

Review Study on Scimedirect Library Based on Coronavirus Covid-19



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ABSTRACT

Several years ago, China and the United States of America began experimenting with the coronavirus, which lives in the bat. It is not known until now how the virus spread and how it extended to all countries of the world. However, it is certain that this virus first appeared and spread was at the end of 2019 and in the Chinese city of Wuhan, especially in markets close to laboratories that are working on this virus. At the beginning of the year 2020, this virus began to spread very widely all over the world and began killing thousands of people every day. The world economy was destroyed until the World Health Organization considered it a pandemic. As for the research aspect, the researchers started the research work on this pandemic from many aspects, including medical, statistical, managerial, healthcare, and others. A statistical analysis depends many key factors that have been studied. This study was conducted on April 11, 2020, where a large number of research papers were downloaded using the keywords coronavirus disease (COVID)-19, which were applied in the Scimedirect library that was examined on 100 research papers only. The obtained results indicated that most of the research papers that worked on the subject of COVID-19 confirmed that this virus infects the human respiratory system, which in turn leads to shortness of breath and death. Here, it must be noted that the human immune system has a major role in the process of overcoming this virus and gradual recovery. The obtained analysis indicated that the main fields of coronavirus are: Medicine 42%, statistics 21%, healthcare 19%, and management 18%. Through this study, it became clear that China is the first country in terms of the number of researchers and also in terms of the number of research papers related to the COVID-19.

Index Terms: Coronavirus, Coronavirus Disease-19, Diagnosis, Human Immune System, Coronavirus Disease-19 Published Papers.

1. INTRODUCTION

Coronaviruses are a large group of viruses that may cause disease in animals and humans. It is known that a number of coronaviruses cause human respiratory infections that range from common colds to more severe diseases such as the Middle East Respiratory Syndrome and severe

acute respiratory syndrome (SARS). The newly discovered coronavirus causes the Covid-19 virus. Coronavirus disease (COVID)-19 is an infectious disease caused by the newly discovered coronavirus. There was no knowledge of this virus and this emerging disease before the outbreak of outbreak in the Chinese city of Johan in December 2019. The most common symptoms of COVID-19 disease are fever, fatigue, and dry cough. Some patients may experience pain and aches, nasal congestion, cold, sore throat, or diarrhea. These symptoms are usually mild and begin gradually. Some people become infected without showing any symptoms and without feeling ill. Moreover, the severity of the disease intensifies in approximately one person out of every six people who develop COVID-19 infection, who suffer from

Access this article online

DOI: 10.21928/uhdjst.v4n2y2020.pp46-55 E-ISSN: 2521-4217
P-ISSN: 2521-4209

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Received: 26-06-2020

Accepted: 28-07-2020

Published: 06-08-2020

difficulty breathing. The risk of the elderly and people with basic medical problems such as high blood pressure, heart disease, or diabetes is severe. About 2% of people who have contracted the disease have died. People with fever, cough, and difficulty breathing should seek medical care. The term “incubation period” refers to the period from infection with the virus to the onset of symptoms of the disease. Most estimates of the incubation period for COVID-19 disease range from 1 to 14 days, usually lasting 5 days. These estimates will be updated as more data becomes available.

A section of Kingston University’s Microbiologists has concluded that a coronavirus attacks two specific groups of cells in the lungs. One of these cells is called a goblet cell, and the other is called a ciliated cell. They explain that the goblet cells produce the mucus that forms a moisturizing layer on the respiratory canal, which is important to help maintain the moisture of the lungs, and thus maintain health. The ciliary cells are cells with hairs that point upward, and their function is to shovel any harmful substance suspended in mucus, such as bacteria, viruses, and dust particles, toward the throat to get rid of them. Coronavirus, on the other hand, infects these two groups of cells, which is observed with SARS, Professor Felder says. Felder added that the coronavirus infects these cells and begins to kill them, and its tissues begin to fall and collect in the lungs, and the lungs begin to become obstructed, which means that the patient has pneumonia. Then, the body’s immune system is trying to respond because it realizes that the body is under attack, and this may lead to an overload of immunity, and then the immune system makes a major attack that damages healthy tissues in the lung, and this also may make breathing more difficult. The virus not only attacks the lungs but also the kidneys, which may lead to kidney failure and later death. The World Health Organization considered COVID-19 as a pandemic disease which means an epidemic that has spread over a large area that is prevalent through an entire county, continent, or the whole world.

This work aims to introduce a brief study of COVID-19, in addition to analysis the published papers in this field.

2. MATERIALS AND METHODS

This section including: COVID-19 mechanism, published papers on COVID-19, results, and analysis.

2.1. COVID-19 Mechanism

COVID-19 virus get in the human body via many ways: Eyes, nose, and mouth (Fig. 1):

- Via eyes: In this case, the virus has two main pathways that exit through tears or enter the lacrimal sac, then reach the nasal cavity and mouth, then go to the stomach and end with gastric juices or enter the respiratory system.
- Via nose: In this case, the virus is either expelled through the mucus or enters the respiratory system.
- Via mouth: In this case, the virus enters the stomach and kills them, or enters the respiratory system.

When the virus enters the respiratory system, it settles into the lung, where it begins to attack cells there. At that time, the immune system begins to attack the virus, and this leads to many accumulations in the lung that lead to a deficiency in the work of the lung. This means shortness of breath and sometimes leads to death.

2.2. Published Papers on COVID-19

COVID-19 key word is used is applied on Scienedirect library at April 11, 2020 in which appeared 1741 published papers, all these papers are published in 2020. To determine this this work, 100 papers were focused onto be studied as shown in Fig. 2. To analyze these hundreds published papers, the first look at them was as follows: Eighty-nine (89%) papers have been downloaded and the study has been done on it, eight (8%) papers we could not download, two

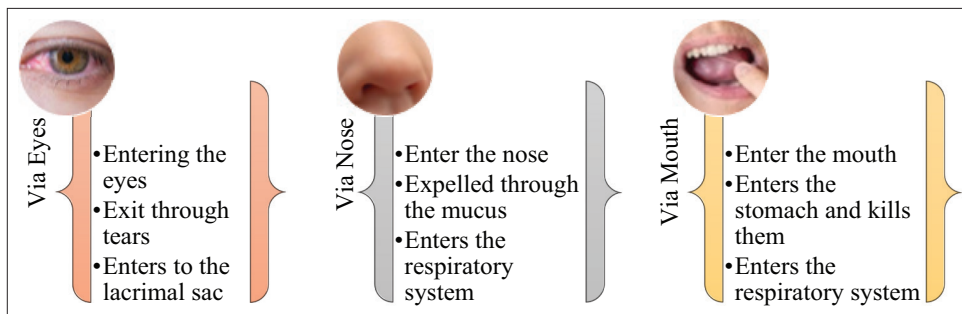


Fig. 1. Coronavirus disease-19 virus entering the human body.

duplicated (2%) papers, and finally one repeated (1%) paper. In general, 11% of the papers are canceled and 89% of the papers are considered to be studied.

3. RESULTS AND ANALYSIS

Table 1 includes data on the published research papers that have been studied. This table was divided into several fields to clarify the quality of research and on any topic in which it was focused, these fields are paper ID, topic of the paper, applied method, and applied database, in addition to the country, in which the study was conducted and the country to which the researcher belongs.

Whatever was the area of interest, they are related to the medical part of COVID-19. The field of research area regarding to the score is divided into four main categories: Medicine 37 (42%), statistics 19 (21%), healthcare 17 (19%), and management 16 (18%). Medicine category including: Treatment 22 (60%), diagnosis 6 (16%), clinical 5 (14%), emergency 1 (2.5%), hepatic 1 (2.5%), surgical 1 (2.5%), and arrhythmia 1 (2.5%). Statistical category including many fields in statistical analysis. Health-care category including: Health approach 5 (30%), health workers 3 (17%), personal health 3 (17%), community pharmacies 2 (12%), health-care provider 2 (12%), global health 1 (6%), and national care 1 (6%). Management category including: Recommendation 6 (38%), patient management 3 (19%), control 2 (13%), pharmaceutical care management 1 (6%), internet hospital 1 (6%), emergency 1 (6%), clinical management 1 (6%), and reorganization 1 (6%).

The most important categories are related to the country in which the study was conducted and the country to which the researcher belongs. The country to which the researcher belongs is focusing on 25 countries and China settles on

the top, as shown in Fig. 3. The score of the researchers by country related to COVID-19 is sorted top to bottom: China 37%, USA 12%, France 7%, Taiwan 7%, Canada 5%, UK 5%, Italy 5%, India 4%, and Spain 2%, and the rest of countries are 1%.

The country in which the study was conducted is focusing on 20 countries and also China settles on the top, as shown in Fig. 4. The score of the published research papers by country related to COVID-19 is sorted top to bottom: China 37%, Global 27%, USA 12%, France 7%, Taiwan 7%, Canada 5%, UK 5%, Italy 5%, India 4%, and Spain 2%, and the rest of countries are 1%.

As a result of the previous research and studies obtained, it was found that the coronavirus has effected various places in the human body, and this virus has many different effects, including its effect on the lung and respiratory system. In general, its effect on heart murmurs, as well as on microvascular clots, in addition to other effects such high temperatures, intestinal disturbances, vomiting, and other disorders.

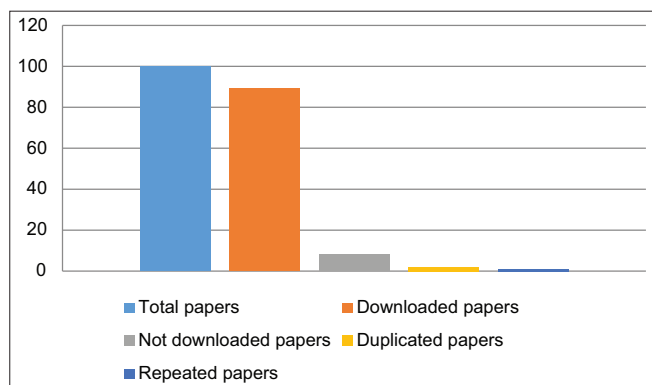


Fig. 2. Published papers on coronavirus disease-19.

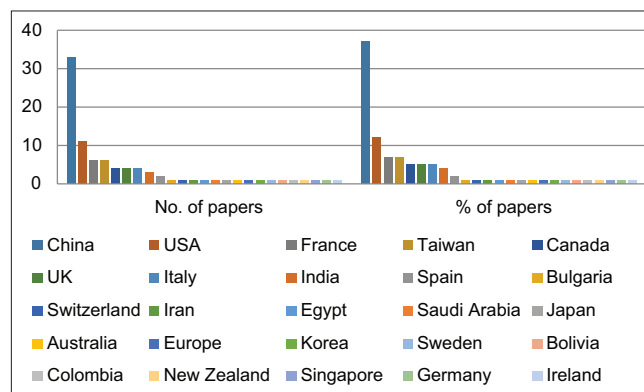


Fig. 3. Country to which the researcher belongs.

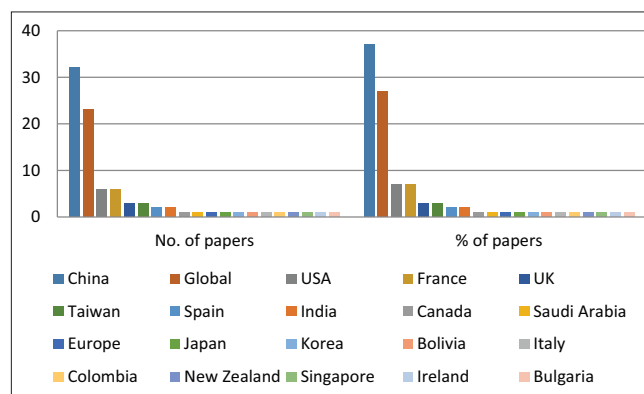


Fig. 4. Country in which the research was conducted.

TABLE 1: Search applied in Sciencedirect library at April 7, 2020.

Paper ID	Topic	Applied method	Applied database	Researcher by country	Search by country
Akram <i>et al.</i> [1]	Statistical analysis	Systematic review immunotherapy for COVID-19	Web of Science, PubMed, Scopus	Iran	Global
Kai <i>et al.</i> [2]	Medicine (clinical trial)	Effects of muscle relaxation on anxiety in patients with COVID-19	Chest CT using hypnotic drugs	China	China
Tianmin <i>et al.</i> [3]	Statistical analysis	Characteristics of COVID-19	Data collected from Chinese Center for Disease	China	China
[Sherief <i>et al.</i> [4]	Medicine (Hepatic and gastrointestinal involvement)	Characteristics of liver biochemical with COVID-19	Published COVID-19 case studies	Egypt	Global
Riyanti <i>et al.</i> [5]	Statistical analysis	Building resilience against COVID-19	Published works on COVID-19	Japan	Global
Zhenyu <i>et al.</i> [6]	Statistical analysis	Vicious traumatization	Published works on COVID-19	China	Global
Andrew <i>et al.</i> [7]	Medicine (surgical)	Modification of head and neck treatment paradigms	Collected data	USA	USA
Cheng <i>et al.</i> [8]	Medicine (Arrhythmia)	COVID-19 and inherited arrhythmia syndromes	ECG collected data	Europe	Europe
Verónica <i>et al.</i> [9]	Management (Recommendations of pandemic)	COVID-19 and kidney transplant patients	Data collected from Nephrology Clinical Management Unit,	Spain	Spain
Jun <i>et al.</i> [10]	Medicine (Clinical progression)	COVID-19 and radiological COVID improvement	Data collected from Clinical and laboratory (CT images)	China	China
Rosa <i>et al.</i> [11]	Management (Recommendations of pandemic)	Techniques and Transplantation and Nursing areas	Data collected from (SEPAR) and (AEER)	Spain	Spain
Juan <i>et al.</i> [12]	Management (Recommendations of pandemic)	Impact of the COVID-19 pandemic in the population.	Collected cases from Hospitals and the Ministry of Health	Bolivia	Bolivia
Siyuan <i>et al.</i> [13]	Management (Recommendations of pandemic)	Management of burn wards	Data collected from Institute of Burn Research	China	China
Li <i>et al.</i> [14]	Medicine (diagnosis and treatment of COVID-19)	Internet of things-aided diagnosis and treatment of coronavirus	Collected existing data and questionnaires	China	China
Arnaud <i>et al.</i> [15]	Medicine (diagnosis and treatment of COVID-19)	CCAFU recommendations on the management of cancer during the COVID-19 epidemic	Data collected from many French associations	France	France
Li-sheng <i>et al.</i> [16]	Medicine (treatment and prevention of knowledge surrounding COVID-19)	Systematically summarizes	Data collected from current published evidence	China	China
Kai <i>et al.</i> [17]	Statistical analysis	A randomized controlled study	Data collected from two groups before and after intervention	China	China
Cuiping <i>et al.</i> [18]	Statistical analysis	Systematic Review	Collected data from PubMed database	China	Global
Andrew <i>et al.</i> [19]	Medicine (diagnosis)	Use of Cardiac Computed Tomography for COVID-19 Pandemic	Data collected from US Centers	USA	Global
Priya <i>et al.</i> [20]	Healthcare (health workers)	Challenges for the Allergist/Immunologist clinical trials on COVID-19	Data collected from health-care resources	USA	USA
Xinyao <i>et al.</i> [21]	Medicine (Clinical Trials on COS- COVID)	Application of the ARIMA model	Collected clinical trial protocols on COVID-19	China	China
Domenico <i>et al.</i> [22]	Statistical analysis	Compare chest HRCT lung signs	COVID -2019 epidemic dataset	Italy	Global
Zuhua <i>et al.</i> [23]	Medicine (Chest diagnosis COVID-19)		Collected Chest HRCT images	China	China

(Contd...)

TABLE 1: (Continued).

Paper ID	Topic	Applied method	Applied database	Researcher by country	Search by country
Jing <i>et al.</i> [24]	Statistical analysis	Systematic review	PubMed, EMBASE, and Web of sciences databases	China	Global
Qanta <i>et al.</i> [25]	Management (Recommendations of pandemic)	Hajj through the situation with COVID-19	Literature data collected	USA	Saudi Arabia
Stéphane <i>et al.</i> [26]	Healthcare (Personal health)	Changes in care of home artificial nutrition patients during the COVID-19	Collected data treating COVID-19 patients	France	France
Wenjun <i>et al.</i> [27]	Statistical analysis	Cluster sampling of students via COVID-19 epidemic	Medical College in China	China	China
Shio-Shin <i>et al.</i> [28]	Medicine (treatment)	Treatment options for COVID-19	Collected cases	Taiwan	Taiwan
Christian <i>et al.</i> [29]	Medicine (treatment)	Effects of chloroquine against COVID-19	Collected cases	France	France
Aparna <i>et al.</i> [30]	Healthcare (Personal health)	Respiratory medics or ICU	Collected data from NSAIDs in COVID-19	UK	UK
Xiaoping <i>et al.</i> [31]	Medicine (treatment)	Nucleic acids testing and chest CT examination	Collected case study	China	China
Shao <i>et al.</i> [32]	Medicine (treatment)	Pneumonia and COVID-19	Collected Chest X-ray and Chest CT images	Taiwan	Taiwan
Qianying <i>et al.</i> [33]	Statistical analysis	Conceptual model for (COVID-19	Collected cases	USA	UK
Kai <i>et al.</i> [34]	Statistical analysis	Clinical features of COVID-19	Comparison young and middle-aged patients	China	China
Philippe <i>et al.</i> [35]	Medicine (treatment)	Using Hydroxychloroquine and azithromycin	Collected data from patients	France	France
Dandan <i>et al.</i> [36]	Medicine (treatment)	Responses in cytokine	Collected severe cases	USA	USA
Pedro <i>et al.</i> [37]	Healthcare (community pharmacies)	Health system from the community pharmacies	Collected cases	Colombia	Colombia
Wei-Hsuan <i>et al.</i> [38]	Medicine (treatment)	Novel COVID	Two cases are collected	Taiwan	Taiwan
Jason <i>et al.</i> [39]	Medicine (treatment)	Impact of the virus on the individual	Collected severe cases and deaths	Canada	China
Lana <i>et al.</i> [40]	Healthcare (health-care provider)	Specialist Palliative Care Service	care clinicians data collected	New Zealand	New Zealand
Muhammad <i>et al.</i> [41]	Medicine (treatment)	Drug development process	GISAID database	China	China
Wang <i>et al.</i> [42]	Management (pharmaceutical care management)	Drug Supply Management	Data collected	China	China
Alexis <i>et al.</i> [43]	Medicine (treatment)	Medicine in Drug Discovery	Historical data of intensive care unit	USA	USA
Weston <i>et al.</i> [44]	Management (Recommendations of pandemic)	predict The COVID-19 epidemic	Collected data cases	Canada	China
Nan-Yao <i>et al.</i> [45]	Medicine (treatment)	Clinical course of COVID-19	Collected data cases	Taiwan	China
Kiesha <i>et al.</i> [46]	Statistical analysis	Reducing the magnitude of the COVID-19 outbreak	Collected data cases in Wuhan	China	China
Pradip <i>et al.</i> [47]	Medicine (treatment)	Pandemic and Pregnancy	Data collected from National University of Singapore	Singapore	Singapore

(Contd...)

TABLE 1: (Continued).

Paper ID	Topic	Applied method	Applied database	Researcher by country	Search by country
Tuech <i>et al.</i> [48]	Medicine (treatment)	Digestive and oncological surgery during the COVID-19	Data collected from PMSI	France	France
Muh-Yong <i>et al.</i> [49]	Management (control)	Interrupting COVID-19 transmission	Collected data	Taiwan	Global
Claudio <i>et al.</i> [50]	Management (control)	Survive via pandemic	Collected data	Italy	Italy
Elissa <i>et al.</i> [51]	Healthcare (health approach)	Healthcare system through COVID-19	Healthcare data from PubMed	USA	China
Yichun <i>et al.</i> [52]	Statistical analysis	Kidney disease with death of patients with COVID-19	Data from Chinese National Health Commission	China	China
Dmitry <i>et al.</i> [53]	Statistical analysis	Simulation-based analysis on the coronavirus outbreak	Selected cases	Germany	Global
Shuangyi <i>et al.</i> [54]	Management (internet hospital)	Fighting against COVID-19	Selected cases	China	Global
Lixiang <i>et al.</i> [55]	Statistical analysis	Propagation analysis and prediction	Data collected from many areas	China	Global
Chih-Cheng <i>et al.</i> [56]	Statistical analysis	Epidemic and the challenges	Data collected	Taiwan	Global
Weiyi <i>et al.</i> [57]	Statistical analysis	Cardiovascular burden of coronavirus	Literature data	USA	Global
Shuai <i>et al.</i> [58]	Management (Emergency management)	Emergency Procedures	Data from 4 hospitals in Wuhan	China	China
Xiaoyang <i>et al.</i> [59]	Healthcare (health workers)	Role in the treatment	ECMO database	China	China
Kai <i>et al.</i> [60]	Healthcare (health workers)	Protect healthcare workers from COVID-19	Collected data	China	China
Zaiwei <i>et al.</i> [61]	Healthcare (community pharmacies)	Guidance from clinical experience	Chinese database	China	China
Matthias <i>et al.</i> [62]	Medicine (common clinical scenarios)	Lung cancer radiotherapy during the COVID-19 pandemic	Collected data of six lung cancer cases	Switzerland	Global
Russell <i>et al.</i> [63]	Management (Recommendations of pandemic)	Systematic review	Literature data from WHO	UK	Global
Kaustuv <i>et al.</i> [64]	Healthcare (health approach)	Impact of COVID-19 epidemic	Infected cases data	India	India
Pascal <i>et al.</i> [65]	Medicine (treatment)	Literature review	Radiological data	Italy	Global
Geoffrey <i>et al.</i> [66]	Management (Patient Management)	Role of Chest Imaging	Collected data	Canada	Global
Ali <i>et al.</i> [67]	Healthcare (personal health)	Emergency cases	Several dental cases	Saudi Arabia	Global
Tao <i>et al.</i> [68]	Medicine (treatment)	Probable Pangolin with COVID-19	Data collected from RNA-seq	China	China
Razvigor [69]	Medicine (treatment)	Dermatologic aspects of COVID-19 infection	Collected skin data	Bulgaria	Bulgaria
Jiajia <i>et al.</i> [70]	Medicine (treatment)	Clinical Study of Mesenchymal Stem Cell Treatment	Collected imaging scan	China	China
Murray <i>et al.</i> [71]	Healthcare (health workers)	Recommends healthcare workers	Collected MRI	Ireland	Ireland
Stephen <i>et al.</i> [72]	Medicine (emergency)	Unprecedented disruption of lives	Data collected from STATA 16.0	Australia	China
Alice <i>et al.</i> [73]	Management (Reorganization)	Survey	Data collected from CIPOMO	Italy	Global
Praveen <i>et al.</i> [74]	Medicine (treatment)	Baricitinib as a potential drug	Biochemical data collected	India	India
Sung-Wan <i>et al.</i> [75]	Medicine (treatment)	Using psychoneuroimmunity against COVID-19	Data collected	Korea	Korea
Ritesh <i>et al.</i> [76]	Management (patient management)	Review of treatment of coronavirus	Collected current literature	India	Global
Huai-liang <i>et al.</i> [77]	Healthcare (health approach)	Public health measures	Collected data Facemask with COVID-19	China	China

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TABLE 1: (Continued).

Paper ID	Topic	Applied method	Applied database	Researcher by country	Search by country
Rupsa <i>et al.</i> [78]	Healthcare (health approach)	MFM Guidance for COVID-19	Collected common indicators of MFM	USA	USA
Annelies <i>et al.</i> [79]	Healthcare (Global health)	Contain the COVID-19 outbreak	Collected cases	UK	Global
Tianshi <i>et al.</i> [80]	Management (patient management)	Expert consensus during COVID-19	Data collected from Interventional Oncology Branch of China	China	China
Sheng <i>et al.</i> [81]	Statistical analysis	data-driven analysis	Official website Ministry of Health, Japan	China	Japan
Chun <i>et al.</i> [82]	Medicine (diagnosis)	Evaluation on Thin-Section CT	CT collected images	China	China
Ronan <i>et al.</i> [83]	Healthcare (Nutritional care)	Expert opinion to manage hospitalized patients	Expert opinion	France	France
Chunqin <i>et al.</i> [84]	Medicine (diagnosis)	Diagnosis of COVID-19	CT images data collected	China	China
Metcalfe <i>et al.</i> [85]	Medicine (treatment)	Mesenchymal stem cells	Clinical data collected	UK	UK
Marvi <i>et al.</i> [86]	Medicine (treatment)	Keratoconjunctivitis and COVID-19	Collected cases	Canada	Canada
Ronald <i>et al.</i> [87]	Healthcare (health approach)	Health belief model	Collected cases	USA	USA
Mohamed <i>et al.</i> [88]	Healthcare (health approach)	Unknown COVID-19	Collected data	Sweden	Global
Nan <i>et al.</i> [89]	Statistical analysis	Pregnant women with COVID-19	Collected data from Tongji Hospital in Wuhan	China	China

We know that coronavirus (COVID-19) started in China, so most of the research must begin and continue in this country to find a treatment for this disease. In spite of all the ongoing research papers on this subject, so far there is no effective treatment for this disease, on the other hand, all efforts are combined to achieve this goal and overcome this pandemic.

4. CONCLUSIONS

December 2019 was the start of an outbreak of coronavirus (COVID-19) in Wuhan, China. Then, at the beginning of the year 2020, this virus began to spread across the countries of the world gradually, as it appeared in all countries within only 2 months. During the spread of the coronavirus, researchers began working on this virus in different aspects and disciplines. This paper is based on a number of key factors that have been studied such as: Topic, applied method, applied database, researcher by country, and search by country. This search was applied on Scienedirect library and conducted on April 11, 2020. In this work, a focus was placed on a hundred research papers, including 899 downloaded and 11 research papers that we could not download, so this work is focused on research papers that were obtained only. As a conclusion of this work, a huge number of research papers are published in these 2 months and this research papers has been divided into four main categories: Medicine 42%, statistics 21%, healthcare 19%, and management 18%. Each of these categories also was divided into many sub-categories that related to narrow fields. Furthermore, it is clear that China settles on the top of the country in which the study was conducted and also on the top of the country to which the researcher belongs.

5. ACKNOWLEDGMENT

On this occasion, we would like to extend our sincere thanks and appreciation to the Scienedirect database that contributed to supporting the research of COVID-19 by providing research papers without fees.

REFERENCES

- [1] A. A. Jafari and S. Ghasemi. "The possible of immunotherapy for COVID-19: A systematic review". *International Immunopharmacology*, vol. 83, p. 106455, 2020.
- [2] K. Liu, Y. Chen, D. Wu, R. Lin and L. Pan. "Effects of progressive muscle relaxation on anxiety and sleep quality in patients with COVID-19". *Complementary Therapies in Clinical Practice*, vol. 39, p. 101132, 2020.
- [3] T. Xu, C. Chen, Z. Zhu, M. Cui and Y. Xue. "Clinical features and

- dynamics of viral load in imported and non-imported patients with COVID-19". *International Journal of Infectious Diseases*, vol. 94, pp. 68-71, 2020.
- [4] S. Musa. "Hepatic and gastrointestinal involvement in coronavirus disease 2019 (COVID-19): What do we know till now?" *Arab Journal of Gastroenterology*, vol. 21, no. 1, pp. 3-8, 2020.
- [5] R. Djalante, R. Shaw and A. DeWit. "Building resilience against biological hazards and pandemics: COVID-19 and its implications for the Sendai framework". *Progress in Disaster Science*, vol. 6, p. 100080, 2020.
- [6] Z. Li, J. Ge, M. Yang, J. Feng and C. Yang. "Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control". *Brain, Behavior, and Immunity*, vol. 88, pp. 916-919, 2020.
- [7] A. T. Day, D. J. Sher, R. C. Lee, J. M. Truelson and E. A. Gordin. "Head and neck oncology during the COVID-19 pandemic: Reconsidering traditional treatment paradigms in light of new surgical and other multilevel risks". *Oral Oncology*, vol. 105, p. 104684, 2020.
- [8] C. I. Wu, P. G. Postema, E. Arbelo, E. R. Behr and A. A. M. Wilde. "SARS-CoV-2, COVID-19 and inherited arrhythmia syndromes". *Heart Rhythm*, vol. 2020, p. 24, 2020.
- [9] V. López, T. Vázquez, J. Alonso-Titos, M. "Cabello and Grupo de Estudio GREAT. "Recommendations on management of the SARS-CoV-2 coronavirus pandemic (Covid-19) in kidney transplant patients". *Nefrología*, vol. 40, no. 3, pp. 265-271, 2020.
- [10] J. Chen, T. Qi, L. Liu, Y. Ling and H. Lu. "Clinical progression of patients with COVID-19 in Shanghai, China". *Journal of Infection*, vol. 80, no. 5, pp. e1-e6, 2020.
- [11] R. C. Pérez, S. Álvarez, L. Llanos, A. N. Ares and D. Díaz-Pérez. "Recomendaciones de consenso separ y aeer sobre el uso de la broncoscopia y la toma de muestras de la via respiratoria en pacientes con sospecha o con infeccion confirmada por Covid-19". *Archivos de Bronconeumología*, vol. 56, no. 2, pp. 19-26, 2020.
- [12] J. P. Escalera-Antezana, N. F. Lizon-Ferrufino, A. Maldonado-Alanoca, G. Alarcón-De-la-Vega and LANCOVID. "Clinical features of cases and a cluster of coronavirus disease 2019 (COVID-19) in Bolivia imported from Italy and Spain". *Travel Medicine and Infectious Disease*, vol. 35, p. 101653, 2020.
- [13] S. Ma, Z. Yuan, Y. Peng, J. Chen and G. Luo. "Experience and suggestion of medical practices for burns during the outbreak of COVID-19". *Burns*, vol. 46, no. 4, pp. 749-755, 2020.
- [14] L. Bai, D. Yang, X. Wang, L. Tong and F. Tan. "Chinese experts' consensus on the Internet of Things-aided diagnosis and treatment of coronavirus disease 2019 (COVID-19)". *Clinical eHealth*, vol. 3, pp. 7-15, 2020.
- [15] A. Mejean, M. Rouprêt, F. Rozet, K. Bensalah and Le Comité de Cancérologie de l'Association Française d'Urologie. "Recommandations CCAFU sur la prise en charge des cancers de l'appareil urogénital en période d'épidémie au Coronavirus COVID-19". *Progrès en Urologie*, vol. 30, no. 5, pp. 221-231, 2020.
- [16] L. S. Wang, Y. R. Wang, D. W. Ye and Q. Q. Liu. "A review of the 2019 novel coronavirus (COVID-19) based on current evidence". *International Journal of Antimicrobial Agents*, vol. 55, no. 6, p. 105948, 2020.
- [17] K. Liu, W. Zhang, Y. Yang, J. Zhang and Y. Chen. "Respiratory rehabilitation in elderly patients with COVID-19: A randomized controlled study". *Complementary Therapies*, vol. 39, p. 101166, 2020.
- [18] C. Bao, X. Liu, H. Zhang, Y. Li and J. Liu. "COVID-19 computed tomography findings: A systematic review and meta-analysis". *Journal of the American College of Radiology*, vol. 17, pp. 701-709, 2020.
- [19] A. D. Choi, S. Abbara, K. R. Branch, G. M. Feuchtner and R. Blankstein. "Society of cardiovascular computed tomography guidance for use of cardiac computed tomography amidst the COVID-19 pandemic". *Journal of Cardiovascular Computed Tomography*, vol. 14, no. 1, pp. 101-104, 2020.
- [20] P. Bansal, T. A. Bingemann, M. Greenhawt, G. Mosnaim and M. Shaker. Clinician wellness during the COVID-19 pandemic: Extraordinary times and unusual challenges for the allergist/immunologist. *The Journal of Allergy and Clinical Immunology*, vol. 8, no. 6, pp. 1781-1790, 2020.
- [21] X. Jin, B. Pang, J. Zhang, Q. Liu and B. Zhang. "Core outcome set for clinical trials on coronavirus disease 2019 (COS-COVID)". *Engineering*, vol. 1, pp. 2-6, 2020.
- [22] D. Benvenuto, M. Giovanetti, L. Vassallo, S. Angeletti and M. Ciccozzi. "Application of the ARIMA model on the COVID-2019 epidemic dataset". *Data in Brief*, vol. 29, p. 105340, 2020.
- [23] Z. Chen, H. Fan, J. Cai, Y. Li and J. Sun. "High-resolution computed tomography manifestations of COVID-19 infections in patients of different ages". *European Journal of Radiology*, vol. 126, p. 108972, 2020.
- [24] J. Yang, Y. Zheng, X. Gou, K. Pu and Y. Zhou. "Prevalence of comorbidities in the novel Wuhan coronavirus (COVID-19) infection: A systematic review and meta-analysis". *International Journal of Infectious Diseases*, vol. 94, pp. 91-95, 2020.
- [25] Q. A. Ahmed and Z. A. Memish. "The cancellation of mass gatherings (MGs)? Decision making in the time of COVID-19". *Travel Medicine and Infectious Disease*, vol. 34, p. 101631, 2020.
- [26] S. M. Schneider, V. Albert, N. Barbier, D. Barnoud and P. Déchelotte. "Adaptations de la prise en charge des patients en nutrition artificielle a domicile au cours de l'épidémie virale COVID-19 en France: Avis du comite de nutrition a domicile de la societe francophone de nutrition clinique et metabolisme (SFNCM)". *Nutrition Clinique et Métabolisme*, vol. 34, no. 2, pp. 105-107, 2020.
- [27] W. Cao, Z. Fang, G. Hou, M. Han and J. Zheng. "The psychological impact of the COVID-19 epidemic on college students in China". *Psychiatry Research*, vol. 287, p. 112934, 2020.
- [28] S. S. Jean, P. I. Lee and P. R. Hsueh. "Treatment options for COVID-19: The reality and challenges". *Journal of Microbiology, Immunology and Infection*, vol. 53, no. 3, pp. 436-443, 2020.
- [29] C. A. Devaux, J. M. Rolain, P. Colson and D. Raoult. "New insights on the antiviral effects of chloroquine against coronavirus: What to expect for COVID-19?" *International Journal of Antimicrobial Agents*, vol. 55, no. 5, p. 105938, 2020.
- [30] A. Viswanath and P. Monga. "Working through the COVID-19 outbreak: Rapid review and recommendations for MSK and allied health personnel". *Journal of Clinical Orthopaedics and Trauma*, vol. 11, no. 3, pp. 500-503, 2020.
- [31] X. Yin, L. Dong, Y. Zhang, W. Bian and H. Li. "A mild type of childhood Covid-19 a case report". *Radiology of Infectious Diseases*, in press, 2020.
- [32] S. C. Cheng, Y. C. Chang, Y. L. Fan Chiang, Y. C. Chien and Y. N. Hsu. "First case of coronavirus disease 2019 (COVID-19) pneumonia in Taiwan". *Journal of the Formosan Medical Association*, vol. 119, no. 3, pp. 747-751, 2020.
- [33] Q. Lin, S. Zhao, D. Gao, Y. Lou and D. He. "A conceptual model for the coronavirus disease 2019 (COVID-19) outbreak in

- Wuhan, China with individual reaction and governmental action". *International Journal of Infectious Diseases*, vol. 93, pp. 211-216, 2020.
- [34] K. Liu, Y. Chen, R. Lin and K. Han. "Clinical features of COVID-19 in elderly patients: A comparison with young and middle-aged patients". *Journal of Infection*, vol. 80, no. 6, pp. e14-e18, 2020.
- [35] P. Gautret, J. C. Lagier, P. Parola, V. T. Hoang and D. Raoult. "Hydroxychloroquine and azithromycin as a treatment of COVID-19: Results of an open-label non-randomized clinical trial". *International Journal of Antimicrobial Agents*, vol. 56, no. 1. p. 105949, 2020.
- [36] D. Wu and X. O. Yang. "TH17 responses in cytokine storm of COVID-19: An emerging target of JAK2 inhibitor Fedratinib". *Journal of Microbiology, Immunology and Infection*, vol. 53, no. 3. pp. 368-370, 2020.
- [37] P. Amariles, M. Ledezma-Morales, A. Salazar-Ospina and J. A. Hincapié-García. "How to link patients with suspicious COVID-19 to health system from the community pharmacies? A route proposal". *Research in Social and Administrative Pharmacy*, vol. 23, pp. 30248-30249, 2020.
- [38] W. H. Huang, L. C. Teng, T. K. Yeh, Y. J. Chen and P. Y. Liu. "2019 novel coronavirus disease (COVID-19) in Taiwan: Reports of two cases from Wuhan, China". *Journal of Microbiology, Immunology and Infection*, vol. 53, no. 3, pp. 481-484, 2020.
- [39] J. A. Tetro. "Is COVID-19 receiving ADE from other corona viruses"? *Microbes and Infection*, vol. 22, pp. 72-73, 2020.
- [40] L. Ferguson and D. Barham. "Palliative care pandemic pack: A specialist palliative care service response to planning the COVID-19 pandemic". *Journal of Pain and Symptom Management*, vol. 60, no. 1, pp. e18-e20, 2020.
- [41] M. T. ul Qamar, S. M. Alqahtani, M. A. Alamri and L. L. Chen. "Structural basis of SARS-CoV-2 3CLpro and anti-COVID-19 drug discovery from medicinal plants". *Journal of Pharmaceutical Analysis*, vol. 1, pp. 1-9, 2020.
- [42] W. Ying, Y. Qian and Z. Kun. "Drugs supply and pharmaceutical care management practices at a designated hospital during the COVID-19 epidemic". *Research in Social and Administrative Pharmacy*, vol. 1, pp. 1-4, 2020.
- [43] A. Nahama, R. Ramachandran, A. F. Cisternas and H. Ji. "The role of afferent pulmonary innervation in poor prognosis of acute respiratory distress syndrome in COVID-19 patients and proposed use of resiniferatoxin (RTX) to improve patient outcomes in advanced disease state: A review". *Medicine in Drug Discovery*, vol. 5, p. 100033, 2020.
- [44] W. C. Roda, M. B. Varughese, D. Han and M. Y. Li. "Why is it difficult to accurately predict the COVID-19 epidemic"? *Infectious Disease Modelling*, vol. 5, pp. 271-281, 2020.
- [45] N. Y. Lee, C. W. Li, H. P. Tsai, P. L. Chen and W. C. Ko. "A case of COVID-19 and pneumonia returning from Macau in Taiwan: Clinical course and anti-SARS-CoV-2 IgG dynamic". *Journal of Microbiology, Immunology and Infection*, vol. 53, no. 3, pp. 485-487, 2020.
- [46] K. Prem, Y. Liu, T. W. Russell, A. J. Kucharski and P. Klepac. "The effect of control strategies to reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China: A modelling study". *The Lancet*, vol. 1, pp. 1-6, 2020.
- [47] P. Dashraath, W. J. L. Jeslyn, L. M. X. Karen, L. L. Min and S. L. Lin. "Coronavirus disease 2019 (COVID-19) pandemic and pregnancy". *American Journal of Obstetrics and Gynecology*, vol. 222, no. 6, pp. 521-531, 2020.
- [48] J. J. Tuech, A. Gangloff, F. Di Fiore, P. Michel and L. Schwarz. "Strategy for the practice of digestive and oncological surgery during the Covid-19 epidemic". *Journal of Visceral Surgery*, vol. 157, pp. S7-S12, 2020.
- [49] M. Y. Yen, J. Schwartz, S. Y. Chen, C. C. King and P. R. Hsueh. "Interrupting COVID-19 transmission by implementing enhanced traffic control bundling: Implications for global prevention and control efforts". *Journal of Microbiology, Immunology and Infection*, vol. 53, no. 3, pp. 377-380, 2020.
- [50] C. Guerci, A. Maffioli, A. A. Bondurri, L. Ferrario and P. Danelli. "Covid-19: How can a department of general surgery survive to a pandemic? *Surgery*, vol. 167, no. 6, pp. 909-911, 2020.
- [51] E. Driggin, M. V. Madhavan, B. Bikdeli, T. Chuich and S. A. Parikh. "Cardiovascular considerations for patients, health care workers, and health systems during the coronavirus disease 2019 (COVID-19) pandemic". *Journal of the American College of Cardiology*, vol. 75, no. 18, pp. 2352-2371, 2020.
- [52] Y. Cheng, R. Luo, K. Wang, M. Zhang and G. Xu. "Kidney disease is associated with in-hospital death of patients with COVID-19". *Kidney International*, vol. 97, no. 5, pp. 829-838, 2020.
- [53] D. Ivanov. "Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case". *Transportation Research Part E: Logistics and Transportation Review*, vol. 136, p. 101922, 2020.
- [54] S. Sun, K. Yu, Z. Xie and X. Pan. "China empowers Internet hospital to fight against COVID-19". *Journal of Infection*, vol. 81, no. 1, pp. e67-e68, 2020.
- [55] L. Li, Z. Yang, Z. Dang, C. Meng and Y. Shao. "Propagation analysis and prediction of the COVID-19". *Infectious Disease Modelling*, vol. 5, pp. 282-292, 2020.
- [56] C. C. Lai, T. P. Shih, W. C. Ko, H. J. Tang and P. R. Hsueh. "Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges". *International Journal of Antimicrobial Agents*, vol. 55, no. 3, 105924, 2020.
- [57] W. Tan and J. Aboulhosn. "The cardiovascular burden of coronavirus disease 2019 (COVID-19) with a focus on congenital heart disease". *International Journal of Cardiology*, vol. 309, pp. 70-77, 2020.
- [58] S. Zhao, K. Ling, H. Yan, L. Zhong and X. Chen. "Anesthetic management of patients with COVID 19 infections during emergency procedures". *Journal of Cardiothoracic and Vascular Anesthesia*, vol. 34, no. 5, pp. 1125-1131, 2020.
- [59] X. Hong, J. Xiong, Z. Feng and Y. Shi. "Extracorporeal membrane oxygenation (ECMO): Does it have a role in the treatment of severe COVID-19"? *International Journal of Infectious Diseases*, vol. 94, pp. 78-80, 2020.
- [60] K. Xu, X. Lai and L. Zheng. "Suggestions on the prevention of COVID-19 for health care workers in department of otorhinolaryngology head and neck surgery". *World Journal of Otorhinolaryngology Head and Neck Surgery*, vol. 1, pp. 1-3, 2020.
- [61] Z. Song, Y. Hu, S. Zheng, L. Yang and R. Zhao. "Hospital pharmacists' pharmaceutical care for hospitalized patients with COVID-19: Recommendations and guidance from clinical experience". *Research in Social and Administrative Pharmacy*, vol. 1, pp. 1-27, 2020.
- [62] M. Guckenberger, C. Belka, A. Bezjak, J. Bradley and D. Palma. "Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic: An ESTRO-ASTRO consensus statement".

- Radiotherapy and Oncology*, vol. 146, pp. 223-229, 2020.
- [63] R. M. Viner, S. J. Russell, H. Croker, J. Packer and R. Booy. "School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review". *The Lancet Child and Adolescent Health*, vol. 1, pp. 1-16, 2020.
- [64] K. Chatterjee, K. Chatterjee, A. Kumar and S. Shankar. "Healthcare impact of COVID-19 epidemic in India: A stochastic mathematical model". *Medical Journal Armed Forces India*, vol. 76, pp. 147-155, 2020.
- [65] P. Lomoro, F. Verde, F. Zerboni, I. Simonetti and A. Martegani. "COVID-19 pneumonia manifestations at the admission on chest ultrasound, radiographs, and CT: single-center study and comprehensive radiologic literature review". *European Journal of Radiology Open*, vol. 7, p. 100231, 2020.
- [66] G. D. Rubin, C. J. Ryerson, L. B. Haramati, N. Sverzellati and A. N. Leung. "The Role of chest imaging in patient management during the COVID-19 pandemic: A multinational consensus statement from the fleischner society". *Chest*, vol. 158, pp. 106-116, 2020.
- [67] A. Alharbi, S. Alharbi and S. Alqaidi. "Guidelines for dental care provision during the COVID-19 pandemic". *The Saudi Dental Journal*, vol. 32, pp. 181-186, 2020.
- [68] T. Zhang, Q. Wu and Z. Zhang. "Probable pangolin origin of SARS-CoV-2 associated with the COVID-19 outbreak". *Current Biology*, vol. 30, no. 76, pp. 1346-1351, 2020.
- [69] R. Darlenski and N. Tsankov. "Covid-19 pandemic and the skin what should dermatologists know"? *Clinics in Dermatology*, in press, 2020.
- [70] J. Chen, C. Hu, L. Chen, L. Tang and L. Li. "Clinical study of mesenchymal stem cell treatment for acute respiratory distress syndrome induced by epidemic influenza a (H7N9) infection: A hint for COVID-19 treatment". *Engineering*, vol. 1, pp. 1-6, 2020.
- [71] O. M. Murray, J. M. Bisset, P. J. Gilligan, M. M. Hannan and J. G. Murray. "Respirators and surgical facemasks for COVID-19: Implications for MRI". *Clinical Radiology*, vol. 75, no. 6, pp. 405-407, 2020.
- [72] S. X. Zhang, Y. Wang, A. Rauch and F. Wei. "Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak". *Psychiatry Research*, vol. 288, p. 112958, 2020.
- [73] A. Indini, C. Aschele, D. Bruno, L. Cavanna and F. Grossi. "Reorganization of medical oncology departments during COVID-19 pandemic: A nationwide Italian survey". *European Journal of Cancer*, vol. 132, pp. 17-32, 2020.
- [74] D. Praveen, P. R. Chowdary and M. V. Aanandhi. "Baricitinib a janus kinase inhibitor not an ideal option for management of covid 19". *International Journal of Antimicrobial Agents*, vol. 55, no. 5, p. 105967, 2020.
- [75] S. W. Kim and K. P. Su. "Using psychoneuroimmunity against COVID-19". *Brain, Behavior, and Immunity*, vol. 87, pp. 4-5, 2020.
- [76] R. Gupta and A. Misra. "Contentious issues and evolving concepts in the clinical presentation and management of patients with COVID-19 infection with reference to use of therapeutic and other drugs used in Co-morbid diseases (hypertension, diabetes etc)". *Diabetes and Metabolic Syndrome*, vol. 14, no. 3, pp. 251-254.
- [77] H. L. Wu, J. Huang, C. J. P. Zhang, Z. He and W. K. Ming. "Facemask shortage and the novel coronavirus disease (COVID-19) outbreak: Reflections on public health measures". *EClinicalMedicine*, vol. 21, p. 100329, 2020.
- [78] R. C. Boelig, G. Saccone, F. Bellussi and V. Berghella. "MFM guidance for COVID-19". *American Journal of Obstetrics and Gynecology*, vol. 2, no. 2, p. 100106, 2020.
- [79] A. Wilder-Smith, C. J. Chiew and V. J. Lee. "Can we contain the COVID-19 outbreak with the same measures as for SARS"? *The Lancet Infectious Diseases*, vol. 1, pp. 1-10, 2020.
- [80] T. Lyu, L. Song, L. Jin, Y. Zou and Interventional Oncology Branch of China Anti-Cancer Association. "Expert consensus on the procedure of interventional diagnosis and treatment of cancer patients during the COVID-19 epidemic". *Journal of Interventional Medicine*, vol. 3, no. 2, pp. 61-64, 2020.
- [81] S. Zhang, M. Diao, W. Yu, L. Pei and D. Chen. "Estimation of the reproductive number of novel coronavirus (COVID-19) and the probable outbreak size on the Diamond Princess cruise ship: A data-driven analysis". *International Journal of Infectious Diseases*, vol. 93, pp. 201-204, 2020.
- [82] C. S. Guan, Z. B. Lv, S. Yan, Y. N. Du and B. D. Chen. "Imaging features of coronavirus disease 2019 (COVID-19): Evaluation on thin-section CT". *Academic Radiology*, vol. 27, no. 5, pp. 609-613, 2020.
- [83] R. Thibault, D. Quilliot, P. Seguin, F. Tamion and P. Déchelotte. "Stratégie de prise en charge nutritionnelle à l'hôpital au cours de l'épidémie virale Covid-19: Avis d'experts de la société francophone de nutrition clinique et métabolisme (SFNCM)". *Nutrition Clinique et Métabolisme*, vol. 34, no. 2, pp. 97-104, 2020.
- [84] C. Long, H. Xu, Q. Shen, X. Zhang and H. Li. "Diagnosis of the coronavirus disease (COVID-19): rRT-PCR or CT"? *European Journal of Radiology*, vol. 126, p. 108961, 2020.
- [85] S. M. Metcalfe. "Mesenchymal stem cells and management of COVID-19 pneumonia". *Medicine in Drug Discovery*, vol. 5, p. 100019, 2020.
- [86] M. Cheema, H. Aghazadeh, S. Nazarali, A. Ting and C. Solarte. "Keratoconjunctivitis as the initial medical presentation of the novel coronavirus disease 2019 (COVID-19): A case report". *Canadian Journal of Ophthalmology*, vol. 1, pp. 1-7, 2020.
- [87] R. R. Carico, J. Sheppard and C. B. Thomas. "Community pharmacists and communication in the time of COVID-19: Applying the health belief model". *Research in Social and Administrative Pharmacy*, vol. 1, pp. 1-11, 2020.
- [88] N. Yu, W. Li, Q. Kang, Z. Xiong, W. M. E. El Zowalaty and J. D. Järhult. "From SARS to COVID-19: A previously unknown SARS related coronavirus (SARS-CoV-2) of pandemic potential infecting humans call for a one health approach". *One Health*, vol. 9, p. 100124, 2020.
- [89] N. Yu, W. Li, Q. Kang, Z. Xiong, S. Wang, X. Lin, Y. Liu, J. Xiao, H. Liu, D. Deng, S. Chen, W. Zeng, L. Feng and J. Wu. "Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: A retrospective, single-center, descriptive study". *The Lancet Infectious Diseases*, vol. 1, pp. 1-6, 2020.