Global Situation and Trend of COVID-19

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Abstract

The ongoing Covid-19 pandemic has led to thousands of infections and deaths along with severe socioeconomic impacts globally. The article is aimed to critically examine and analyze the current scenario worldwide and contrast the measures taken by different countries to mitigate the effects of the pandemic. While a number of countries are struggling against the Covid-19, the centre of this outbreak, China is recovering from its disastrous aftermath. In contrast, the virus has overtaken Italy and the United States leading them to the crises they never imagined. Various measures, to varying robust degrees, have been taken worldwide to prevent the widespread outbreak of the pandemic, from national quarantines to travel restrictions. The shortage of testing kits and medical equipment has become a matter of worry for most countries. Collaborative efforts to stand strong against the Covid-19 and developing vaccines or medications for its treatment are crucial to curtail further effects.

Keywords: Corona virus, COVID-19, Disease outbreak, Infectious disease, Pandemic

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Introduction

The COVID-19, an ongoing pandemic [1] caused by a novel corona virus SARS-CoV-2 [2], has hit hard the entire world indiscriminately with the great powers as no exception. The disease was first identified in Wuhan City of China in December 2019 and reported as pneumonia of unknown etiology [3]. The health authorities in China confirmed the identification of a new virus 2019-nCoV belonging to the corona virus [4] family which also includes viruses that caused SARS and MERS outbreak in 2003 and 2012 respectively [5].

Literature Review

The first case of COVID-19 outside China was reported in Thailand by a traveller from Wuhan [6]. Presently, the corona pandemic has engulfed almost every country around the globe [7]. As of 30 May 2020, there have been 5,817,385 confirmed cases out of which 362,705 cases have been reported dead in 213 countries, areas or territories. This number of deaths is 6.23% of the total affected cases [8]. The number of confirmed cases in the United States of America, Spain, Brazil, Russia, Peru, Chile, India, Turkey, Iran, Canada, Mexico, France and Italy have long surpassed the number in China which is the origin of the outbreak and the most populous country [9]. The highest number of confirmed deaths have been in the United States of America followed by the United Kingdom, which currently has a rapidly escalating number of cases [7].

Corona not only served as a virus for the destruction of mankind but had more to do. Virus has heavily hit the global economic activity and the world's economy started falling even before nationwide lockdowns were implemented [10]. The Gross Domestic Product (GDP) of the country depends upon the country's ability to cope with the virus [11]. Due to the virus outbreak health measures are hindering economic activity and have put the governments into a difficult situation [12].

Nepal, a landlocked country with China on the northern border, is at the verge of developing a Corona virus outbreak. Amid widespread concerns in Nepal and the World Health Organization raising the global risk of the COVID-19 outbreak to "very high", the government has taken steps to contain the possible outbreak of the deadly disease [13,14]. As per May 30, the number of cases confirmed has climbed to 1401 with 7 infected people reported dead and 219 recovered from infection. [15]. More than two months into a nationwide lockdown, the current situation does not seem to be in favour of Nepal's strategy to counteract the spread of the disease. An open border with India enabling incoming people to escape border surveillance and inadequate tests for timely detection of the virus are both to be held responsible for having brought about the recent spike in infected cases. Thousands of Nepalese workers abroad awaiting
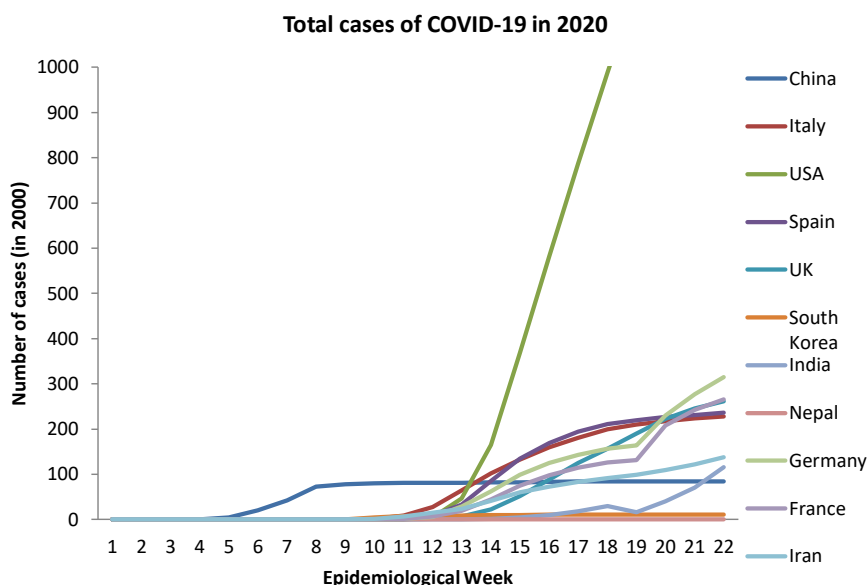
Total cases of COVID-19 in 2020

Figure 1   Number of COVID-19 cases in 2020.
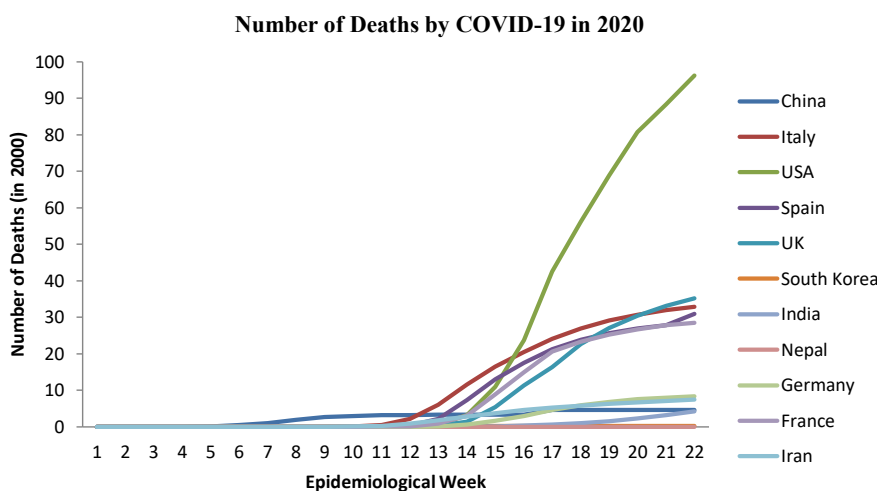
Number of Deaths by COVID-19 in 2020

Figure 2   Number of COVID-19 cases in 2020.

repatriation are in a dilemma as the government lacks plans for their return as well as quarantine shelters and prompt testing following their return. The government should come up with immediate plans of action in response to escalating infection rates with efforts to neutralize its effect and prevent a potential dire situation.

The disease has been a global health emergency of topmost international concern which has aroused fear and suspicion in people's hearts, in the thick of which rumours and confusions are widespread. The centre of this outbreak, China is recovering from the disastrous aftermath of the outbreak [16] while countries like Italy, Spain, Brazil, France, the United Kingdom and the United States among others are considerably affected despite being geographically far from the origin of the pandemic. The infrastructural difference in terms of healthcare between these nations is not extensive [17] however, the outlook and measures

adopted by them are not the same at all. This article primarily focuses to critically examine and analyze the present scenario of the world, compare and contrast the measures undertaken by different countries and their corresponding outcomes amidst the COVID-19 pandemic crisis.

Global Scenario

China, the third most powerful country and the country with the highest population [18], is the first country to trace the corona virus infection on November 17, 2019 [19]. However, the cases have slowly declined since peaking in mid-February and now the cases are zeroing down [20]. For now, according to the official statistics, China has won the war against the corona virus [21]. The question that arises in every individual is, what did China do to overcome COVID-19? China has practiced some serious means and methods to slow down the pandemic within the

country which might not work as effectively in other countries as it did in China [22]. To overcome the situation, China built two new 1,000 and 1300 bed hospitals within 6 and 15 days respectively. Moreover, the infected patients were admitted to the hospitals which were allocated specifically for treating only the corona virus infected patients. Technology made it easier for China to trace every individual suffering from the corona virus. Over 80,000 cases were traced within the country [20]. China was the first nation to put lockdown into effect with the aim to stop the spread of the corona virus, which actually worked. On 23 of January, Wuhan became the first city to be locked down [22].

China's central bank planned to destroy about $85.6 billion (600 billion Yuan) paper currency that had been circulated by buses, hospitals, markets in the places hit hard by the corona virus. The cash from other cities, outside the risk zone of corona virus, were quarantined for 14 days and were disinfected at high temperature with ultraviolet light [23]. Ten cent-owned We Chat has been censoring the keywords and the chats related to the recent corona virus outbreak. In January, 132 keywords were censored while it increased to 516 by February. Since the beginning of January, We Chat along with live-streaming site YY has helped to control the information flow regarding the virus [24].

Despite having one of the best healthcare facilities in the world [5], Italy is affected harshly by the explosive flare-up of the COVID-19 pandemic. The highest mortality rate worldwide has been observed in France with over 19.54% (May 30) of the total reported cases confirmed dead followed by the United Kingdom (14.06%), while the average fatality of this disease worldwide is about 6.23% [7].

However, this statistical percentage cannot be deemed accurate as many infected people would develop minor or no symptoms and are not reported until they are tested due to which the actual number of people worldwide who have contracted the virus cannot be exactly determined [25,26]. Even in the case of Italy, not all the infected cases are reported and the actual figures are much higher, according to Dr. Massimo Galli, head of the infectious disease unit at Sacco Hospital in Milan [27].

The most considerable factor of the high death toll of Italy is its demographic status, which includes a significant fraction of elderly people, many of whose immune systems have been compromised due to age and health complications [28,29]. Italy has the largest percentage of elderly people in Europe (23% of the total population is aged 65 and above) and is only second to Japan in the world [28]. Initially, when the corona virus was just on onset in Italy, many deceased were in their 80s or 90s and had pre-existing health issues including cancer that put them in grave danger [29]. As stated by Italian officials, the average age of the people to have perished by the pandemic was 78, many having underlying health problems [27,30]. According to the reports of the National Institute of Health (ISS), 85.6 percent of those who have died until 24 March were over 70 in Italy and 48 percent of the deceased had at least three pre-existing health complications [30].

Another reason for the transmission to be outrageous is due to the way of living of the Italians. According to Linda Laura Sabbadini, the central director of the Italian National Institute of

Statistics, although most elderly Italians live by themselves, their lives are not isolated and involve immense interaction with the younger population. Italy failed to isolate the elderly, who were most vulnerable to the virus infection, in time to reduce the transmission rate [30]. The first case of COVID-19 was reported on 29 January in Italy which was 6 days later than the first case reported in Nepal on 23 January [9]. This indicates that the first identification of the virus in Italy was done much after the infection had proliferated among a large population, for the virus to have caused such an outcome (**Figures 1 and 2**).

The slow response from the government and the oblivious outlook of the politicians were among the main factors to have fuelled the crisis [31]. Even though several scientists had been warning of a probable catastrophe for a long time, the threat of corona virus did not appear to the Italians as a potential crisis [32]. The State-of-Emergency declaration was disregarded not only by the general public but also by the policymakers and political leaders [31]. A group of politicians were found involved in exchanging public handshakes in Milan, to emphasize that the economy should not be affected due to the virus, all along the COVID-19 risk widespread and one of them was diagnosed with the infection a week later [32].

Italy was only the second country after China to have such an outburst of COVID-19 so, not all the shortcomings were avoidable. Nevertheless, Italy initially lacked the responsiveness and depth of commitment to fight against the virus and realized it shortly after the situation was in their hands [32].

The United States has the most number of COVID-19 cases reported and has overtaken China in just a matter of a few weeks [33]. As per May 30, the confirmed cases are more than 1,694,864 with more than 100,304 deaths [8]. A large number of cases may partially be due to extensive testing but the focal reason in the rise in the death toll is the incapacitation to implement effective and quick measures to counteract virus' spread [34]. America also seems much concerned with its intention to save the country's economy which is certain to fall massively if the entire nation is locked down [35]. With the most number of immigrants in the world [36], the United States must have been more cautious in terms of recent arrivals and the entire health condition as a whole. Unlike China and Italy, the United States should have had quite a lot of examples as well as time and resources to learn from earlier mistakes and shortcomings. In contrast, the United States downplayed the situation for a long time with the advisors and experts continuously indicating growing danger [37].

Currently, more than half of the states of the United States have issued proper lockdown measures restricting any social gatherings with non-essential services shut down [38]. Centres for Disease Control and Prevention (CDC) is studying the virus worldwide, has performed cell culture on the virus and is developing serological tests all along helping communities respond locally [39]. The White House has requested its citizens to abide by the guidelines it published entitled "The President's Corona virus Guidelines For America" as a nationwide effort to encourage them to carry out their roles in slowing down the spread [40].

The death toll is rising rapidly in Spain as it is in the United

States and has long surpassed China both in terms of confirmed cases and reported deaths. There have been 238,936 positive cases including 29,039 deaths [8] until 30 of May. According to a professor of Environmental Sciences at the University of Granada, Alberto Mataran, the population composition of Italy might have had a notable impact. The denser population distribution in the cities like Madrid or Mediterranean region and the suburbs might have contributed to the rapid spread of the disease. The social behaviour of the Spanish is quite affectionate and the greetings involve handshakes, hugs, and kisses, which might have increased the probability of transmission [40,41]. The family culture of Spain also supports the transmission among the elders. Spain has a similar way of living as Italy due to which the interaction and contact between the young and the elderly is inevitable [42]. The health services of the most affected areas like Madrid and Catalonia are greatly struggling and shortage of medical equipment as the greatest problem [43].

A number of countries have been able to envision and implement effective measures to slow down the spread of the virus while many are struggling in their battle against the global health crisis. The UK has imposed stay-at-home orders with the crisis deepening [44] as the cases of infection and death continue to rise, having reported their crown prince [45] and the prime minister [46] test positive for the virus. Countries like Germany, France, and Iran have observed a surge in the number of cases facing difficulty to contain and combat the virus outbreak [9]. Having announced a nationwide lockdown starting from 24 March, India has taken responsive measures against COVID-19, focusing on enhancing the strength of hospitals and laboratories; however, the confirmed cases are increasing daily [47]. In the middle of an international shortage of testing kits and medical equipment, South Korea accomplished indiscriminate mass testing, also establishing drive-thru clinics [48] and then rigorous contact tracing and quarantine of anyone the infected has come in contact within past few days.

This helped South Korea restrict the further spread of the virus despite being one of the earliest to have a significant outbreak, without imposing confinement or any travel bans [49]. Brazil and Russia, though remained silent at the beginning of the pandemic has now burst with the rapidly increasing number of cases as well as deaths and surpassed numbers of highly infected countries in terms of COVID-19 [7]. Despite not being recognized by the WHO, Taiwan is among the few countries to have strategically implemented quick and effective actions against the pandemic [50]. Canada, Georgia, Iceland, Singapore among other countries have also shown success in flattening the corona virus curve [51].

Conclusion

With the rising global calamity causing unprecedented loss of invaluable lives and economic setbacks, it is essential for the countries to join their forces together in the battle against the pandemic. Fallen economy might rise but fallen bodies can never. Lessons should be learned from the experiences of one another, the struggle and success of one should be examples for the other. We learned and analyzed that the response of the general public and the government to be the important factor pushing the pandemic towards a bright or a dark corner. The collaboration and coordination between the citizens and the government is crucial and so is the cooperation between the governments. There's no alternative for countries than to spend on researches concerning the development of vaccines or medication for the remedy of Corona virus infection. Every country and individual must play their part to slow down the spread of the virus so that the rapid surge in demand for medical and laboratory facilities can be avoided. Many companies and academic institutions are in the global race for developing a vaccine, some of which have been successfully tested in animals and are on the verge of conducting clinical trials, however, global immunization is unlikely to happen anytime soon.

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