



Influence of the Epidemic COVID-19: An Outlook on Health, Business and Scientific Studies

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ABSTRACT. A global health crisis COVID-19, caused an unprecedented stress and overload in all areas of life; education, scientific research, transportation, health systems and health professionals etc. The new and unknown features of corona disease have had negative effects on the socio-economic structures of the epidemic of countries and communities, and has led all studies to overcome these negative effects. While the world is trying to reduce the negative aspects of the economic effects, it also emphasized the efforts to eliminate the negative effects on the society and technological developments. The economic recovery rate will be based on how difficult the second wave will be and how effective the most decisive of all economic recovery packages will be. The COVID-19 process also greatly affected scientific studies and caused a slowdown in research. The outbreak has turned the direction of scientific studies into studies necessary for the end of the outbreak. Although the epidemic process has great harm to scientific and technological developments, the positive side of this is the development of the fact that the people of the world can come together and work together with the intensive working process in the health sector and health.

KEYWORDS. Pandemic; COVID-19; Corona; Science; Global threat.

INTRODUCTION. The history of humanity is interpenetrated with the history of infectious diseases, and the deep impact of pandemics, which caused the loss of millions of lives, shaped our lives almost in every aspect throughout the journey of humanity on planet earth. Sir McFarland Burnett's statement in 1962, "By the end of the Second World War it was possible to say that almost all of the major practical problems of dealing with the infectious disease had been solved" was soon, unfortunately, proved to be incorrect,¹ and the following years brought to us new infectious

diseases such as HIV infections, new forms of hepatitis, SARS-CoV, MERS-CoV, as well as the resurrection of tuberculosis in developed countries.

On the background of these emerging and re-emerging infectious diseases, news from the city of Wuhan, China, indicated an uncontrolled epidemic, which will soon turn into a pandemic easily, in this modern "global" world. The etiologic agent of this pandemic is a new virus from the coronavirus family that was firstly named as "2019 novel coronavirus". World Health Organization (WHO) then standardized the

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terminology as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) for the virus and coronavirus disease (COVID-19) for the disease.² The globalization not only eased the spread of SARS-CoV-2, but also caused an immediate chain reaction that negatively affected the social lives, health care systems, education systems, technological, industrial and agricultural productions, and the financial systems in the world. Herein, the authors aim to analyze the impacts of COVID-19 on healthcare systems, technology and academics, and financial systems.

IMPACTS OF COVID-19 ON HEALTH CARE SYSTEMS AND PROFESSIONALS, AND MEDICAL PUBLICATIONS.

The COVID-19 global health crisis caused unprecedented stress and overburden on health care systems and professionals. In the absence of effective treatment and immunization by the vaccine, the capability to endure this stress became one of the major determining factors for a country's limiting the disease and its negative impacts on social and economic life. So "social distancing", which is known to reduced mortality during the 1918-1920 Great Influenza Pandemic, became the main strategy of the governments in order to flatten the disease curve and prevent the health systems from collapsing.³⁻⁵ Countries failed to flatten the disease curve, regardless of being a developed country like Italy, France, Spain or the USA, came face-to-face with extremely high number of cases, and higher death rates. The direct impact of the disease on a population is also not homogenous throughout the community. Patients over 65 years of age and patients with lower socioeconomic status tend to pay a higher toll.⁶ The number of available qualified health care professionals, number of hospital beds, number of intensive care unit beds, number of respiratory machines, the capacity of testing individuals for disease and the presence of a social health system are important determinants in successfully managing the pandemic.⁶ As the COVID-19 outbreak emerged suddenly and spread quickly, people working on the frontline of the war against COVID-19; doctors, nurses, health care workers and other medical professionals who are at a higher risk of contracting with the disease, were not trained for or prepared to deal with

implications of the pandemic mentally, which happen pandemic in short time.⁷

Health care professionals worked extremely long hours, in an environment of high stress. Steadily increasing cases, suboptimal conditions for providing high-quality health care, foreseeable shortage of supplies, being at a high risk of contracting COVID-19 and potentially spreading it to others (including the family members), lack of proven treatment protocols based on proven specific drugs, are the main causes of this high burden of pressure. All these factors combined with the lack of training to maintain the mental health caused psychological suffering and some other mental health symptoms in health care professionals.⁷⁻¹⁰

The high risk at the hospitals and mandatory lockdowns changed the preferences of patients when to admit to the hospitals. Both the patients and the physicians had some difficulties to decide what is elective and what is essential. Besides, to manage the essential cases became also a problem for physicians. Cancer care became particularly difficult. Chemotherapy protocols are revised in order to minimize both the frequency of chemotherapy visits and the degree of immunosuppression. Mostly of the maintenance therapies and some of the oncologic surgeries were cancelled. On the other hand, some patients who were not yet diagnosed, and cancelled their hospital admissions despite their symptoms lost their chance for an early cancer diagnosis.^{11, 12} Non-oncological patients and their doctor also faced some challenges. There are reported cases that the necessity of ruling out COVID-19 before deciding a cardiac emergency, and performing angiography have put the patient at risk.

During all this medical, social, and economical complexity, where people turned their faces to science for some good news, or at least some objective data to understand the disease, it is hard to say that biomedical publishers did well enough because of short time and required emergency innovations. At one point the situation on the side of biomedical publishing became so uncontrolled that The European Association of Science Editors (EASE) issued a statement saying "The European Association of Science Editors encourages all editors to ensure that reports of research on COVID-19 meet required

standards and comply with agreed guidelines and that any limitations are clearly stated".¹²⁻¹⁴

ECONOMIC REVIEW OF COVID-19 PANDEMIC. People are losing jobs and income, with no way of knowing when the normalization will be regained. The World Bank projects a US\$110 billion decline in remittances this year, which could mean 800 million people will not be able to meet their basic needs. More than the supply and demand shocks, deep fluctuation reflects in financial markets. The outbreak spread was faster than expected in the US and European markets that caused more dangerous economic slowdowns. Compensation of the economic losses may last more than 1.5-2 years. Still, lots of unknown variables exist that may not be easy to forecast.

Economic recovery speed will be due to how hard will be the second wave and all economic bailout packages, how effective will be the most determinants. Lots of speculations will be seen by time and none of the expectations will be achieved. Pandemic will deeply affect the economic relations and leadership aims of the USA and China. Those situations will be clearly tested for almost two big economies. Today, international society looks for the acceleration of cure and innovation, and also coordination between countries will also monitor for the leadership. In the end, a more effective one will achieve leadership. After the 2008 Global financial crisis, mostly German leadership of European Union stress upon South European Countries to tightening caused defects to the European Union. And after that of Pandemic fight will be diminished with only one by one all the nations fight by his own, great suspects on Union will be discussed later. Multinational firms may shift their production plants from China to other developed nations after new tariffs and against globalization effort that will trigger the reasons for expensive worker payrolls. After that, this will affect the speed of artificial intelligence in fabrics and plants more than expected. Interpretation of Public economic activities will be seen and from liberal economies pass to conservative economies. Trade wars were the deterministic signals but after the pandemic crisis that will be accelerated. Developed and developing countries may enlarge the conservative scope and expropriation policies may be

seen to save several big multinational firms, which is almost unavoidable.

Especially in the service sector telecommuting expenses may be seen and after multinational firms will outsource heavily. Supply shocks in many sectors will lead to arguing about just in time production systems and zero-stock levels. High jobless and decreasing income may lead to income distribution gaps. People will prefer less than before abroad vacations and international conferences fairs participation may decline and may lead to strong defects to the tourism sector and knowledge sharing between different countries also may decline. Few European countries experienced a high average of ages damaged health sector. Neoliberal policies mostly after the 1980s decreased public participation in health systems. The public health gap tried to close by private health insurance firms. Pandemic trauma may lead to conscious consumption, focus on recycling, with next-generation technologies decrease carbon emission, Access to water resources and saving forest areas may increase conflicts between some countries and may cause hot conflicts. Supporting packages in order to decrease in minimum levels of the pandemic effect on economies approached to 7 trillion Dollars. Till the time the pandemic harm controlled this of economic packages may not be discussed but after controlled and normalization of the economic activities, increased budget deficits and public debt stocks will begin to be discussed. On the other hand, more than 250 trillion debt stock will increase with the new public going into debt and new demands maybe debt cancellation may be seen. Tax reforms in domestic policies and debt cancellations in international policies will occur new hard power struggles. In order to increase tax income, wealth taxes, or in pandemic process abnormal profit-takers may see new tax imposes in order to close for nations' budget deficit spending.

The last 40 years of neoliberalism and global illusion heavily break off the relation of realities therefore people are hard to distinguish from what is useful or not. We can later see the internet of the people after the internet of the machines. Nations will hardly constitute policies to save the health system, decrease unemployment, and support national firms. The story of life could be somehow divided before COVID-19 and after it, probably.

SCIENTIFIC RESEARCH OUTLOOK ON THE EPIDEMIC COVID-19.

While the world caught up with technological progress at the speed of the scientific data obtained, the suddenly occurring COVID-19 process has hit the progress in scientific studies.¹⁴ In this process, the progress of many scientific studies and related projects with millions of dollars worldwide has even slowed down. The world turned the direction of the epidemic into the efforts to end the epidemic from the popular working subjects of today, and the economic giants turned their investments into the necessary studies for the end of the epidemic. Although the epidemic process has a great harm to scientific and technological developments, the positive side of this is that with the intensive working process in the health sector and health, the development of the fact that the people of the world can combine and work together for a single purpose, and to create solutions together to the problems that arise and even countries that are hostile when necessary. It can be seen as the emergence of their sensitivity to heal each other's wounds. This has been tested to test whether a fantasy situation that has been put forward years ago will find answers to the question of whether extraterrestrial races can develop a common culture of solidarity when it comes to attacking the world. Moreover, this process is very compatible with this fantasy.

It is evident that the world undergoes an important test and is in the process of re-questioning its existing concepts. The human and scientific implications of the above-mentioned economic perspective will be factors that directly affect each other after the outbreak in the form of rings of the chain. Although epidemic COVID-19 is seen as a health problem, it is obvious that it affects every stage of life. In this process, the education sector is in front of the injured and the sectors. Schools, universities and all kinds of education sectors stopped face-to-face education and started the distance education process that brought new technological opportunities to the plan. In this context, many educators or scientists who have become good with technology have participated in online scientific activities in this process and have become the active actors of the technological education process that they have previously avoided. The most positive aspect of this situation is the individuals who have no limits and

who can achieve education in any environment in the world or outside the world. Although this wound received by education was initially seen as negative, this process gave both educators and students very positive skills and accelerated the development process of human beings. Laboratories conducting scientific research, such as the education process and other industrial fields, and the studies carried out in these laboratories have got their share from this process. Science has been suspended and many projects have been suspended. However, with the idea of new heroes, this period, the science heroes who carried their research from the laboratory environment to the virtual environment until the process is over, continued to work without stopping.

The impact of this process on experimental studies has turned the negative into a positive by providing new research approaches to the new research areas. This may be like the development of a younger and healthier vegetation under the burning forests. Researchers, who have not lost their despair, have shed light on humanity with new hopes.

After the epidemic process ends, the work will continue where it left off. But it is a fact that studies will now sit on stronger grounds than before. This process has been a process in which self-believing scientists have made themselves stronger, real scientists have become more equipped, richer systematic of thought and more interesting approaches to topics. In this process, pseudo scientists have not exceeded the quality threshold in terms of self-finished quality, and have become even more blunt. As a result of this process, in an environment where scientific work and scientific sharing is decreasing, scientists who do not sell their knowledge as a material value have shared their experiences with webinars into a rich process where they exchange ideas. In fact, this period of pause can be viewed as a period when science rests to perform scientific digestion

CONCLUSION. With the beginning of the year 2020, a global health crisis COVID-19 caused unprecedented stress and overburden on every aspect of life; education, scientific researches, transportation, healthcare systems, and health care professionals, etc.. With the absence of effective treatment and

immunization by the vaccine had negative impacts on social and economic life. Economic recovery speed will be due to how hard will be the second wave and all economic bailout packages, how effective will be the most determinants. The COVID-19 process has also hit the scientific studies and caused slowdown in researches. The epidemic has converted the direction of scientific studies into the necessary studies for the end of the epidemic. Although the epidemic process

has great harm to scientific and technological developments, the positive side of this is that with the intensive working process in the health sector and health, the development of the fact that the people of the world can combine and work together for a single purpose, and to create solutions together to the problems that arise and even countries that are hostile when necessary. It can be seen as the emergence of their sensitivity to heal each other's wounds.

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