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Against Covid-19 Pandemic: Bibliometric Assessment of World Scholars' International Publications related to Coronavirus Disease 2019

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Abstract
This article focuses on sharing information and knowledge in the form of scholars' academic communication about the Covid-19 epidemic in international publications. The data was collected from search results in the Scopus database from December 2019 to March 2020. Through the bibliometric assessment method, the survey shows that there are 1475 publications on Covid-19. There are 1104 publications (75%) that can be accessed. Although Covid-19 has started about four months since the first case in Hubei China (11/17/20), scholars are making a research program and publish their findings in order to share information and knowledge in dealing with the pandemic. The sharing information is theoretically a form of world scholarly academic communication activities. Therefore, open access publications can help scholars to easily communicate and share information about their findings. This then affects the number of publications and citations with the capacity of research institutions, sponsors, and countries. This article recommends as broad as possible to provide open access in the midst of disaster situations in order to handle Covid-19 pandemic faster and easier.
Keywords: Sharing information, communication, publication, Covid-19, Scopus

Introduction

Since the end of 2019, the world has been shocked by the spread of a new virus called coronavirus. WHO has designated it a global pandemic and called it Covid-19 (coronavirus disease 2019) (WHO, 2020). Previously, scholars had named it 2019-nCOV and the novel coronavirus pneumonia (NCP) (C.W. Lu et al., 2020; Xu Y.H. et al. 2020). By the end of April 2020, Covid-19 had spread in 213 countries with 2,639,026 cases, 722,171 people recovered, and 184,263 died (world meters, 2020). In Indonesia alone, the number of those infected has reached 7,418 people, 913 people recovered, and 635 died (https://www.covid19.go.id/) per April 23, 2020 at 06: 17 GMT.

Countries in the world are competing to break the chain of the spread of Covid-19. Some countries end up making physical and social distancing efforts (Wilder-Smith and Freedman, 2020), which have previously been applied in several similar cases (Ahmed, et.al. 2018; Glass, et.al. 2006; Caley, et.al 2008). Some of them even impose lockdowns, the total halt of activity in public spaces by closing transportation access and entry and exit points of cities or countries (Lin Q. et.al. 2010; Roosa K., et.al. 2020). All countries in the world mobilize large funds, especially in the health sector, to prevent its

spread. Not only for the purchase of medical devices such as masks, hand sanitizers, personal protective equipment, rapid tests devices, medicines, but also to finance hospitals and laboratories to conduct research (Zhang L., Liu Y., 2020).

Currently, all scholars worldwide, especially the virologists, are busy doing research to find the right vaccine. In addition, scholars in each country also try to share information on the results of their research through international publications. Sharing information and knowledge is a form of academic communication activities undertaken by scholars relating to various Covid-19 treatments such as prevention so as not to spread (Moorthy V. et.al., 2020), dissemination patterns (Xu Y. et.al. 2020), handling specifically infected patients with elderly patients (Elston DM 2020), the use of digital technology (Razai MS et.al 2020), minimizing the economic, political and national security impact (Gallego V. et.al. 2020) and others.

Nevertheless, there is no description of academic communication maps conducted by these scholars through international publications against Covid-19 until the time this article was written (December 2019-March 2020). Whereas the distribution of international publications by scholars is important to know how fast and serious world scholars are in sharing information and knowledge about Covid-19.

This article focuses on the academic communication of scholars throughout the world in sharing knowledge and information about the Covid-19 pandemic through international publications. Data was collected from search results in the Scopus database in the period published in December 2019-March 2020. This study uses a theory which states that sharing information and knowledge is one form of communication activities (Savolainen, 2017).

This study is important to know the communication of scholars in various parts of the world in sharing information and knowledge related to Covid-19 through international publications since the outbreak of the pandemic. This is to show how quickly the response of scholars in the world to Covid-19 since the first case was detected on 17 November 2019 in Hubei, China. Who was the first scholar to publish the results of his research on Covid-19? Which work was the most cited? Which institutions and countries have published the most research results to date?

This study is important to be taken into consideration in the field of research in each country as part of the contribution of scholars who are academically communicated about the outbreak of the Covid-19 pandemic. For Indonesian scholars, the study is expected to be a picture of how much Indonesian scholars have contributed to the pandemic. As the fourth largest population in the world and still struggling against Covid-19, scholars from all disciplines are expected to be able to contribute to this pandemic issue for the advancement of science in the world.

Not many scholars have mapped the distribution of international publications related to Covid-19 compared to studies of vaccines and the handling of Covid-19 patients. Xiang et al. for example, has briefly described several papers that were timely published when the outbreak of the Covid-19 pandemic began but was limited in China. In addition, many scholars have compared international publications about previous outbreaks of viruses such as SARS, H5 N1, MERS, and others. Scholars have examined the importance of sharing data and information in the midst of public health emergencies (Dye, C. et.al. 2016; Modjarrad et.al. 2016; Whitty, et.al. 2015). Therefore, this survey of international publications related to Covid-19 is expected to also be able to illustrate the academic communication of scholars who are fast and timely in sharing data and information related to the Covid-19 pandemic in international publications.

While several studies using the bibliometrics method with a database of international indexing engines such as Scopus and Web of Science have been carried out for several purposes. Some scholars use bibliometrics to study scholarly publications in the context of international research collaboration (Hanumappa et.al. 2015; Darmadji et.al, 2018), trends in specific scientific publication themes, most productive writers, articles with the most citations and the highest impact (Manh, 2015; Etxebarria & Gomez-Uranga, 2010; Nederhof, 2006; Siwach & Satish Kumar, 2015). Therefore, this article examines the number of publications, open access, the most citations, the most dominant keywords in the information traffic Covid-19, scholars, institutions, and countries most productive in publishing international publications related to the pandemic.

Theoretical Framework

In the broadest sense, communication can be understood as a process of exchanging information, ideas, and feelings, both oral and written (Hybels and Weafer, 1992: 6). The information exchange process is part of technology related to the representation,

transfer, interpretation, and processing of data (Carey, 1989). Scholars, for example, communicate through technology-based information exchange in international publications that can be accessed online all over the world. The exchange of information is a form of knowledge sharing among the academic community, which is demonstrated in open access, use of resources, and citation.

Information and knowledge sharing activities can be explained in the context of relationships between works. As a communication activity, the activity becomes more complicated because of the focus of various works changes related to various interpretations of information and knowledge (Savolainen, 2017). Therefore, sharing information and knowledge represents communication activities from the perspective of the transmission of the academic community. The activity is seen in sending information to the recipient, transferring knowledge, and providing information and knowledge carried out by world scholars virtually through international publications based on Scopus indexing (Berends et al. 2006; Hersberger, et.al. 2007).

In this study, the exchange of information and knowledge occurred along with the Covid-19 pandemic disaster in the world, thus allowing scholars to immediately share information and knowledge through international publications. One of these things can be observed by conducting a survey of publications through the Scopus indexing machine using the bibliometric assessment method.

Material and Methodology

This study uses the bibliometrics method with four stages: keyword determination, search, article selection, data validation, and data analysis. This study uses data from international publications about Covid-19 in the world sourced from the Scopus database (www.scopus.com) taken on March 22, 2019. Data collection through the publication of Scopus publications with the key combination Coronavirus or Covid-19 with the categories article title, abstract, keywords in the period December 2019 March 2020. The period is determined considering the Covid-19 case began to get undergraduate attention starting in December 2019 after it was first detected in Hubei, China, on November 17, 2019. Data in the form of the number of publications, types of publications, core journals, the openness of access, citations, theme maps, authors, author affiliations, country of origin, and funders were analyzed using Microsoft Excel 2010. Meanwhile, citation and theme maps of international publications were analyzed using VOSViewer software.

Results and Discussion

Growth of International Publications related to Covid-19

The results of searching the data with the coronavirus or Covid-19 combination keywords found data of 1475 publications (see Figure 1) with details; December 2019 as many as 801 publications (54.3%) and January-March 2020 as many as 674 publications (45.7%). The number of international publications during the first three months of 2020 is no more than in December 2019, given the case of Covid-19, and its handling in various countries has begun to be known by scholars. This is different when new scholars detect the presence of Covid-19 in Hubei, China in December 2019. Scholars immediately conduct research and seem to compete with time to share information and knowledge through the publication of their findings in international journals. It is likely that the data will continue to grow as the spread of Covid-19 cases continues to a number of other countries in the world, although in their home country, China, the number of infected cases has drastically reduced.

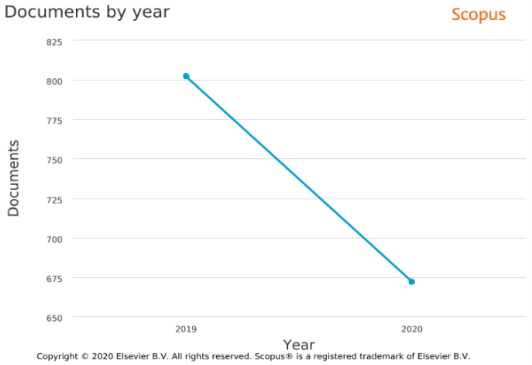

Figure 1: International Publications Covid-19
Source: Scopus.com

Types of International Publications Covid-19

Furthermore, from a total of 1475 international publications on Covid-19 in the world during December 2019-March 2020, it was found that these publications were published in several types of international publications. The types of publications of international journal articles top the number of 975 articles (66.1%), 167 reviews (11.3%), 112 notes (7.6%), 93 editorials (6.3%), 75 letters (5.1%), 20 book chapter (1.4%) and the rest are from various types of publications as shown in Figure 2 and Table 1.

This shows that journal articles dominate international publications as a means of academic communication among world scholars in sharing information and knowledge about Covid-19. International journals being the choice of the majority of world scholars may be based on several reasons, including the speed of publication, focus and scope of journals in specific scientific fields, peer review in the same scientific field, the openness of access, breadth of access and the number of pages that are not much. Because of these considerations, scholars then chose to use international journals for various information and knowledge as a form of academic communication activities in the midst of the Covid-19 pandemic.

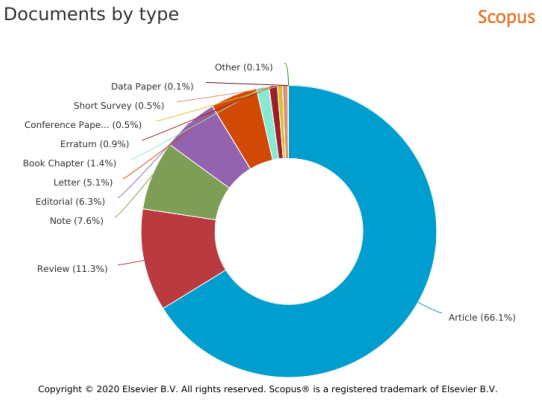

Figure 2: Types of International Publications
Source: Scopus.com

Tabel 1: Amount Detail of the Types of International Publications

Document Type	Total
Article	975
Review	167
Note	112
Editorial	93
Letter	75
Book Chapter	20
Erratum	14
Conference Paper	8
Short Survey	8
Data Paper	1
Undefined	1

Open Access, Information Sharing, and Response Speed

In addition to the diverse types of international publications used by scholars to share information about Covid-19, of the 1475 publications, 1104 publications (75%) were open access. That is, 1104 publications can be read and downloaded freely by world scholars. The lack of access to 1104 publications made it easier for scholars to share information and knowledge about Covid-19. It can be understood if later publications on Covid-19 run quickly because scholars can easily carry out

communication activities by downloading, reading, and citing previous publications.

In addition, the majority of open access publications may also have an impact on the speed of communication and information about Covid-19 among scholars in the world. Therefore, open access greatly influences the handling of Covid-19 in various countries. This is evidenced by several articles written by scholars about the origin and evolution of Covid-19 (Cui J. et.al. 2019) and the handling of Covid-19 patients in Wuhan, China (Huang C. et.al. 2020) which turned out to be the most widely accessed and cited publication by other scholars. This may then be used as important information in handling Covid-19 in their respective countries. Therefore, the great openness of access to publications greatly facilitates scholars in sharing information and knowledge as a form of academic communication through these international publications.

As proof of the amount of access to the previous publication, it appears in the first article that was published and then cited by other articles that were published afterward. The first article was written by Cui J., Li F. and Shi Z.L. (2019) entitled *"Origin and evolution of pathogenic coronaviruses,"* which was published in the Journal of Nature Reviews Microbiology in December 2019. The number of citations was 42. While the most citations in 2020 with 135 citations were articles written by Huang C. et.al (2020) entitled *"Clinical features of patients infected with 2019 coronavirus novels in Wuhan, China"* published in the journal The Lancet, Vol. 395, No. 10223. This shows that the speed of scholars in sharing information and knowledge in international publications became an important means in the traffic of academic communication in the world. This will then have an impact on the speed of handling Covid-19 by the government, one of which depends on the findings of these scholars.

Meanwhile, the publication that published the most articles about Covid-19 was the journal Viruses with a total of 74 publications (5%). A journal managed by a combination of various world virology associations with 3,811 impact factors. The publisher is MDPI based in Basel, Switzerland. However, although 75% of the publications are easily accessible, unfortunately, there are still 370 publications (25%) which were closed access and cannot be freely accessed.

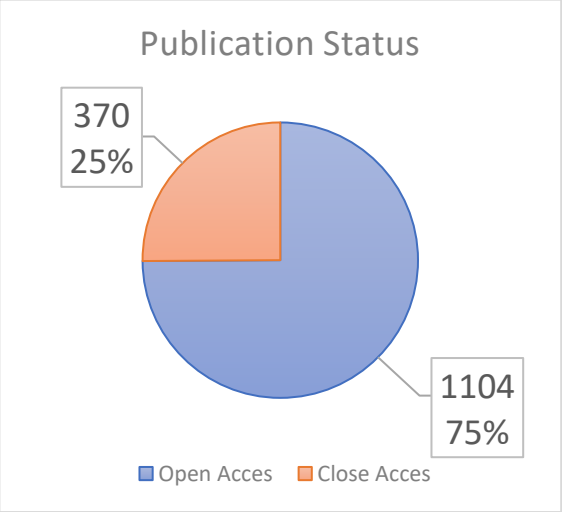

Figure 3: Status of Publications

Core Journals of International Publications Covid-19

In addition to the total number of publications, open access, and journals, search results found that there were several core journals where scholars published their work on Covid-19 in general dominated by journals focused in the field of virology, as explained in Table 2. Some journals such as Viruses and Virology was chosen by scholars to immediately publish the results of its research in December 2019 when the Covid-19 case began to spread.

The Viruses Journal is published by MDPI based in Basel, Switzerland. This Q1 journal has an impact factor 1.81 with h-index 59, one of the prestigious journals among virus experts. While the journal Virology is published by Elsevier based in the United States. This Q2 journal has an impact factor 1.64 with h-index 162 (www.scimagojr.com). Therefore, the scholars in the world take a moment

to immediately publish the results of their research in these reputed international journals, even though the publication of Covid-19 in both journals slowly then decreases between January-March 2020. In addition to being aware of the reputation of the two journals, scholars also realize the importance of sharing information and knowledge as soon as possible through appropriate journals in accordance with the scientific field occupied, review by colleagues who are experts in their fields, which are recognized internationally.

As the most widely published journal on Covid-19, 74 articles, the Viruses journal began by loading a total of 61 articles from world scholars in December 2019, a fantastic number, although it later dropped sharply in 2020 because it only published 13 articles between January -March 2020. Although it decreased in 2020, the journal Viruses and Virology certainly recorded the most citations in the publication of articles about Covid-19 as scholars will always refer to the earliest articles published in both journals. Therefore, the number of citations published in the two journals shows their contribution to the efforts of scholars in various information and knowledge as a form of academic communication to quickly find the vaccine and prevent its widespread distribution.

In addition to these two reputable international journals, another journal which also recorded the highest number of publications in the third place was the Journal of Virology, although it later decreased in 2020. Initially, in 2019, it had published 28 articles, then dropped and published 11 articles between January-March 2020 The Journal of Virology as the highest international journal index (271) is published by the American Society of Microbiology with Q1 impact factor 2.59.

While other journals which originally did not publish articles on Covid-19 in December 2019, gradually began to publish them between January-March 2020 consistently. The Lancet Journal, for example, as the second-largest in international publications in the form of journals, initially did not publish a single article in 2019, but then surged and moved quickly in 2020 by 50 articles. The same thing is also seen in the Journal of Medical Virology, which ranks fourth, amounting to 35 articles. In 2019 it published as many as 11 articles, then the number rose to 24 articles between January-March 2020. This journal was published by John Wiley & Sons Inc. with h-index 105 and Q2 impact factor 0.97.

This shows that scholars consider the core journals where they publish their research results to share information and knowledge about Covid-19 with other scholars in the world. Only core journals of international repute in the field of viruses and microbiology are targeted for publication because these journals are well known among international virus experts, making it easier for scholars to establish effective communication related to Covid-19.

Table 2: Amount of Publications of the Core Journals

Source Title	Total
Viruses	74
Lancet	50
Journal Of Virology	39
Journal Of Medical Virology	35
BMJ Clinical Research Ed	31
Emerging Microbes And Infections	23
Travel Medicine And Infectious Disease	23
Nature	22
Veterinary Microbiology	21
Emerging Infectious Diseases	20
Virology	20
Euro Surveillance Bulletin Europeen Sur Les Maladies Transmissibles European Communicable Disease Bulletin	18
Transboundary And Emerging Diseases	18
Plus One	17
BMJ	15

The Most Productive Scholars in International Publications Covid-19

From around 1000 scholars in the world who also published the results of their research on COVID-19 in international publications during December 2019-March 2020, there are several names of scholars who are in the top ten, namely Z.A. Memish, E. Mahase, J.A. Al-Tawfiq, C. Drosten, E.I. Azhar, A. Zumla, B.J. Bosch, L. Fang, B.L. Haagmans and G. Peng, as shown in Figure 4 and Table 3.

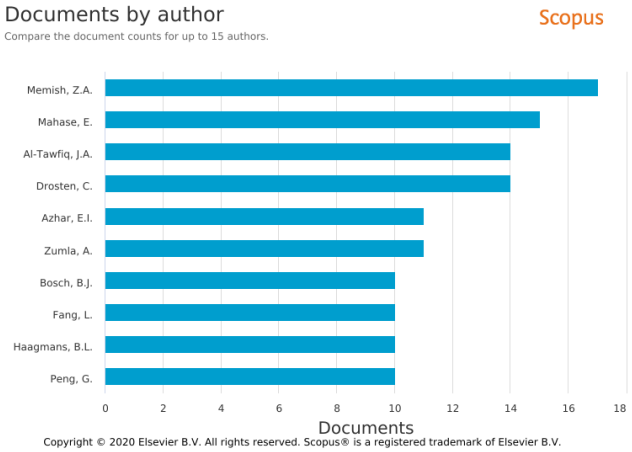

Figure 4: The Most Productive authors
Source: Scopus.com

The most productive scholar writing about Covid-19 is Z.A. Memish, with 17 publications (1.15%), a professor from Alfaisal University, Riyadh. He currently serves as Deputy Minister of Health in Saudi Arabia. While in second place with 15 publications (1%) is occupied by Elisabeth Mahase, a clinical news reporter for the British Medical Journal (BMJ) based in the UK. The third-place author with 14 publications is Al-Tawfiq. He comes from the Specialty Internal Medicine and Quality Department, Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia. He is also an alumnus of Indiana University School of Medicine. In fourth place with 14 publications, there is the name of a European scholar, C. Drosten from Charité - Universitätsmedizin Berlin Institute of Virology, Germany and the German Center for Infection Research (DZIF) Berlin, Germany. In fifth place with 11 publications, was again, a scholar from Saudi Arabia, E.I. Azhar. He works at the Special Infectious Agents Unit, King Fahd Medical Research Center and, Department of Medical Laboratory Technology, Faculty of Applied Medical Sciences, King Abdulaziz University, Jeddah, Saudi Arabia.

The most productive scholars share information and knowledge through international publications about Covid-19 dominated by Saudi Arabian scholars. While the other two are European scholars from England and Germany who are second. This shows that Saudi Arabian scholars seem to be responding quickly and productively to the development of studies of new viruses such as Covid-19 compared to other countries, even compared to China itself as the source of Covid-19 origin. In addition to the productivity of the author who is an expert and experienced in the field of viruses in the international world, this may be related to the position of Saudi Arabian scholars who have an interest in the Saudi Arabian government policy regarding his experience in dealing with the spread of the virus in the world which has a major impact on tourist visits to the holy sites Mecca-Medina, such as cases of Meningitis virus, SARS, MERS and others (Farrag et.al. 2019; Hoang et.al 2020). So that Covid-19 which began to be detected since November 2019 was immediately responded by Saudi Arabian scholars who then impacted the cessation of visits to the two holy cities since February 2020.

Table 3: Authors and the number of Documents

Author Name	Total
Memish, Z.A.	17

Mahase, E.	15
Al-Tawfiq, J.A.	14
Drosten, C.	14
Azhar, E.I.	11
Zumla, A.	11
Bosch, B.J.	10
Fang, L.	10
Haagmans, B.L.	10
Peng, G.	10
Wang, L.F.	10
Gerber, S.I.	9
Shi, Z.L.	9
Xiao, S.	9
Anderson, D.E.	8

The Most Productive Affiliation

Although the most productive writers are dominated by Saudi and European scholars, judging from the six major institutional affiliations, the total accumulation of international publications on Covid-19 during December 2019-March 2020 was actually occupied by scholars from The University of Hong Kong with 44 publications (2.98%) as shown in figure 5 and table 4. Likewise in the third to sixth places, occupied by institutions from Hong Kong and China, namely the Chinese Academy of Sciences with 34 publications, Chinese Academy of Agricultural Sciences 32 publications, South China Agricultural University 26 publications and The University of Hong Kong Li Ka Shing Faculty of Medicine 26 publications. Only one institution from Saudi Arabia, the Ministry of Health of Saudi Arabia, came in second with 39 publications. These institutions are generally dominated by universities in the fields of science and health.

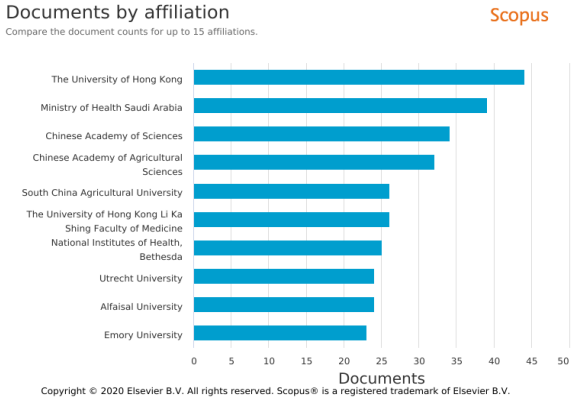

Figure 5: Affiliation by the Number of Documents
Source: Scopus.com

This shows that institutions in China are very serious about contributing to conducting research quickly through their scholars in handling Covid-19. China was the first source of the emergence of the new virus, so the Chinese government mobilized all its strength to immediately deal with Covid-19, especially since it was first detected in Hubei China. The speed of Chinese scholars is not only demonstrated by the first article published about Covid-19 born of Chinese scholars, but also the dominance of research institutions that shelter it to produce as much research as possible as a form of academic education with world scholars.

The productivity of international publications by the Chinese research institutes would be directly correlated with the handling of Covid-19 in the country. After about three months (December 2019-February 2020), China finally succeeded in reducing the Covid-19 positive rate significantly, including an increase in the number of patients who recovered and

the reduction in patients who died. This is very much different from Italy as the country with the highest number of deaths in the world due to Covid-19. Not too many scholars have contributed to publishing their study of Covid-19 compared to China, Saudi Arabia, the United States, and other European countries.

Table 4: Affiliation and Number of Documents

Affiliation	Total
The University of Hong Kong	44
Ministry of Health Saudi Arabia	39
Chinese Academy of Sciences	34
Chinese Academy of Agricultural Sciences	32
South China Agricultural University	26
The University of Hong Kong Li Ka Shing Faculty of Medicine	26
National Institutes of Health, Bethesda	25
Utrecht University	24
Alfaisal University	24
Emory University	23
King Abdulaziz University	23
King Saud University	23
Wuhan Institute of Virology Chinese Academy of Sciences	22
Erasmus MC	22
Zhejiang University	21

Document by Country

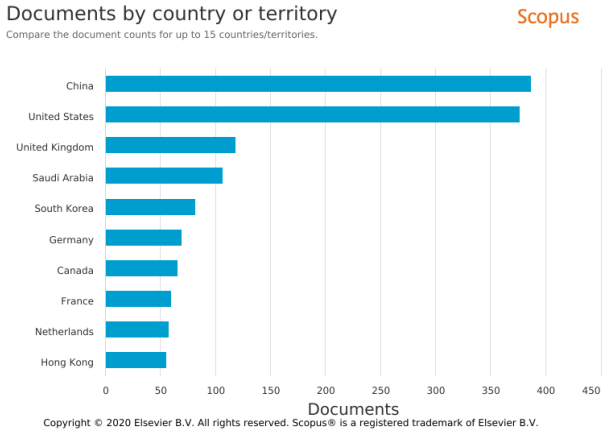

Figure 6: Country by Documents
Source: Scopus.com

Not only are the institutions of scholars origin dominated by institutions from China, but also the country of origin of scholars is also dominated by China. This can be understood because the Chinese government and scholars realize the importance of immediately solving Covid-19 originating from their own country and sharing information on the results of their research with other scholars in the world so that this will also affect the efforts of their scholars to conduct intensive research throughout December 2019-March 2020 which was then published internationally.

The data in Figure 6 and Table 5 show the countries of origin of the authors of international publications in the Covid-19 study in the world. China took the lead in successful scholarships,

contributing 386 publications (26.1%). This was followed by the United States 376 publications (25.4 %%), United Kingdom 118 publications, Saudi Arabia 106 publications, South Korea 81 publications, Germany 69 publications, Canada 65 publications, France 59 publications, Dutch 57 publications, Hong Kong 55 publications and Italy 55 publications. The rest are other countries with less than 50 publications. Italy as the country with the highest number of deaths due to Covid-19, does not seem dominant compared to China in contributing to the international publication Covid-19. The fact that China ranks first in contributing international publications Covid-19 may be related to the source of the virus originating from the country, triggering the Chinese government, people and scholars to immediately conduct studies in order to share information and knowledge with world scholars in handling Covid-19.

Table 5: Country and Number of Documents

Country/Territory	Total
China	386
United States	376
United Kingdom	118
Saudi Arabia	106
South Korea	81
Germany	69
Canada	65
France	59
Netherlands	57
Hong Kong	55
Italy	55
Switzerland	47
Japan	44
Egypt	41
India	34

Research Fund of International Publications Covid-19

In addition to the involvement of large institutions and countries of origin from China, sponsors from aid agencies in China also dominated in funding Covid-19 research to produce international publications. Figure 7 and Table 6 show the National Natural Science Foundation of China is ranked first as a sponsoring institution for 120 international publications related to Covid-19. This was followed by the National Institutes of Health sponsor, Bethesda, Maryland, the United States, which funded research for 78 publications. Likewise in the third place is occupied by the National Basic Research Program of China with 72 publications and in fourth place is occupied by the National Institute of Allergy and Infectious Diseases (NIAID), the United States as many as 46 publications. This shows that Chinese and American sponsors are competing with one another to fund Covid-19 research.

This shows that besides China, it is very serious to encourage its scholars, especially in the field of virology, to quickly conduct research by pouring a large budget. However, the United States, as a superpower in the world, has a great interest in maintaining its influence in the field of science, thus competing with China to encourage its research institutes to conduct research in the field of viruses and publish them in international publications.

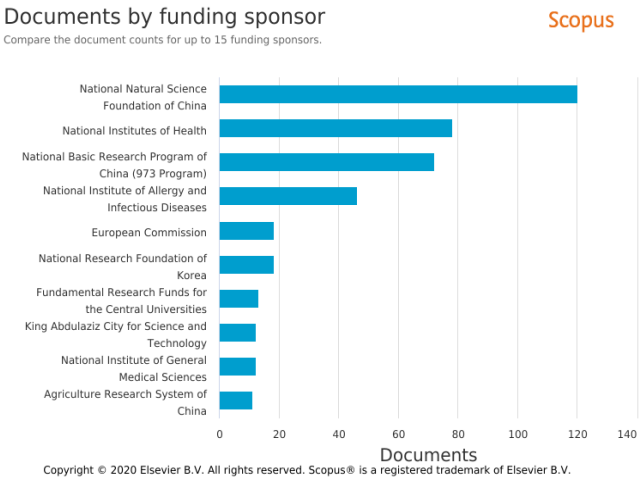

Figure 7: Amount of Documents and Sponsor Institutions
Source: Scopus.com

Table 6: Sponsor Institution and Number of Documents

Sponsor	Total
National Natural Science Foundation of China	120
National Institutes of Health	78
National Basic Research Program of China (973 Program)	72
National Institute of Allergy and Infectious Diseases	46
European Commission	18
National Research Foundation of Korea	18
Fundamental Research Funds for the Central Universities	13
King Abdulaziz City for Science and Technology	12
National Institute of General Medical Sciences	12
Agriculture Research System of China	11
U.S. Department of Agriculture	11
China Postdoctoral Science Foundation	10
Japan Society for the Promotion of Science	10
National Institute of Food and Agriculture	10
Wellcome Trust	10
Centers for Disease Control and Prevention	9

Citation between Scholars

Another important thing from the results of this study is the mutual citation of international publications among scholars in the world about Covid-19. Some of the scholars' names appear to be mentioned a lot and cited by other scholars, such as Memish Z.A., Wang Y, Zhang J, Al-Tawfiq, and others that can be seen in Figure 8. The most mentioned scholar names and the citation shows the productivity of these scholars as previously described.

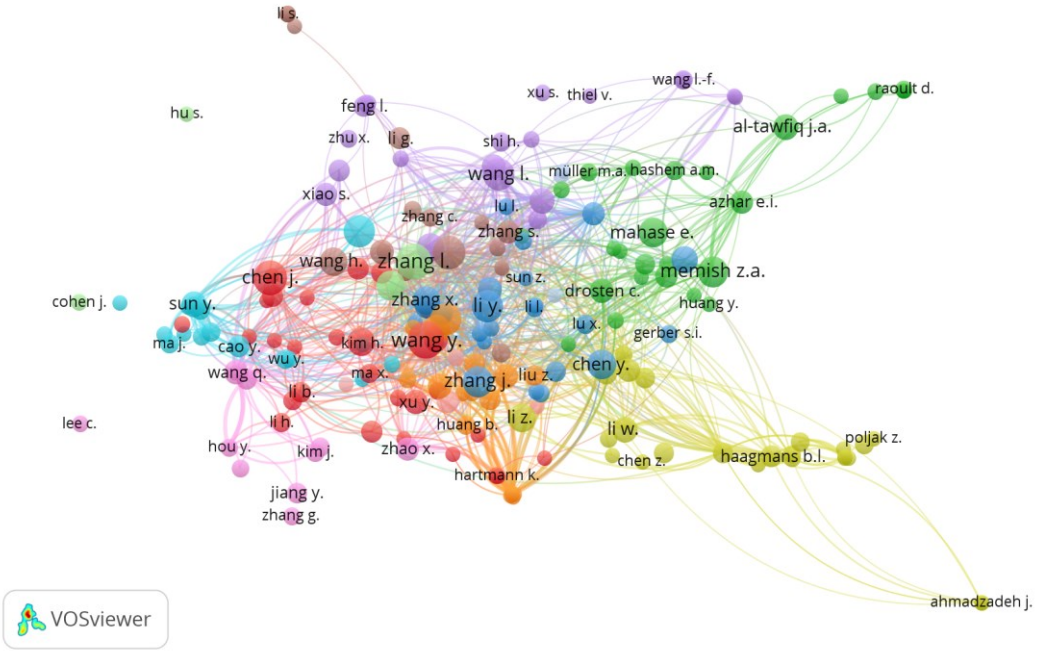

Figure 8: Citation between Scholars

Map of Themes

Following is the distribution of theme maps, which are the main focus of scholars in publishing their research results internationally related to Covid-19. In Figure 9 and Figure 10, it appears that several themes dominate the topic of study among scholars, such as China, case, respiratory syndrome, novel coronavirus, MERS CoV and others.

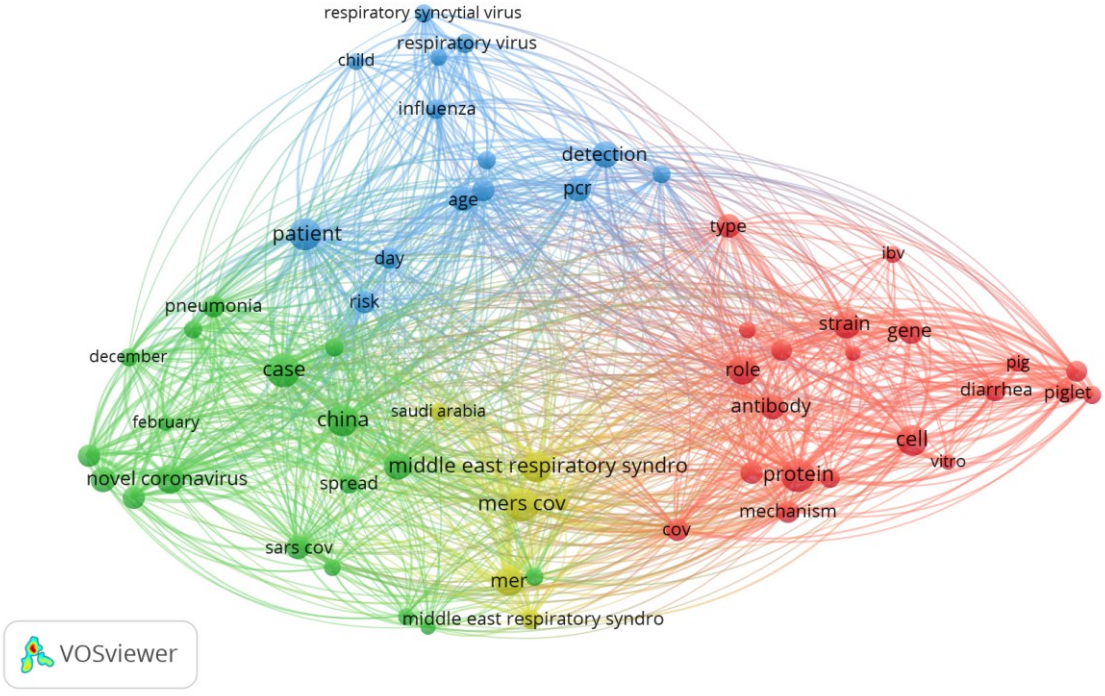

Figure 9: Frequently Discussed Topics

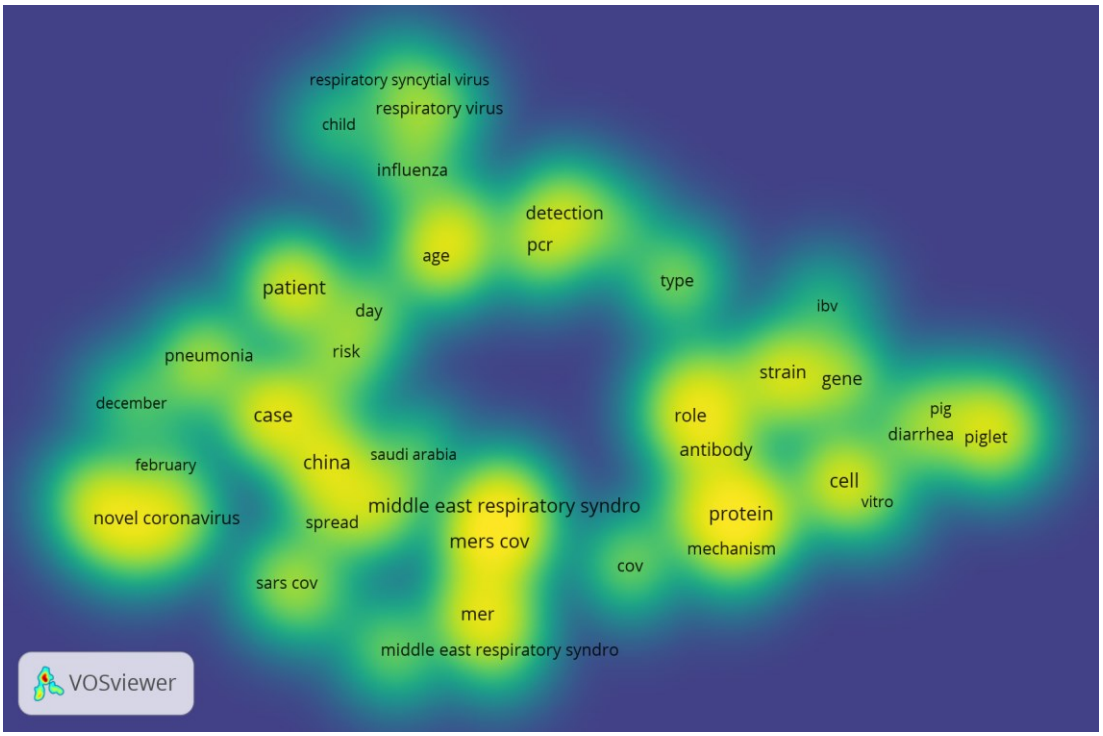

Figure 10: Frequently Discussed Topics

Conclusion

This article focuses on the academic communication of scholars around the world about the Covid-19 pandemic in international publications. Data were collected from search results in the Scopus database with Covid-19 or coronavirus keywords with the article title, abstract categories, and keywords in the December 2019-March 2020 publication period. Using the bibliometric assessment method, the research found 1475 international publications relating to the Covid-19 pandemic in the world. The first article published in an international journal about Covid-19 was written by Chinese scholars. Likewise, the institution which published the most international publications on Covid-19 was occupied by The University of Hong Kong, China, with 44 publications (2.98%). Likewise, the countries and sponsoring institutions that publish the most articles are China. This shows the seriousness of Chinese scholars to conduct a study of the Covid-19 pandemic, which indeed originated from this country. Since the first case of Covid-19 emerged in Hubei, China, on 17 November 2019, Chinese scholars sought to conduct research quickly and publicly to share information and knowledge in dealing with the pandemic. The description of sharing information and knowledge is theoretically a form of world scholarly academic communication activities. Therefore, open publications help scholars to easily communicate and share information on their findings. This affects the speed of the number of citations and the number of publications from scholars with the carrying capacity of research institutions, sponsors and countries.

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