



Impact of COVID-19 Pandemic on Sustainable Development Goals: What We Learn from the Past and Where We Are Heading?

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ABSTRACT

Recently, the world is witnessing a severe global health issue owing to the COVID 19 pandemic, initially encountered in the city of Wuhan in Hubei province in China. It spread rapidly, so does the fatality ratio. This pandemic has jeopardized the sustainable development goals at large. Still, the future is uncertain—the current study aimed at two objectives. The first is to review the past literature on the coronavirus family to map our current understanding of its epidemic outbursts and overview its social, environmental, and economic impact. The second stream of literature focused on classifying the best possible solutions under different scenarios due to the current situation. Finally, to provide future agenda for policymakers to restrain the sustainable development goals. We used Scopus and Web of Science (WoS) databases for the systematic literature review process. We followed a strict screening process recommended in the PRISMA guidelines for the screening and quality assessment of systematic literature review. The final 51 studies are included for the systematic literature review. A systematic review of the past literature identified severe acute respiratory syndrome coronavirus (SARS), Middle East Respiratory Syndrome Coronavirus (MERS), bovine Coronavirus, canine Coronavirus, and feline Coronavirus are the significant classifications of the Coronavirus family discuss in the literature. We highlighted the potential pitfalls in the past literature, mainly serious scarce collaborative and multidisciplinary research on the pandemic, although several researchers highlighted the issue. Findings of the current study indicate that most research is in a lab setting and experimental design. For sustainable development, there is a need to start collaborative work among the nations. We provided a framework for a pandemic strategic response plan through multidisciplinary research to mitigate the impact of the recent COVID-19 pandemic and to be prepared for future episodes. The future of the world after the 2019-COVID is more challenging and vital for humanity in terms of business, economic and social perspective. Social structures will change the current situation is showing based on literature and reports. The economic recession will be prolonged if the researchers cannot find the solution for the Coronavirus.

Keywords: COVID-19; pandemic; sustainable development goals; respiratory syndrome coronavirus; SARS; the Middle East Respiratory Syndrome Coronavirus; MERS; Coronavirus

JEL Classification: I0, I1

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1. Introduction

The world is witnessing the deadly coronavirus (COVID-19) outbreak. More than eight hundred thousand people are affected, and more than 35 thousand deaths have been reported to date (Mukherjee, 2020). There is an exponential growth of COVID-19 cases since December 22, 2019. To date, COVID-19 has affected 199 countries around the globe (Chinazzi et al., 2020). Figure 1 shows the daily increase in COVID-19 cases since January 22, 2020 (Worldometer, 2021).

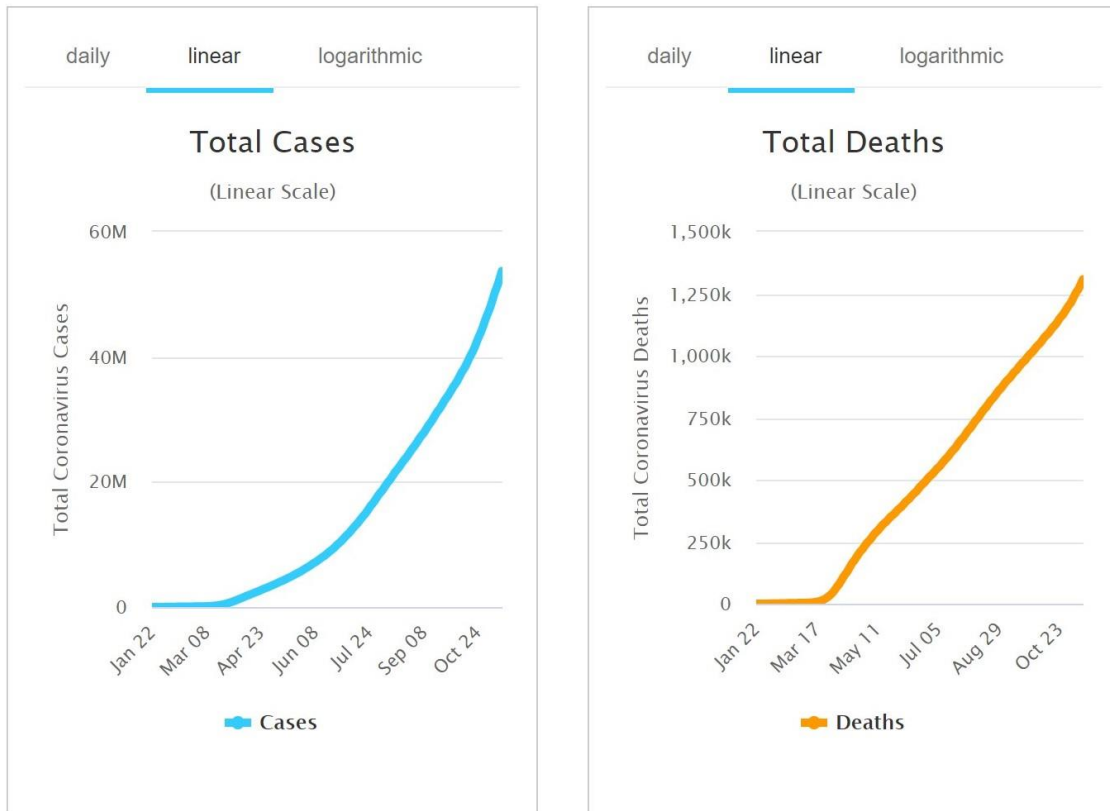


Figure 1: The daily increase in COVID-19 cases from January 22, 2020, to October 24, 2020 (Worldometer, 2021).

This alarming situation raised many questions in everyone's mind, especially about how public healthcare services immediately respond to infectious disease outbreaks worldwide (Bhuiyan, 2020). The novel coronavirus COVID-19 coupled with human-to-human transmission. Severe human infections have been recently reported from the city of Wuhan in Hubei province in China. Rapidly, it spread worldwide, and the number of infected people across the world increased, so does the fatality ratio (Paraskevis et al., 2020). Italy, China, Spain, the U.K., and the USA are positively affected states with COVID-19. It has triggered unprecedented quarantines, stock market upheaval, and dangerous conspiracy (Hwang et al., 2020). According to Commodari et al., (2020), the coronaviruses are huge and familiar family viruses that are started from the common cold to more severe disease. In this critical situation to prepare the emerging infectious disease, most countries adopt emergency measures to control the outbreak. International flight operations are entirely closed. International airports and traveling railway stations in local cities are strictly screening by governments to prevent the epidemic (Cheng et al., 2020). Travelers with fever $\geq 38.0^{\circ}\text{C}$ are suggested to public hospitals for assessment. The key measures in the public hospital system include a surveillance system to identify suspected cases for early isolation in an airborne infection isolation room [AIIR].

During the last couple of decades, a series of epidemics through the coronavirus family caused severe threats to human life on a large scale and affected the world's sustainable development goals mainly. Most countries are locked down, and situations seem uncontrolled and heading to chaos and uncertainty (R. Li et al., 2020). The only possible remedy to encounter this outbreak is social distancing

for now (Battich et al., 2020). There are no alternative plans available currently, and the situation may take longer than we expect. It disturbed all three aspects of sustainable development goals, i.e., social, economic, and environmental (Holden Thorp, 2020). The economic conditions due to the novel COVID-19 are the utmost challenge for the governments. The economic recession is no longer be avoided, and closing the economic activities is also an excellent risk for the supply chain process. The recommendations to encounter the situation are inadequate, given that the global economy is suffering from an unprecedented supply shock (Domingues, 2020). The negative economic impacts of the COVID-19 virus came swiftly and will likely worsen as the outbreak continues to disrupt tourism, trade, supply chains, and investment all over the world (Qureshi & Khan, 2020). Now, the main question that comes to everyone's mind is, what is the solution? Researchers have different opinions on the current situation and cannot provide an alternative that may work in the present case and drag the whole world to a better possible outcome (Yan et al., 2020). The current study aims to analyze the research published on the epidemics from the Coronavirus family. The first aspect of the course searched the literature that allowed us to understand the series of an epidemic we faced recently and how it became pandemic? The second stream of literature focused on classifying the best possible solutions under different scenarios due to the current situation. We mapped the literature to understand what lessons learned from the past, discuss the likely future, and finally provide a future agenda.

2. Materials and Methods

The most recent outbreak of Coronavirus disseminated fear and severe threat to civilization; simultaneously, it significantly reshaped the societies at large. The study analyses the past literature using a systematic literature review (SLR) approach. The PRISMA framework templet is used to explain the overall selection process and rejections of articles for the literature review on the Coronavirus outbreak. PRISMA guidelines help the researcher to improve the reporting of the review paper. The current study is limited to published literature in the Scopus and Web of Science databases. The keyword used "coronavirus," "COVID19," "COVID-19," and "Novel Coronavirus" to access the literature. A total number of 359 articles were listed on an initial search. The search then narrowed to the subject areas to environmental science, Multidisciplinary, Social science, Psychology, Arts and Humanities, and earth science planetary. The finally, fifty-one articles were included in the review.

The study is based only on articles, review papers, and conference papers. For maintaining the quality of the review, every kind of duplication was checked very thoroughly. Abstracts and conclusions of the articles are limited deeply for analyzing and purifying the items to ensure the quality and relevance of academic literature included in the review process. A careful evaluation of each research paper was carried out at a later stage. The following exclusion criterion was to limit the documents published in the English language only. There was 1 article in the non-English language and was excluded from the study.

Furthermore, after the filtration of duplicate records, nine more articles are removed from the study. We selected 41 papers after assessing each article on the inclusion above and exclusion criteria. Figure 2 shows the literature inclusion and exclusion at every stage.

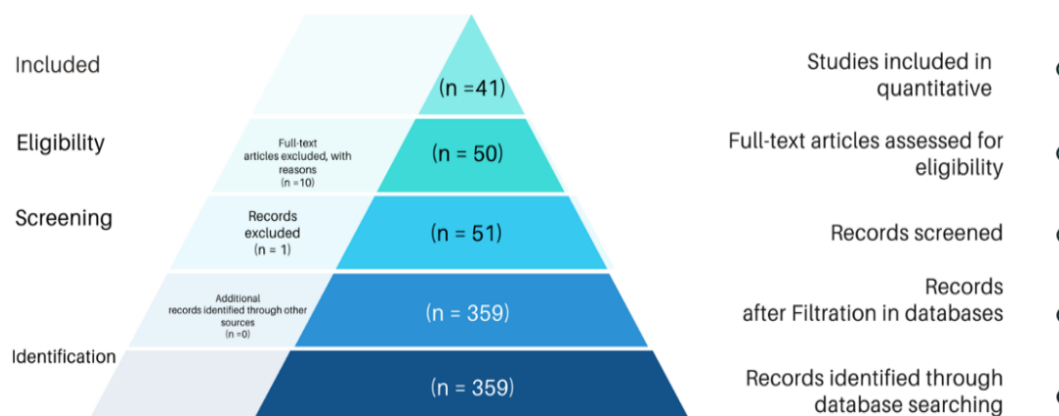


Figure 2: Literature search details (PRISMA Framework)

3. Results

3.1. Analysis of bibliographic information

We selected 51 articles after a careful inclusion and exclusion process. Only original articles, review papers, and conference papers are written in the English language available in Scopus, and Web of Science (WoS) databases were included in the review. A total of 47 studies are based in full articles, three review papers, and one conference paper included in the study. Figure 3 showed the results of document selection after the quality assessment.



Figure 3: Distribution of articles based on article types

The distribution of the studies based on subject categories indicated that the Agricultural and Biological Sciences subject is contributed to the highest number with 18 articles included in the current study for review. The second-largest papers were selected from the subject Veterinary and Biochemistry, Genetics and Molecular Biology with eight from each subject. The third-highest number of articles are included from the Environmental Science that is 4, three studies are also included from the multidisciplinary subject and Immunology, and Microbiology contributed the 2 articles. Figure 4 is showing the results of the subject-wise selection of the articles for the current study.

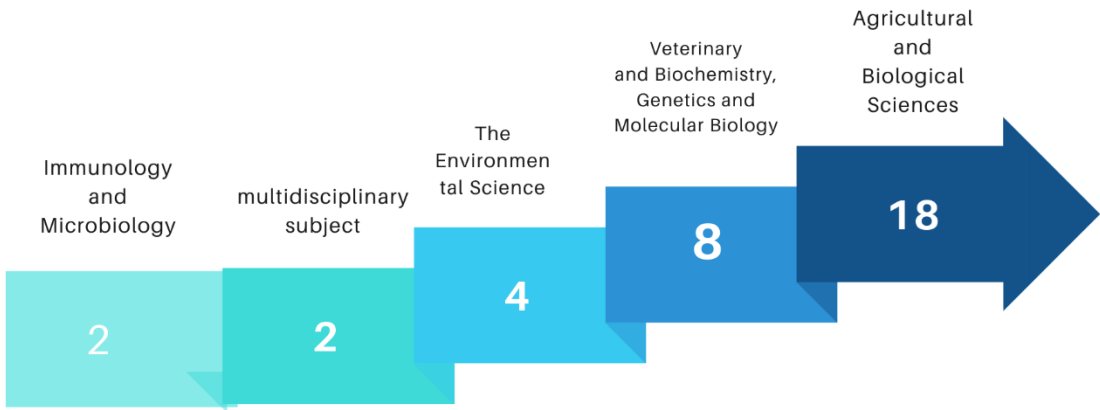


Figure 4: Distribution of research articles based on subject categories

The study is not focusing on the specific time frame for the articles published in which year. The primary purpose of the year-wise distribution is to understand the number of publications in a year selected and fulfil the criteria for the review. Figure 4 shows the year base graph of publications from 1973 to 2020. The year 2016 and 2017 are contributing the highest number with the 5 articles each year. The year 2004 is second in the list with four articles on the coronavirus issue. The year 2014, 2011, 2008 and 1980 contributed the three studies each year. So, the number of contributions in the recent past is high rather than in the past. Figure 5 is showing the detail information of articles selected from different years.

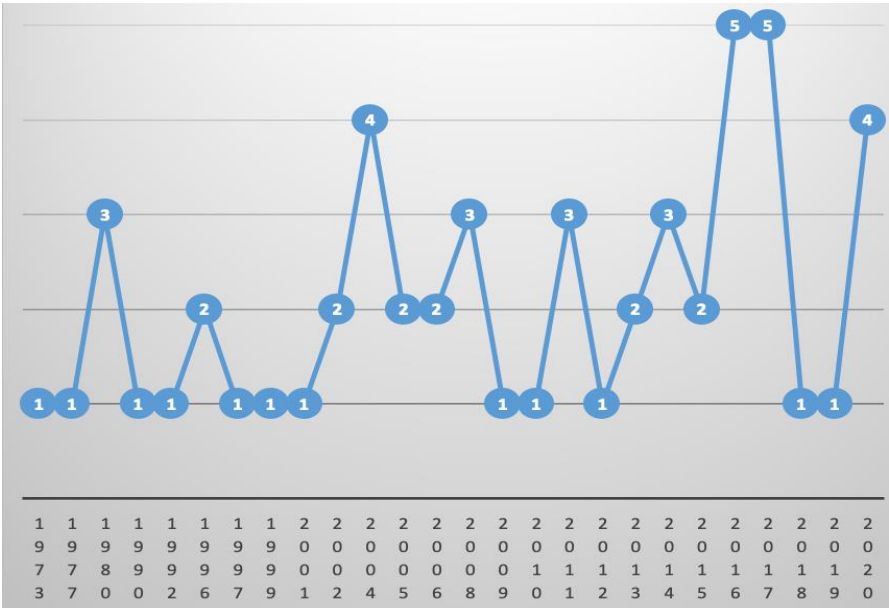


Figure 5: Article distribution [1973-2020]

Figure 6 showed the article distribution based on the country. The United States of America has the highest frequency of published articles with 17 articles included in the current study, India is at second number with the six articles, Sweden and the United Kingdom has 5, and 4 articles contributed to the present research respectively.

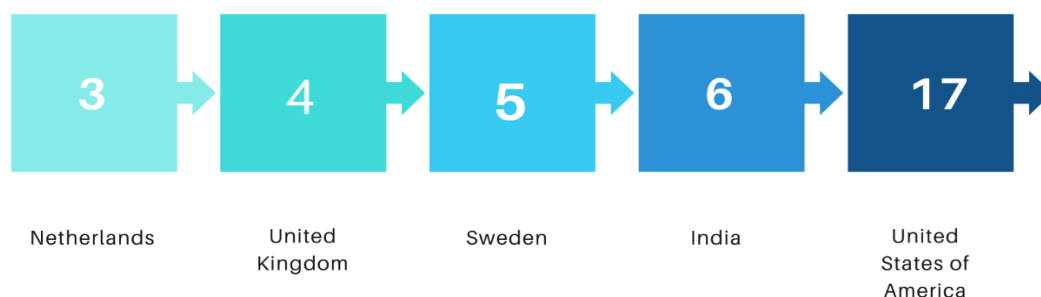


Figure 6: Article distributions based on countries

Figure 7 indicates the highly cited papers. The article "Structural biology: Structure of SARS coronavirus spike receptor-binding domain complexed with receptor" cited 310 times in Science journal, the article "Live, Attenuated Coronavirus Vaccines through the Directed Deletion of Group-Specific Genes Provide Protection against Feline Infectious Peritonitis" cited 118 times and published in Journal of Virology. The figure is showing the detail citation report of the studies included in the current study.

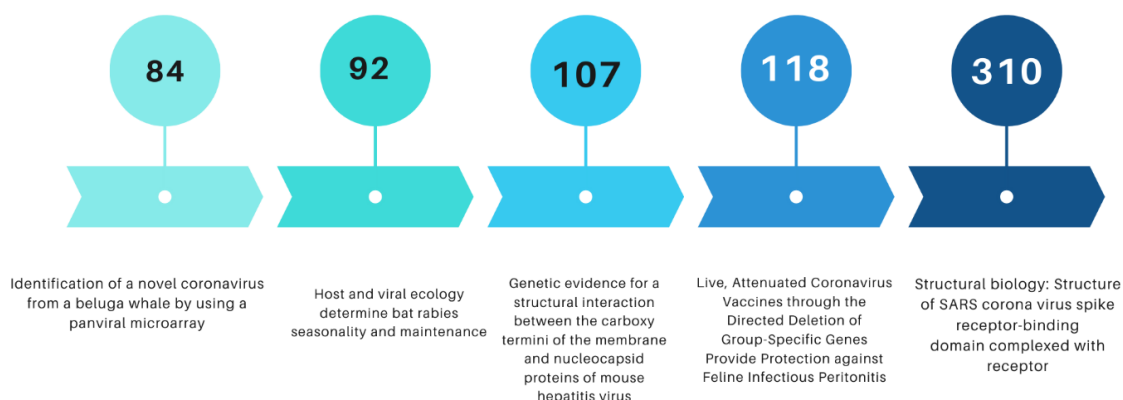


Figure 7: Highly Cited papers

3.2. The Severe Acute Respiratory Syndrome coronavirus (SARS) coronaviruses

According to Li et al., [2005][14], SARS-CoV is a member of the severe acute respiratory syndrome that emerged a severe epidemic in 2002-2003. The virus was infected over 8000 people, and the fatality rate was 10%. Coronaviruses are large, mostly enveloped and positive-strand RNA viruses. They tend to infect a variety of animals and can cause upper respiratory, gastrointestinal, and central nervous system diseases. The findings of the study are that the atomic details of two proteins explain the sensitivity of residue changes that extend cross-species infection and human to human transmission. The SARS not only infected the social but also a study that discusses the Beluga Whale infected. The study found that the extreme divergent Coronavirus was identified in the liver tissue in the deceased whale. The detection of a novel coronavirus in a dead beluga whale raises several questions, including whether beluga whales are the natural host for this virus and whether the virus was pathogenic to the whale (Mihindukulasuriya et al., 2008). In conclusion, the study finds that novel coronavirus is from primary animal tissue, but these viruses can be transmitted the human and animal. While the other research name "Issues to consider for preparing ferrets as research subjects in the laboratory" suggested the laboratory use of ferrets for the application SARS. Ferrets are used to study the pathogenesis and treatment of a variety of important human diseases, including influenza, SARS, peptic ulcer disease, and cystic fibrosis to name only a few (Ball, 2006).

Table 1: Literature on SARS

Author	Country	Settings	Procedure	Findings
Li et al., [2005]	United States	Lab	Vaccination	The findings of the study are that the atomic details of two proteins explain the sensitivity of residue changes that extend cross-species infection and human to human transmission.
Mihindukula suriya et al., 2008	United States	lab	DNA microarray	the study finds that novel coronavirus is from primary animal tissue, but these viruses can be transmitted the human and animal.
Ball, 2006	United States	physical examination	blood collection	Ferrets are used to study the pathogenesis and treatment of a variety of important human diseases, including influenza, SARS, peptic ulcer disease, and cystic fibrosis to name only a few
Mitchell et al., 2013	United States	regression model	pathogen infection models	results demonstrated that the utility of integrating diverse 'omic datasets to predict and prioritize regulatory features conserved across multiple pathogen infection models
Aliberti et al., 2016	Italy	Lab	innovative double-strand probe into microgels	the platforms combine the innovative double edge probe into microgels particles represents an attractive alternative to conventional sensitive DNA detection technologies that rely on amplification methods
Yadav et al., 2014	India	hemagglutination inhibition antibodies	Review	the study recommended that when the virus is spread the economic and social problems for economies increase and small economies are in massive trouble due to the viruses. But in case of SARS timely coordination between the states reduces the chances of more significant economic and social lose
Hazra, 2004	India	mobile society	social and economic impact.	findings are shows that social and economic loss is minimal due to SARS

Table 1 indicates that the SARS was a severe public health issue as emerging pandemics (Mitchell et al., 2013). The critical regulatory events that lead to disease pathology remain poorly targeted with therapeutics. The study results demonstrated that the utility of integrating diverse 'omic datasets to predict and prioritize regulatory features conserved across multiple pathogen infection models. Researchers also focus the probes for the development of the fluorescence detection in the literature and combined to microgel particles for highly sensitive fluorescence detection of nucleic acids. The recommendations and findings of the study proposed the platforms combine the innovative double edge probe into microgels particles represents an attractive alternative to conventional sensitive DNA detection technologies that rely on amplification methods (Aliberti et al., 2016). The literature also considers the SARS and its implications on economic and social perspectives. According to Hazra [13], Severe Acute Respiratory Syndrome is a typical phenomenon and spread in 31 countries in a minimal period. Table 1 is showing the author details, title, and findings of the studies. It was a great challenge to control SARS. However, effective worldwide management of resources and cooperation between the states make it possible in minimal time. The findings of the (Yadav et al., 2014) are different from the previous literature; the study recommended epidemic cause the economic and social problem. However, the damage did not escalate in the case of SARS due to timely coordination between the states and mitigated the large-scale impact on sustainable development goals.

3.3. Middle East Respiratory Syndrome (MERS) Coronavirus

The literature is showing the second-highest studies related to the current research are about the Middle East Respiratory Syndrome Coronavirus, according to the WHO reports Middle East respiratory syndrome (MERS) is a viral respiratory disease caused by a novel coronavirus, [Middle East respiratory syndrome coronavirus, or MERS-CoV] that was first identified in Saudi Arabia in 2012. Typical MERS symptoms include fever, cough, and shortness of breath. Pneumonia is common, but not always present. Gastrointestinal symptoms, including diarrhoea, have also been reported, and approximately 35% of reported patients with MERS-CoV infection have died (Qureshi, Qayyum, et al., 2019). In the current study, we find literature that is finding the reasons for MERS disease and prevention techniques to handle the social, economic and environmental impact. (Choi & Park, 2016)

Recommended the five super-spreaders of MERS contributed to developing necessary actively develop a system that involves planning, implementation, restoration and prevention before a disaster for the society. The authors also suggested conducting more research on the prevention and management of the infectious disaster (Choi & Park, 2016). The literature also discusses countries other than Saudi Arabia and the Gulf that are highly affected by the Middle East Respiratory Syndrome Coronavirus. These countries include Korea. (Xia et al., 2015) indicated the lack of proper precautionary measures and planning to control the virus allowed the disease to spread and disturbed the society and economy. Later on, the government isolated the patients from the public to slower epidemic spread; this approach controlled the virus spread quickly (Xia et al., 2015). Table 2 discusses the results of these studies.

Table 2: Literature on Middle East Respiratory Syndrome (MERS) Coronavirus

Author	Country	Settings	Procedures	Findings
Choi and Park, 2016	South Korea	Disease Control and Prevention	Hospital	The study recommended the five super-spreaders of MERS contributed to developing necessary actively develop a system that involves planning, implementation, restoration and prevention before a disaster for the society
Xia et al., 2015	China	control the disease	World Health Organization	Results of the study show that when the dieses emerged, there were no proper measures and planning to control the virus but when the government isolated the patients from the public, the epidemic spread slowly and influenced quickly after the adaptation of the second model
Ibrahim, 2014	Singapore	public and private sectors	Potential for pandemics	corporate level, health awareness is vital for the plan implementation for pandemic control and everyone knows about her and his role to avoid the risky behaviours
Al-Hazmi, 2016	Saudi Arabia	intervention methods	Reviewed the literature	The findings show that there are many questions about the coronaviruses that are still not solved, even though there is an improvement in our knowledge about Coronavirus, numerous queries were still unanswered, together with the absolute origin, possible ways of transmission and exact treatment
Al Shehri, 2015	Saudi Arabia	Public Health	Ministry of Health	public health care and public health services need revitalization. Political will and support, integration of PHC and P.H., and on-job professional development programs are three initial steps towards successful regeneration. In higher education and training programs, public health and health care process need more and efficient system.

The study of (Ibrahim, 2014) concerns the measures and planning of the controlling the pandemic situation at the corporate level, health awareness is vital for the plan implementation for pandemic control and everyone knows about her and his role to avoid the risky behaviours. This study also suggested that the corporate level is more critical about the plan implementation of pandemic control

for the communication paths must be clean for smooth communication (Ibrahim, 2014). The number of new challenges occurred during the pandemic situations; the main challenge is to convert these findings of SARS and MERS into valuable solutions that help mitigate the damage through these epidemics and allow the effective control of these recently arising severe viral infections.

The global health sector has learned many lessons through the recent outbreak of MERS and SARS, but the need for identifying new antiviral treatment was not known. The findings show that there are many questions about the coronaviruses that are still not solved (Al-Hazmi, 2016). According to (Al Shehri, 2015), public health care and public health services need revitalization (Huang et al., 2020). These epidemic situations have a broader tendency to demolish the sustainable development through jeopardizing economic activities, creating public health issues at large and disturbing the environment. Thus, it is essential to utilize the knowledge learned from these epidemics before it's too late for humanity to survive.

3.4. Bovine coronavirus, Canine coronavirus, and Feline Coronavirus

The third primary classification is related to the bovine Coronavirus that is Bovine Coronavirus [BCoV] is a vital livestock pathogen with a high prevalence worldwide. The virus causes respiratory disease and diarrhoea in calves and winter dysentery in adult cattle. These diseases result in substantial economic losses and reduced animal welfare (Boileau & Kapil, 2010). To examine the dynamics of bovine Coronavirus Ohlson (Ohlson et al., 2013) and the bovine respiratory syncytial virus is studied for three years. For this purpose, 79 dairy herds were selected in Sweden, conducted a survey and measuring antibody concentrations. Milk samples of cows used annually. Bovine Coronavirus is had minimal impacts on human transmission and economic problems.

Table 3: Bovine Coronavirus, Canine coronavirus, and Feline Coronavirus

Author	Country	Settings	Procedures	Findings
Ohlson et al., 2013	Sweden	home-bred	primiparous cows	The findings of the study are pooled milk samples of cows are easy to monitor herd infection status
Laporte et al., 1980	France	Lab	Human and dog	The virus generates the characteristics of Bovine enteric Coronavirus in shape, spikes, density and hemagglutination of rat erythrocytes
Yildirim et al., 2008	Turkey	unvaccinated adult cattle	Antibodies	The results show that bovine rotavirus and bovine Coronavirus are common in adult cattle the seropositive animals should be considered as a source of infection within the herd.
Singh et al., 2018	India	toxin types	neonatal goat kids	The results recommended that C. perfringens type A and type D are the frequent toxin types influencing neonatal goat kids, with $\beta 2$ toxin being a further possible virulence component.
Ng'ambi et al., 2017	Malaysia	monkey-specific polymerase	polymerase chain reaction products	results of the study concluded that canine Coronavirus is widespread in the Turkish dogs and virus attributed to being one of the essential viral agents in the dog.
Franklin et al., 2008	United States	domestic animals	geographically restricted population	The study hypothesis that isolation of population has prevented the introduction of pathogens

Literature-based on the canine Coronavirus and feline Coronavirus found in the current study. That is identified in dogs, and very few kinds of literature are discussing the impacts of the virus on the social and economic effects. Similarly, the Feline coronavirus is also concerning in the literature by a few studies; feline viruses are commonly infected wildcats. Enough data is also related to COVID-19 and its impacts in the literature due to the feline Coronavirus.

3.5. Novel Coronavirus Disease 2019 (COVID-19)

The novel coronavirus is not very much highlighted in the literature, and not enough literature is available on the topic yet due to recent times. During the review of the literature, minimal studies are found on the case; the database shows only two articles related to the novel coronavirus disease (COVID-19). Paraskevis et al. (Paraskevis et al., 2020) find the genetic similarity between the novel

coronavirus –(COVID-19) and RaTG13 recommended that does not provide the exact variant that causes the large-scale outbreak in the human. Most likely the hypothesis that novel coronavirus (COVID-19) may be originated from the bat. Results of the show that COVID-19 is not-mosaic consist of almost half of its genome of a distinct lineage within the beta coronavirus. The study also recommended the quarantine for the infected people and care for the future of socialization.

3.5.1. Impact COVID19 pandemic on sustainable development

Quarantine in the case of SARS was limited to 31 countries of the world within a few months, infecting 8548 people and killing 807 people worldwide (Zhu et al., 2020),(Hazra, 2004). However, the wave of Coronavirus (COVID-19) is more severe and deadly, 800 thousand cases of COVID-19 have been reported around the globe, and the number is increasing each day rapidly. It started in China and now spread to 199 countries (Worldometer, 2020). The most advanced countries are affected most (Hishan et al., 2019). The USA has the largest number of COVID-19 cases, and Italy has the highest death ratio. This pandemic affected the world irrespective of region, race, and religion. The situation could lead to the excellent health crisis of the century; probably, if not countered well, it can be the worst humanity have ever faced (Thorp, 2007),(Qureshi et al., 2020). Recent COVID-19 pandemic not only posed a serious threat to public health, but it also jeopardies the sustainable development goals. We discussed the impact of COVID-19 pandemic on social, economic and environmental aspects of human life (Wu et al., 2020).

There is an adverse impact of COVID-19 pandemic on the societies. The greatest threat is to public health at large. Researchers already alarmed about the severe psychological impact of pandemic (Wu et al., 2020), The world will experience a large number of depressions, anxiety, and frustration among the people. The only precaution is social distancing, as mentioned by the WHO (Irfan et al., 2019). Currently, there is no alternative option available to mitigate the spread. However, social distancing will create many other issues in societies as well as create political, social and cultural problems in the long (Tuzovic & Kabadayi, 2020).

On the economic side of the effect, the world is heading to a recession, Supply chains are blocked, and production has been jeopardized (Craven et al., 2020),(Berkley, 2020). Most people are working from home and not allowed to have social interaction. It may cause difficulties in running a conventional business, and possibly hundreds of thousands of people will strive to find jobs. That may lead to a substantial economic crisis in the world (Kraemer, Yang, Gutierrez, Wu, Klein, Pigott, Group, et al., 2020),(Yang et al., 2020).

On the environmental side, scholars argue that this situation has reduced CO2 emissions and stable waste emissions (Koch et al., 2019). Restricted human activities can help reverse climate change. That also helps in reducing resource consumption and footprints. According to Kraemer, Yang, Gutierrez, Wu, Klein, Pigott, du Plessis, et al., (2020), "air quality improvements have been seen in nations around the world from Italy to China as much transport and industry has ground to a halt. Public health experts have warned that the health damage inflicted on people by longstanding air pollution is likely to increase the death rate from Covid-19. One pollutant – ozone – has risen (Megson, 2013). That is because chemical interactions in the air normally result in NO2 and small particles, reducing ozone levels. So, as they have fallen, ozone has risen" (Kraemer, Yang, Gutierrez, Wu, Klein, Pigott, du Plessis, et al., 2020). "The ozone increases are small, and it usually doesn't become a problem until the summer months (Ran et al., 2020)". However, the real question is whether these environmental benefits are long run. We highlighted the potential impacts of COVID-19 pandemic in Figure 8 below.

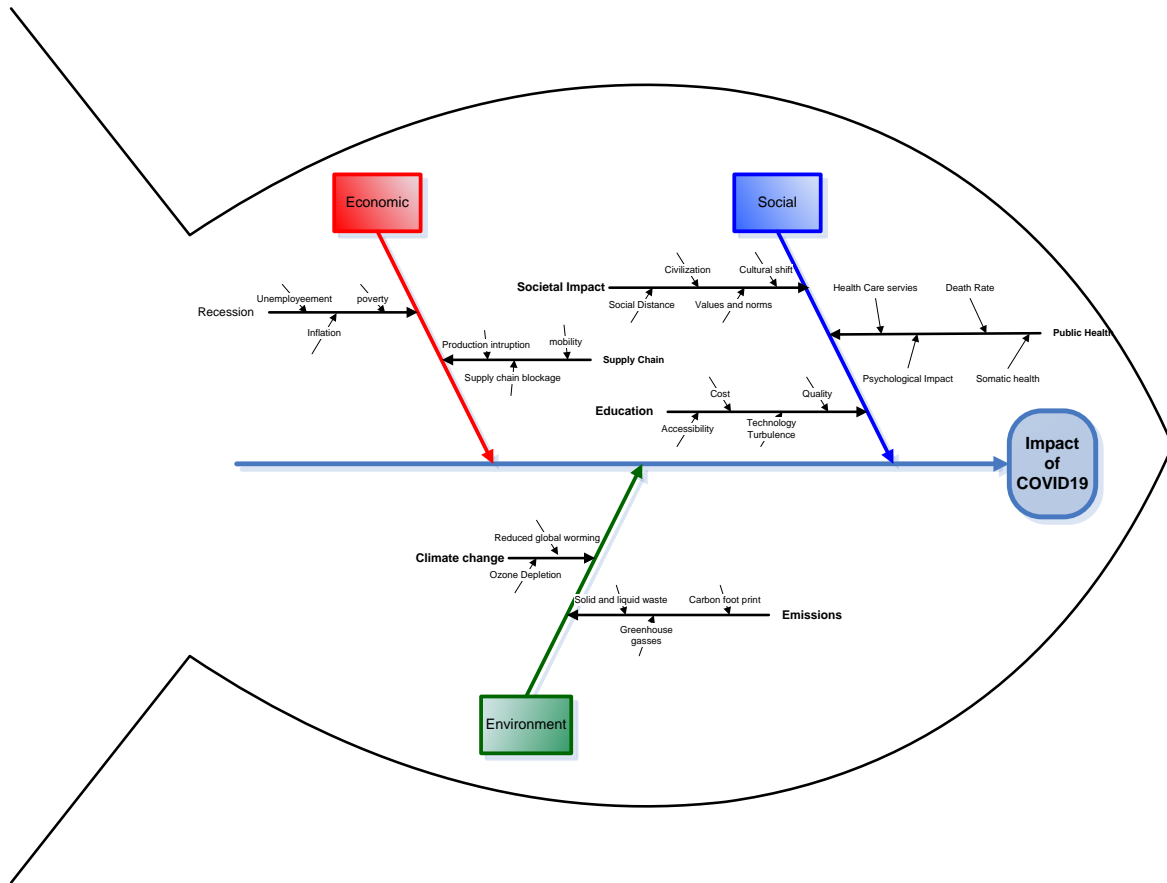


Figure 8: Potential impacts of COVID 19 to the Sustainable development goals

3.6. Bibliometric analysis of the Coronavirus Research

Although the literature exposed the relationship of all types of pervious coronavirus epidemic with the current pandemic outbreak of COVID19, still nations were not prepared for it. We conducted a detailed bibliometric analysis of past studies based on two fundamental parameters. The first one is text mining to identify the significant terms frequently studies together. That gives us the idea to cluster the considerable areas of research in the field. Figure 9 indicates the results of test frequency based on the co-occurrence of the related terms. This information is very crucial to forming the central cluster of areas of research. We used VOS viewer software for bibliometric analysis (Ramakrishna, 2020),(Qureshi et al., 2014). The result indicated there are three significant clusters of the research. The first green cluster shows the phycological, social and regional issues studied due to coronavirus epidemics. The blue cluster indicates the clinical trials to find a suitable response to the virus outbreak, and the red cluster discusses the outbreak control and disaster management related studies.

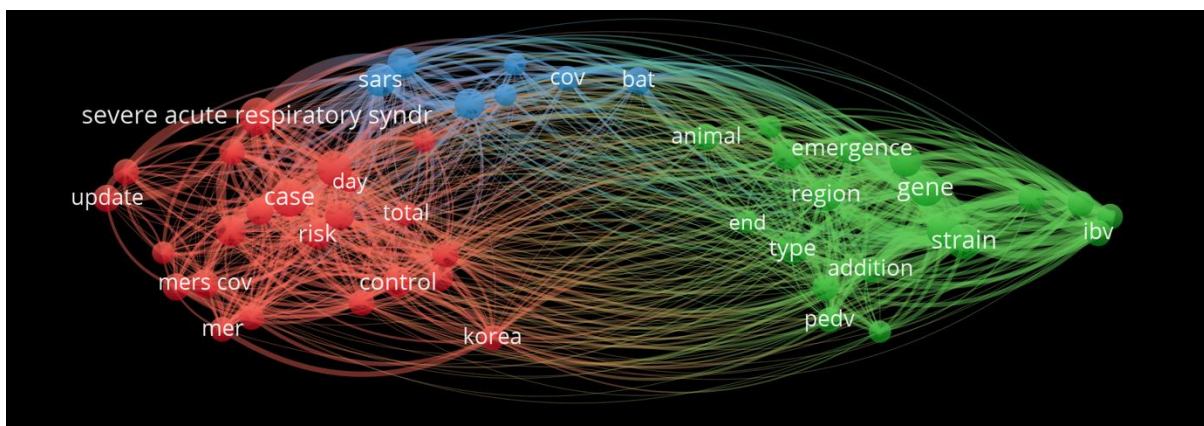


Figure 9: Text frequency analysis

The second critical analysis in this regard is to assess the collaborative efforts by the countries to find out the solutions to the issues. The results indicated in Figure 10. We can see the China and USA have done the most collaborative research. Both countries were engaged in different collaborative research activities with many other countries in the world. However, it has been witnessed the scarce of efforts in this area from the rest of the world. It may be because of the lack of facilities in other countries. The other possible reason is may the coronavirus outbreaks were not considered severe threats to the other countries.

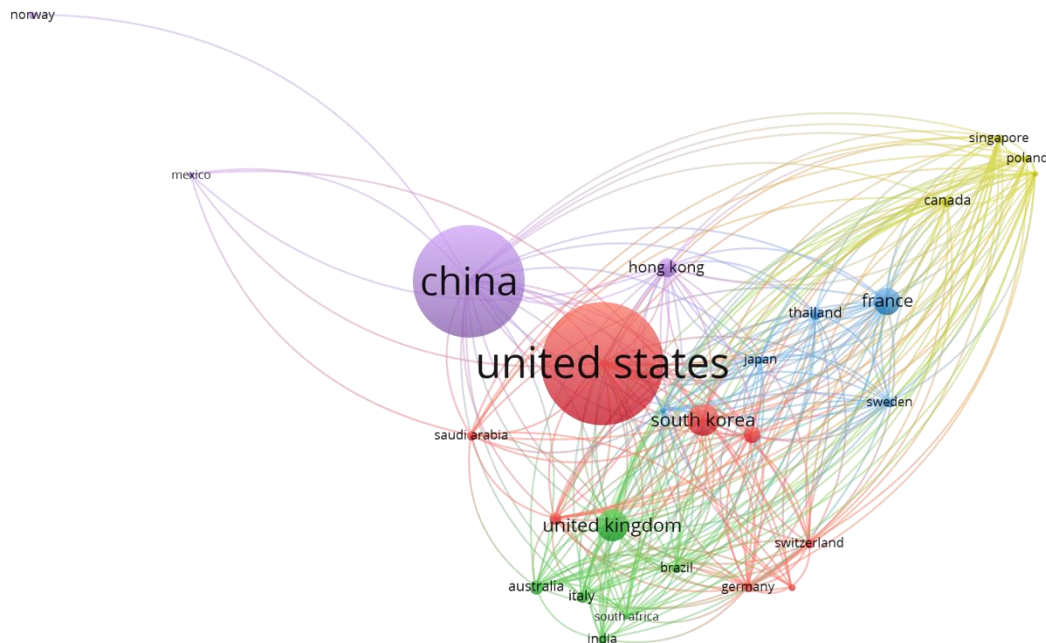


Figure 10: Collaborative research analysis

4. Conclusión

The current systematic literature review leads us to the potential pitfalls that must be addressed quickly. This section first explains the past lessons and provides future agendas for the researcher and practitioners. Based on the systematic review findings, the plan is formatted for future research on the Coronavirus. Coronavirus vaccination is a more significant challenge for scientists; at the same time, it is a serious threat to sustainable development goals (Qureshi, Al Rasiah, et al., 2019). The infrastructure that can facilitate many patients and infected people is crucial to comprehend (Khan et al., 2020) (Al Shehri, 2015). It must be realized that much more research is needed conducted on the public health-related facilities in a different part of the world. Developed countries are also facing more significant trouble in managing the resources for the infected people. A country like China, the USA, U.K., and Spain also not has enough public health services on a larger scale. At the same time, the situation is worst for the underdeveloped countries because the countries with fewer resources and larger populations cannot control the 2019-COVID; Iran is a very real-time example of the statement. The world health organization is also suggested the medical emergency under the light of resources and medical abilities of the nation's (Holshue et al., 2020).

There are few critical pieces of knowledge areas that were neglected entirely in the past. First, we demonstrated that although there is a series of research that identified the potential of past epidemics to escalate and jeopardize the world. Researchers warn the policymakers about the potential threats that these families of viruses can cause. However, there is not much research on disaster management planning for these series of viruses. The potential reason is the lack of multidisciplinary research. The current study results demonstrate that current literature and infrastructure cannot deal with the pandemic, and many developed states are failed to respond to the crisis. These issues required an interdisciplinary solution. That is where collaborative research and multidisciplinary research are needed (Wang et al., 2020). However, there is a scarcity of efforts to provide a holistic solution to the

challenges through collaborative interdisciplinary research. Future work required researchers and scientists from multiple disciplines to ensure the potential solution to these types of hazards. Mainly research in these areas was related to lab settings and findings of the vaccinations. However, there is a severe lack of research on how social and economic impacts can be mitigated (Qureshi et al., 2016).

The second potential learning from the review of the past literature is that, although multiple indicators signal the recent outbreak and many other related issues that have the potential to cause natural disasters are still waiting for humanity to respond, for example, climate change. However, there is a lack of serious efforts to provide predetermined response management systems that can be implemented in any pandemic or natural disaster.

5. Future Agenda

Now the final part of the research is to address the questions of where we are heading? What are the possible scenarios from here, and what are our preparations?

We think after a thorough review of existing literature, there are two major possible scenarios from here. The first one is more optimistic. We consider the current COVID19 pandemic will not last long, and the world may restrain in a few weeks. The future of the world after the 2019-COVID is more challenging and vital for humanity in terms of business, economic and social perspective. Social structures will change the current situation is showing based on literature and reports. The economic recession will be prolonged if the researchers cannot find the solution for the Coronavirus. After the significant damage due to the 2019-COVID, economic stability will be another challenge for economies because of the complete lockdown in the world, making more trouble for the supply chain and production processes. The air travel restrictions also create operational difficulties for the people, and future socialization is crucial. Because the human-to-human transform of Coronavirus [2019-COVID] has allowed people for social distancing. The short-run measures need to be taken to achieve a sustainable development agenda. These measures can be the rehabilitation of societies, education, information, new cultural norms, providing support to local businesses, and developing infrastructures to encounter similar situations in the future.

Figure 11 provides a framework to develop an effective response to the global COVID 19 pandemic

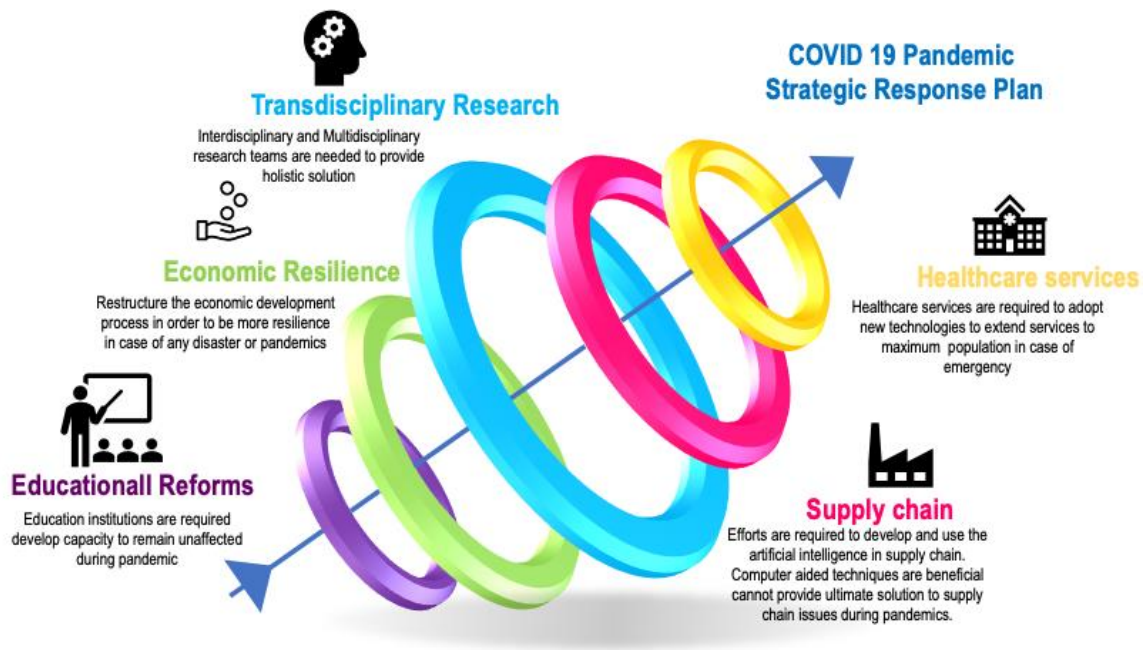


Figure 11: COVID 19 strategic Response planning framework

However, the pessimistic view of our findings considers the situation to take longer than expected. The literature shows the coronavirus family viruses are still out of vaccination, MERS and SARS were control with coordination and management of the governments with each other. However, the novel

2019-COVID is spreading more quickly; human-to-human interaction is the main reason for the infection. Quarantine of the infected people is the better option to handle the situation until scientists can manage the proper vaccination. Moreover, literature shows that after SARS and MERS, minimal efforts were made by the researcher towards the prevention of Coronavirus in humans. The dilemma of COVID-2019 is that after SARS and MERS, social and business structures are not be developed and structured accordingly in a pandemic. Enough studies are discussing the spread of coronavirus history in the MERS and SARS cases. So, the current business, economic and social situation is not predicted. That is a more significant challenge for the current 2019-COVID control for governments and international institutes about future agenda due to COVID-2019. What will be the future of business and society with the help of technology? That is not possible to lock down the world of business and economic affairs for a long time if the possible three conditions occur in how the social structure will be shaped. Suppose the pandemic is controlled soon; in that case, how business operations will execute and the possible working methods in the digital age. The business world needs to enhance the ability to react to the situation. In the second case, if the COVID-2019 is not controlling and vaccination is sooner not be available, in that case, what are the alternative business and economic activities plans. Technology is the planet's future, and artificial intelligence will replace human involvement in most businesses. Social structures of societies will also depend on technology, and economic affairs are established social setups. The third condition may also have occurred that the pandemic may be on a seasonal level come in the world and how the businesses will respond to that situation. In the three possible conditions, the best solution is moving forward with technology adaptation, which will also shape our social structures.

In such a case, there is a complete restructuring of societies; business and civilizations are essential. We may develop technology to replace human interaction permanently; there may be requirements of new standards and procedures for public health administrations, and societies have to be reshaped at large. There may be a need to reconsider our sustainable development goals.

6. Limitations

This study contributes to the literature by elaborating a descriptive mapping of the existing literature on the reviews of the Coronavirus pandemic that is a more significant challenge for sustainable development in the current circumstances. The methodology and classification process of research is used to present a better mapping and understanding of research. After developing the strategy of existing literature and dividing it into the five different classifications of Coronavirus that were a threat to civilization in the other period; however, this article still has limitations. Reference literature selected in this paper is already published in the Scopus base journals that follow the high reputation and quality in respective fields, which make them very representative. Almost every article comes on eligibility criteria is encompass methodologies and empirical results, and review papers do not mention the empirical results and methods, but still, they are having the systematic picture of the review in the concerned field. Although some critical reports and news also mention in the paper regarding the COVID-19, these reports and reputed newspapers have been subject to in-depth analysis.

Moreover, a few times, it is hard to define the viruses precisely. However, some related research on the coronavirus family was chosen to form a systematic Literature review on the COVID-19 future about socialization, economy, and tourism and recent news from credible sources. However still, many conceivable databases were not included in the literature search because of the limitation of time and financial resources.

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