

# THE IMPACT OF CORONAVIRUS (SARS-COV2) EPIDEMIC ON INDIVIDUALS MENTAL HEALTH: THE PROTECTIVE MEASURES OF PAKISTAN IN MANAGING AND SUSTAINING TRANSMISSIBLE DISEASE

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## SUMMARY

**Background:** This study performed a focalized examination of the global impact of the coronavirus epidemic. This current review is one of the few kinds of research, which has sought to check the effect of the coronavirus on mental health issues and the need for psychological well-being in the standard population and patients in response to the global wake of the epidemic and its effects in Pakistan.

**Subjects and methods:** This study has utilized the data on coronavirus patients from the Ministry of Health, National Institute of Health Pakistan. The age of the confirmed coronavirus patients ranged from 12 to over 80 years, including international and local transmitters.

**Results:** Recorded data delivered by the National Institute of Health, Pakistan has quantified that the outbreak of coronavirus (SARS-CoV-2) entered Pakistan through international travelers. They carried the virus after they visited different countries, such as Saudi Arabia, Iran, Iraq, the USA, China, and European countries. By April 30, 2020, there were 16,473 confirmed cases of coronavirus. Total deaths are 361, with a mortality rate of 2.20%, and ultimately recovered cases reported 4,105 with a percentage of 24.90%. As of October 24, 2020, there were 327,063 confirmed cases of the COVID-19 in Pakistan, which posed vast social, economic, health, and environmental problems in the society. The epidemic has affected individuals across the country and confirmed patients in the country increased rapidly.

**Conclusion:** The government officials had initially estimated over 50,000 corona patents by April 30, which would be a great challenge; however, the situation remained under control because of suppression and smart-lockdown strategies by the Government. This study's findings reported that superior health facilities are required to treat the patients. This research review incorporated data generated by NIH, and respondents are from all the regions of Pakistan, subsequently restricting its generalizability to experimental results.

**Key words:** global pandemic - COVID-19 - mental health - respiratory syndrome - coronavirus

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## INTRODUCTION

The coronavirus pandemic (SARS-CoV-2), a particular strain of the infectious disease, which explicitly instigates severe acute respiratory syndrome, surfaced in Wuhan by the end of December 2019. The government reported the fatality rate 2.20% in Pakistan (Abbas et al. 2019). The coronavirus pandemic rapidly spread across China and later across the world (Ahmed et al. 2020). The patients suffering from this infectious disease reported a fatality rate between 2-3 percent around the world (Wang et al. 2020), which is a bit higher than influenza; however, it is more contagious than severe acute respiratory syndrome (SARS) (Li et al. 2020). As of April 30, 2020, territories, states, and countries outside of China had reported infections to the World Health Organization (WHO), with an estimation of over 3.26 million active cases and a staggering death toll over 231,808. In the next six months, the infected patients increased to over 42.84 million reported cases of coronavirus, with the deaths toll of more than 1.153

million. There are more than 31.596 million recovered cases from the transmittable disease, as of October 24, 2020, around the world.

The advent of the epidemic COVID-19 has also massively struck the economy of Pakistan. As of October 24, 2020, there are 327,063 confirmed cases of the COVID-19 in Pakistan, which posed enormous social, economic, health, and environmental problems in the society (Yoosefi Lebni et al. 2020). The pandemic has also affected the mental health of the older adults during isolation and lockdown phases (Shuja et al. 2020). Pharmaceutical companies have initiated their trials to develop a vaccine to treat COVID-19 patients, and there is a great race to bring effective vaccine in the market against COVID-19 disease (Su et al. 2020). The study of Johnson & Mueller (2002) reported that last time the world encountered a similar global pandemic, which was the influenza outbreak (H1N1) of 1918 to 1920. With an estimated death rate recorded between 50 and 100 million and with several reported cases of mental health issues in its aftermath (Johnson & Mueller 2002).

As there is no appropriate cure, several countries are responding to the pandemic through a combination of confinement and mitigation strategies (Liu 2020). It is helpful to defer the significant flow of patients and curtail the demand for hospital admissions while safeguarding the most vulnerable from infection, such as the elderly and patients with comorbidities (Folkman & Greer 2000). However, this method has disrupted the psychosocial life of the public, thus creating an impending sense of fear and provoking anxiety and similar mental issues (Xiang et al. 2020). While many developed countries have the resources to deal with financial and social crises, they find it challenging to deal with these issues (Abbas et al. 2019). Third world countries, such as Pakistan, which has a more significant portion of the population consisting of laborers and people with low wages, are facing the full brunt of the outbreak. The Government of Pakistan has extended the complete shutdown of various cities within the country until May 09, 2020, which is leading to frustration, anger, depression, and several other psychological disorders (Ahmad et al. 2020).

## METHOD

This study has utilized the data on coronavirus patients delivered by NIH, Ministry of Health Pakistan. The age of the confirmed patients ranged from 12 to over 80 years, including international and local transmitters.

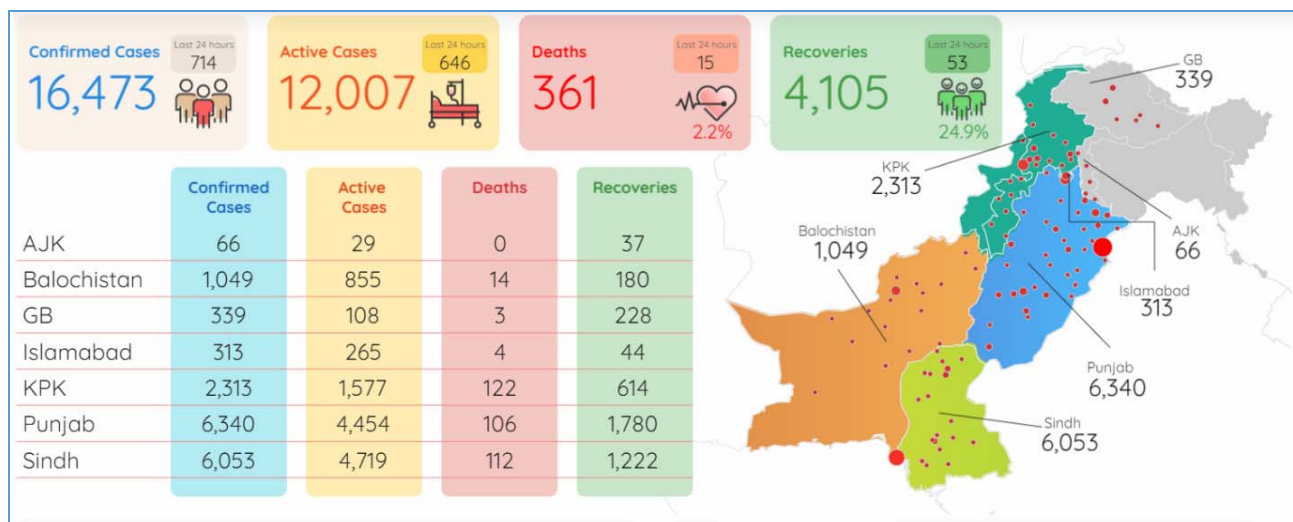
## RESULTS

Recorded data originated from NIH has specified that the outbreak of coronavirus entered Pakistan through international travelers who came to Pakistan. They carried the virus after they visited different countries, such as Saudi Arabia, Iran, Iraq, the USA, China, and

European countries. By April 30, 2020, there are over 16,473 confirmed cases of coronavirus in Pakistan. The epidemic has affected individuals across the country, and confirmed patients in the country had reported a rapid increase within three weeks. This sharp increase has happened because of local transmission, which has increased over 66%, an alarming situation across Pakistan. See Figure 1 below to understand the present situation in Pakistan.

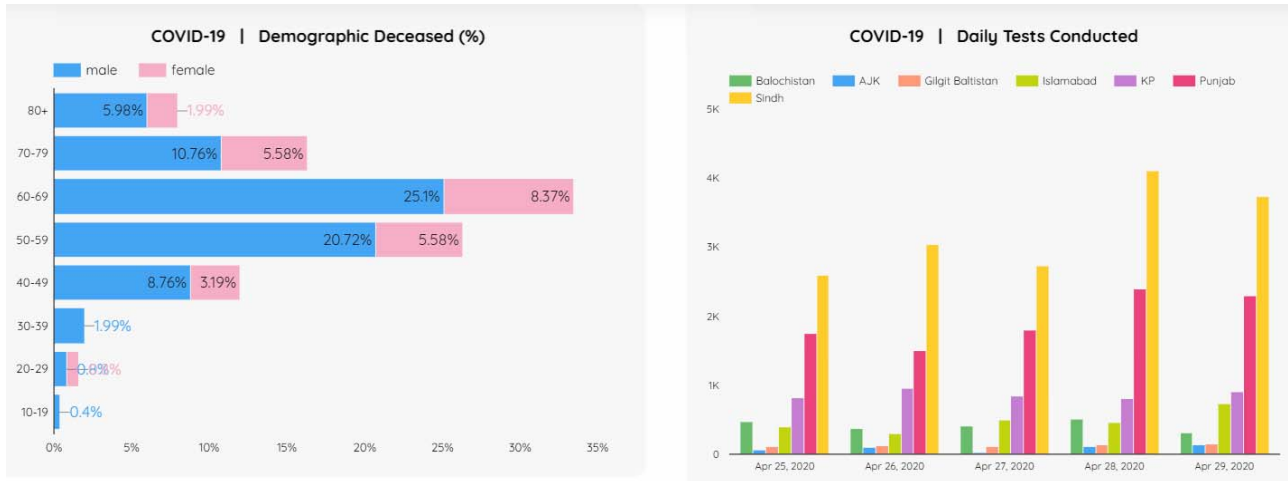
The facts reported that there were 8,418 confirmed patients affected by coronavirus by April 19, 2020, in all the provinces in Pakistan. However, there are 16,473 confirmed cases with total deaths 361, with a mortality rate of 2.20%, and ultimately recovered cases reported 4,105 with a percentage of 24.90%. The people are under high stress and facing mental health problems because of the stress (Halle et al. 2020). The situation has gone worst, as public hospitals have limited resources to admit a large number of patients. On the contrary, private hospitals are quite expensive and mostly out of reach from ordinary people because the earning capacity is lower for the majority of the population. Figure 2 below shows overall confirmed cases and daily new coronavirus cases in Pakistan. The primary reason was the local transmission, as people have not followed lockdown imposed by the central Government. Zaireen is the international religious travelers who visited Saudi Arabia, Iran, and Iraq to pay their religious duties. Non-Zaireen are local people such as "Tableeghi Jamaat" as they traveled across the country and became the carrier of coronavirus. They are the reason for local transmission according to the government facts.

Ominously, coronavirus disease has emerged in developed countries, and the influence of the coronavirus pandemic reported the worst consequences. The modelers' dealing with contagious illnesses affiliated with Imperial College London have warned that ignoring mitigation strategy might infect seven billion individuals worldwide,



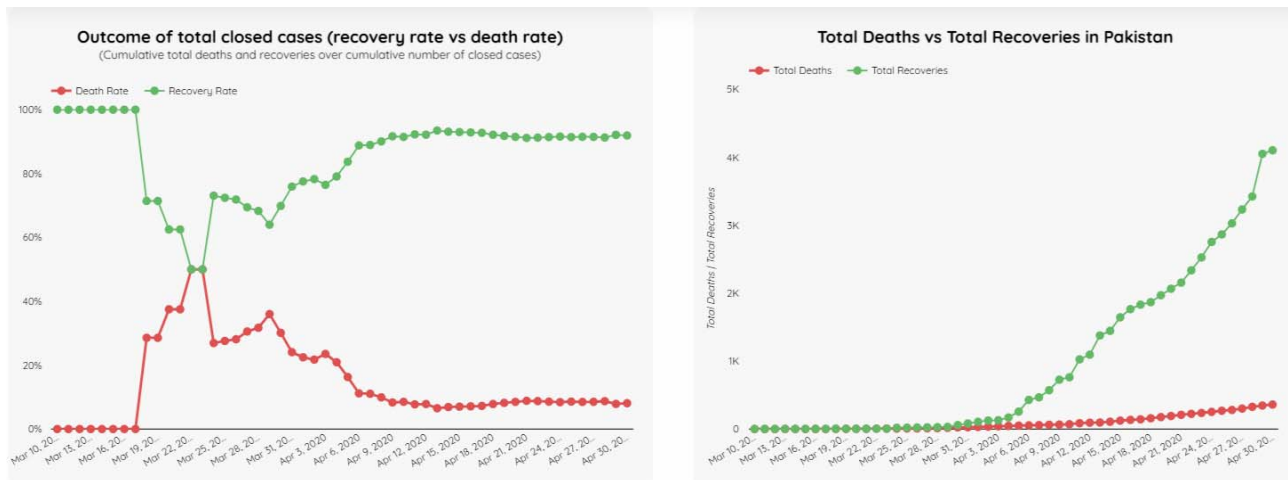
Source: National Health Institute (NIH), Ministry of Health, Pakistan

Figure 1. Total patients with Coronavirus across Pakistan



Source: National Health Institute (NIH), Ministry of Health, Pakistan

**Figure 2.** Patients of coronavirus Demographic Deceased and Daily Testing Pakistan



Source: National Health Institute (NIH), Ministry of Health, Pakistan

**Figure 3.** Coronavirus Patients, Recovery VS Death Rate in Pakistan

and deaths toll may reach 40 million by the end of 2020 worldwide. Therefore, a sustainable early mitigation strategy in such severe global health emergencies is crucial in blunting the outbreak to save human lives. The coronavirus epidemic has hit over 210 countries and territories worldwide so far; however, Italy was the first country from Europe, which was most severely pretentious with confirmed patients of coronavirus and numbers surpassed China by greater than three times (Silverio et al. 2020). The outbreak was declared out of control in the most affected countries, and the public criticized governments' responses as systematic failures in absorbing this epidemic rapidly and effectively (Shuja et al. 2020).

### The Impact of COVID-19 outbreak and Global Public Mental Health Issues

Mental health is a serious problem in the advent of COVID-19 and numerous studies have indicated a direct link between chronic diseases, including human

immunodeficiency virus (HIV) and tuberculosis (Gale et al. 2018) with mental disorders such as depression (Mason & Lyons 2003) in the general population (Chang & Ashcraft 2020). Similarly, studies conducted during and after epidemics (Van Den Heuvel et al. 2013), including SARS in 2003 and Ebola in 2014 (Reperant & Osterhaus 2017), reported that diseases induced fear with over-reactive behavior among the public (Shultz et al. 2016). In addition to this, several psychiatric disorders, for instance, stress, anxiety, post-traumatic stress disorder, and depression disorders (Kott & Limaye 2016), showed a link with such diseases (Mak et al. 2009), mainly in survivors and healthcare workers (Maya-Mondragon et al. 2019). Although the coronavirus impact on public mental health needs more systematic study, however, there are expected significant effects based on the recent public reaction (Cao et al. 2020). Based on this argument, opinion, and previous experiences on China's National Health Commission took significant steps dated January 26, 2020, and released a notification, which stipulated guidelines for

emergency psychosocial disaster interventions (Liu et al. 2020). It helped in reducing the psychosocial consequences of the coronavirus outbreak, with psychological teams consisting of psychiatrists, mental health professionals, and psychological support hotlines (Zhao et al. 2020). The department of mental health of WHO released the substance instructions on March 18, 2020, and provided an outline to address the mental health issues and psychological well-being (Huang et al. 2020) of the standard populations and specific communities (Zhao et al. 2020). These instructions are useful for psychiatrists and mental health professionals in dealing with patients and the general population, and it assists in understanding the likely effects of Covid-19-. These guidelines are helpful for patients, families, and other communities in facing the challenging and the newest threats of coronavirus in productive ways (Cortegiani et al. 2020).

### **The COVID-19, social distancing and negative behaviors**

As highlighted by the WHO in their mental health outline, the stigmatization and scapegoating of affected persons, health care professionals, and authority figures is a widespread occurrence during epidemics (Rubin & Wessely 2020). Unfortunately, this trend has continued during the current outbreak of coronavirus as several people of Asian lineage - mainly Chinese - have been victimized by xenophobia and social stigmatization, with immense levels of threats online and during public interactions (Pakenham et al. 2020). With such reaction from developed and civilized countries, in nations such as Pakistan, where most of the population is still illiterate, this stigmatization specifically towards affected individuals and their families is on the rise. Therefore, it is essential for mental health professionals, including psychiatrists and psychologists, to act as an unbiased voice of reason and assist in educating the general masses to reduce their fear and stigmatization towards affected individuals and Chinese communities (Khalil et al. 2020).

### **Prevalence of conspiracy theories about medication and panic-induced behavior**

At present, the scientists are not successful in developing a vaccine to prevent the coronavirus infection; however, general-public feels a sense of medical distrust, which has resulted in poor condition of the healthcare facilities in managing health emergency circumstances (Ramanathan et al. 2020). Besides, health facilities distrust specifies a linkage to many infectious diseases and disorders, including and disparities based on ethnicity and race health (Cristian et al. 2020). Another important aspect that often appears alongside medical mistrust during pandemics is conspiracy theories (Quinn et al. 2018). Studies have shown several instances in which participants held a false belief relating to preventive

health (Husnayain et al. 2020). It can lead to enforce public movements until the anti-vaccination trends during the epidemic outbreak (Jolley & Douglas 2014). It shows the enforcement of stigmatization and lesser adherence to health recommendations. One prime example is in Pakistan, where many of the citizens still have a general mistrust towards using medicines and prefer herbal or home remedies while simultaneously avoiding mental health professionals due to a lack of knowledge, belief in myths, and fear of being stigmatized. A similar situation occurred with polio in Pakistan, where conspiracy theories led to many Pakistani people rejecting polio vaccinations (Andrade & Hussain 2018). For this reason, the media, along with officials, should appear publicly and educate people about the importance and existence of physical health issues. Likewise, mental health issues during a pandemic, along with medical and mental health professionals giving scientific and fact-based presentations and suggestions while addressing the importance of coronavirus control practices (Liu et al. 2020).

Any uncertain situation can lead to panic-induced behavior, and with the influence of coronavirus, self-confinement and an absence of proper treatment for the infectious disease has led to a panic and anxiety-inciting situation (Zastepa et al. 2020). Although the anxiety symptoms may not reach the diagnostic threshold of the DSM-5, reassurance from mental health professionals can still help individuals to cope with their current anxieties. Likewise, persistent contamination obsession unwanted discomfort regarding one's cleanliness and a constant need to wash or sterilize oneself is usually classified under obsessive-compulsive disorder (Williams et al. 2013). In the case of a pandemic brought on by an infectious virus, this form of OCD can enhance panic, resulting in the disruption and operative impairment of individuals. It should need a careful check, as in countries such as Pakistan; typically, individuals do not remain registered with mental health experts and can suffer indefinitely in such circumstances (Ahmad et al. 2020). Clinical psychologists and mental health experts should be attentive to such impending issues and try to resolve them with the utmost care.

## **CONCLUSION**

As the pandemic of coronavirus has spread fear on not only an individual but at a societal level, there is a need to implement proper mental health precautions along with physical health precautions, particularly in underdeveloped countries, like Pakistan. These countries have limited resources, and the healthcare systems are not highly developed or advanced for timely disease detection. The tackling of mental health problems is in high demand now. The health experts can help patients as well as suspects to avoid and alleviate long-term spread of (SARS-CoV-2) infectious disease. Other strategies, for instance, online psychological helplines,

can also apply by working from home. It would offer easy access to the public to seek mental health advice from psychologists, and other health professionals' and the masses can easily maintain their communication to gain required assistance. The critical issue to respond affectively recommends the extensive testing at a larger scale, tracing transmitters, strict emphasis on care and home diagnosis. Besides, there is a great need for health-care, medical professionals, and other paramedical staff care and protection, as they are fighting at the front against this deadly infectious disease worldwide. The rapid increase and fast speed of this outbreak are challenging healthcare systems worldwide, and the required pace to tackle this epidemic seems exponentially quicker than bureaucratic procedures in health systems. There is a greater need for learning to identify the most suitable approach to sustain and control the coronavirus pandemic worldwide until vaccination reaches to prevent the disease. Therefore, the preventive strategies' are useful, such as mitigation and suppression in the prevailing situation of a health emergency.

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