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REVIEW ARTICLE

Pandemics (coronavirus disease-2019), experiences, lessons learn, and the future

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Received on: 10 December 2020; Revised on: 30 December 2020; Accepted on: 15 January 2021 ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic is the defining global health crisis of our time and the greatest challenge we have faced since World War Two. Since its emergence in Asia in 2019, the virus has spread everywhere except Antarctica. We have now reached the tragic milestone of more than 2 million deaths, and the human family is suffering under an almost intolerable burden of loss. However, the pandemic is much more than a health crisis, it's also an unprecedented socioeconomic crisis. Stressing every one in the countries, it has the potential to create devastating social, economic, and political effects that will leave deep and long-standing scars. Every day, people are losing jobs and income, with no way of knowing when normality will return. Small island nations, heavily dependent on tourism, have empty hotels and deserted beaches. We have been supporting countries since the very early stages of this crisis, donating essential protective medical equipment. As the response evolves, and after assessing the immediate, medium- and long-term needs, we are moving into the socioeconomic response. It will require all of society to limit the spread of COVID-19 and to cushion the potentially devastating impact it may have vulnerable economies. We must rebuild trust and cooperation, within and among nations, and between people and their governments.

Keywords: Experiences and future, Health crisis, Pandemic coronavirus disease 2019, Political effect, Socioeconomic crisis

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic, also known as the coronavirus pandemic, is an ongoing pandemic of COVID-19 caused by the transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which was first identified in December 2019 in Wuhan, China. The outbreak was declared a Public Health Emergency of International Concern in January 2020 and a pandemic in March 2020.

We all have been affected by the current COVID-19 pandemic. However, the impact of the pandemic and its consequences are felt differently depending

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Dr. Ahmadi Begum, E-mail: ahmadi.begum@jainuniversity.ac.in on our status as individuals and as members of society. While some try to adapt to working online, homeschooling their children and ordering food through online, others have no choice but to be exposed to the virus while keeping society functioning. Our different social identities and the social groups we belong to determine our inclusion within society and, by extension, our vulnerability to epidemics.

RESEARCH OBJECTIVES

The main objectives of this paper are to provide awareness and to identify the research areas related to COVID-19. It may help improve the understanding of this disease and describe the psychological impacts of this pandemic and how these could change as the disease spreads.

REVIEW OF LITERATURE

Various macro as well as microlevel studies on COVID-19 pandemic, the main findings of this research studies have been discussed in the following paragraphs.

EXPERIENCE OF COVID-19

The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems, and the world of work. The economic and social disruption caused by the pandemic is devastating: Tens of millions of people are at risk of falling into extreme poverty, while the number of undernourished people, currently estimated at nearly 690 million, could increase by up to 150 million by the end of the 2021.^[1-10]

Millions of enterprises face an existential threat. Nearly half of the world's 3.3 billion global workforce are at risk of losing their livelihoods. Informal economy workers are particularly vulnerable because the majority lack social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdown, many are unable to feed themselves and their families. For most, no income means no food, or, at best, less food and less nutritious food.

The pandemic has been affecting the entire food system. Border closures, trade restrictions, and confinement measures have been preventing farmers from accessing markets, including for buying inputs and selling their produce, and agricultural workers from harvesting crops, thus disrupting domestic and international food supply chains and reducing access to healthy, safe and diverse diets. The pandemic has destroyed jobs and placed millions of livelihoods at risk. Millions of agricultural workers - waged and self-employed - while feeding the world, regularly face high levels of working poverty, malnutrition, and poor health, and suffer from a lack of safety and labor protection as well as other types of abuse. With low and irregular incomes and a lack of social support, many of them are spurred to continue working, often in unsafe conditions, thus exposing

themselves and their families to additional risks. Further, when experiencing income losses, they may resort to negative coping strategies, such as distress sale of assets, predatory loans, or child labor. Migrant agricultural workers are particularly vulnerable, because they face risks in their transport, working and living conditions, and struggle to access support measures put in place by governments.

In the COVID-19 crisis food security, public health and employment has led to a dramatic loss of human health and life, it has been affecting the entire food system of working people. Adhering to workplace safety and health practices and ensuring access to decent work and the protection of labor rights in all industries will be crucial in addressing the human dimension of the crisis. Immediate and purposeful action to save lives and livelihoods should include extending social protection toward universal health coverage and income support for those most affected. These include workers in the informal economy and in poorly protected and low-paid jobs, including youth, older workers, and migrants. Particular attention must be paid to the situation of women, who are over-represented in low-paid jobs and care roles. Different forms of support are key, including cash transfers, child allowances and healthy school meals, shelter and food relief initiatives, support for employment retention and recovery, and financial relief for businesses, including micro-, small-, and mediumsized enterprises. In designing and implementing such measures, it is essential that governments work closely with employers and workers. Countries dealing with existing humanitarian crises or emergencies are particularly exposed to the effects of COVID-19. Responding swiftly to the pandemic, while ensuring that humanitarian and recovery assistance reaches those most in need, is critical.

Now is the time for global solidarity and support, especially with the most vulnerable in our societies, particularly in the emerging and developing world. Only together can we overcome the intertwined health and social and economic impacts of the pandemic and prevent its escalation into a protracted humanitarian and food security, with the potential loss of already achieved development gains.

IMPACT OF COVID-19 IN INDIA AND THE GLOBAL ECONOMY

As per the official government guidelines, India is making preparations against the COVID-19 outbreak and avoiding specific crisis or implications.^[11-20] All the neighboring countries of India have reported positive COVID-19 cases. To protect against the deadly virus, the Indian government have taken necessary and strict measures, including establishing health check posts between the national borders to test whether people entering the country have the virus. Different countries have introduced rescue efforts and surveillance measures for citizens wishing to return from China. Compared with China, the ability of India to counter a pandemic seems to be much lower. A recent study reported that affected family members had not visit the Wuhan market in China, suggesting that SARS-CoV-2 may spread without manifesting symptoms. Researchers believe that this phenomenon is normal for many viruses. India, with a population of more than 1.34 billion – the second largest population in the world – will have difficulty treating severe COVID-19 cases because the country has only 49,000 ventilators, which is a minimal amount. If the number of COVID-19 cases increases in the nation, it would be a catastrophe for India. It would be difficult to identify sources of infection and those who come in contact with them. This would necessitate multiple strategies to handle the outbreak, including computational modeling as well as statistical and quantitative analyses, to rapidly develop new vaccines and drug treatments. With such a vast population, India's medical system is grossly inadequate. A study has shown that, due to inadequate medical care systems, nearly 1 million people die every year in India. India is also engaged in trading with its nearby countries, such as Bangladesh, Bhutan, Pakistan, Myanmar, China, and Nepal. During the financial year 2017-18 (FY2017-18), Indian regional trade amounted to nearly \$12 billion, accounting for only 1.56% of its total global trade value of \$769 billion. The outbreak of such viruses and their transmission would significantly affect the Indian economy. The outbreak in China could profoundly affect the Indian economy, especially

in the sectors of electronics, pharmaceuticals, and logistics operations, as trade ports with China are currently closed. This was further supported by the statement by Suyash Choudhary, Head Fixed Income, IDFC AMC, stating that GDP might decrease due to COVID-19.

Economists assume that the impact of COVID-19 on the economy will be high and negative when compared with the SARS impact during 2003. For instance, it has been estimated that the number of tourists arriving in China was much higher than that of tourists who traveled during the season when SARS emerged in 2003. This shows that COVID-19 has an effect on the tourism industry. It has been estimated that, for SARS, there was 57 and 45% decline in yearly rail passenger and road passenger traffic, respectively. Moreover, when compared with the world economy 15 years ago, world economies are currently much more interrelated. It has been estimated that COVID-19 will hurt emerging market currencies and also impact oil prices. From the retail industry's perspective, consumer savings seem to be high. This might have an adverse effect on consumption rates, as all supply chains are likely to be affected, which, in turn, would have its impact on supply when compared with the demand of various necessary product items. This clearly proves that, based on the estimated losses due to the effect of SARS on tourism (retail sales lost around USD 12-18 billion and USD 30-100 billion was lost at a global macroeconomic level), we cannot estimate the impact of COVID-19 at this point. This will be possible only when the spread of COVID-19 is fully controlled. Until that time, any estimates will be rather ambiguous and imprecise. So far, several factors have thus been identified as having a major economic impact: Labor mobility, lack of working hours, interruptions in the global supply chain, less consumption, and tourism, and less demand in the commodity market at a global level, which, in turn, need to be adequately analyzed by industry type. Corporate leaders need to prioritize the supply chain and product line economy trends through demand from the consumer end, several debates on sustainable economy before the COVID-19 impact, it has now been estimated that India's GDP by the International Monetary Fund has been cut down to

1.9% from 5.8% for the FY21. The financial crisis that has emerged owing to the worldwide lockdown reflects its adverse effect on several industries and the global supply chain, which has resulted in the GDP dropping to 4.2% for FY20, which was previously estimated at 4.8%. Nevertheless, it has been roughly estimated that India and China will be experiencing considerable positive growth among other major economies.

METHODOLOGY

The study will be based on secondary data which will be collected from various secondary sources such as annual reports of different ministries, government documents, census reports, research reports, research journals, internet, and magazines.

The COVID-19 which originated in the city of Wuhan, China, has quickly spread to various countries, with many cases having been reported worldwide. As of May 8, 2020, in India, 56,342 positive cases have been reported. India, with a population of more than 1.34 billion - the second largest population in the world - will have difficulty in controlling the transmission of SARS-CoV-2 among its population. Multiple strategies would be highly necessary to handle the current outbreak; these include computational modeling, statistical tools, and quantitative analyses to control the spread as well as the rapid development of a new treatment. The Ministry of Health and Family Welfare (MOHFW) of India has raised awareness about the recent outbreak and has taken necessary actions to control the spread of COVID-19. The central and state governments are taking several measures and formulating several wartime protocols to achieve goal. Moreover, the Indian government implemented a 55 days lockdown throughout the country that started on March 25, 2020, to reduce the transmission of the virus. This outbreak is inextricably linked to the economy of the nation, as it has dramatically impeded industrial sectors because people worldwide are currently cautious about engaging in business in the affected regions.

LESSON WE LEARN FROM CORONAVIRUS

COVID-19 was a request to God to reboot 2020 as it has a virus. However, the reality is that nations across the globe will have to reboot their thoughts and creativity to tackle the deadly spread of the pandemic. One consolation is that a pandemic does not anchor itself for eternity; it will die. But before that, the "Corona Effect" would have changed many aspects of our lives ranging from healthcare to social norms and leave behind a deep economic scar that would take years to heal.

COVID-19 has already sounded a warning bell – that despite our scientific claims and achievements, we are deeply unprepared to handle a pandemic. Hence, the first impact would be on health care. How do we insulate people from pandemics that come without a working manual on possible vaccines or drugs. It comes with a do it yourself kit with absolutely no tools.

Lesson one

War like preparation required on health-care front: Future health-care systems should be war prepared to battle pandemics whenever they breakout. We have near-complete knowledge on tackling major killers such as heart ailments, cancer, lifestyle diseases, and AIDS, but not a virus.

We also need to critically look at our health-care ecosystem, especially the critical care segment. Hence, when a pandemic strikes, there should be an action plan that can be implemented in the shortest time frame – one that can balloon our health-care infrastructure by removing bottlenecks and creating more critical care units and isolation centers without affecting non-pandemic critical care patients. This can be done by involving the private sector – both in the health-care segment and hospitality sector which can become isolation units.

Lesson two

We need to set "early warning systems" in place in the society: Unlike in the past, viruses in the 21st century not only are "hyperactive" but also leave their tales of devastation with "viral speed." This is because of globalization.

Today, it will not take 70 odd years, but just a few months to leave thousands dead due to an unknown virus. Hence, the second lesson is that we cannot stop globalization with countries interconnected by air, but when an unknown virus breaks its barriers and jumps to humans, there should be warning bells early enough. In the case of COVID-19, that did not happen. Had there been an early warning system in place and had nations isolated themselves, the virus could have been contained in small pockets.

Lesson three

Social distancing should become a norm, part of our regular habits: The third lesson for the future is social distancing. When a new virus comes knocking, there should be a self-imposed social distancing to break the chain. Even in the absence of a virus, it is better to observe social distancing as a part of life. Intimacy may be good and may reflect part of one's culture, but distancing, without offending the other, is the best.

Lesson four

Swachh Bharat should become a norm for 100% Indians: India has to evolve a mechanism to maintain hygiene and cleanliness. For this, the urge should come from within. Parts of cities and towns are buried to the nose with garbage and filth. This has to end.

Lesson five

A Guideline for at-risk people - elderly and patients with more than 1 disease should be in place and in practice: Whenever there are signs of a pandemic, India should be able to isolate the elderly, patients with comorbidity and children who are either underweight and malnourished.

Lesson six

Need to promote original R&D and strengthen our Drug & Vaccination Development Programme further: Coronavirus has had a happy flip side too. It has shown the world the strength of our pharma segment. India could export life-saving drugs to major countries, including the developed world. But India cannot rest on its laurels. There is a need to further strengthen our Drug & Vaccine Development Programme by speed tracking vaccine and drug development when a pandemic strikes.

Lesson seven

Push our indigenous diagnostics manufacturing to make it sufficient for Indian Needs, COVID-19 has exposed India's unpreparedness in having rapid testing kits and PPEs. Along with developing frontline vaccines, the lesson that COVID-19 has taught is the need to have millions of testing kits. This is because, when a pandemic strikes, the only way to check community spread is testing. Regarding PPEs, India should look inwards. Massive garment export units in Tirupur (Tamil Nadu), Karnataka, and other places can become manufacturing units of PPEs and also eye exports.

Lesson eight

Our government needs to make appropriate provisions for supporting the BoP population in case of such calamities: A pandemic always hard-knocks and downs economies world over. COVID-19 is no exception. 2020 could be the worst year for the global economy in nearly a century.

The global economy is expected to contract by 3% this year because of economic damage from the coronavirus pandemic - the steepest downturn since the Great Depression of the 1930s, according to the International Monetary Fund.

But in future, India should have a strong mechanism to take care of the people at the base of the pyramid who actually oil and run the wheels of the nation's economy. Only they can put the economy back on track.

PREPARATIONS AND PREVENTIVE **MEASURES IN INDIA**

An easy way to decrease SARS-CoV-2 infection rates is to avoid virus exposure. People from India

should avoid traveling to countries highly affected with the virus, practice proper hygiene, and avoid consuming food that is not home cooked. Necessary preventive measures, such as wearing a mask, regular hand washing, and avoiding direct contact with infected persons, should also be practiced. The MOHFW, India, has raised awareness about the recent outbreak and taken necessary action to control COVID-19, and policy guidelines on surveillance, clinical management, infection prevention and control, sample collection, transportation, and discharging suspected or confirmed cases. Those who traveled from China, or other countries, and exhibited symptoms, including fever, difficulty in breathing, sore throat, cough, and breathlessness, were asked to visit the nearest hospital for a health check-up. Officials from seven different airports, including Chennai, Cochin, New Delhi, Kolkata, Hyderabad, and Bengaluru, have been ordered to screen and monitor Indian travelers from China and other affected countries. In addition, a travel advisory was released to request the cessation of travel to affected countries, and anyone with a travel history that has included China since January 15, 2020, would be guarantined. A centralized control room has been set up by the Delhi government at the Directorate General of Health Services, and 11 other districts have done the same. India has implemented COVID-19 travel advisory for intraand inter-passenger aircraft restrictions.

India is known for its traditional medicines in the form of Ayurvedic, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH). The polyherbal powder Nilavembu Kudineer showed promising effects against dengue and chikungunya fevers in the past. With the outbreak of COVID-19, the Ministry of AYUSH has released a press note "Advisory for Coronavirus," mentioning useful medications to improve the immunity of the individuals. At present, according to the ICMR guidelines, doctors prescribe a combination of lopinavir and ritonavir for severe COVID-19 cases and hydroxychloroquine for prophylaxis of SARS-CoV-2 infection. In collaboration with the WHO, ICMR will conduct a therapeutic trial for COVID-19 in India. We are committed to pooling our expertise and experience to support countries in their crisis response measures and

efforts to achieve the sustainable development goals. We need to develop long-term sustainable strategies to address the challenges facing the health and agri-food sectors. Priority should be given to addressing underlying food security and malnutrition challenges, tackling rural poverty, in particular through more and better jobs in the rural economy, extending social protection to all, facilitating safe migration pathways, and promoting the formalization of the informal economy.

We must rethink the future of our environment and tackle climate change and environmental degradation with ambition and urgency. Only then can we protect the health, livelihoods, food security, and nutrition of all people, and ensure that our "new normal" is a better one.

FUTURE PERSPECTIVES

We are standing at the crossroads of our past, present, and future. We are carrying historical baggage and knowledge into the current crisis. Meanwhile, our present experiences will be marked in history books and looked back upon by future generations. At this point, it is crucial to reflect on the changes that are currently taking place. Changes can be temporary, but decisions to act on them or not will be transformative for our future. For instance, India is taking necessary preventive measures to reduce viral transmission. ICMR and the Ministry of AYUSH provided guidelines to use conventional preventive and treatment strategies to increase immunity against COVID-19. These guidelines could help reduce the severity of the viral infection in elderly patients and increase life expectancy. The recent report from the director of ICMR mentioned that India would undergo randomized controlled trials using convalescent plasma of completely recovered Convalescent COVID-19 patients. plasma therapy is highly recommended, as it has provided moderate success with SARS and MERS; this has been rolled out in 20 health centers and will be increased this month (May 2020). India has expertise in specialized medical/pharmaceutical industries with production facilities, and the government has established fast-tracking research to develop rapid diagnostic test kits and vaccines at low cost. In addition, the Serum Institute of India started developing a vaccine against SARS-CoV-2 infection. Until we obtain an appropriate vaccine, it is highly recommended that we screen the red zoned areas to stop further transmission of the virus. Medical college doctors in Kerala, India, implemented the low-cost Walk-in Sample Kiosk to collect samples without direct exposure or contact. After Kerala, the Defense Research and Development Organization developed walkin kiosks to collect COVID-19 samples and named these as COVID-19 Sample Collection Kiosk . After the swab collection, the testing of SARS-CoV-2 can be achieved with the existing diagnostic facility in India. This facility can be used for massive screening or at least in the red zoned areas without the need for personal protective equipment kits. India has attempted to broaden its research facilities and shift toward testing the mass population, as recommended by medical experts in India and worldwide.

CURRENT LIMITATION AND GAPS

COVID-19 is reshaping the world, including the academic world. What we were familiar with as "normal" is fading away and will need to be rewritten.

- Extensive research is required for the development of a vaccine for the prevention of coronavirus infection
- There is an urgent need for early production and manufacturing of the essential items such as personal protective equipment, medicines, and ventilators to combat this pandemic
- There is an imminent requirement for the research to improve the global economy, which has taken a tremendous beating and is unlikely to recover in the near future
- There is a need for a better understanding of the COVID-19 and its socioeconomic ramifications on society.

The future research will be multidisciplinary and transnational. We see a new wave of research in the biological and the medical sciences for the well-being of the civilization.

CONCLUSION

The corona virus disease (COVID-19) which originated in the city of Wuhan, China, has quickly spread to various countries. All the neighboring countries of India have reported positive COVID-19 cases. Multiple strategies have been taken by the many countries to handle the current outbreak. Different countries have introduced rescue efforts and surveillance measures for citizens wishing to return from China. Economists assume that the impact of COVID-19 on the economy will be high and negative, we have learned many lessons from this COVID 19, But in future, we should have a strong mechanism to take care of the people. We must rethink the future of our environment and tackle climate change and environmental degradation with ambition and urgency.

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