turkey and South Korea" published in the journal of Kwartalnik Studia z Polityki Publicznej/Public Policy Studies)*

The pandemic changed human mobility on a global level just like in South Korea and Turkey. According to the Worldometer (2021) data, by September 9, 2021, the number of COVID-19 cases in the world was 224,009,794 and the deaths were 4,620,069. The numbers for Turkey were a total of 6,590,414 cases and 59,170 deaths: for South Korea 267,470 cases and 2,343 deaths. Given these numbers, governments are trying to decrease the damages of the pandemic by taking various precautions like mandatory mask use in public places, vaccine campaigns, intense contact tracing, and testing, economic aid programs for those who have income lost, etc. While wearing a face mask is one of the best methods for stopping the spread of the virus among people, (Rahimi and Talebi Bezmin Abadi, 2020), not everyone uses face masks properly and it is impossible to monitor everyone to check whether they obey the rules or not. In this regard, when a person is affected by the virus, it is critical to find other people who interacted with the infected person. In this sense, authorities utilize a variety of contact tracing approaches, although technology is extremely important because antiquated procedures like manual contact tracing are difficult to use, take a long time, and do not produce the required results.

Therefore, epidemiologists and technologists are working together to support classical techniques with digital contact tracing (Anglemyer, 2020). The usage of mobile phone apps has been one of the ways of digital contact tracing during the COVID-19 and, it has been applied widely by the governments to control the pandemic. These apps track people's locations via Bluetooth, Wi-Fi, or GPS (Global Positioning System) technologies. One of the numerous nations adopting technology and contact tracing applications to stop the spread of the virus is Turkey, which is joined by South Korea. Among private apps introduced by companies, their governments launched various mobile health apps available in Google Play Store and Apple Store. In this part, Turkey's (*Hayat Eve Sığar;* "Life Fits Into Home") and South Korea's (자가격리자 안전보호; "Self-Quarantine Safety Protection -Jaga keoklija anjeonboho- ") contact tracing applications designed and implemented by their governments during the COVID-19 pandemic will be compared.

The research on COVID-19 cell phone apps is new and sparse, even though numerous studies have been conducted so far on mobile health applications and contact tracing applications. The two countries' experiences with mobile phone apps are based on different dates. The mobile phone location tracking apps Korea launched for the COVID-19 are based on already structured surveillance technology which started in 2015 as the Middle East respiratory syndrome coronavirus (MERS-CoV) occurred (Kim et al., 2021). On the other hand, even though Turkey's contact tracing apps' history is not old as Korea's, usage of mobile health applications is quite excessive. In fact, in the list of most popular medical apps in Turkey in the Google Play Store, in the top ten, the Ministry of Health has 3 apps (SimilarWeb, 2021).

In contact tracing apps, two main approaches have been used. A centralized approach in contact tracing apps means that a centralized server collects all the data from apps' users and saves it in one place, sharing anonymous data only with users at high risk. On the other hand, an app that emphasizes a decentralized approach collects data on users' phones so, the server's role is only to broadcast the data. Also, the app erases the data every 14 or 21 days but shares an infected person's anonymous data with each user once the user permits sharing (Ng et al., 2021). Regarding data protection and privacy, many European

authorities defend the use of a decentralized approach instead of a centralized one. In this way, the data of individuals cannot be used for other purposes by states or third parties, and privacy can be guaranteed (Thomas et al., 2021).

Privacy, security, surveillance, and transparency concerns come first as the reasons for not downloading the contact tracing apps so solving these concerns is coming first when launching the apps since the high usage rates of the applications are essential for their effectiveness. Likewise, the voluntary usage of the apps and public perception have a critical role too (Hogan et al., 2021). For example, Qatar's app is mandatory to use and requires access to photos while UAE can fine their citizens reasoning that avoiding the usage of their app (Shahroz et al., 2021). Countries like Austria, Finland, Denmark, Norway, Estonia, and the UK give importance to their apps' transparency via their open-source design and codes, others like Algeria, Kuwait, and Tunisia took criticism from Amnesty International because of their lack of transparency in their contact tracing apps. In 2020, Iran's app, AC19, has been removed from Google Play Store because of its spying actions (Sato, 2020). On the other side, about twenty percent of Finland's population downloaded their app within the first 24 hours, and 37 percent of the Irish population had also downloaded their app in the first two months when it had launched. The reasons for the high numbers were the common usage of smartphones and the emphasis on individual privacy (McDonnell, 2020).

When it comes to methods that are used in the apps, countries may share common features. For instance, The People's Republic of China uses Alipay and Wechat to inform its citizens about their location risk assessment. These apps use codes with the colors green, yellow, and red where the risk goes up from green to red which is what most public places require (Radanliev et al., 2020). Turkey uses a similar coloring method too in its app's risk map, as will be discussed further. Also, some governments prefer to cooperate with private companies. For instance, Google and Apple developed Exposure Notification API (Google, 2020) which is a privacy-preserving contact tracing to support public health agencies that have been used by more than 30 countries (Rahman, 2021).

a) South Korea

Korea's support system for epidemiological investigation leans on the Act on Preventive and Management of Infectious Diseases and uses the data hub technology to gather and analyze the information. It is a work of cooperation of the Ministry of Land, Infrastructure, and Transport, Korea Centers for Disease Control and Prevention, and the Ministry of Science and ICT, and it operates since March 26, 2020 (Ministry of the Interior and Safety, 2020). The COVID-19 Epidemiological Investigation Support System (EISS) of Korea is one of the important features to fight back against the pandemic since it accelerates the contact tracing teams' jobs (Ministry of Economy and Finance, 2020). The EISS works together with the smart city hub to collect data which is a product of the Ministry of Land, Infrastructure, and Transport (Joo and Shin, 2020).

According to the report that had been released after the 2020 Korean elections, contact tracing includes four stages: 1) investigation, 2) exposure risk assessment, 3) contact classification, and 4) contact management (The Government of the Republic of Korea, 2020). In the first step of this strategy, the necessary information was collected via interviews with the patient, family, and primary physician. Then there would be evaluated with the gathered information plus extra data (medical records, GPS data, CCTV, and credit card transactions). In the third step, people were classified according to their contact levels, and lastly, restrictions were applied (The Government of the Republic of Korea, 2020). Necessary information was collected under the law of the Infectious Disease Control and Prevention Act. It is mentioned that, in an extra situation, data like medical records, GPS records, credit card movements, and CCTV footage may be gathered too (The Government of the Republic of Korea, 2020).

The Republic of Korea published two reports in October 2020 and in May 2020 to give publicity to their pandemic battle. According to these reports, on February 12, 2020, the Self-Check Mobile App, on March 7, the Self-Quarantine Safety Protection App, and on April 27 Self-Quarantine Safety Band became available. On March 19, the special entry procedures applied with the help of these apps at the entrance to the country were expanded

to all countries' citizens. On May 11, 2020, the obligation to take a COVID-19 test at the entrance to the country began to be applied to all passengers (Government of the Republic of Korea, 2020). So, after checking their health status with the Self-Check app, passengers must have made a COVID-19 diagnostic test just so they can download another app called Self-Quarantine Safety Protection App (Lee, 2021). The use of the Self-Quarantine Safety Protection App is not mandatory for those living in Korea, but anyone entering the country must download the app (as of April 1, 2020). According to government data, as of April 13, 91.4% of those in self-quarantine downloaded the application (Ministry of Economy and Finance, 2020). However, people with 'A' visas and 'Quarantine Exemption Certificate' are exempted from 14-day quarantine. So, after they show a negative COVID-19 test to the authorities, they should use the Self-Check App to check their health status and answer daily calls from officers for 14 days during their travel. In the beginning, the Self-Check app requires data from people like passport numbers, nationality, phone number, address, and any symptoms related to the disease or not. This data is also shared with the public health clinics which are a part of the local governments. If the application is not downloaded or used regularly by the traveler, a warning message will be sent for the first two days. On the third day, if the person's conduct hasn't changed, they are contacted via phone and instructed to utilize the app. If the situation continues on the 4th day, the police force will step in to track the person. Also, when the 14-day period expires, the user is notified to delete the application (Ministry of Economy and Finance, 2020).

On the other hand, all Koreans and other travelers with long-term visas must download the Self-Quarantine Safety Protection App for their mandatory 14-day quarantine. The Self-Quarantine Safety Protection App has two main features that are self-check and location-tracking via GPS data. The government officer can track a persons' location who they are responsible for or reach their personal information in case of a symptom checked by the user or an absence of self-check (Government of the Republic of Korea, 2020). Individuals under self-quarantine must check four symptoms (fever, cough, sore throat, dyspnea) of themselves twice a day via the app. This data and whether the person is obeying quarantine is shared with the responsible government officer too

(Ministry of Economy and Finance, 2020). Koreans who refuse to use the app and/or violate the quarantine rules are fined up to 10 m won or sentenced to 1 year in prison. For foreigners, this penalty is immediate deportation. The same penalty applies to those who leave the route between the testing center and the designated quarantine place. If the self-quarantined person's location shows a different place from his or her quarantine place or the GPS connection is lost, this person's contact tracer officer is immediately informed. Also, if the app senses about 3 hours of inactivity, it will send an alert notification that you must respond to assuming the device has been left somewhere (Lee, 2021). Additionally, the app's guideline states that people who do not obey the quarantine rules will have to wear a Safety Band. In possible ongoing disobedience, the Korean government can put them in one of their quarantine facilities for the remaining time. Those who don't download the app purposely or have no phones at all must stay in the Korean government quarantine centers (Government of the Republic of Korea, 2020).

b) Turkey

Preparations for possible pandemics have been going on in Turkey since 2004, and the first pandemic preparation plan was prepared for all provinces in 2006 (Şimşek et al., 2020). So, when Turkey experienced the influenza A (H1N1) pandemic, it did not catch off guard.

During COVID-19, in the filiation practices carried out in 81 provinces, the teams record their work with mobile devices in the field *(FİTAS, 2020).* The mobile phone app called the Filiation and Insulation Tracking (*Filyasyon ve İzolasyon Takibi*) was designed by the Ministry of Health, teams of The Contact Tracing and Isolation Tracking System (*Filyasyon ve İzolasyon Takip Sistemi -FITAS-*) can track both positive cases and the people they encounter *(Filyasyon ve İzolasyon Takibi, 2020).* The collected data with the FITAS is shared with the Public Health Management System *(Halk Sağlığı Yönetim Sistemi -HSYS-)* and the Family Medicine Information System *(Aile Hekimliği Bilgi Sistemi -AHBS-).* For 14 days, the assigned family doctor for the case follows the health situation of the contacted person, and in any shown-up symptoms, the doctor refers the patient to the hospital (Şimşek et al., 2020).

As of September 26, 2021, the Ministry of Health of the Republic of Turkey has 42 mobile health applications in the Google Play Store. Among these, the application called *'Korona Önlem'* (Corona Prevention) is being used to inform and guide citizens about COVID-19 (*Korona Önlem*, 2020). With this application, citizens can verify their identity information, answer the questions asked step by step, learn about the possibility of being infected with the coronavirus disease, and receive guidance accordingly. Another application, HealthPass, is an app where citizens can keep their vaccination, test, and immunity certificates under international standards and can be used easily during travel. The app will enable the "Digital Green Certificate" procedure announced by the European Union on March 17, 2021, allowing users to show a certificate containing health information while traveling between EU members and to be exempt from measures like PCR testing and quarantine only if they abide by the rules (*HealthPass*, 2021).

The Republic of Turkey Directorate of Communications has released an announcement with the headline Pandemic Isolation Tracking Project developed against COVID-19 on April 8, 2020. The project is about monitoring patients when they are in isolation and was developed with the cooperation of the Ministry of Health, Information and Communication Technologies Authority, and all GSM operators. The announcement mentions that people who are in the house quarantine will receive a text message and will be reached out to if they leave their home (Directorate of Communications, 2020). If they refuse to return home, law enforcement will be informed, and necessary administrative penalties including, administrative fines and criminal investigation, will act (Kocaeli İl Sağlık Müdürlüğü, 2020; TC Bornova Kaymakamlığı, 2021; TC Antalya Valiliği, 2021).

In this sense, Life Fits Into Home is launched to monitor infected people and alert app users when they are in a place where the possibility to get the virus is high or if they are getting in close contact with an infected individual. If an infected person leaves their isolated place, they get warnings via text messages and calls. If the person does not obey the warnings, their identity, location, and contact information are shared with the Ministry of Internal Affairs and law enforcement. To use the app, individuals must enter their phone numbers. For people who do not wish to submit their personal information to the app, a

limited version of the app is offered. Also, if they consent, users can share their data like location and risk statute with other users. A feature inside the app allows users to scan barcodes of public places like malls to get information about that place like the number of daily visitors, etc. In addition to this, one of the application's most crucial aspects is related to HES codes since these codes are required to enter public spaces like malls and state offices. Also, interprovincial travel with an airline, bus, or train does not allow people to board without a HES code (Hayat Eve Sığar, 2020b). HES Code is a code that enables you to safely inform institutions and people in your transactions, such as travel or visits within the context of Controlled Social Life if you bear any risk in terms of the COVID-19 disease. The HES codes you share can be queried through the application or the services provided to the institutions.

With the safe area implementation inside the app, people can create QR codes for the areas they are responsible for and hang QR Code printouts at the entry points of the relevant areas. Also, users can report airports, private businesses, (isolated) individuals, social activities, and public transportations anonymously with the justification of breaching COVID-19 measures. While doing that, there is an option to add proofs like photos (Hayat Eve Sığar, 2020a). It is possible to search hospitals, pharmacies, and metro stations inside the app's map. Besides, people who will enter Turkey can obtain the entry form from Life Fits Into Home. Users can check their COVID-19 vaccine information as well as create vaccine cards too (Hayat eve sığar, 2021; Hayat Eve Sığar, 2020b). At the same time, the app provides a quick and short health check test. After you verify your phone number, answer the questions asked step by step, and receive guidance according to how you should act by being evaluated according to the complaints you have given in terms of coronavirus disease. Unless the user wishes to select one of the alternatives of "search the nearest health facility" or "contact Ministry of Health Communication Center (SABİM)," the test can be repeated every hour. Lastly, users can see risk zones from the risk map too. In this map, high-risk areas are shown in red while low-risk areas are shown in blue. Middle ranges change in the order of green, yellow, and orange. The app has been presented as a core

value for the transition to "Controlled Social Life" by the government (Hayat Eve Sığar, 2020b).

c) Discussion

The utilization rate of these applications, which varies from country to country based on elements like public faith in the government, privacy concerns, technical sophistication of the nation, or low smartphone ownership, is directly associated with the success of the applications. Digital solutions are essential for accelerating data collection. For example, as of July 2020, the adoption of the government-endorsed COVID-19 contact tracing app in Turkey was 17.3 (Statista, 2021) while the total usage rate of Korea's Self-Quarantine Safety Protection and Self-Diagnosis apps amounted to 34.4 percent in 2020 (Statista, 2021b). Also, the number of smartphone users in Korea was 39.2 million while in Turkey this number was 55.14 as of May 2021 (Statista, 2021a). As seen, the gap in the smartphone usage rate between the two countries is less than the contact tracing apps' adoption rate. Future studies can explore its possible causes, which could include varying levels of trust in governments or smartphone users' technological expertise in the two nations.

Another point is that sometimes malfunctions of the apps may disrupt the user experience. For instance, in a Korean blog post, an app user has mentioned their experience with their assigned officer for self-quarantine. The user had to present proof to the officer that they were in their quarantine place but not in another location (Hogan et al., 2021). These types of errors occur even in the biggest companies' applications, and they can be tolerated to some point. The fact that the assigned officer can see the user's live location and warn them immediately is a show of high surveillance and maybe a bigger uncomfortableness than the malfunction.

Korea sends every mobile phone user a location-based text alert who gets physically close to an infected person, (Boudreaux et al., 2020), and assigned officers are always available to people in quarantine in case of a possible question or for the delivery of care packages, and most of the blog users found this kind of service provided by officers helpful (Kim et al., 2021). So, there are people too who are comfortable with state monitoring because they felt being cared for. Similar remarks may be found in the reviews for Life Fits

Into Home on the Google Play Store. For instance, many customers like how simple it is to get services like immunization cards and HES codes using the app. Also, the app's rating in Google Play Store is 4.2/5 which is an optimistic number (Hayat Eve Sığar, 2020b).

These programs, which conduct health checks based on the information given by users, are ineffective due to several problems (Hogan et al., 2021). For example, the app belongs to Korea and does not allow users to enter detailed symptoms or cannot detect asymptomatic infected individuals (Kim et al., 2021). The same problem occurs in Turkey's app too. Inside of Life Fits Into Home, when users click 'Calculate Corona Risk' they see four buttons which are "I'm good," "I'm good but feeling a bit infirm," and "I don't feel good," and "I feel infirm and sick." If a user selects the "I'm good" option, the app doesn't ask further questions (Hayat Eve Sığar, 2020b). The fact that the statement "I'm good" is a vague one, it makes hard to detect infected people. While the inability to identify asymptomatic individuals can be considered a general problem, a detailed questionnaire can be added. This can be done gradually if users don't want to spend a lot of time on the app. Another problem is that users themselves choose how accurate the data is. However, apps cannot understand whether the data is entered with honesty or detect that the users can understand and separate the symptoms correctly (Hogan et al., 2021). In this sense, although the apps cannot eliminate this problem, bringing a periodically mandatory COVID-19 test rule to everyone may increase the chance to detect asymptomatic patients.

Privacy issues were at the second line at the start of the pandemic since sharing personal information had been deemed important due to public fear about the new illness. The roots of this attitude go back to 2015 when Middle East respiratory syndrome (MERS) emerged. Since then, transparency has been a highly featured issue in Korea for the sake of public health. Nevertheless, as the public alarm settled down in time, privacy concerns emerged quickly. So, in September 2020, to dissolve public concerns away, the Contagious Disease Prevention and Control Act got through some changes, and unnecessary information like sex, age, and surname is not shared by authorities anymore (Ahn and Wickramasinghe, 2021).

In Korea, the government has access to the personal information that users of self-quarantine submit to the program, including their health and location data. However, it is unclear how long the authorities that have access to this material will keep it or when it will be destroyed (Lee, 2021). The National Human Rights Commission of Korea expressed worries about data privacy on March 9, 2020, by including the phrase "excessive exposure of private information of COVID-19 patients" in the title of a news release (NHRCK, 2020). This concern included sharing infected persons' travel destinations with exact times with the public by local and central governments. Following this release, on March 14, KDCA sent a guideline to local governments on this issue. With the updated version of the guideline in June 2020, the limitation of the share of information of infected people started to be applied and anonymity gained importance (S. Park et al., 2021). However, these concerns are not completely resolved since South Korea uses centralized apps.

Contrarily, the privacy statement for Life Fits Into Home was developed in compliance with Article 10 of Law No. 6698 on the Protection of Personal Data (KVKK). It claims that the policy limits the amount of time that user personal data is processed. Processing user personal data is necessary for healthcare service planning and administration, medical diagnosis, treatment, care services delivery, and public health protection. Additionally, it is stated that users may exercise their rights under KVKK Article 11 by appealing to the Ministry and complying with KVKK Article 13 and any pertinent sections of the Notification on the Procedures and Principles (Hayat Eve Sığar, 2020c). In this sense ID and telephone numbers, location, profession, and health information are being collected via the app. There are several exceptions to the Turkish government's assurance of the security and privacy of personal data in the third paragraph of Article 6 of Law No. 6698, titled "Conditions for Processing of Special Data." In this regard, the Ministry of Health, Social Security Institution, and healthcare institutions may use personal information without a specific agreement to operate preventative medicine, medical diagnosis, treatment, and nursing services (Directorate of Communications, 2020). Turkey, like Korea, has a centralized system, although it is unclear how long the data will be kept there.

Additionally, it is also understandable that user privacy might be disregarded to preserve public health.

In states of crisis like this, governments have been in a desire for ending uninvited occurrences together with a taking chance of expanding their legitimacy while citizens want to protect their health and privacy (Ahn and Wickramasinghe, 2021). In this sense, the order of importance between public health and privacy varies between policymakers and citizens/interest groups. The important thing here is to somehow achieve the balance in between. Otherwise, policy effectiveness may decline. When privacy is not given enough significance, it is possible, for instance, that usage of voluntary mobile applications would decline or stay below a particular level. The importance that the state gives to privacy is also important for ensuring citizen trust. In this way, citizens may show willingness in participating in state policies. However, it is unknown that the use of these surveillance technologies will not be used for political suppression in the future because implementations introduced during crisis times have a low chance to be terminated once the crisis is over (Barriga et al., 2020). For example, Turkey's special communication tax (ÖİV) had been introduced as a temporary one under the name of "earthquake tax" but it was never repealed (T24, 2012) or when Korea changed its laws during the MERS outbreak to collect personal data during crisis times (Kim et al., 2021) is still in force.

Since sixteen percent of the Korean population and nine percent of the Turkish population is over 65 years old (World Bank, 2019), age-related diseases can be encountered more in Korea. So, healthcare facilities can be used for introducing apps to people with health problems, and advertisements for mobile health apps can be put in ones that people already are using (J. Park et al., 2021). In this way, the usage rate of the apps for higher effectiveness can be reached. Another factor that is affecting the usage rate is the voluntary basis of the downloading of the apps. While some countries require the use of their apps mandatory, other countries prefer not to. Both The fact that Turkey's and South Korea's applications are within the required category might be seen negatively.

The reality is that for most nations, this pandemic is not merely a health problem but also an economic, social, and political one. To overcome this new problem sudden

precautions introduced by authorities created backfires for some people or groups. For example, while Korea's method of using GPS data, CCTV footage, and credit card transactions with the help of apps during contact tracing allow epidemiologists to trace more people than classical methods it took criticism. In this sense, Turkey does not follow this kind of procedure like using CCTV footage or credit card transactions but, Life Fits Into Home's excessive range for access to GPS and network-based location information, phone book, take and save photos on the camera, wireless connections, full network access, read Google service configuration, Bluetooth settings, and retrieve data from the internet is already concerning since it collects a lot of data in its centralized hub. In addition to these, access to the already registered e-government identity information, "e-pulse" system, and "MERNIS" (population and citizenship affairs) data are provided. Since Life Fits Into works with three GSM operators, all data shared with the operator with which the mobile phone is registered gives direct access to government systems through this application (BBC News Türkçe, 2020).

Lastly, Turkey's Life Fits Into Home is using a centralized approach and did not claim data destruction. The app saves users' IDs in readable characteristics without protection. It means that once a user's phone is connected, personal information can be reached by other users that are in a close area which may end up tracking another user (Thuraisingham et al., 2015). Korea's app is no different from Turkey's. Centralized apps like South Korea's and Turkey's that use GPS to track location collect excessive data and are vulnerable to hacking (Kaya, 2020).

3.2.3. Treatment and Public Health Policies

In South Korea, everyone including international residents can benefit from the National Health Insurance scheme if they contribute. Each residence must join this program, but the contribution depends on the income. In this system, to reach the entire population, the coverage for services and drugs is 60 percent. This is considered highly effective when considering that the country's examination rate is the highest in the OECD counties while the life expectancy is 82.7 which is the 5th highest among all countries.

However, since not all services are covered by national insurance, 67.7 percent of the people benefit from private insurance to cover unpaid services. Another explanation is that since most service providers in the nation are private, they frequently refer patients to treatments that are either expensive or not covered by public health insurance. Conflicts arise as a result of this arrangement between the government and the suppliers (Lee & Choi, 2020).

South Korea dealt with outbreaks before too. Experiencing the middle east respiratory syndrome (MERS) in 2015 gave a lot of lessons to South Korea. One of them is to build negative pressure rooms in hospitals beginning in 2018 (Yoo et al., 2020). Central Disaster and Safety Countermeasure Headquarters (CDSCH) is the highest responsible department in terms of dealing with COVID-19 and it is under the rule of the Korean Prime Minister. The Minister of Health and Welfare and the Minister of Interior and Safety are the top two executives of the CDSCH after the Prime Minister. CDSCH plays a crucial part in solution finding and communication between the central and local management (Jae Moon et al., 2021).

One of the biggest reasons for South Korea's low death rate is because the country applied triage-based implementation to reduce in-hospital spread (Yuan, 2021). In South Korea, at the start of the pandemic, anyone with the virus was hospitalized. But over time, this became impossible due to the increasing number of cases (Chang et al., 2020). So, in later times, it was seen that in South Korea’s hospitalization procedures, patients were categorized as moderate, severe, and extremely severe whereas asymptomatic or mild cases were treated in the Living Treatment Centers (Yoo et al., 2020). On March 10, 2020, the Korean government established these treatment centers for patients who needed to stay in quarantine. In these centers, each room was reserved for just one patient and each patient had to do self-monitoring twice a day. Patients were being triaged and divided into four categories which are mild, moderate, severe, and critical. (Lee & Lee, 2020). In general, treatment centers were home quarantine, COVID-19 community facilities, and hospitals dedicated to COVID-19 patients. The triage approach was also used to separate those hospitals into three tiers. The community facilities were for the mild cases primarily based on monitoring patients who were not in home quarantine. At this stage, the hospital rooms

were not filled with mild patients, and these patients could be referred to hospitals as soon as their condition worsened. Hospitals that were separated only for the COVID-19 patients were mostly public hospitals under the Korean government and some other private hospitals for use as secondary and tertiary hospitals. These consisted of 67 hospitals with a bed capacity of more than 7000. There were particular areas in these hospitals that were just for patients who need respiratory treatment. This prevented these individuals from potentially coming into contact with those who did not have respiratory issues (Her, 2020).

On the other hand, in Turkey, Under Universal Health Insurance (UHI) everyone can benefit from free diagnosis and treatment even if they are not Turkish citizens (Koca, 2020). Although medicines are not covered by General Health Insurance, during the pandemic patients were not charged for drugs used for COVID-19 in Turkey (Şimşek, 2020). There are more than one million healthcare workers in Turkey. In addition to this number, another 32,000 healthcare workers were recruited in April 2020. As of June 2020, a total of 2,985 '112 emergency aid stations, 5,437 ambulances, 17 helicopter ambulances, and three air ambulances have been dedicated to service. In addition, while Turkey entered the pandemic with 245422 beds and 30722 ventilators, of which 41593 were in intensive care, in 1524 hospitals, 794 hospitals were declared as pandemic hospitals, and 11269 hospital beds were reserved for COVID-19 patients during the pandemic (Koca, 2020).

The General Directorate of Public Health (CSAB) was established under the MoH to coordinate all COVID-19-related health policies under unified public health policy rules. Afterward, at the local level, Provincial Pandemic Committees (PPCs) are established in all provinces to better specify each province's needs. The family doctor system in Turkey has also greatly reduced the burden of hospitals during the pandemic**.** This system emerged in the health reform between 2003 and 2013 and was named the Family Medicine (FM) model to improve primary care services in the country (Greer et al., 2021).

In Turkey, on March 20, 2020, with the circular issued by the Ministry of Health, all private and foundation hospitals were declared pandemic hospitals (Sputnik Türkiye, 2020k). On March 26, 2020, The Ministry of Commerce included the export of respirators among the products subject to preliminary authorization (Sözcü, 2020). Additionally, it was

stated on March 27, 2020, that employees in the public and private health sectors would not be permitted to take a three-month leave of absence (Sputnik Türkiye, 2020o). On April 14, 2020, The Presidential decision that all citizens who contracted COVID-19 would be treated free of charge has been published in the Official Gazette (Sputnik Türkiye, 2020b). The legislation proposal was approved by the General Assembly of the Grand National Assembly of Turkey on April 15, 2020, and it was signed into law. It included rules on the prevention of violence in healthcare and reimbursement for training that was postponed due to the pandemic (Sputnik Türkiye, 2020c).

Adult patient management and treatment in Turkey Empirical treatment are planned for patients with pneumonia and severe pneumonia presenting with a pre-diagnosis of COVID-19, considering bacteria and other viruses. The choice of antibiotic to be used in empirical treatment is made according to the clinical condition of the patient, local epidemiological data, and treatment guidelines. Antibiotic therapy will include atypical pneumonia and is planned accordingly. In individuals with a confirmed diagnosis of COVID-19, antibacterial medications other than azithromycin should be stopped until there is clinical or laboratory confirmation of the presence of another bacterial infection. Additionally included in the regimen for individuals with probable viral pneumonia is oseltamivir (TC Sağlık Bakanlığı, 2022).

3.2.4. Isolation/Quarantine Policies

South Korea's infectious disease control system is called "K-*Bangkok*" (K-quarantine) (Yoon, 2021). To stop the illness from spreading, South Korea implemented quarantine extensively. People who recently interacted with suspected or confirmed cases, for instance, in China or in the two regions of South Korea that have been severely affected by the pandemic, were either free of charge quarantined in special facilities or at home for two weeks or until it was determined that they were negative (Oh et al., 2020). In the 2020 guidelines of the South Korean government, any person who shows COVID-19 symptoms had to stay at the home for 3-4 days until the Korea Centers for Disease Control and Prevention (KCDC) reaches out to them for further instructions (Yoo et al., 2020).

The Ministry of Health and Welfare of South Korea released a press statement titled "Building COVID-19 Response System in Consideration of Omicron Characteristics" on February 7, 2022. Due to the increasing number of cases because of Omicron, exceeding 30,000 daily cases, the disease control and medical system were reorganized. In epidemiologic investigation and isolation, a self-reported survey was introduced to trace patients' previous contacts. Home isolation patients had to notify the public health center before leaving home and GPS-enabled isolation apps were not in use anymore (Ministry of Health and Welfare, 2022b).

Turkey used the method too**.** Until March 23, 2020, approximately 11000 people returning from Umrah were quarantined in dormitories of the Turkish government (Genç, 2021). In Turkey's quarantine practice, quarantine application in those with high-risk (close) contact with COVID-19 is different for people who have received a recall dose or who have had the disease in the last 3 months. They are not quarantined if they have close contact with COVID-19. They can continue their daily lives by following their symptoms and by following protective measures (use of mask, interpersonal distance, hygiene). Although there is no quarantine, these people should pay maximum attention to the mask and distance for up to 10 days due to the partial risk. In case of symptom development, a PCR test is performed on the day of symptom development. This rule does not apply to people who stay and provide services in areas where care is given to high-risk people (such as elderly care homes, prisons, immunosuppressive patients, etc.). Even if quarantine is not applied for people serving high-risk people, they should not serve the high-risk group for 10 days. A seven-day quarantine period is indicated for anyone who has not gotten a reminder dosage, has not had the illness within the last three months, or has not had a vaccine. If no symptoms develop during the quarantine, the quarantine is terminated without testing on the 7th day. A PCR test is run on the day when symptoms first appear if any symptoms arise while the patient is under quarantine. Although the quarantine period expired on the seventh day, these individuals should maintain a safe distance for up to ten days because of the potential danger. A 10-day quarantine is applied to people who stay and provide services in areas where high-risk people (such as elderly care homes, prisons,

immunosuppressive patients, etc.) are given care. Even if the 7th-day quarantine period has expired for people serving high-risk people, they should not serve the risky group for 10 days (TC Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü, 2022).

Persons with symptoms are placed in isolation from symptom onset, and asymptomatic subjects for 7 days from sample collection for the first PCR test. At the end of the 7th day, isolation of individuals with no symptoms or mild symptoms but no fever without taking antipyretics in the last 24 hours PCR terminated without testing. However, although the isolation period has ended, these people should pay maximum attention to the mask and distance for up to 10 days due to the partial risk. 10-day isolation is applied to people who stay and provide services in areas where high-risk people (such as elderly care homes, prisons, immunosuppressive patients, etc.) are given care. 7-day isolation for people serving high-risk people should not serve the risky group for 10 days even if their period has expired (TC Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü, 2022).

3.3.ANTI-CONTAGION POLICIES/NPIs (NON-PHARMACEUTICAL INTERVENTIONS)

3.3.1. Mobility, Migration, and Social Distance Policies

The South Korean government did not initially enact regulations limiting people's movement. They decided to carefully watch after people's health instead, allowing them to continue with their regular lives. While doing this, public areas were regularly disinfected. Although cities were not isolated, most businesses have closed their offices. However, things changed after the Shincheonji case. In addition to city isolation and the prohibition of arrivals from China, measures to restrict people's mobility began to be taken (Agustino & Wicaksana, 2020). On March 21, 2020, the Korean government asked all citizens to avoid crowded and unventilated areas and asked all facilities to shut down which carries a high risk for the spread for two weeks (Shaw et al., 2020). Also, the KCDC introduced social distancing policies and issued guidelines to local governments and citizens (Lee et al., 2020). However, experiencing the third wave, the Korean government introduced more

strict measures. As of December 8, 2020, according to the "five-level social distancing scheme", only under level two, restaurants in these regions were allowed to service takeaways and delivery. As of January 18, 2021, restaurants, cafes, gyms, etc. were allowed to give service until 21.00 (Kang et al., 2020).

Unlike South Korea, Turkey took much more detailed measures to restrict the mobility of the society. For instance, The Presidency of the Grand National Assembly of Turkey announced that no visitors would be allowed to the parliament between 13-31 March 2020 (TBMM, 2020). On March 13, 2020, Minister of Justice Abdulhamit Gül announced that the views in prisons, the use of family viewing rooms in prisons, and transfers between prisons would have been delayed for two weeks and that the temperature of those entering the institutions affiliated to the ministry would be measured (Karadağ, 2020b). The Ministry of Culture and Tourism has decided to close all libraries affiliated with the ministry to reader services between March 16-30, 2020, and cancel all planned events (Sert Karaaslan & Tosun, 2020). The Ministry of Interior announced that as of 10:00 on March 16, 2020, pavilions, discotheques, bars, and nightclubs would be temporarily closed (Sputnik Türkiye, 2020i). President of Religious Affairs Ali Erbaş announced that congregational prayers, especially Friday prayers, were suspended in mosques, but the call to prayer would be read and the mosques would be open (CNN Türk, 2020). Venues include movie theaters, music halls, wedding venues, cafés, coffee shops, massage parlors, and gyms that will be temporarily shuttered starting on March 16, 2020, according to the Ministry of Interior (Milliyet, 2020a). Mehmet Muharrem Kasapolu, the Youth and Sports Minister, declared that the leagues for basketball, handball, volleyball, and football had been postponed until March 19, 2020 (Sabah, 2020c). ÖSYM also postponed nine exams, which were planned to be held shortly, including TUS and MSU, to a later date (NTV, 2020d). With the release of the Presidential circular, all manner of scientific, cultural, artistic, and related gatherings and events were postponed till the end of April (Cumhurbaşkanlığı, 2020). The Ministry of Agriculture and Forestry outlawed grilling in gardens, parks, and recreational places on March 21, 2020 (NTV, 2020g). On March 24, 2020, The Ministry of Interior declared that the markets could serve between 09.00 and

21.00 with the circular it has issued and that the number of customers who could shop at the same time can be one-tenth of the total area served to the customer (Karadağ, 2020a). On March 28, 2020, temperature measurements had been started for drivers and passengers at the entrance and exit points of the cities (Milliyet, 2020b). The governorships of Istanbul and Ankara decided on March 29, 2020, to prohibit minors from accessing marketplaces (Hürriyet, 2020c). The Republic of Turkey's Ministry of Internal Affairs announced on April 1, 2020, that there would be at least 3 meters between the stalls in the marketplaces, that there could only be a maximum of two times as many customers as shopkeepers there, and that the entrances and exits would come from different locations (Sputnik Türkiye, 2020a). PTT said on April 2, 2020, that it has temporarily shuttered its branches in areas with high population density where social distance requirements could not be followed (NTV, 2020a). Other decisions were that sports competitions would be played without spectators until the end of April 2020; public employees could go abroad with special permission, and President's visits to other countries have postponed (Sözcü, 2020). The Ministry of Interior reported that the farewell ceremonies for soldiers had been suspended with a circular sent to the governorships of 81 provinces. Additionally, it has been stated that all operations in barbershops, hair salons, and beauty salons would cease at 18.00. Additionally, starting at midnight, places of business like restaurants and bakeries could only offer pick-up and takeout service, and people over the age of 65 and those who have chronic illnesses were prohibited from leaving their homes and from moving around in public spaces like parks and gardens (NTV, 2020e).

The provincial assemblies and meetings of the metropolitan, provincial, district, town municipalities, and local administration union assemblies scheduled for April, May, and June 2020 have been postponed by the interior ministry (Gemici, 2020). Public Personnel Selection Exams had been postponed to September, October, and November 2020 (Sputnik Türkiye, 2020n). On April 8, 2020, cemeteries in Ankara (capital city) were temporarily closed to visitors (NTV, 2020c). On the same day, Ali Erbaş, the president of religious affairs, declared that during the epidemic, the Tarawih prayers for Ramadan would not be conducted in mosques (BirGün, 2020b). On April 14, 2020, the Minister of National

Defense announced that 53 thousand obligors who would have joined the army in April had their recruitment delayed and that the lengths of service for those who enrolled in the army in November 2019 had been extended by one month (Özer, 2020).

3.3.1.1. Work Policies

The Presidency's circular from August 26 allows for rotative, flexible, and remote working at governmental institutions and organizations in Turkey (Erdoğan, 2020). Previously, this application had been applied with the circular published on March 22, 2020, had ended on June 1, 2020 (Ulku, 2020). Upon the recommendation of the Banks Association of Turkey to banks, many banks announced that their working hours would be between 12.00-17.00 as of March 23, 2020 (Sözcü, 2020h). Although these measures disappeared with the relaxation of bans in 2022, most private companies have started to adopt long-term lives of remote working.

South Korea also took measures similar to Turkey's by adapting to the remote working life during the pandemic. However, South Korea has added robots to working life, unlike the measures taken by Turkey. Robot automation systems have started to be used in many service sectors, offices, banking, and education sectors. Additionally, there is a person in charge of taking measures and routinely monitoring employees' health at every company in South Korea (Han et al., 2020).

3.3.1.2 Transportation and Travel Policies

In Balıkesir, Konya, and Malatya, the free public transit privileges for those over 65 were discontinued on March 20, 2020 (Memurlar.Net, 2022). Also, in Ankara, Antalya, and İzmir, the free public transportation rights of people over the age of 65 have been suspended (Cumhuriyet, 2020c). On March 24, 2020, it was declared that public transit between cities will be able to carry 50% of its maximum capacity of passengers. Turkish Airlines stated on March 28, 2020, that only Istanbul and Ankara will be served by their domestic flights (Sputnik Türkiye, 2020p). The Ministry of Internal Affairs published a circular on March 28, 2020, introducing the "Travel Permit" requirement for domestic aviation travel

(Türkten, 2020). As of June 1, the travel restriction between cities had been lifted (Sabah, 2020b).

Commercial taxis in Istanbul, Ankara, and Izmir will only be allowed to operate in pairs that are odd or even according to the license plate's final number as of midnight on March 29, 2020, according to a circular released by the interior ministry. The choice was left to the governors for the remaining provinces (TRT Haber, 2020). On March 30, 2020, it was announced that sea bus and ferry services between cities in Istanbul would be stopped at 17:00 (Sputnik Türkiye, the 2020s). On April 3, 2020, Turkish Airlines suspended domestic flights until April 20 (NTV, 2020b).

In March 2020, in some provinces, disinfection had begun in public places and public vehicles. The Istanbul municipality decided to set up hand sanitizer stations at metro bus stops. The Ministry of National Education announced that they use special disinfectants to keep schools clean from the coronavirus. It had stated that every surface that was open to contact in schools was kept sterilized, and vocational schools that produce 100 tons of disinfectant daily provide them to schools (Daily Sabah, 2020a).

The Korean government did not impose strict restrictions on transportation. On the contrary, people could freely use them as long as they use face masks and obey the social distance rules. Wearing masks in public transportation became compulsory in May 2020 in Korea. For international travels, the Korean government temporarily suspended visa waiver agreements with 56 countries as of April 13, 2020. As a result, Korean nationals who intended to visit these nations for a little time needed to apply for a visa. To facilitate the travels of businesspeople, the Korean government made agreements with certain countries and mutually shortened the quarantine period and approval process (Kang et al., 2020).

3.3.1.3. Border control

Not closing the borders with China at the start of the spread was perhaps one of the Korean government's worst moves. Despite how profoundly the virus damaged them, several nations have put restrictions on the admission and leave of residents from other

nations, even at the risk of suffering economic loss. South Korea did not put restrictions on citizens of other nations, even when the number of cases was significant, even in the second month of the epidemic, despite the advice of groups like The Korean National Medical Association (Chang et al., 2020).

On January 30 and 31, 2020, the Korean government initiated a rescue mission to bring back their citizens from China (Shaw et al., 2020). On border control, everyone with symptoms was tested at the entrance to the country, and those who were positive were directed to health institutions. Passengers who did not show symptoms were self-quarantined (Kang et al., 2020).

On January 24, 2020, the Turkish government installed thermal security cameras at airports to scan international passengers if they have a fever to detect the affected individuals. The ministry has also begun to subject travelers from China to additional screenings and said that anyone who was showing signs of coronavirus infection would be quarantined. The screenings had later expanded to include countries reporting many confirmed cases. Other measures at airports included infrared scans, disinfection of all customs gates, distribution of free masks, and instruction leaflets (Wires, 2020). On February 3, Turkey announced that it had stopped all flights from China (Sözcü, 2020b). On the same date, when Iranian authorities did not comply with Turkey's recommendation to quarantine the Iranian city of Qom, the Iranian border was closed, and flights with Iran has unilaterally suspended (Iran International, 2020). On February 29, Turkey announced that flights with Italy, South Korea, and Iraq have mutually stopped (Sezer, 2020). Soon after, the Iraqi border was also closed. The ministry also established field hospitals near the borders of Iraq and Iran. Due to a meeting between Turkish President Recep Tayyip Erdoğan and President of Azerbaijan Ilham Aliyev on March 14, 2020, both nations banned land and air travel (Gerçek Gündem, 2020). On March 13, 2020, Turkey and Georgia announced that the Sarp Border Gate was mutually closed to passengers as of 15 March (Kyung-Hoon, 2020). On March 16, 2020, Health Minister Fahrettin Koca announced that Egypt, England, Ireland, Switzerland, Saudi Arabia, and the United Arab Emirates had added to the countries with a flight ban (Sputnik Türkiye, 2020j).

On March 21, 2020, The Ministry of Transport and Infrastructure announced that flights to 46 more countries were stopped. Thus, air relations with 68 countries were cut in total (NTV, 2020f). Transport and Infrastructure Minister Mehmet Cahit Turhan announced that flights to Germany, France, Spain, Norway, Denmark, Belgium, Austria, Sweden, and the Netherlands would be stopped between 14 March and 17 April 2020 (Keleş, 2020). According to declarations made by President Recep Tayyip Erdoğan on March 27, 2020, foreign flights have been fully discontinued, intercity travel is only permitted with the governorship's approval, and locations like picnic spots, woodlands, and ruins will be closed on the weekends (Sputnik Türkiye, 2020m).

3.3.1.4. Curfew Policies

Although there was no curfew in South Korea, Turkey used this practice widely. In this respect, the government's curfew policies will be explained in this section to better understand Turkey's COVID-19 policies.

On April 3, 2020, President Recep Tayyip Erdoğan, in his press statement, announced that a curfew was imposed for those born on January 1, 2000, and above, and a mask requirement was introduced in public areas such as markets, and entry and exit from 30 metropolitan cities and Zonguldak were stopped for 15 days (Karadağ, 2020a). On April 5, 2020, The Ministry of Interior announced that employees between the ages of 18-20 would be exempted from the curfew under the age of 20 (Euronews, 2020). The April 23 festivities were postponed to April 6, 2020, and the National Anthem will be sung from balconies on April 23 at 21:00, according to Mustafa Entop, Speaker of the Grand National Assembly of Turkey (Subaşı, 2020). Health professionals, mayors, provincial directors of institutions, social service organizations, public employees / public service providers, pharmacists, and especially doctors were exempted from the curfew imposed on those 65 and over, according to the Ministry of Interior, with the circular issued (BirGün, 2020c). The Ministry of Interior said on April 9, 2020, that anyone under the age of 20 who has Down syndrome, severe mental impairment, or autism is excluded from the curfew (Sputnik Türkiye, 2020h). As of April 11, 2020, the Ministry of Interior declared a 48-hour curfew

in 30 metropolitan cities and Zonguldak. After the ban was announced 2 hours before, queues formed in bakeries and markets (Sözcü, 2020a). There were fights in the queues that formed (Cumhuriyet, 2020a). Interior Minister Süleyman Soylu announced that he resigned, accepting his responsibility for the events that broke out on April 10, two hours before the ban had been announced (İkizoğlu, 2020). Süleyman Soylu's resignation had not been accepted by Recep Tayyip Erdoğan (TC İletişim Başkanlığı [iletisim], 2020). President Recep Tayyip Erdoğan announced at a news conference following the cabinet meeting. The curfew will be in effect from Friday, April 17 through Sunday, April 19 (Hürriyet, 2020a). People who work in agricultural and animal husbandry would be spared from the curfew, according to a statement made by the Minister of Agriculture and Forestry on April 15, 2020 (Sputnik Türkiye, 2020d). The governorships of 81 provinces received a circular from the Ministry of Interior on April 16, 2020. It included a few exclusions that would be put into effect for the weekend curfew in 31 provinces. Bakeries, pharmacies, public and private health facilities, as well as public institutions and firms required for the continuation of mandatory public services and companies, were exempt from the curfew (Yeni Şafak, 2020).

After the Presidential Cabinet meeting, President Recep Tayyip Erdoğan announced that a curfew would be imposed on 16-17-18-19 May 2020. Erdoğan stated that businesses such as grocers, markets, butchers, greengrocers, bakeries, and desserts would be allowed to remain open on May 18-19 and stated that shopping could be done from these places between 10:00 and 16:00. Stating that the elderly could go out on the streets again on Sunday, May 17, Erdoğan announced that the city entry-exit restriction applied in the provinces of Adana, Diyarbakır, Mardin, Trabzon, Ordu, Denizli, Kahramanmaraş, Şanlıurfa, and Tekirdağ had been lifted (Sözcü, 2020c). After another cabinet meeting on June 4, 2020, Erdoğan stated that the travel restriction between cities would be lifted as of June 1, and public employees who did not have chronic illnesses would start working normally. He also stated that as of June 1, places such as restaurants and cafes could stay open until 22:00, but hookah cafes were not involved. Erdoğan stated that the age of 20, which had been under curfew, has been reduced to 18, and added that the curfew would

continue for the 65-year-old. He stated that those aged 65 and over could go out on Sundays between 14.00 and 20.00 (Sözcü, 2020f). On June 3, 2020, Health Minister Fahrettin Koca announced after the Scientific Committee meeting that the curfew imposed on people over the age of 65 has been lifted (Cumhuriyet, 2020b). As the number of cases increases in the summer, on November 17, 2020**,** a curfew would be imposed on weekends outside of 10.00-20.00; restaurants could only provide takeaway service and, finally, shopping malls and markets would close at 20:00 (Sözcü, 2020g).

April 30, 2021, was the day when Turkey lost the most to COVID-19 since the start of the pandemic. The loss of life was 394 on this second day of the nationwide 17-day curfew (Genç, 2021). By March 2021, Turkey went to reopen just as new variants appeared. On March 24, the AKP convened its general convention in Ankara, drawing attendees from all around the nation. By the end of April, the number of cases had exceeded 60,000. As of December 10, 2020, 216 healthcare workers died from COVID-19 according to Health Ministry. This number was 362 by March 2021, according to the Turkish Medical Association (Genç, 2021).

3.3.2. Face-Mask Policies

The fast adaptation of face mask use in Korea is related to the old habits caused by air pollution that began at the beginning of the 21st century. "Yellow sand" (*hwangsa*) and Particulate Matter raised concerns among citizens and, this situation started the usage of face masks (Kim & Choi, 2021). According to research done in South Korea, personal beliefs, peer pressure, and civic consciousness have important effects on face mask use. It was observed that females and people who thought that they might expose to disease were more prone to use masks. However, as the course of the pandemic prolonged, relaxation was observed in people (Kim & Han, 2022). Korean citizens did show any indicators of panic buying during the beginning of the pandemic. For instance, when there was a shortage of face masks, some even shared their extra stock with other citizens. Moreover, some people only traveled on foot to prevent the spread. There were also examples to the contrary.

For example, some people tried to get better healthcare by lying about their addresses (Lee & Lee, 2020).

The habit of using masks of people in Turkey is not dependent on past experiences, unlike in South Korea. That's why this pandemic can be called the most difficult test of Turkish society with face masks. According to research done in Turkey during the early stages of the pandemic, when masks were not required, people's propensity to walk outside decreased but their propensity to wash their hands increased. The frequency of visits to medical facilities fell by 60%. Around 40% of respondents who took part in the poll admitted to wearing masks out in public. Most of these individuals were healthcare workers, those who suffered from acute anxiety, and those who had chronic illnesses (Şimşek, 2020).

As in most other nations, Turkey and South Korea experienced issues with the supply of masks in the early stages of the epidemic. Both nations used comparable solutions to this issue. In 2008, Korea Food and Drug Administration (KFDA) set the minimum quality standards for face masks. So, when the pandemic started, people were already started to stock masks which caused a temporary shortage. This mask crisis was before the KCDC's certain decision on the effectiveness of mass masking (Kim & Choi, 2021). Also, the Korean government applied price controls on face masks to deal with shortages. This decision ensured the community was able to purchase face masks without trouble. The Health Insurance Review and Assessment Service and the Ministry of Food and Drug Safety overwatched the production and distribution processes to prevent any irregularity (Kim et al., 2020). In these early stages of the pandemic, when the supply of masks was troublesome, Korean citizens were able to buy face masks twice a week and, on the days, determined according to the last digit of their birth date. Also, face mask prices were fixed at 1.3 US dollars. Unlike ordinary citizens, medical doctors, on the other hand, could purchase 2 to 5 masks in a week (Chang et al., 2020). South Korea's daily face-mask production was approximately 3 million a day which was not enough to cover the consumption during COVID-19 (Lee et al., 2020). As the course of the pandemic got serious, there was a sudden increase in the price of Korean-made KF94s, which were considered the equivalent of N95 or FFP2 in Korea (Yu et al., 2020). The Korean Ministry

of Food and Drug Safety, therefore, released Emergency Demand and Supply Stability Measures for Masks and Hand Sanitizer on February 12, 2020 (Lee et al., 2020). In that way, the Korean government obliged all mask producers to state their price and amount, and the ones who gave false information were fined under the Price Stabilization Act. When this was not enough, 10 days later the government announced that all producers had to separate half of their production for public sale. Lastly, on March 6, all manufacturers had to increase their public portion by 30 percent. The first and the last announcement by the government were not so efficient because with the first one the off-line market was not affected and when the last one entered into force, the cases began to drop. However, with the second precaution, the public had the opportunity to reach masks easily at low prices (Yu et al., 2020). In the process, manufacturers were supported by the government. For example, producers who decided to switch their production to face masks were given funds by the Korean government (Lee et al., 2020). Additionally, the Task Force of Mask Supply Stabilization Measures was announced by the Ministry of Economy and Finance on February 26, 2020, to address the public's need for masks (Lee et al., 2020). The Korea Public Procurement Service (KPPS) negotiated agreements with the vendors as part of the strategy. As soon as manufacturing and delivery were consistent, residents may buy three masks per week starting in April 2020 (Lee et al., 2020).

On April 6, 2020, President Recep Tayyip Erdoğan announced that the sale of masks for money was prohibited and that a 1000-room field hospital would be established on the Atatürk Airport land and Sancaktepe (Sputnik Türkiye, 2020f). Additionally, the Ministry of Health and the Ministry of Transportation and Infrastructure decided to provide free masks to residents between the ages of 20 and 65 through the PTT (HaberTürk, 2020a). Additionally, the Metropolitan Municipalities of Istanbul and Ankara said that following the prohibition on maskless travel in public transit, complimentary masks will be given out to the general population (BirGün, 2020a). After the use of masks was made compulsory, 5 masks were sent to each citizen weekly, but since the distribution of masks by mail was not successful, pharmacies began to be used as an intermediary (Genç, 2021). In his statement on May 6, 2020**,** Health Minister Fahrettin Koca announced that more than 40

million people have accessed the implementation, which includes the free delivery of a 5-pack of masks to the 20-65 age group every 10 days, and that 160 million masks had been distributed to date. He stressed that if there was a price cap, it made it possible for individuals to purchase surgical masks from a variety of locations, including pharmacies, marketplaces, and medical supply shops (Yener & Sert Karaaslan, 2020). The following day, the ceiling price of surgical masks was decided to ₺1 (Yıldırım, 2020). On May 7, with a published guide, it has been announced that barbers, hairdressers, and beauty salons would not accept customers without masks and an appointment and that there would be no one other than customers and employees in the workplace (Sert Karaaslan, 2020).

3.4.ECONOMY POLICIES and PUBLIC-PRIVATE PARTNERSHIP (PPP)

The COVID-19 pandemic has caused unemployment to increase worldwide and the economies of countries to be shaken. To address this issue, many countries have taken various actions.

Most of South Korea's GDP is based on international trade and exports (Lee et al., 2020). In this sense, South Korea's export level declined between April and June 2020 (Lee & Choi, 2020). However, South Korea's exports to China were 24.5 percent of total exports in 2019, equivalent to 9.4 percent of its GDP. These big numbers may have prevented South Korea's economy from taking further damage during the pandemic period. In South Korea, the unemployment level hit 5.5 percent in January 2021, but fell to 3.7 percent in April, reaching pre-pandemic levels in May. Inflation in the country remained below 1 percent between 2019 and 2021 and generally remained low throughout the pandemic, at just over 2 percent (Jung & Wilcox, 2021).

The Korean government has announced three different budgets for COVID-19. The first of them is the package, which corresponds to $ 9.82 billion and was announced on March 4, 2020. The first purpose of this package was to expand the treatment capacity of infectious diseases and to support health facilities. Another purpose was to stimulate the economy by providing support to low-income citizens and the elderly and giving loans with low-interest rates to small and medium-sized entities. This package was bigger than the

whole amount of SARS and MERS outbreaks packages. The second package had nearly USD 6.3 billion amount and was announced on April 16, 2020. This package covered every household in the bottom 70 percent of gross income. The aid was not distributed as cash but instead as shopping vouchers and gift certificates that can be used in regional markets. The third package was announced on June 3 and was valued at $28.8 billion, equivalent to 14 percent of Korea's GDP, with the task of creating business volume and supporting the first two packages. In addition, about one-seventh of the budget of this third package was allocated for the Korean New Deal (Lee & Choi, 2020).

Before the pandemic, the Turkish economy struggled with unemployment, high inflation, and a currency crisis (Gülseven, 2020). On March 18, 2020, the Turkish government announced a 100 billion lira (US$14.5 billion) economic support package. This package included tax deferrals, reductions in value-added tax in many areas, a 6-month deferral of national insurance payments, and subsidies for domestic consumption (Daily Sabah, 2020b). This package was the result of collaboration between the Ministry of Treasury and Finance (MoTF) and the Ministry of Family, Labor, and Social Services (MoFLSS). Economic Stability Shield and Social Protection Shield packages included a short-term employment allowance, 1000 Turkish liras for the 4.4 million families, suspension of payment of student loans and rental payments for three months, 39.24 Turkish liras support per day to workers forced to take unpaid leave for three months, delaying water bills for three months, and prohibiting termination of workers' contracts for three months except in reasonable cases (Greer et al., 2021). On March 30, 2020, The Presidential Cabinet convened for the first time by teleconference (Sputnik Türkiye, 2020q). Making a statement after the meeting, President Erdoğan announced that forty-one settlements were under quarantine, and a donation campaign called "We are enough for us, Turkey" was launched (Sputnik Türkiye, 2020r). While the campaign was supported by the government representatives, the opposition representatives reacted to the organization of such a donation campaign (Diken, 2020). On May 4, 2020, President Recep Tayyip Erdogan announced that 1 billion 910 million Turkish liras were collected in the campaign launched for the coronavirus (AA, 2020a). On April 15, 2020, the bill, which included economic

measures against the Covid-19 pandemic, was accepted in the General Assembly of the Turkish Grand National Assembly and became law (Sputnik Türkiye, 2020e). All enforcement and bankruptcy proceedings had been suspended until April 30, except the enforcement proceedings regarding alimony receivables, by the decision of the Presidency (Çelikbaş, 2020).

States may not always have the means and time to perform ongoing research in our century, where infectious illnesses are common and continually evolving. Therefore, collaborating with the private sector and academia in such emergencies may be advantageous for governments to respond quickly to urgent and destructive situations such as pandemics. Co-working with the private sector and utilizing their resources is crucial in a pandemic environment where creating technological tools and building facilities in just a short time is impossible for governments. Just like other countries, Turkey and South Korea cooperated with big companies.

Cooperation with private technology companies is a vital component of the agile response for South Korea (Yuan, 2021). For example, technology company NAVER provided servers for patient mobility tracking (Lee et al., 2020). LG and Samsung permitted the Korean government to use their facilities (Lee et al., 2020). Another example of PPP had been seen in Daegu Cluster where the Emergency Response Advisory Group, the Daegu Medical Association, and three infectious disease management support groups cooperated. Private hospitals were used for isolation. During the cluster, Daegu Dngsan Hospital and the Ministry of Defense were in constant contact to secure more beds for the patients. Unfortunately, some patients died while waiting for admission. The members of the Shincheonji Church were all tested where the date of February 18, 2020, 70% of confirmed cases came from the Shincheonji Church. Daegu Medical Association helped self-quarantined patients through video calls. After The Yeungnam University Medical Center started to accept COVID-19 patients, the Medical Center realized it created a big pressure on the hospital's functioning eventually resulting in the innovation of drive-through testing centers (Lee & Lee, 2020).

Turkey collaborated with the private sector, just like South Korea. The Ministry of Industry and Technology and the MoH worked together with Turkish technology companies like Arçelik, Aselsan (government-owned), Baykar Savunma, and Biosys (Bakir, 2020). These four companies brought together 124 engineers at Arçelik Garage which is one of the biggest rapid prototyping centers in the world (Arçelik Global, 2020). The ventilators, whose mass production started in April 2020, provide respiratory support to COVID-19 patients in intensive care.

3.5.VACCINATION POLICIES

In Turkey, the Vaccine Institute was established in 2018 under the Department of Health Institutes of Turkey (TÜSEB) (Koca, 2020). TURKOVAC (Turkey's COVID-19 vaccine) studies were also carried out under this institute. Health Minister Fahrettin Koca stated in December 2020 that the country needed 100 million doses of vaccine in three months and said that the vaccination would start within the month (Genç, 2021). The Turkish Ministry of Health has ordered 50 million doses of Sinovac from China's controversial vaccine manufacturer (Oruç & Öztürk, 2021). However, vaccination was started one month later, with 3 million doses of Coronavac arriving in the country (Genç, 2021).

Like many countries, South Korea had difficulties in the supply of vaccines at first. One reason was that, without success, the South Korean government tried to produce its vaccine by supporting local companies (Jung & Wilcox, 2021). Despite all the delays, South Korea has started its vaccination campaign on February 26, 2021. AstraZeneca, Pfizer-BioNTech, Moderna, and Janssen/Johnson & Johnson were used to this date (Yi et al., 2022). South Korea started its vaccination campaign with the vaccine from AstraZeneca in February 2021 (Govindasamy et al., 2021). In April 2021, South Korea launched the digital vaccination card application. Through smartphone applications, it would be feasible to manage who has received vaccinations or not (Jung & Wilcox, 2021). Although the country started its vaccination campaign slowly, it picked up pace in May. By June 10, 21 percent of the population received at least one dose of vaccination (Jung & Wilcox, 2021). The

Ministry of Health and Welfare, the Ministry of the Interior and Safety, the Ministry of Food and Drug Safety, and the Korea Disease Control and Prevention Agency released new COVID-19 prevention strategies on December 30, 2021, under the title "Government Stands Responsible for the Change Co-Created with the People." Among these plans was the decision to give booster vaccinations to citizens aged 18 and over to stop the spread of the Omicron variant and ensure that the disease is mild. It is anticipated that the booster vaccines will be completed in the first quarter of 2022. In the same plan, to fight vaccine hesitancy, hotlines and media channels were started used to inform the public (Ministry of Health and Welfare, 2022a). To avoid interruptions in vaccine supply, the Korean government planned to purchase another 90 million doses for the 2022 public (Ministry of Health and Welfare, 2022). In South Korea, as of May 28, 2022, 44,584,307 people are fully vaccinated (*Vaccination Status*, 2022).

In a survey done in June 2020 with nineteen countries, 71.5% of 13426 participants approached positively to take a vaccine. In these, it is found that higher trust in government, higher education, and high income had a positive effect on accepting a possible vaccine. Also, older people were more positive about getting a COVID-19 vaccine. However, a future possibility of employers' obligation to vaccinate their employees harmed respondents (Yücesan & Özkan, 2020). In, 2003 and 2004, Northern Nigeria boycotted the polio vaccination increasing the disease (Oruç & Öztürk, 2021). To avoid such consequences, both countries actively fight anti-vaccination.

Turkey started its vaccination campaign on January 14, 2021, with healthcare workers and citizens over 65. According to the survey done before the vaccination campaign started, the majority of the Turkish people seemed reluctant to take a vaccine. Circulation of misinformation about vaccines and limited knowledge of people have major effects on the issue (Yurttas et al., 2021). The public must acquire information from dependable sources during such crises. In this way, confidence in government policies can increase. For instance, according to another research done in the middle of the vaccination process in Turkey, reluctance to take a vaccine dropped to one-third (Karabela et al., 2021). Even if this is also a high percentage, as time goes on and the public receives information

about vaccines and sees the results, hesitation towards vaccination drops. The same research showed that the opinions of government bodies and health professionals have the greatest influence in changing people's vaccination behavior (Karabela et al., 2021). Additionally, those who are younger, have received the flu vaccination previously, have experience with COVID-19, and have greater levels of education all have more favorable opinions of the vaccine (Sonmezer et al., 2022). 13 million individuals in Turkey have gotten their first dosage of the vaccine as of May 2021, 14 weeks after the immunization program began. This percentage of 16.5 percent was low by international standards compared to Israel (59.7 percent), the United Kingdom (51.2 percent), and the USA (43.6 percent) (Genç, 2021).

3.6.EDUCATION POLICIES

In Seoul, South Korea Daycare facilities, kindergartens, elementary schools, junior high schools, high schools, and special schools will now open on April 6 instead of March 18, 2020 (Shaw et al., 2020). In addition, infectious disease specialists in Korea were appointed to provincial national education directorates. Health condition self-diagnosis mobile Application App was used to follow students' health conditions (Ministry of Education, 2020). The Ministry of Education of South Korea (Deputy Prime Minister and Minister of Education Yoo Eun-hae) published a white paper titled ‘2020 Education Response to COVID-19’ on Monday, May 10th, 2021. In this paper, Korea's education policies were summarized until that date. One of these policies was the childcare service that continued until 19:00 in kindergarten, primary and private schools. 200,000 KRW per primary school student and 150,000 KRW per secondary school student were spent on these services. In addition, no expense was collected from high school students to alleviate the educational expenses of the families. Thus, training costs have been reduced by KRW 1,600,000 in total for one year. In addition, the interest rate on student loans was reduced from 2.2% to 1.85%. In the process of these decisions, cooperation between metropolitan and provincial offices of education, universities, and ministries such as the Disease Control and Prevention Agency, Ministry of Health and Welfare, and Ministry of Justice and experts

in medicine, disease control and prevention, and information technology (IT), and private institutions (Ministry of Education, 2021).

When the Omicron hit South Korea, in a situation of a positive case, schools would provide rapid antigen test kits to student-athletes and the ones who stay in dormitories while mobile PCR teams would visit the schools. As of December 2021, 99.4% of schools had built partitions inside cafeterias and with Omicron each student had a specific seat so infected students' tracks would be followed easily. Academic activities were divided into four parts according to the intensity of the case. These were regular education, face-to-face education but limited extracurricular activities, half-to-half face-to-face education with a limited number of students, and online education (The Ministry of Education, 2022b). On January 5, 2022, The Ministry of Education of South Korea announced its 2022 National Agenda Report. 320 billion won dedicated to regaining the loss of student learning for primary and secondary school students. For college students, tutoring services would be given and for this purpose, 105 billion won would be spent (The Ministry of Education, 2022a).

At a press conference co-hosted by the ministers of national education and health, Fahrettin Koca and Ziya Selçuk, it was announced that schools would be closed until April 30, 2020, and that information on cases in Turkey will thereafter be released online (Sözcü, 2020d). On March 12, 2020, Minister of National Education Ziya Selçuk announced that weekly lesson programs would be structured, and necessary education support would be provided via EBA, internet, TRT, and television, and that measures have been taken to ensure that education was not disrupted (AA Canlı [AACanli], 2020). On the same day, Presidential Spokesperson İbrahim Kalın announced that as of March 16, primary, secondary, and high school education would be suspended for one week, and university education would be suspended for three weeks, and from 23 March onwards, education and training would continue via television and the internet as distance education. (TC Milli Eğitim Bakanlığı, 2020). Primary, secondary, and high school classes were the first broadcast on TRT EBA TV on March 23, 2020. This channel was launched with the

Ministry of National Education's and Turkish Radio and Television Corporation's assistance (NTV, 2020h).

Yekta Saraç, president of the YÖK (Council of Higher Education), said that face-to-face instruction will not be offered at universities for the spring 2020 semester; instead, online learning will be used to continue the education and training process. Additionally, he stated that the summer months would be used to complete the programs, courses, and applied courses that could not be delivered through remote learning, open learning, or digital learning, and that the Higher Education Institutions Exam had been postponed until July 25–26, 2020 (Sputnik Türkiye, 2020l). Minister of National Education Ziya Selçuk announced that the High School Entrance Examination (2020) would be made only from the first-semester curriculum (NTV, 2020i).

On June 1, 2020, Minister of National Education Ziya Selçuk announced that private schools would hold make-up education after 15 August (YeniŞafak, 2020). On June 3, he added that the public schools would hold make-up training for 3 weeks as of August 31 (Hürriyet, 2020b).

On November 17, 2020, announcing the new measures, President Recep Tayyip Erdoğan stated that the education in schools that are on holiday would continue with distance education until the end of the year (Sözcü, 2020e). On December 25, 2020, Minister of National Education Ziya Selçuk made a written statement that the middle school students' exams were canceled, and the high school students' exams were postponed after February 15, 2021 (Habertürk, 2021). On December 28, 2020, the President of the Republic of Turkey announced that after the cabinet meeting, distance education would continue until February 15, 2021 (Türk, 2020). On February 2, 2021, the Minister of National Education announced that as of February 15, village schools would gradually switch to face-to-face education from 1 March on other classes (Hürriyet, 2021a). On March 1, 2021, President said that preschool, primary schools, 8th, and 12th grades would open in all cities as of March 2, 2021. He said that it would start at other levels, including secondary and high schools, in low and medium-risk provinces (Erdoğan, 2021). As the number of cases increased, on April 26, 2021, with the statements of President Recep Tayyip Erdoğan,

education was suspended at all levels and the exams were postponed to a later date. It had been announced that from May 17, 2021, until June 1, 2021, students outside of pre-school, special education centers, and 8th and 12th grades would continue distance education. On August 19, 2021, it was decided to open schools on September 6, 2021, face-to-face and for 5 days for all levels (Hürriyet, 2021b).

3.7.POST-COVID-19 POLICIES and RETURN to NORMAL LIFE

On May 4, 2020, President Recep Tayyip Erdogan made a press statement after the cabinet meeting. He stated that the daily increase in patients declined to the thousands; the number of patients connected to the intensive care unit and a ventilator was constantly decreasing, and the number of recovered patients increased exponentially. Announcing that the return to normal life would be initiated gradually, President Erdoğan stated that they have made the regulations regarding the gradual relaxation of restrictions by spreading them to May, June, and July in general. The explanations regarding this normalization process were as follows: People over the age of 65 would be able to go out for 4 hours on one of the days with curfew restrictions; provided that the rules were being followed, shopping Centers could start to serve as of May 11th; children up to the age of 14 would be able to go out within walking distance between 11:00 and 15:00 on May 13th; the 15-20 age group would be able to go out by walking distance between 11:00 and 15:00 on Friday, May 15th; the city entry-exit restriction would be completed for Antalya, Aydın, Erzurum, Hatay, Malatya, Mersin, and Muğla; military discharge procedures would begin on May 31st; the assignment and personnel procurement activities of the Ministry of National Defense were to resume on 1 June, summons procedures on 5 June, and paid military service on 20 June; As of May 5, the single-double license plate application would end for commercial taxis in Istanbul, Ankara, and Izmir; businesses such as barbers, hairdressers and beauty salons would be able to operate on May 11, and finally The High School Entrance Exam (LGS) would be held on June 20, and the Higher Education Institutions Exam (YKS) would be held on June 27-28 (AA, 2020).

However, the increasing number of cases in the summer months brought the measures again. After nearly 9 months of strict measures, On March 1, Turkish President Recep Tayyip Erdogan announced that 81 provinces would be divided into "low, medium, high and very high" risks according to the risk status of each province and that the governorships would make decisions. He also stated that the risk map would be updated every 2 weeks. In low and medium-risk provinces, the ban on people over 65 and under 20 had been lifted, education had started at all education levels, and the weekend curfew had been lifted. Only 8, 12 primary schools and pre-school education institutions were opened in high and very high-risk provinces. The ban over the age of 65 and under 20 has not ended, but the curfew period had been increased. On weekends, it was forbidden to go out on the street only on Sunday. Businesses such as cafes and restaurants in all provinces, except for very high-risk provinces, started to accept customers again with 50% capacity. The curfew between 21.00-05.00 continued throughout Turkey. In all provinces, the first exams of all high school levels, which could not be held in the first semester, were held (Türk, 2021). With the increase in the number of cases, A 2-week partial closure had been implemented, to be implemented as of 19.00 on April 14, 2021. As a result of the increasing number of cases in many areas, especially the curfew application, which would cover the whole weekend between 19.00-05.00 on weekdays, a limitation had been introduced (Deutsche Welle, 2021). A full closure was announced until 17 May, 05:00, to be implemented from 19:00 on 29 April 2021. Exams were delayed and all levels of education were stopped. Vehicles for intercity public transit would run at 50% of their maximum capacity, it had been declared. The closure of chain markets on Sunday had been announced (Sözcü, 2021a). The Ministry of Interior issued a circular on 16 May 2021, effective from 17 May 2021. According to the circular, a curfew would be applied between 21.00-05.00 on weekdays and a full day on weekends. The curfew had been lifted for citizens under the age of 18 and citizens aged 65 and over who have received two doses of vaccination. Individuals aged 65 and over who could not be vaccinated despite having the right to be vaccinated were allowed to go out between 10:00 and 14:00 on weekdays. Citizens under the age of 18 and over 65 were prohibited from using public transportation, regardless of whether they were exempt from the restriction or not. On the other hand, shopping centers were opened

between 10:00 and 20:00 on weekdays and completely closed on weekends. The current visitor restriction in social protection/care centers such as nursing homes, rehabilitation centers, and children's homes had been extended until 1 June 2021 (Sözcü, 2021b). Turkey passed the third stage of gradual normalization as of July 1, 2021. Today, most of the restrictions that have existed for 15 months have disappeared. Accordingly, while the curfew came to an end, many restrictions on places to eat and drink were lifted. The mask and social distance rules have been taken within the scope of corona measures continued throughout the country (Yoon et al., 2021). On August 19, 2021, Recep Tayyip Erdoğan, in his statements after the cabinet meeting, stated that all levels will start full-time education on September 6, 2021, and that non-vaccinated teachers and staff will be asked for PCR tests at least twice a week (BBC News Türkçe, 2021).

The Korean government said that it will start to loosen restrictions in late April 2020, when the number of cases fell to single digits per day (McCurry, 2020). However, a new cluster emerged in central Seoul in a short time. Seoul city government announced that all clubs, bars, and other nightlife places were shut down (Yonhap, 2020). On August 6, 2020, the highest number of daily cases up to that time, 297, was reached. This time, the center of expansion was The Sarang Jeil Church (Yahoo News Staff, 2020). After that, all indoor gatherings of more than fifty people and a lot of businesses like nightclubs, karaoke bars, restaurants, and museums stopped giving service (BBC News, 2020). Again, in September 2020, as the new cases decreased per day, some restrictions especially in Seoul started to be lifted. Cafes and bakeries were allowed to take customers inside, restaurants serve inside after 9 p.m., and gyms and after-school education centers reopened with the requirement of social distance rules and wearing masks (*The Latest: S. Korea Eases Restrictions as Virus Cases Drop*, 2020)**.** On 12 October, when the number of daily cases fall below a hundred, social distancing measures were relaxed again (Shin, 2020). Again in November, the number of daily cases approached 300, the social distance in the capital rose to 1.5 m, and establishments like bars, clubs, and religious institutions were permitted to occupy up to 30% of their capacity while schools continued to run at a 2/3 occupancy rate (The Korea

International Broadcasting Foundation, 2020). By December 2020, the third wave had hit South Korea (Rourke, 2020).

In late 2021, after seventy percent of the population was fully vaccinated, some bans came to the fore. While the Korean government plans to relax from November, it has not completely removed the requirement for proof of vaccine or negative PCR testing. Cafes and restaurants could serve after 10 p.m. too, while vaccine passports would be necessary at clubs, pubs, karaoke bars, bathhouses, gyms, and gambling houses. At the end of April 2022, companies began to return to their offices, provided that the mask requirement continued (Jae-yeon, 2022). On 4 March 2022, South Korea started to relax its social distancing rules (Woo-Hyun, 2022). Vaccine and quarantine requirements were lifted for fully vaccinated travelers as of April 1, 2022 (Schulz, 2022).

Korea's "Digital New Deal and Green New Deal" is a new transformative project to prepare the country for future challenges and enhance its economy, technology, science, social integration, etc. In July 2020, 'The Korean New Deal' or 'K-New Deal' was announced by the government. It is a 5-year post-COVID-19 plan that has multiple goals and plans to spend 160 trillion KRW (approximately USD 130 billion as of March 2022) for digital and green evaluations. Korea hopes to become one of the world's top nations with this strategy. There are three parts to the plan. The Digital New Deal, which focuses on the digital economy and seeks to create 903,000 new jobs, is the first. The second one is the Green New deal includes renewable energy and green industries which aims at 659,000 new employments while the last one mostly focuses on welfare and social development. The most emphasized part of the plan, which covers the period from 2020 to 2025, designing post-pandemic Korea, is digital technology (Yoon, 2021).

CHAPTER IV

4. ANALYSIS and DISCUSSION

This study examined how the two countries responded to COVID-19 with their public policy responses. In this context, the importance of communication is higher, especially in country-level emergencies. Leaders' communication skills can ease the threat but also can exacerbate it too (Nicola et al., 2020). The two countries followed different paths in their communication policies. Due to its past experiences, South Korea has shared all kinds of information with its citizens by adopting a policy of full transparency since the beginning of the pandemic. In South Korea, both private and local governments designed applications to share government data with visuals to offer information to the public in an understandable way (Lee & Lee, 2020). Turkey, on the other hand, was a little late compared to South Korea in sharing information. As the pandemic progressed, the suspicions of healthcare professionals and the public increased over the number of cases. The Turkish government and the health minister, who were under pressure, confirmed the situation by making a statement and stating that they only shared the number of sick people. Although the number of cases was announced to include all positive cases in the future, one hundred percent confidence could not be achieved. South Korea has also been sensitive about sharing information by broadcasting in different languages twice a day and sending notifications to citizens' phones. Although some of the policies drew criticism from different circles, the fact that the cases did not increase as in other countries, was reflected in the election results and increased confidence in the government. Turkey, on the other hand, made a concerted effort to stifle any opposition to the leadership. A closed-off communication style might hinder one's ability to connect with the public. On the other hand, communication with the public was improved by the fact that the Minister of Health

Fahrettin Koca was constantly visible and engaged in one-on-one conversations. The COVID-19 Turkey Web Portal, created by TUBITAK and the Ministry of Industry and Technology, was opened on March 26, 2020. Mustafa Varank, minister of industry and technology, stated that this webpage includes articles regarding Covid-19, academic research, current information, and Turkey's expertise (Habertürk, 2020b). Although this initiative was positive, over time the site ceased to be up to date. In short, South Korea was more successful than Turkey in communication policies and the most important reason for this is transparency. For future crises, Turkey should be more open about sharing information with the public in order for its public policies to be effective. Otherwise, public trust will not be established and public participation in public policies will be low.

On February 19, 31st patient changed the course of the pandemic in Korea. The patient was a member of "Shincheonji Church of Jesus" which started an immense increase of the cases like a domino effect in Daegu city. After that, the government increased the alert level to Red which is the highest. On February 26, the total cases reached 1261, and 75% of them were in Daegu and Gyeongbuk. Without closing those areas' borders, the government applied an intensive epidemiological survey of the church's members who were the starters of the rapid increase (Shaw et al., 2020). When the ROK government requested the list of the church members to track possible infected individuals easily, the church initially refused that request, for not wanting to violate their members' privacy but they had to give the list eventually because of the pressures. Church officials apologized to the community after news of their trips to China spread. Close to the elections in April 2020, the government had been criticized for not handling the church incident efficiently and keeping the China border open (DiMoia, 2021)**.** Just after the ruling party's victory, a report has been released about the government's Covid-19 response. This report describes the Korean government's effective usage of ICT (Information and Communication Technology) to combat the pandemic. As a matter of fact, despite making mistakes such as not closing its borders or acting late with the church incident, Korea has used technology in all aspects of the pandemic, thus preventing probably greater disasters. However, in possible future crises, future Korean governments may not be so lucky in gaining the

support of the people in the elections because it is not the first agenda of some churches in the country.

South Korea was one of the nations with the most impact from the epidemic at first, but by May 2020, the virus had largely been contained (Kim et al., 2020). As of June 1, 2020, there were 270 instances after two weeks of no cases. One major factor in this was the large number of young people who frequented Seoul's nightclubs on these dates when social distance restrictions were still in place. It was challenging to discover the correct persons to contact because the bulk of the clubs' regular customers gave fake information about themselves to avoid having their sexual orientation known to the public and to prevent potential pressure (Lee & Lee, 2020). In contact tracing, to track anonymous cases like in the Itaewon club cluster Korean government benefited from cellular signal towers, anonymous testing, credit card transactions, and security camera footage. After tracking possible cases, the KCDC and Seoul City sent text messages to around 10.000 people. To not reveal their identities, the Korean government only required the phone number for anonymous testing to those people (Kim et al., 2020). Such barriers to contact tracing and the Korean government's inability to restrict such mass gatherings may have contributed to the waves. In addition, it is a problem that South Korea needs to solve if citizens are worried that their privacy will be endangered.

After KCDC announced the first patient in Daegu to the public, all venues visited by the patient were closed and disinfected. Also, CCTV footage was analyzed to find contacted people while local governments sent text messages to citizens to inform them whether they visited the same places as the patient (Lee & Lee, 2020). Such a specific analysis of data could cause unease among citizens, and it did. In addition, businesses in the places announced by the government were worried that their business would suffer because of this. This is an example of how not only public health should be considered when trying to stop the disease.

In Turkey, contact tracing was initiated five weeks after the first case was seen. As of April 2020, there were 4000 contact tracing teams. According to Pala, these teams fell short of finding the early super-infectors. The number of cases continued to increase and

on April 10 (the day the number of cases reached 4747 and the number of deaths 98), Health Minister Fahrettin Koca announced that a curfew was declared just two hours before midnight. Even at this point, the contact tracing of the country could not reach even 1 percent (Genç, 2021). It is also late to initiate contact tracing five weeks after the first case. In this context, it would be beneficial for Turkey to plan for possible crises much earlier and to follow adaptable policies like South Korea.

While there are certain hazards involved with sharing contact tracing data, there are also increasing benefits over time. For instance, the concern of potential economic repercussions for private enterprises when infected individuals are observed in these locations can be accepted given the benefit of satisfying the public's need for openness. Additionally, homeowners may exactly identify the type and quantity of protection they need to take using the newly acquired knowledge (Yuan, 2021).

Unlike Turkey, South Korea did not strictly implement policies restricting people's movements. Instead, it constantly monitored the movements of its citizens using technologies like GPS. Cities were not isolated from each other like in Turkey. The strict monitoring policy should have paid off so that the cases did not increase dramatically. Turkey, on the other hand, took many measures to restrict people's movements, such as curfews and travel measures. After all these precautions, on April 5, 2020, according to the report published by Google, community mobility in Turkey decreased by 75% (Sputnik Türkiye, 2020g). However, when the summer of 2020 came, people began to follow the rules less, especially in the coastal areas. In June 2020, the Turkish government started to ease the restrictions including curfews, travel restrictions, and closure of malls gyms, etc. The removal of these restrictions was the same as the opening of the tourism season. Indeed, easing the restrictions was interpreted as not wanting to take another hit to the economy by losing the tourism sector's income. Those who argue that it is too early for the opening criticized these decisions. However, a second wave hit Turkey less than a month later (Gülseven, 2020). As it can be understood from here, it is not necessary to take restrictive measures to deal with this pandemic. In fact, these measures may not yield the desired results, as in the case of Turkey.

There were some concerns from the Korean citizens' side about their government's ways of handling the pandemic. For instance, after the sudden increase of cases in Daegu, there had been a shortage of face masks, hospital beds, negative pressure isolation rooms, and intensive care units. The government also had been criticized for its decision to close Daegu and not take these areas' patients to other cities' hospitals (Kim et al., 2020). Turkey experienced the same thing. There was a lack of medical supplies as hospital occupancy rates rose. The hospitals are a sign of how well Turkey raised money quickly since they were begun to be built and placed into service during the epidemic.

When the epidemic was on the rise in March and April of 2020, the South Korean economy was slightly rattled, but it quickly rebounded (Lee & Choi, 2020). On the other hand, the pandemic process did not improve Turkey's economy. The country, which is already under high unemployment and exchange rate pressure, has put many economic support packages into effect as inflation continues to increase. Despite this, Turkey tried to strengthen its diplomatic ties by providing international assistance to many countries. For example, on January 31, 2020, in addition to the annual production of 150 million masks, China ordered 200 million masks from Turkey (Al Jazeera, 2020). Also, on January 31, 2020, The Turkish government sent a plane to take 34 Turkish citizens and citizens of other countries from Wuhan (Sabah, 2020a). Turkey has delivered medical supplies to more than 50 nations since the outbreak started. Spain, Italy, several Balkan, Middle Eastern, and African nations, as well as the United States and the United Kingdom, two NATO partners, were included in this group. This is how the 'corona diplomacy' was implemented, giving the message that Turkey is successfully fighting the pandemic and that it can help other countries as well. Opposition leaders criticized this diplomacy style arguing that Turkey itself suffers from medical equipment shortage (Gülseven, 2020). They were not wrong in this criticism. Although helping other countries in such crises is a good diplomatic move, Turkey is one of the countries most affected by the pandemic in statistics. This may make the citizens of the country question the government's policies to combat the pandemic.

In South Korea, some local governments preferred to take more strict precautions other than the central government. Moreover, the Ministry of Food and Drug Safety

privileged local governments from import restrictions, so they could buy medical supplies from other countries (Kim et al., 2020). However, local governments' different answers to the pandemic may cause overspending of public resources and politicization (Kim et al., 2020). An example of this was seen in Turkey. Bank accounts were seized when some provinces wanted to collect aid independently from the central government.

Thanks to the measures taken, the number of cases decreased after April 23, 2020, and the graph flattened. South Korea's death rate was lower than Turkey's in the first two months of the outbreak. Turkey had a higher percentage of COVID-19 cases than South Korea in terms of the number of daily cases throughout the first two months of the epidemic. During this period, the death rate from COVID-19 in the world was between 6 and 7 percent, while this number was half for Turkey and South Korea. Looking at the graphics, South Korea and Turkey were among the first three countries to successfully fight the virus for the first 65 days of the pandemic when the death numbers per 1 million people were considered (Şimşek, 2020).

There are multiple reasons for South Korea's ability to control the pandemic without nationwide lockdowns. Intense usage of testing, contact tracing, and quarantine measures are the key factors in South Korea's successful fight against COVID-19 (Nicola et al., 2020). Perhaps the biggest advantage that played a role in President Moon's victory in the election on April 15, 2020, is the policies they carry out against the pandemic. The fact that the Korean government's fight against the pandemic started so early and was intense is that the Moon government took office after the Park government, which failed to handle the MERS epidemic in 2015 well and resulted in impeachment with the effect of other things like corruption. In this context, due to the failures of the administration in MERS, the Korean people demanded that experts, not the president, make the decisions in the fight against COVID-19. Upon this request, President Moon promised that if elected, he would change the KCDC from 'Center' status to 'Agency' status (Park & Chung, 2021). As a result, Central Disaster Headquarters plays a big role in these fast decisions with the Act on the Management of Disasters and Safety revision in 2017 for a more coordinated government response to epidemics is another change after the MERS (Kim et al., 2020). Overall, as can

be seen in previous chapters, the biggest reason for the early and sudden spread in Korea was collective events (Lee & Lee, 2020). Had these been prevented, there would probably have been no large outbreaks of cases. Again, Korea successfully carried out diagnostic follow-ups by using technology extensively and did not experience high case increases like other countries. Also, after the MERS outbreak, the Infectious Disease Control and Prevention Act has been reworked to enhance both the number and the authority of epidemiologists (Kim et al., 2020). In this way, scientists gained more authority over their fields of expertise. In the first place, the pandemic's death rate was 0.44% but this number dropped to 0.05% with the revised version of the Korean government's COVID-19 guideline after March 2020 (Lee et al., 2020). Also, it can be said that South Korea's geopolitical position also gives it an advantage. It may have had an advantage because it is an island nation and its northern border is blocked (Jung & Wilcox, 2021). South Korea's coping strategies with COVID-19 are exemplary for other democracies like most Western countries that applied strict actions that limit the freedom of people. South Korea demonstrates that, unlike China's approach, there is no need for severe regulations to prevent the virus from spreading (Kim et al., 2020). One of the main contributors to South Korea's success is its ability to adopt flexible policies that change as the pandemic's environment does (Lee et al., 2020). This policy includes the use of the lessons acquired from previous incidents like MERS.

Turkey, on the other hand, was formerly among the top 10 countries with the highest number of instances. The young population and enough hospital capacity can be used to explain the low death rate. The country, which is still in the recovery phase in terms of economy, however, provided vaccines from different countries in order not to fall behind in its vaccination policy and conducted the vaccination campaign free of charge. On the other hand, it was not very successful in diagnosis follow-up. Among the reasons for this are the late start of the diagnostic follow-up and the lack of technological integration as in Korea. In terms of communication, Turkey, which followed a policy to suppress opposing views, was not as successful as Korea in terms of transparency.

For future health crises, both countries should implement policies to ensure those particularly young citizens are more careful. As it is known, although young patients constitute most SARS-CoV-2 infections, the mortality rate in these age groups is low. On the contrary, the number of asymptomatic and mildly ill patients is high in this age group. For these reasons, unfortunately, young people are not as careful as other age groups in taking personal precautions, therefore the percentage to spread the disease is high on the part of them. In addition, to protect the public from information pollution, reliable scientific and government sources should use all channels to disseminate accurate information to their citizens. Economic support packages should be planned before crises occur, and states should increase funds to support scientific studies so that it does not take too long to activate resources such as drugs and vaccines. Technology should be integrated into all government and private institutions so that people do not have to physically relocate. Health decisions should also be made by experts without being under the shadow of politics.

In this study, I focused on Turkey and South Korea's public policies, decision-making structures, disaster management systems, health systems, education systems, resources, etc. to analyze how they have been coping with the COVID-19 crisis. In this framework, I primarily employed comparative analysis as my methodology. Overall, I intend to contribute to the literature in this frontier research area while making recommendations to policymakers. As a result of the writing of the thesis, it is expected to allow other countries with similar structures, including Turkey and South Korea, to see the strengths and weaknesses of their public policies, policy-making stages, and decision-making processes mechanisms in a comparative framework and to enable them to make improvements in their systems within the framework.

CHAPTER V

5.CONCLUSION

The healthcare infrastructures and systems in various nations have experienced unheard-of difficulties since the COVID-19 pandemic began. As a result, governments have implemented a variety of actions to combat COVID-19. This study sought to pinpoint the most significant distinctions and parallels between South Korea's and Turkey's governmental approaches in addressing this problem. In this thesis, I contrast the integration of public policies and crisis management strategies in two OECD members. I also look into how the contrasts and similarities in their policies evolved during the pandemic.

The COVID-19 pandemic and the difficulty of creating sensible public policies that go along with it served as the impetus for this study. My main objective is to address this issue by contrasting and analyzing the public policy strategies used in Turkey and South Korea. These regulations cover a wide range of topics, including economics, education, security, and health. Additionally, the simultaneous worldwide exposure to this dilemma offered a unique opportunity for a "natural experiment" in which the policy actions of various nations could be compared and contrasted using daily statistics. The major objective of this study is to contribute to the body of information regarding this persistent issue and provide policymakers with guidance.

This study looked at the public policies that the two nations adopted in reaction to COVID-19. In this situation, we see that communication is more crucial, particularly during national catastrophes. The threat can be lessened but potentially increased depending on a leader's communication abilities. The two nations' communication policies took distinct turns. Due to its previous experiences, South Korea has adopted a policy of complete

transparency and since the start of the pandemic has shared all types of information with its population. Both the business sector and municipal governments in South Korea created applications to share public data with graphics and provide information to the public in a comprehensible manner. Turkey, on the other hand, shared information a little later than South Korea did. Healthcare experts and the general public had growing concerns about the pandemic's spread as the number of cases rose. Under criticism, the Turkish government and the health minister verified the circumstance by issuing a statement and claiming that they had merely revealed the total number of sick patients. Even though it was stated that the number of instances will eventually include all positive cases, complete assurance could not be attained. The fact that the instances did not rise as quickly as in other nations was reflected in the election results and enhanced trust in the administration, despite the fact that some of the measures garnered criticism from various quarters. On the other side, Turkey worked hard to crush any resistance to the ruling party. One's capacity to communicate with the public may be hampered by a closed-off communication style. On the other hand, the fact that Minister of Health Fahrettin Koca was always visible and participated in one-on-one dialogues boosted contact with the people.Transparency is the fundamental factor for South Korea's superior performance in communication policy compared to Turkey. In order for its public policies to be successful, Turkey needs be more transparent in sharing information with the public during future crises. Otherwise, it will be difficult to build public confidence and encourage widespread participation in governmental decisions.

In reality, despite missteps like failing to close its borders and responding slowly to the church tragedy, Korea has employed technology in every area of the epidemic, averting what may have been far worse catastrophes. However, given that it is not the top priority of some churches in the nation, future Korean administrations may not be as fortunate in winning the support of the electorate in elections in times of crisis. The incapacity of the Korean authorities to prevent such large-scale meetings and obstacles to contact tracking may have led to the waves. Additionally, if residents are concerned that their privacy may be compromised, South Korea has to find a solution to this issue.

All the places the patient visited were closed and cleaned after KCDC made the public aware of the first case in Daegu. Additionally, CCTV video was examined to identify contacted individuals, and local governments texted residents to see whether they had visited the same locations as the patient. Citizens could feel uneasy about such a detailed review of the data, and many did. Additionally, companies in the areas where the government made the announcement were concerned that this would hurt their bottom line. This demonstrates how efforts to stop the illness should take into account more than just public health.

Five weeks after the first case was discovered in Turkey, contact tracing was started. There were 4000 contact tracing teams as of April 2020. The early super-infectors could not be located by these teams. As the number of cases grew, the health minister Fahrettin Koca stated on April 1 that a curfew had been imposed just before midnight. Even at this time, just 1% of the country's contacts could be found. Five weeks after the initial case, it is also too late to start contact tracing. In this situation, Turkey would benefit by making preparations for potential crises far sooner and from adopting flexible policies like South Korea.

Sharing contact tracing information carries certain risks, but it also has growing advantages over time. For instance, given the advantage of meeting the public's desire for transparency, the issue of potential financial consequences for private firms when infected persons are seen at these settings can be acceptable. Additionally, utilizing their newly obtained information, homeowners may precisely determine the kind and amount of protection they need to take.

In contrast to Turkey, South Korea did not severely enforce laws that limited people's freedom of movement. Instead, it used tools like GPS to continually track the whereabouts of its population. Cities weren't cut off from one another like they were in Turkey. The stringent monitoring regime ought to have paid off, preventing a sharp rise in the number of cases. Curfews and other travel restrictions were among the various steps Turkey, on the other hand, used to limit people's movements. However, after summer 2020 arrived, individuals started to break the regulations more often, particularly in coastal locations. The end of the limitations coincided with the start of the travel season. Indeed, relaxing the limits was seen as a way to avoid further economic harm from losing revenue from the tourism

sector. Those who contend that the opening is premature questioned these choices. However, less than a month later, a second wave struck Turkey. As is clear from this, it is not essential to implement restrictions in order to combat this pandemic. In actuality, like in the case of Turkey, these actions could not have the desired impact.

The South Korean economy had some minor turbulence, but it swiftly recovered. The pandemic phase, however, did not help Turkey's economy. This is how "corona diplomacy" was used to convey to other nations that Turkey is combating the pandemic well and can assist them as well. Opposition politicians attacked this diplomatic approach, claiming that Turkey too has a scarcity of medical supplies. They had a point when they made this critique. Turkey is one of the countries most statistically afflicted by the pandemic, despite the fact that aiding other nations in such emergencies is a wise diplomatic gesture. The nation's residents could start to doubt the government's pandemic-fighting strategies as a result.

The secret to South Korea's effectiveness in combating COVID-19 is a heavy dose of testing, contact tracking, and quarantine procedures. The actions they implement against the pandemic are maybe the largest benefit that contributed to President Moon's win in the election on April 15, 2020. The Korean people asked that professionals, not the president, make choices in the battle against COVID-19 in this situation as a result of the administration's missteps in the MERS case. For other democracies, such as the majority of Western nations, that have implemented stringent measures that restrict people's freedom, South Korea's coping mechanisms with COVID-19 serve as an example. The capacity of South Korea to implement adaptable policies that vary with the pandemic's environment is one of the key factors in the country's prosperity.

Turkey, on the other hand, used to rank among the top 10 nations in terms of the quantity of cases. The reason for the low death rate may be attributed to the young population and enough hospital capacity. On the other hand, the follow-up for the diagnosis was not particularly successful. This is due, in part, to the diagnostic follow-tardy up's start and the absence of technology integration seen in Korea. Turkey, which had a strategy of stifling dissident opinions, did not achieve the same level of transparency in communication as Korea.

Both nations should put regulations into place to guarantee that people, especially young people, are more cautious in the event of future health catastrophes. Although young patients make up the majority of SARS-CoV-2 infections, these age groups have a low fatality rate. On the other hand, there are a lot of individuals in this age bracket who are asymptomatic or only moderately unwell. For these reasons, young people regrettably are not as attentive as other age groups in taking personal measures, hence the likelihood of their spreading the disease is greater. Furthermore, trustworthy government and scientific sources should use all available channels to provide their citizens with correct information in order to safeguard the public from information pollution.

Before crises arise, economic support packages should be prepared, and nations should enhance funding for scientific research to speed up the activation of resources like medicines and vaccines. All public and private organizations should include technology to prevent the need for individuals to move. Experts should make judgments about your health without interference from politicians.

In order to examine how Turkey and South Korea have been handling the COVID-19 situation, I concentrated on their public policies, decision-making processes, disaster management systems, health systems, education systems, resources, etc. I used comparative analysis as my main approach in this framework. Overall, I want to offer suggestions to policymakers while also adding to the literature in this frontier study field. The writing of the thesis is anticipated to enable other nations with comparable structures, such as Turkey and South Korea, to see the benefits and drawbacks of their public policies, stages of policy-making, and mechanisms for making decisions in a comparative framework and to help them improve their systems within the framework.

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