COVID-19 and early responses of Pakistan to mitigate the pandemic: A quick review

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Abstract

In Pakistan, the first case of COVID-19 was reported on February 26, 2020. As of September 18, 2020, Pakistan had 304,386 confirmed cases, out of which 291,683 patients were discharged, and 6,408 (**2%**) deaths took place. This narrative aimed to rapidly review Pakistan's early successes in mitigating the COVID-19 pandemic. Initially, Pakistan did not allow anyone to enter the country from China, the center of the outbreak. National Command Operation Center (NCOC) ordered a lockdown for one month. However, Prime Minister (PM) and NCOC converted it into a Smart Lockdown to minimize the economic losses. Some quick and early initiatives by Pakistani leadership included the formulation of SOPs and initiation of programs like Resource Management System (RMS), Pak Negheyban application, Integrated Disease Information Management System (IDIMS), National helpline-1166, WhatsApp Chatbot (+92300-1111166), Isolated Hospitals, Infectious Treatment Centre, COVID-19 Telehealth Portal, Community Mobilization, Prime Minister's Relief Fund, Ehsaas Program, Smart Lockdowns, and Tiger Force. Early and quick initiatives by Pakistan helped slow down the spread of infection in the country. These initiatives against COVID-19 were also praised by WHO and included Pakistan among countries that effectively control the spread of infection.

Keywords: COVID 19; Pandemic; Pakistan; Policy; Review

Introduction

The Corona Virus was initially reported in Wuhan, China in December 2019. On January 7, 2020, Chinese scientists diagnosed a novel coronavirus, referred to as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2; previously referred to as 2019-nCoV), in patients with virus-infected pneumonia (Chan et al., 2003; Phelan, Katz, & Gostin, 2020), later referred to as Coronavirus Disease 2019 (COVID-19) by WHO in February 2020 (Gorbalenya et al., 2020). Initially, this disease was caused by a zoonotic transmission from a wild animal market, but it soon became clear that efficient person-to-person transmission was possible (Jay J Van Bavel et al., 2020). Symptoms of this disease include mild upper respiratory tract illness and severe viral pneumonia, which may lead to respiratory failure and even death. In Wuhan, many patients were hospitalized with the above-mentioned symptoms (Chen et al., 2020; Huang et al., 2020). As of September 18, 2020, worldwide cases of the COVID-19 pandemic number more than 30,380,035, out of which 22,062,915 (**96%**) patients are recovered and 951,150 (4%) deaths are reported.

The first case of COVID-19 in Pakistan was registered on February 26, 2020. As of September 18, 2020, Pakistan had 304,386 confirmed cases of COVID-19, out of which about 291,683 (98%) patients were discharged, and 6408 (**2**%) deaths took place (Worldometer, 2020).

To date, case mortality rate due to the COVID-19 has been estimated at around 4% in the whole world and about 2% in Pakistan. However, the initial forecasts for this disease were about 2-3% (Wang, Horby, Hayden, & Gao, 2020). In epidemiologists' view, this rate might be changed as mutations occur in viral DNA. If we compare COVID-19 with MERS and SARS, the case death rate for MERS was 34% and 10% for SARS. Moreover, the WHO reported that COVID-19 could infect people of all ages. However, people with medical history (such as diabetes, asthma, heart disease) and older people are more susceptible to becoming victims of this virus (WHO, 2020b).

World Response against the Pandemic
A city (Wuhan) of about 11 million people shut down all its all departments and transport on January 23, 2020. After Wuhan, China locked down its other cities, i.e., Huanggang and Ezhou, to curb the danger of viral spread and closed its train stations. Hence, about 18 million inhabitants faced complete isolation from the world. Isolating Wuhan due to the pandemic was praised by the WHO, who praised it as a unique example in the history of public health (Crossley, 2020).

On January 30, 2020, the novel coronavirus total case count exceeded that for SARS (which affected 8,096 people worldwide). That's why the WHO declared the COVID-19 outbreak a Global Public Health Emergency. Meanwhile, patients were reported from Japan, Germany, USA, and Vietnam; those who didn't stay in China but were contacted by someone who visited China and showed symptoms of COVID (Li et al., 2020). On March 11, 2020, the WHO announced COVID-19 to be a pandemic (Wang et al., 2020). As previously reported on January 30, 2020, the first human to human transmission was reported by CDC, USA (CDC, 2020). Such anthropogenic cases of human to human transfer are the most challenging (WHO, 2020c). On January 31, 2020, the first 2 cases in Russia and the first 2 coronavirus cases in the UK were reported (CMO, 2020; Golikova, 2020). Moreover, in Spain and Sweden, initial cases were also reported. USA announced a public health emergency on the same day and issued a quarantine duration of 14 days for US civilians entering the United States from China.

History of COVID-19 Pandemic in Pakistan
On February 26, 2020, the first case of COVID-19 was recorded in Pakistan. As of September 14, 2020, Pakistan had 304,386 confirmed cases of COVID-19, out of which about 291,683 (98%) patients were discharged, and 6,408 (**2%**) deaths took place (GOP, 2020; Worldometer, 2020). Here we address issues that are widely applicable to many phases of the ongoing pandemic to assist legislators and officials (Table 1).

Challenges and World's Perception about Pakistan
Historically, the highest human death tolls were blamed on infectious diseases. The Bubonic Plague, for example, destroyed about 25% of the European population. In this segment, we address how people are likely to experience and react to intergroup and decision-making challenges and risks during the pandemic and its downstream implications. Like the worst-case scenarios for hundreds of nations, including Pakistan, Imperial College London has made painful and disturbing predictions. According to UK data, if no action is taken to stem the outbreak, 2.2 million people in Pakistan may die from COVID-19 between February 2020 and June 2021 (Dawn, 2020).

Political Polarization
Political rivalry is one cultural obstacle to coordinated action within countries. Citizens' polarization comes in two ways. Attitudinal and religious polarization affect those that are strongly opposed, whereas affective polarization applies to those that fear and mistrust those in the opposing classes (Iyengar, Lelkes, Levendusky, Malhotra, & Westwood, 2019; Westwood et al., 2018). The political drawbacks of affective polarization, such as falling trust (Thurber & Yoshinaka, 2015), favoring party labels over policy information (Abramowitz & Webster, 2016), and believing that misleading information will suppress social and economic relations (J. J. Van Bavel & Pereira, 2018) and disrupt public health (Iyengar et al., 2019). The main problem with polarization is that parties' biases against each other force their supporter to differ with the policy, whether it is right or wrong. Another issue with polarization during a pandemic is that it could lead different segments of the population to reach different conclusions about the threat in the situation and appropriate action. Community members may receive different types of news, allowing them to self-select divided news outlets or partisan "echo chambers" (Bakshy, Messing, & Adamic, 2015; Lelkes, Sood, & Iyengar, 2017) or they may communicate in ways that involve less cross-party knowledge sharing (Brady, Wills, Jost, Tucker, & Van Bavel, 2017). Fake news must be reported and countered, which may lead the population to partisan-motivated beliefs.

Lack of Health Facilities and PPEs

Pakistan has poor health infrastructure. Public hospitals lack basic facilities and PPEs for health workers (Jaffery, 2020).

Month	Total Tests	Total Tests (cumulative)	Confirmed cases	Confirmed cases (cumulative)	Active cases	Deaths	Deaths (cumulative)	Recoveries	Recoveries (cumulative)
Table 1. Data of COVID-19 patients in Pakistan from March 1, 2020 to August 31, 2020									
March	15967	15967	2039	2039	1931	26	26	82	82
April	166164	182131	14778	16817	12117	359	385	4233	4315
May	379005	561136	55643	72460	44834	1158	1543	21768	26083
June	744374	1305510	141010	213470	108273	2852	4395	74719	100802
July	690657	1996167	65676	279146	25149	1575	5970	147225	248027
August	645861	2642028	17003	296149	8881	328	6298	32943	280970
Total	**2642028**		**296149**			**6298**		**280970**	

Trust Deficit

Health authorities also have to reassure the community during a pandemic to adjust their habits and to follow SOPs aimed at regulating them, e.g., being quarantined or registering happily for clinical testing. But in Pakistan, most people were reluctant to go to hospitals for even routine checkups as they lacked trust in medical staff due to rumors of a foreign COVID-19 agenda in Pakistan (Khattak, 2020).

Immaturity of Political Leadership

From experimental research, it is clear what leaders can do to promote the confidence that leads to collaboration. It is a goal for leaders to give meaning to mutual social identity among their supporters (Brady et al., 2017). A number of studies indicate that people appear to favor leaders who build a feeling of "we are all united in this" (Haslam, Reicher, & Platow, 2010). Institutions and leaders that regard people with respect and dignity appear to be more effective (Tyler, 2013). This leadership, in part, provides a sense of mutual confidence (Fransen et al., 2015).

Quarantine problems

In the absence of a vaccine, one of the most important strategies for slowing the pandemic is social distancing, but in countries like Pakistan, there is a combined family system, making it much difficult to implement the SOPs.

Strategies and response of Pakistan against COVID-19 Pandemic

Leadership

A disaster such as the COVID-19 outbreak provides an opportunity for decision-makers among different groups, i.e., local populations, families, places of work, and nations. Leadership can guide, encourage, and assist individuals in preventing activities that are no longer considered communally responsible (Jay J Van Bavel et al., 2020). In this study, the frontline leadership of Pakistan emerged much more mature and took decisions wisely in NCOC (National Command & Operation Centre). After the first reported case of COVID-19, this center was established by the federal government of Pakistan in which all the stakeholders of the country were involved, including the army, federal cabinet, health department, all provincial chief ministers, and the National Disaster Management Authority (NDMA) in March 2020. The situation of COVID-19 pandemic was discussed on a daily basis in NCOC meetings and decisions were taken accordingly. The following are some earlier steps taken by the Government of Pakistan in NCOC or through other platforms:

National Lockdown and Formulation of SOPs

A national lockdown was declared for one month starting March 13, 2020. Act 144 was implemented throughout the country, which means people can't move or stay in groups. Schools, colleges, universities, restaurants, marriage halls, mosques etc. were closed. The SOPs regarding social distancing were formulated in collaboration with the health department and WHO guidelines.

Resource Management System (RMS) and Pak Negheyban application

NCOC considers the Resource Management System (RMS), which was launched on May 31, 2020 and currently covers approximately 4000 COVID and non-COVID hospitals in Pakistan, for accurate mapping of health resources. It promotes the utilization of the app "Pak Negheban" which gives its users location-based directions to the nearest COVID treatment hospitals. Thanks to RMS, decision-making was possible with a

view to establishing proper assessment and enhancement of capacity. The Pak Negheyban program is used by a range of emergency response organizations. This app offers real-time hospital visibility based on the accessibility of beds/vents, color-coded status, and location (NCOC, 2020).

IDIMS

National Emergency Operation Center (NEOC) started the Integrated Disease Information Management System and forms a national repository for all COVID-19 related data in Pakistan. This method has contributed in advance to the study of
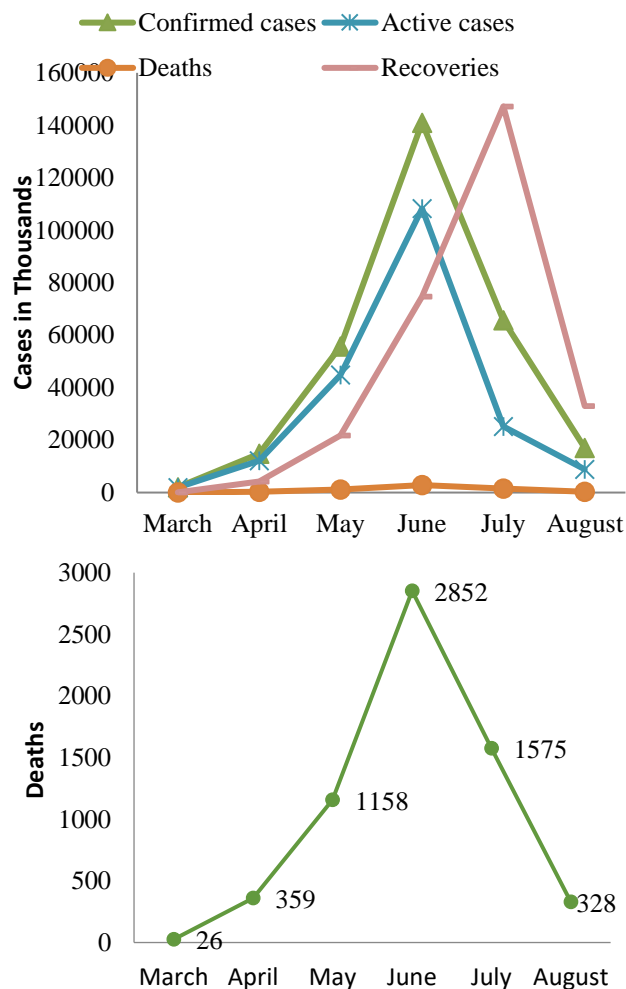
epidemic forecasts and the detection of smart lockdowns. IDIMS is linked with all federal units and provinces for almost real-time data exchange (Noreen, Rehman, Naveed, Niazi, & Furqan, 2021).

Helpline 1166

"Sehat Tahaffuz" Helpline 1166 was introduced on February 6, 2020 to provide health-related data services to the public. The citizens of Pakistan via Helpline received urgent assistance with their

questions and concerns related to polio and regular vaccination programs. The National Helpline-1166 & WhatsApp number +92300 1111166 has been modified to enable health workers to register complaints with the relevant government authorities on June 19, 2020. The helpline is connected to the NCOC and is operated by the complaint management team of the SLIMR&C (Sharmin, 2020).

Isolation Hospital & Infectious Treatment Centre

On July 9, 2020, PM Imran Khan officially opened the 250-bed state-of-the-art Islamabad Isolation Hospital & Infectious Treatment Center (IHITC) beds to provide healthcare services to people with viral illnesses. A large number of hospitals were specified for COVID-19 patients. Moreover, isolation centers were built in border areas of Iran and Afghanistan and an over-1000-bed isolation hospital was built in the expo center in Lahore, as well as in Sakhar, Peshawar, and Karachi. Personal protective equipment (PPEs) and over 4000 ventilators were ordered from China (Tribune, 2020).

We Care App & COVID-19 Portal

"We CARE" was created by MoNHSRC, and it was a nationwide initiative in the sense of COVID-19 to safeguard and help field health workers. The purpose of this campaign was to raise public awareness, including patients and visitors to health care facilities, and to provide health workers with sufficient personal protective equipment (PPE), to guide them through the use of different PPE items in compliance with world standards, and to create an overall environment of care and support (NCOC, 2020). In Pakistan, doctors freely log their time to consult patients free of charge. People in Pakistan can complete a Performa Corona Screening on WhatsApp +92 300 1111166, and choose to discuss it with a doctor.

Community Mobilization

A synergetic response from all sectors of society is being used against the pandemic. NCOC has entered into an agreement with the Rural Support Program in 66 districts of Pakistan to work with the District Administrations to carry out activities, including digital public awareness, voluntary hospital duties, and trace and quarantine assistance; ration collection and distribution; campaigns through social, print, and electronic media; disinfection of public spaces; collection of data; price control and hoarding; and utility stores inspection. These collective efforts from the nation made it possible to get the desired results (PSI, 2020).

PM Corona Relief Fund

PM Imran Khan urged the Pakistani national and foreign diaspora to donate to the prime minister Relief

fund, which will be used to provide for all those found suffering from the lockdown.

Ehsaas Program

Under the supervision of Dr Sania Nishtar, the Ehsaas Emergency Cash programme was introduced in the context of the economic distress associated with poverty as a result of the continuing coronavirus epidemic. Initially, the total budget of this program was Rs. 144 billion and 12 million families received Rs. 12,000 per family. However, 14,801,673 families got Rs. 178,924.35 million (12000 per family) up to September 17, 2020 (Nishtar, 2020).

Smart Lockdowns

The PM of Pakistan advocated the policy of Smart Lockdown instead of a lockdown of the whole country. Smart lockdowns were designed to limit the maximum number of infected patients to the established hotspot in a targeted way, containing and retarding the local spread of COVID-19 and breaking the disease transmission cycle via an app. Lockdowns in whole cities are economically/socio-economically unsustainable while they are administratively convenient. A differentiated approach is therefore possible within the city due to the established heterogeneity in the prevalence of the disease in various hotspots. This smart strategy therefore offers a balanced approach to limiting spread under the circumstances, and the WHO, along with some other world leaders, has acknowledged it (Ahmed, 2022).

Tiger Force

To aid the Government, Prime Minister of Pakistan launched Corona Relief Tiger Force on April 1, 2020. These volunteers distributed food to the poor, and in areas under lockdown, they created awareness about COVID-19. People were able to volunteer for the force via the PM Citizen portal by filling out a digital form.

Conclusion

The first COVID-19 case in Pakistan was reported on February 26, 2020. Initially, Pakistan responded well by not allowing anyone from China to enter. Still, pilgrims from Iran created a panic situation and then cases were reported throughout the country, especially from Sindh and Punjab. WHO and other world organizations, like Imperial College London alarmed the leadership of Pakistan. NCOC was formed earlier and all the decisions were taken to curb the pandemic. The crucial steps were proposed and implemented by the leadership of Pakistan. Prime Minister's Relief Fund, Ehsaas Program, Smart Lockdowns, and Tiger Force motivate the nation and normalize the panic situation. Due to these critical decisions and following COVID-19 SOPs, now the industries, educational

institutes, transport and shopping malls are open. There is a prediction of a second wave in the upcoming month, so it is very important to follow the SOPs until the vaccine for COVID-19 comes into the market. Future research could focus on the long-term impact of these initiatives on the various social and economic factors of the Pakistani population.

Acknowledgements

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