



RESEARCH PAPER

Preparedness and Response Plans of Germany and Pakistan during COVID-19: A Comparative Analysis

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PAPER INFO	ABSTRACT
<p>Received: November 22, 2021</p> <p>Accepted: February 25, 2022</p> <p>Online: March 31, 2022</p> <p>Keywords: COVID-19 Pakistan, Germany, Containment Policies</p> <p>*Corresponding Author: iqra.younas@gm ail.com</p>	<p>This abstract provides a comparative analysis of the preparedness and response plans implemented by Germany and Pakistan during the COVID-19 pandemic. The study evaluates the strategies adopted by both countries to mitigate the impact of the virus on their respective populations. The study utilizes a qualitative research approach, drawing information from official reports, government documents, and academic publications. In examining Germany's approach, the study highlights its robust healthcare infrastructure, extensive testing capabilities, and efficient contact tracing measures that played pivotal roles in containing the spread. Additionally, Germany's proactive communication and swift implementation of social distancing measures are assessed for their effectiveness in flattening the curve. Conversely, the analysis of Pakistan's response focuses on the challenges faced by its resource-constrained healthcare system and limited testing capacity. The study also delves into the country's efforts to manage socio-economic disparities and enforce containment measures in densely populated regions. The findings of this comparative study shed light on the strengths and weaknesses of both nations' approaches to handling the pandemic, offering valuable insights for future pandemic preparedness and response strategies worldwide.</p>

Introduction

The Covid-19 pandemic has been an unprecedented test for political institutions, public policies, and administrations. Some countries' political institutions failed, while others survived the pressure. It has also highlighted the technological backwardness of public administrations. Many governments have disregarded evidence-based policies and favored selective expert advice (Yaseen, Jathol, & Muzaffar, 2020). Covid-19 and its Impact on South Asia: A Case Study of Pakistan, *Global International Relations Review*, III(I), 20-26. The success of the virus is not only determined by its characteristics but also by social interactions between potential hosts. Therefore, the pandemic offers an opportunity for research by social scientists and virologists alike. Political scientists have also taken an interest in the pandemic as governments have taken on the responsibility of organizing the response to the crisis. The pandemic's dynamics have been heavily influenced by containment policies, which can be categorized into six strategies: two pharmaceutical and four non-pharmaceutical strategies. The non-pharmaceutical strategies involve social distancing, surveillance, and testing to identify active cases, with near-perfect isolation of infected individuals being the first available response and the initial line of defense (Hellewell, 2020). The second strategy involves isolating the areas where the virus has already spread from the areas where it has not. If these two strategies do not work, a more radical approach is necessary (Chinazzi, 2020). The third strategy aims to isolate individuals who are at a higher risk of dying from an infection, such as the elderly and vulnerable. This allows the virus to spread through the less vulnerable parts of the population until herd immunity is achieved (Marais, 2020). The fourth strategy involves implementing policies that significantly reduce social interactions, often referred to as a "lockdown" approach.

These strategies are not mutually exclusive and can complement each other (Plumper, 2021).

The pharmaceutical and non-pharmaceutical measures implemented by governments during the Covid-19 pandemic present an excellent research opportunity for social scientists. Regardless of the chosen strategy, the economic, social, psychological, and political costs for the population are significant, and the distributional effects of pandemic containment policies and compensation schemes have been massive. Therefore, this special issue aims to bring together social science research on the Sars-CoV-2 pandemic to better understand the political causes and consequences of containment policies (Plumper, 2021). The articles provide insights into the impact of political institutions, political attitudes, and containment measures on the pandemic's dynamics, as well as the unintended consequences of political responses to Covid-19.

The pandemic also provided politicians with an opportunity to demonstrate leadership, assume responsibility, and act responsiveness. Governments around the world were not prepared for the Covid-19 pandemic and initially relied on reported data on cases and deaths. However, these numbers were subject to revisions and errors, leading to an increased reliance on forecasts and models (Karlinsky, 2021). While these statistical models can provide insights, they have limitations, and governments often had to improvise and resort to containment policies such as lockdowns and quarantines (Castle, 2021). The timing and choice of these policies were influenced not only by epidemiological factors but also by political institutions, leadership, and culture. The pandemic highlighted a range of country-specific problems, including underequipped and underfinanced health systems, slow decision making, and denial of the severity of the virus (Jennings, 2021). For this article, a comparative study done between Germany being a developed country setting example of successfully tackling the COVID pandemic and Pakistan being a developing nation has done its best to cope with pandemic situation effectively.

Literature Review

National Pandemic Plan for COVID-19 of Germany:

Germany's healthcare system is characterized by high capacity and spending, with approximately 11 percent of its gross domestic product allocated to healthcare, amounting to US\$5,119 spent per capita per year (World Bank Data, 2020). With the highest number of hospital beds per 1,000 people (8.3) in the European Union, as well as a significant number of private and public laboratories, almost 200 of which can test for SARS-CoV-2, the country is well-equipped to handle healthcare needs (World Bank Data, 2020). Germany also has one of the highest numbers of nurses (13.2) and physicians (4.2) per 1,000 people in the EU (World Bank Data, 2020). The health insurance system is mandatory for all citizens and permanent residents, with the majority (90%) covered by nonprofit nongovernmental insurance funds (Björnberg, 2018). The system is consumer-oriented and has the shortest wait times for both specialist consultations and elective surgeries in the Commonwealth Fund survey (The Commonwealth Fund, 2010). These attributes, along with ample human resources and physical infrastructure, have contributed to Germany's exceptional health indicators, such as an increase in life expectancy from 75 to 81 years between 1990 and 2018 and a decrease in maternal mortality ratio from 11 to 7 per 100,000 live births between 1990 and 2017 (WHO, 2019) (World Bank Data, 2020).

After the first case of COVID-19 was reported in Bavaria on January 27, 2020, Germany's public health infrastructure was already actively responding to the disease (RKI, 2020). Technical guidelines and risk assessments for testing, contact tracing, and disease management were made available on January 16, and daily situation reports were issued by RKI for the public health sector from January 23 (German Federal Ministry of Health, 2020). By February 27, with 26 confirmed cases, the government established a national crisis management group, and the next day, travelers entering the country from high-risk areas

were required to provide exposure and contact information. Throughout February and March, restrictions on mass gatherings and travel were increasingly imposed, with gatherings of more than 1,000 people prohibited on March 10 and school closures initiated by mid-March. Non-EU citizens were also barred from entering the EU for 30 days on March 18, 2020 (RKI, 2020). On March 22, a "contact ban" was announced by Chancellor Angela Merkel, limiting public gatherings to two people (excluding families), mandating a physical distance of at least 5 feet (1.5 meters), and closing many businesses (Hollingsworth, 2020). On April 10, a quarantine of 14 days was required for all travelers entering Germany, irrespective of their origin. These measures were successful, resulting in a decrease in the number of new cases reported per day from 6,000 in March to around 2,000 by mid-April. Consequently, the government announced a gradual easing of physical distancing measures. Although there were two small outbreaks during the summer, the government responded swiftly, imposing lockdowns in Gütersloh and setting up new testing sites in hotspots to catch additional spread. In late June 2020, there were 615 daily cases (7-day average) linked to outbreaks in slaughterhouses and low-income housing (Eddi, 2020). In late summer and early fall, Germany experienced another small outbreak linked to returning vacationers. With the lifting of travel restrictions during the summer, the proportion of cases with exposure outside of Germany increased, peaking at 49 percent of cases nine weeks after the restrictions were lifted. However, starting in October, Germany, like much of Europe, saw a sustained second surge of cases, which were primarily of domestic origin (RKI, 2020). The cases were traced back to various sources, including households, nursing homes, and religious events. As of January 11, 2021, the country had a daily average of 18,576 confirmed cases, with a total of 1,941,116 cumulative cases and 41,799 deaths (France 24, 2020).

Overarching Goals

Prior to the pandemic, Germany had a comprehensive National Pandemic Plan in place, along with other preparedness plans for various diseases (RKI, 2020). The existence of these plans allowed the government to act quickly and without delay on issues related to governance, accounting, and costs (Eckner, 2020). Public health responsibility in Germany is decentralized, with 16 federal states and around 400 counties responsible for adapting national guidelines and recommendations to local needs. National authorities facilitate a nationwide exchange and negotiate standards and common procedures. The Robert Koch Institute (RKI), as Germany's national public health institute, is responsible for the prevention, control, and investigation of infectious diseases. RKI's team of scientists conducts research on infectious disease pathogenesis, risk assessment, epidemiology, and sentinel surveillance systems, and provides regular updates to the federal government, local and intermediate public health authorities, health professionals, and the public via various channels. This flow of information has been critical in supporting decision-making throughout the outbreak (RKI, 2020).

The overarching goals of all measures are:

- Reduction of morbidity and mortality in the general population.
- Ensuring the care of sick people.
- Maintenance of essential public services.
- Reliable and timely information for policy makers, professionals, public and the media.

The policy is based on three epidemiological phases as: containment, protection and mitigation. The strategies used to achieve the overarching goals of containing, protecting, and mitigating the spread of disease may vary depending on the specific epidemiological phase. While there is no strict separation between these phases, the measures employed to combat infection must be gradually adjusted as the situation evolves. For example, the

importance of quickly identifying and isolating cases, as well as managing contacts, remains critical throughout all phases of an epidemic in order to slow the spread of the disease and reduce the burden on the healthcare system (RKI, 2020).

The transition between the three phases of containing, protecting, and mitigating the spread of an epidemic is not rigid and involves a gradual adjustment of the measures employed to combat the infection. As the outbreak can vary from region to region, the individual phases can also overlap, making it necessary to constantly evaluate and adjust the measures used. The impact of a potential COVID-19 outbreak on the population in Germany will depend on various factors that are difficult to assess at this time, such as the rate of spread, the number of people affected, and the severity of the disease. However, rapid case identification, isolation, and contact tracing are crucial in every phase of an epidemic to reduce the spread and the number of cases in the population. In order to minimize the proportion of severe cases, vulnerable groups of people need to be given special protection. This means that healthcare systems must establish separate care for individuals infected with SARS-CoV-2 as much as possible, without neglecting other patients. Depending on the spread of COVID-19, the type and scope of measures for separate patient care should be adjusted, and an appropriate concept for separate patient care is currently being developed. However, such measures can only be successful if the mental and physical well-being of isolated individuals is ensured through active social commitment. This includes providing support and care to those who are in isolation, as well as addressing their psychological and emotional needs. By doing so, we can ensure that individuals receive the care they need while minimizing the impact of the outbreak on society as a whole (RKI, 2020).

Literature of Actual on Ground Situation of COVID-19 in Germany

Germany faced challenges in maintaining success throughout the COVID-19 pandemic despite initial achievements. While the country demonstrated early success compared to its peers, a major spike in cases began in October 2020, with average daily case counts remaining above the peak seen in April 2020 as of early February 2021. Nonetheless, Germany still performed relatively well compared to many hard-hit countries in the European Union (EU) (Roser, 2020).

One of the factors contributing to Germany's initial success was its strong healthcare system and early progress in detecting and containing the virus. Additionally, efforts to increase human resources in understaffed local public health facilities enabled more efficient contact tracing. However, these resources were deemed potentially unstable, and during the winter surges, the health system faced strain in several areas, operating beyond its capacity. Germany's focus on collecting and analyzing data and effectively communicating the results to the public played a crucial role in maintaining high levels of trust in the government throughout most of the pandemic. Chancellor Angela Merkel frequently referenced surveillance data from the Robert Koch Institute (RKI) and relied on epidemiological concepts like the reproduction rate to inform decisions regarding social distancing measures. The government utilized three key indicators—infection rate, disease severity, and health system capacity—to assess the effectiveness of its response (The Editorial Board, 2020).

Establishing clear expectations and providing transparency to the public about the criteria used for government decision-making on reopening were pivotal in gaining public trust. However, challenges emerged when attempting to reinstate restrictive measures during the second surge, as there was more notable political resistance and deviations from federal recommendations by individual states. Germany's federal system resulted in varying approaches and guidance on social distancing measures across different states. While this allowed for tailored strategies, it also hindered the widespread implementation of a standardized testing strategy or nationwide containment measures, even as case counts rose.

Moreover, Germany's low case counts in the spring of 2020 meant that a significant portion of the population remained susceptible to infection, which contributed to the rapid spread witnessed in the fall and winter of 2020. Possible explanations for the surge include the transition from outdoor to indoor activities due to colder weather, increased travel following summer holidays, and a delay in reintroducing strict containment measures until after case counts surpassed contact-tracing capabilities. These challenges highlight the complexity of maintaining success throughout the COVID-19 pandemic, even for countries initially positioned well. Adapting strategies, addressing healthcare system capacity, consistent communication, and coordination among federal and state authorities are crucial aspects in navigating the ongoing battle against the virus (Lu, 2021).

COVID-19 Pakistan Preparedness and Response Plan (PPRP)

The COVID-19 pandemic in Pakistan was a part of the ongoing global outbreak of coronavirus disease 2019 (COVID-19) caused by the SARS-CoV-2 virus (Khan, 2020). The virus was first detected in Pakistan on February 26, 2020, when two cases were reported. One case involved a student in Karachi who had recently returned from Iran, and the other case was reported in the Islamabad Capital Territory. By March 18, 2020, COVID-19 cases had been reported in all four provinces, the two autonomous territories, and the Islamabad Capital Territory. As of June 17, 2020, every district in Pakistan had confirmed at least one case of COVID-19 (GEO, 2020).

Pakistan, despite being the world's fifth-most-populous country, has recorded a relatively lower death toll and number of confirmed COVID-19 cases compared to some other countries. As of now, Pakistan ranks 29th in terms of the highest death toll (approximately 23,087) and 29th in terms of the number of confirmed cases (approximately 1,011,708). However, it's important to note that these figures may not account for the undercounting of COVID-19 infections in the country (Shahid, 2020). Pakistan has experienced three distinct waves of COVID-19. The first wave began in late May 2020, reached its peak in mid-June, and subsided by mid-July. This wave had a relatively low death rate and ended abruptly as case and death rates rapidly declined. Following the first wave, daily new deaths and testing positivity rates remained stable at low levels. However, in early November 2020, Pakistan witnessed a resurgence of cases and deaths, marking the onset of the second wave. This wave was less intense and mainly affected the southern province of Sindh. It reached its peak in mid-December 2020. The third wave of COVID-19 emerged in mid-March 2021, characterized by soaring testing positivity rates, daily new confirmed cases, and deaths. This wave predominantly impacted the provinces of Punjab and Khyber Pakhtunkhwa. It peaked in late April 2021, after which positivity rates, daily new case numbers, and daily new death numbers began to decline. It's worth noting that these waves provide a general overview of the COVID-19 situation in Pakistan, and the country continues to monitor and manage the ongoing pandemic (Saif, 2020).

Punjab, the most populous province in Pakistan, has reported the highest number of confirmed COVID-19 cases (334,000) and deaths (9,770) among all provinces. Sindh, the second-most populous province, has the second-highest number of confirmed cases (308,000) and deaths (4,910). Although Sindh was severely affected during the first two waves of the virus, it still has a higher proportion of confirmed cases compared to other provinces. Sindh also has the second-highest death rate, following Khyber Pakhtunkhwa, which is the country's third-most populous province. Khyber Pakhtunkhwa has recorded the third-highest number of confirmed cases (129,000) but has faced an exceptionally high fatality rate of 3.03%, resulting in the highest death rate among all provinces and the third-highest number of deaths (3,920). Balochistan located in the southwest of the country, has the lowest count of confirmed cases (24,500) and deaths (270) among all provinces. It also exhibits the lowest number of confirmed cases and deaths per capita. Balochistan has a remarkably low fatality rate of 1.10%. Islamabad Capital Territory, which is wealthier than any of the provinces, has reported 80,300 confirmed cases and 745 deaths, resulting in a

higher number of deaths per capita and confirmed cases per capita compared to any other province. However, it has the lowest fatality rate in the country (Saif, 2020). Following the first wave, Pakistan implemented "smart lockdowns" and enforced standard operating procedures (SOPs) to combat COVID-19. The country underwent a nationwide lockdown from April 1, which was extended twice until May 9. Subsequently, the lockdown was gradually eased in phases to balance the containment of the virus and economic considerations (Shahzad, 2020). COVID-19 cases in Pakistan are heavily concentrated in specific areas, with a significant proportion found in key cities. As of 7 May 2021, Karachi, the largest city, accounted for approximately 189,000 confirmed cases, representing around 22% of all COVID-19 cases in the country. Lahore, the second-largest city, recorded about 170,000 cases as of 5 September 2020, making up around 19% of the total cases in Pakistan. Islamabad Capital Territory and Peshawar District have reported approximately 79,000 and 47,000 confirmed cases, respectively, based on the latest available data. When combined, the cities of Karachi, Lahore, Islamabad, and Peshawar contribute to approximately 485,000 cases, constituting over 55% of the country's total confirmed cases. These areas demonstrate a significant concentration of COVID-19 infections within Pakistan (Malik, 2020).

Strategic COVID-19 Pakistan Preparedness and Response Policy (PPRP) 2020 & 2021

COVID 19 Preparedness and Response Plan Pakistan, 2020 was a plan originates at 14th April 2020 when the diagnosed cases of COVID-19 were at 5,917 and 96 deaths were reported. This plan was formed by the Ministry of national Health in align with the National Action Plan of Pakistan. The plan was originated with consultation of other departments like Ministry of Foreign Affairs (MoFA) to support the Ministry of Health Services, Regulations and Coordination (M/O NHSRC), National Disaster Management Authority (NDMA) and Provincial Departments of Health, PDMAs under the overall efforts of the Government of Pakistan (GoP). The plan had a total worth of USD 595 million. The main goals on which the plan was based are (MoNHSR&C, 2020):

- To help prevent and limit the spread of COVID-19 in Pakistan
- Reduce the related morbidity and mortality due to the pandemic in the country
- Reduce risk of COVID-19 pandemic to the population of Pakistan by prevention, detection and response at all levels

There were seven pillars of the Response priorities in the Preparedness and Response Plan of Pakistan 2020 (MoNHSR&C, 2020):

Pillar 1: Country-level coordination, planning and monitoring

Pillar 2: Risk Communication and community engagement

Pillar 3: Surveillance, rapid response teams, and case investigation

Pillar 4: Points of entry

Pillar 5: Laboratory network

Pillar 6: Infection prevention and control

Pillar 7: Case management

Pillar 8: Operational support and logistics

COVID 19 Preparedness and Response Plan Pakistan, 2021 was the extension of the first PRPP 2020 for COVID-19. The PPRP 2021-22 highlights the achievements in the implementation of PPRP 2020, the challenges and lessons learned, and the proposed priority

intervention to be implemented over one year period from July 2021 to June 2022. The current plan is worth USD 372,929,794. This plan has been developed by the Ministry of National Health Services, Regulation and Coordination (MoNHSR&C) in consultation with all provinces (Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan and Gilgit-Baltistan) and Federating Areas (Azad Jammu and Kashmir and Islamabad Capital Territory). The Plan outlines the international assistance required to support the Government of Pakistan to respond to COVID-19 from July 2021 to June 2022. The Strategic Objective of the PPRP 2021-22 is in line with the Pakistan National Action Plan (NAP) and the WHO Strategic Preparedness and Response Plan (SPRP) 2021 and aims to achieve the following six Strategic Objectives (MoNHSR&C, 2021):

1. Suppress transmission
2. Reduce exposure
3. Country misinformation and disinformation
4. Protect the vulnerable
5. Reduce death and illness
6. Accelerate equitable access to new tools, including vaccines, diagnostics, and therapeutics

The pillar of this plan was as follow (MoNHSR&C, 2021):

Pillar 1: Coordination, planning, financing, and monitoring.

Pillar 2: Risk communication, community engagement, and infodemic management.

Pillar 3: Surveillance, epidemiological investigation, contact tracing, and application of public health and social measures.

Pillar 4: Point of entry, international travel and transport, mass gathering and population movements.

Pillar 5: Laboratory and diagnostics.

Pillar 6: Infection prevention and control, and protection of health workers.

Pillar 7: Case management, clinical operations, and therapeutics.

Pillar 8: Operational supports and logistics, and supply chain.

Pillar 9: Strengthening essential health services and systems.

Pillar 10: Vaccination.

Literature of Actual on ground situation in Pakistan:

The COVID-19 pandemic first emerged in Pakistan on February 26, 2020, with two confirmed cases in Sindh province. Since then, it has continued to spread across the country. Over the course of six months battling the pandemic, Pakistan has reported a total of 296,149 confirmed cases, 6,298 deaths, and 280,970 recovered cases. The effectiveness of government policies in controlling the COVID-19 situation, including closures of vulnerable areas and institutions, support to the economic sector, and investment in the healthcare system and vaccine development, has been questioned. Initially, strict government measures to close down economic and social activities helped keep case numbers relatively low. However, as the government eased these restrictions, the situation worsened. During the first six months of the pandemic in Pakistan, an average of 1,575 confirmed cases, 34 deaths,

and 1,495 recovered cases were reported daily. August 2020 showed a significant improvement in the number of recovered patients compared to new infections and deaths. However, like many countries, Pakistan initially faced challenges in effectively managing the situation. Though Pakistan has faced the devastating impact of the COVID-19 pandemic, with a gradual improvement in recent months. The government's response and policies have been a topic of scrutiny, but positive correlations between cases and government actions indicate progress towards resuming normalcy in the country (Ashraf, 2020).

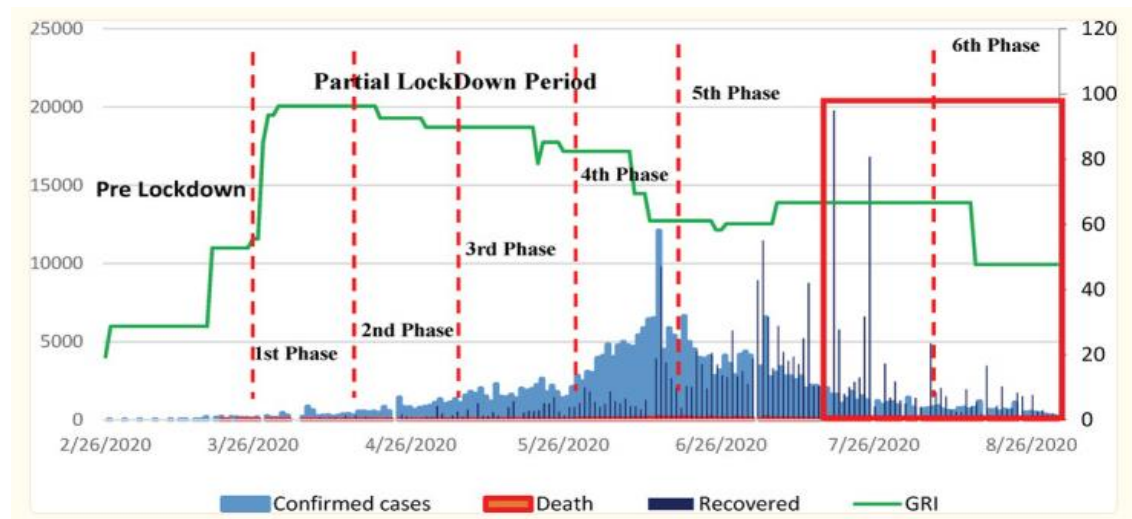


Figure 6 Daily COVID-19 situation in Pakistan

Source: Humanitarian Data Exchanges sponsored by John Hopkins University USA, National Health Services, Pakistan and University of Oxford COVID-19 Project

The current constitutional arrangement of Pakistan's health system places the responsibility of providing healthcare on provincial governments, while the federal health ministry primarily plays a governing and policy role. This highlights the crucial role of provincial responses in controlling the COVID-19 situation in Pakistan. Sindh, the second most populous province, has reported around 44% of the total confirmed cases in the country, despite comprising only 22% of the population. An analysis of confirmed and recovered cases in relation to the population reveals similar trends in Punjab, Sindh, Khyber-Pakhtunkhwa, Balochistan, and Azad Jammu Kashmir. However, the most heavily affected provinces in terms of COVID-19 are Punjab and Sindh, which are also the most populous regions. Punjab has reported 96,832 cases, with a death rate of 2.27% and a recovery rate of 95.53%. Sindh has recorded approximately 44% of the overall cases in Pakistan, with 129,469 patients, a death rate of 1.86%, and a recovery rate of 95.06%. In Khyber-Pakhtunkhwa (KPK), the fatality rate stands at 3.46%, with a recovery rate of 94.07% in its 36,118 cases. KPK has also experienced a higher ratio of deaths to confirmed cases compared to other provinces. Additionally, KPK, Punjab, Azad Jammu Kashmir, and Gilgit Baltistan have fatality rates higher than the overall fatality rate for Pakistan, which is 2.13%. In summary, the provincial responses play a critical role in controlling the COVID-19 situation in Pakistan. Sindh and Punjab, being the most populous provinces, have been particularly affected, while KPK has faced a higher fatality rate and a lower recovery rate compared to other provinces. The fatality rates in some provinces exceed the national average (Raza, 2021).

Conclusion

Undoubtedly, a comparative and qualitative content analysis reveals the varied approaches adopted by governments worldwide in managing the devastating impact of the COVID-19 pandemic. These approaches have ranged from negative to positive actions, considering the highly uncertain and complex nature of the situation. However, it is crucial to acknowledge the profound negative consequences that the pandemic has inflicted on

societies in political, economic, and social terms. In general, government authorities in the countries under examination have tended to be more reactive than proactive in their response. This can be attributed to factors such as inadequate infrastructure, limited resources, and insufficient training capacities. Therefore, it is essential to transparently evaluate their actions and decisions, establishing measurable targets for improvement at both intermediate and long-term levels. It is highly recommended to identify and assess the lessons learned from this pandemic, enabling the implementation of improvement dashboards with specific deadlines to effectively address future crises of a similar nature. Despite the challenges, it is crucial for governments to effectively communicate the outcomes of their actions to the public, clearly highlighting both successful strategies and areas where they may have fallen short. This transparency in communication is necessary to foster public trust and enable a collective understanding of what has worked and what has not.

Table 1
Comparative analysis of COVID-19 policies effectiveness in Germany and Pakistan

Covid-19 Policies Evaluation		Germany	Pakistan
Covid-19 Pandemic Preparedness	Risk Anticipation Capacities	RKI act well in gathering and analysis of data	Effective measures of NCOC
	Critical Sector Preparedness	Early focus and reactive and proactive policies	Reactive and proactive policies
	Pandemic Management Protocols	Effective mitigation, containment and protection policies practiced	Containment and mitigation policies practiced equally
Crisis Management	Crisis Communication	Complete transparency and fact communication	Lack of communication
	Government Arrangements	Strong federal system and approaches along with assistance from RKI	NCOC managed properly by civil and army assistance
	Whole-of Society Response	SOP's followed strictly	SOP's enforced by army and civil administration
Response And Recovery	Lockdown and restrictions	Strict lock down initially with proper mitigation, protection and containment policies, Slight ease in lock down during second wave	Strict lockdown during initial phase, Practice of smart lockdown under economic pressures
	Economic and Financial Support	Economy contracted by just 5%	Economy remains muted at -0.4%, Ehsaas Emergency Cash program initiated by government for poor's
	Health facilities and Measures	Strong health care system, Immediate additional resources to understaffed local public health facilities	Shortage of health care facilities but it remains equitable for all

The research findings clearly demonstrate the profound global impact of the COVID-19 pandemic, resulting in long-lasting changes to people's lives. It is evident that governments across countries have primarily taken reactive measures in response to the pandemic, often driven by their own interests and attempting to gain political advantages in a complex situation. There was a lack of consultation and alignment among countries within the same geographical blocks regarding border closures, and formal coordination efforts were insufficient. Given these circumstances, it would have been wise to consider the implementation of pan-coordination actions involving geographic regions with shared policy objectives. Pan-coordination efforts hold significant value in establishing uniform strategies. Such plans would compel countries to expedite their overall response to a pandemic crisis and emergency situations, participate in cross-border medical aid programs, facilitate the exchange of medical infrastructure and personnel, implement benchmarking processes to identify global best practices, design and deploy effective risk mapping initiatives, and crucially, mitigate the adverse economic and social effects of a pandemic,

particularly on low-income populations. The aforementioned conclusions provide a basis for further research topics that warrant scholarly attention in the future.

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