

Covid-19 Socio-Political Effects: An Analysis From The Documentary Perspective

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Abstract

This paper presents the results of a systematic review of the literature (SLR) on the topic Covid-19 socio-political effects worldwide and in Colombia. The objective was to verify the state of the art of scientific production related to this field of study. To achieve the proposed end, 1556 published researches were identified, 6 with emphasis on Colombia and 1550 worldwide in the period between 2017 and 2023. With the scientific mapping, the periods and volumes of articles, authors, journals, countries, organizations, thematic areas and analysis of words and citations were analyzed. The dataset was obtained with the Scopus index database and processed with the statistical programs, Excel and Rstudio with its bibliométrix package. The results show among the countries that stand out the most worldwide the United States, the United Kingdom and China, in the case of Colombia it was found that its frequency of appearance in the field of study is (9) directly or indirectly, the same as Spain (6) y Pakistan (3). Wang Y, Wang X and Flahault, were the authors with the most impact. The journals that published the most articles were the International journal of environmental research and public health, Plos one and The Lancet.

Keywords: Covid-19, pandemic, social effects, political effects, bibliometric analysis.

Introduction

The COVID 19 pandemic since its spread worldwide around the beginning of 2020 generated an extremely high impact on all humanity, affecting all economic and productive sectors, governments, and society in general. Certainly, the risk of human life made governments move towards taking alternatives such as the preventive protection of people, so that it will prevent the spread of the virus. (Rodríguez, 2022; Lapa & Crispín, 2021).

Certainly, the application of these strategies without any preparation had an extremely negative impact on society, causing many companies and countries to go bankrupt when facing the impossibility of developing their economic activities (Parales & Ramírez, 2021); especially in sectors such as tourism due to restrictions on movement between cities and countries (Salazar-Yacelga & Garrido-Patrel, 2021). In this way, the COVID 19 pandemic generates a crisis at the political and economic level as a result of a public health crisis, in which governments saw the obligation to take counterproductive measures for economic growth in the pursuit of the preservation of human life (Mena-Coronel & Gutiérrez-Jaramillo, 2021).

Thus, by deepening the Colombian case, the negative impact of the pandemic on society can be recognized, from access to education as a fundamental right to the fall of the vast majority of markets which were not prepared for the development of their activities in virtuality. Certainly, it is important to highlight the case of the technological gap of this nation as a catalyst of the imbalance presented during the time of preventive protection in the years 2020 and 2021 (Isaza, 2021; Mora, 2021). From this, it is essential to study from scientific production how this economic and political phenomenon occurred in Colombia during the COVID 19 pandemic, in order to locate truthful and reliable information that allows to evidence the actions and problems present from the international arena and from the vision of Colombia in the world context.

Methodology

In this sense “Bibliometric analyses provide indicators to identify quantitative trends related to the evolution of a field of study. Through the application of statistical methods, it is possible to identify academic activity among authors, institutions and countries. The analysis of the development of a field of study and the identification of its theoretical foundations is also an objective of bibliometric studies (Cleber-Da Silva et al., 2014; Méndez-Rátiva y Gregorio-Chaviano, 2014)”. Based on the contributions of Callon et al., (1995) and Larreina et al., (2006) (Ceballos-Parra, Sarache, & Gómez, 2019).

This work was carried out to investigate the scientific production on the subject “Covid-19 socio-political effects worldwide and in Colombia”, with the aim of creating a state of the art or theoretical framework for future research, to achieve this purpose, an exploration of the literature was carried out in the Scopus index database, using terms and keywords, as well as

appropriate search strategies to obtain the best results in information retrieval, the most important were the use of Boolean operators, such as the “AND” and the “OR”, as well as the use of synonyms which helped to expand the possibilities of obtaining a greater number of research papers.

Applying the above, the following search equation was obtained, (TITLE-ABS-KEY (pandemic) OR TITLE-ABS-KEY (covid-19) AND TITLE-ABS-KEY ("social aspects") OR TITLE-ABS-KEY ("political aspects") AND TITLE-ABS-KEY (colombia)), resulting in only 6 documents which is not favorable to achieve the objective, so the analysis had to be expanded globally using the following equation, (TITLE-ABS-KEY (pandemic) OR TITLE-ABS-KEY (covid-19) AND TITLE-ABS-KEY ("social aspects") OR TITLE-ABS-KEY ("political aspects")) AND PUBYEAR > 2016 AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish")), the results of using that search equation was to find 1550 research documents totally relevant to the field of study, the records resulting from the scan were downloaded from Scopus in a csv format file, which was then processed with Biblioshiny which is a web interface of the Bibliométrix library hosted in the Rstudio software, the Excel program was also used, with the purpose of creating the tables, graphs, thematic maps and co-citation networks shown in the results section presented below.

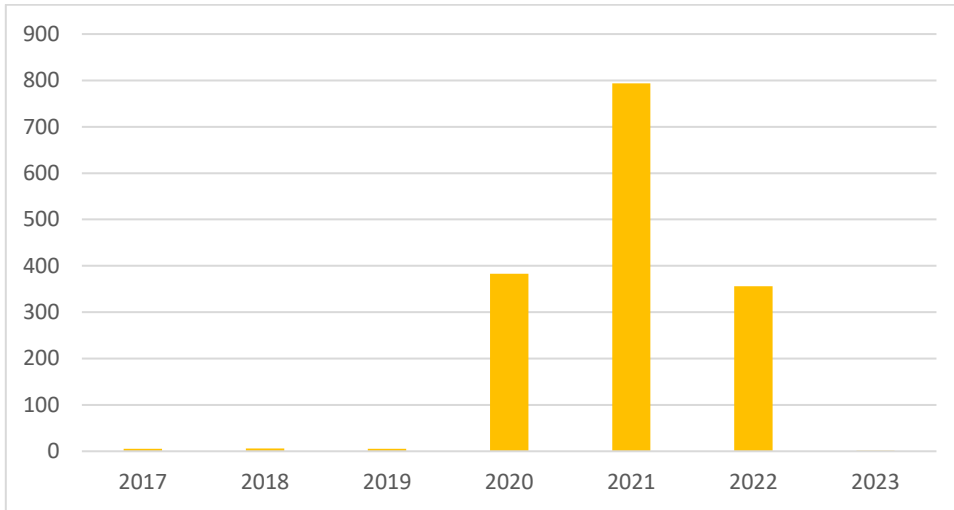
Results

Figure 1. Central information



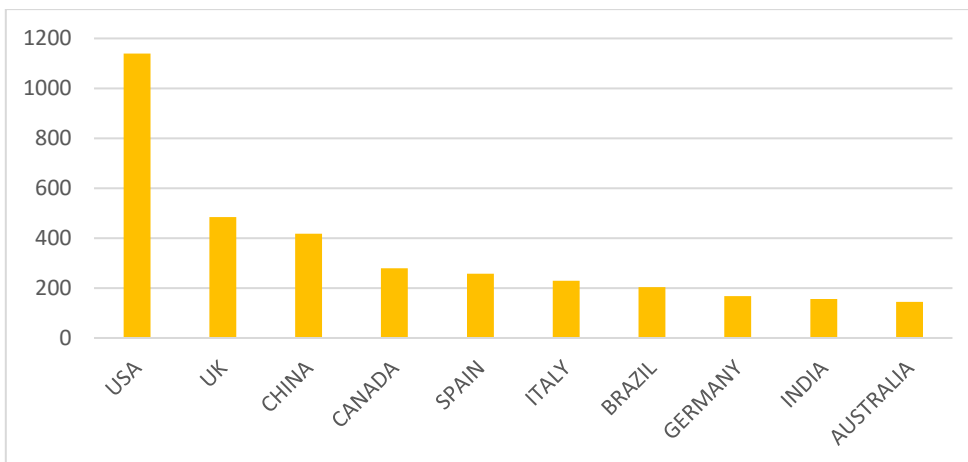
The summary information of the bibliometric analysis carried out is shown in Figure 1, where it can be seen that the search was delimited from the years 2017 to 2023, finding 1550 research papers that concentrate 8318 authors, 198 of them with individual works, 24.71% in co-authorship and average of 12.5 citations per document.

Figure 2. Annual Productivity



Productivity in terms of the field of research “Covid-19 socio-political effects worldwide” generated annually, a strong growth between the years of 2020 to 2022 is shown in Figure 2, noting a greater interest on the part of researchers in 2021, this being the most productive with 794 contributions, this logically because the covid-19 virus was discovered in China at the end of 2019 and the production of research works began to be more relevant from the year 2020.

Figure 3. Production by country



One of the main objectives in this literature exploration was to determine the most productive regions in terms of the research topic, as a result it was identified that the United States, the United Kingdom and China are the three that produce the most with 1139, 485 and 418 contributions respectively. Figure 3, represents the top 10 of the first countries with the highest number of productions, an investigation of great relevance in this item, indicates that

“Most of the available evidence on the effects of the COVID-19 pandemic on children's movement behaviours comes from cross-sectional studies using self-reporting measures. This study aimed to identify the trajectories of change and their associated factors for objectively evaluated physical activity and sedentary time among an ethnically and socioeconomically diverse sample of school-age children from Central Texas, USA, during COVID-19” (Ganzar, Salvo, Burford, Kohl, & Hoelscher, 2022).

Table 1. H index by authors

Element	h_index	g_index	m_index	TC	NP	PY_start
WANG Y	7	7	1.75	190	7	2019
WANG X	5	8	1.66	249	8	2020
FLAHAULT A	4	6	0.8	70	6	2018
LIU J	4	4	2	27	4	2021
LIU L	4	4	1.33	150	4	2020
LIU Y	4	7	1.33	59	9	2020
MCKEE M	4	4	1.33	161	4	2020
THE LANCET						
TL	4	5	1.33	61	5	2020
ZHANG Y	4	6	1	44	9	2019
CHEN Y	3	4	1.5	33	4	2021

Ten of the first authors make up the group with the highest H index in the study area. Of these, the 3 that stand out the most are: Wang Y, Wang X, and Flahault A, as can be seen in Table 1. Following the authors Wang, Wong, & Yuen (2021) in one of the most representative works of the area, they highlight that “Due to health issues related to COVID-19, shoppers have learned to minimize social contact by adopting various contactless self-service technologies to meet their consumer needs. This study explores shopper behavior changes in relation to self-service, using the special research context of e-commerce self-picking services. By synthesizing the knowledge of the health psychology literature, this study proposes an affective-cognitive-social perspective to explain the behavioral changes caused by the pandemic of self-collection users”.

Table 2. Journals with the highest impact

Element	h_index	g_index	m_index	TC	NP	PY_start
International Journal Of Environmental Research And Public Health	20	32	5	1346	97	2019
Plos One	17	28	3.4	991	71	2018
The Lancet	13	27	3.2	729	27	2019

Frontiers in Psychiatry	9	17	3	311	20	2020
Science of the Total Environment	9	10	3	961	10	2020
Social Science and Medicine	9	12	3	336	12	2020
Journal of Medical Internet Research	8	9	2.6	335	9	2020
Proceedings of the National Academy of Sciences of the United States of America	8	12	1.3	1087	12	2017
The BMJ	8	15	2.6	247	19	2020
BMJ Open	7	10	2.3	123	15	2020

The top 10 of the first journals that make up the group that has the greatest impact factor in the study area are presented in Table 2, of them the three that have the most impact are: International journal of environmental research and public health, Plos one and The Lancet. The article from Garba, Sacca, Clarke, Ash, & Brown (2022) indicates that “The COVID-19 pandemic highlighted underlying disparities in health, access to health care, and other social factors that have been documented for racial/ethnic minorities. The social distancing mandate exacerbated the impact of social determinants of health, such as unemployment and food insecurity, particularly among underserved minority populations. It is the most relevant of one of the sources with the highest impact factor.

Table 3. Most cited documents

Paper	DOI	Citations
VINDEGAARD N, 2020, BRAIN BEHAV IMMUN	10.1016/j.bbi.2020.05.048	1251
ZHOU SJ, 2020, EUR CHILD ADOLESC PSYCHIATRY	10.1007/s00787-020-01541-4	531
MURPHY J, 2021, NAT COMMUN	10.1038/s41467-020-20226-9	447
BONACCORSI G, 2020, PROC NATL ACAD SCI U S A	10.1073/pnas.2007658117	414
TULL MT, 2020, PSYCHIATRY RES	10.1016/j.psychres.2020.113098	402
HOWARD J, 2021, PROC NATL ACAD SCI U S A	10.1073/pnas.2014564118	386
NAKADA LYK, 2020, SCI TOTAL ENVIRON	10.1016/j.scitotenv.2020.139087	370
SCULLY EP, 2020, NAT REV IMMUNOL	10.1038/s41577-020-0348-8	368
PATEL JA, 2020, PUBLIC HEALTH	10.1016/j.puhe.2020.05.006	304
CARMASSI C, 2020, PSYCHIATRY RES	10.1016/j.psychres.2020.113312	259

Table 1 takes into account the 10 most cited works of the 1550 publications analyzed, in it you can see that the work of the authors Nina Vindegaard and Michael Eriksen Benros, from the 2020, titled “COVID-19 pandemic and mental health consequences: Systematic review of the current evidence” published in the journal Brain, Behavior, and Immunity, is the most cited with 1251, indicating that “During the COVID-19 pandemic, general medical complications have received the most attention, while only a few studies address the possible direct effect on mental health of SARS-CoV-2 and the neurotropic potential. In addition, the indirect effects of the pandemic on overall mental health are increasingly worrying, especially since the SARS-CoV-1 epidemic (2002-2003) was associated with psychiatric complications” (Vindegaard & Benros, 2020).

Figure 4. topics’ map

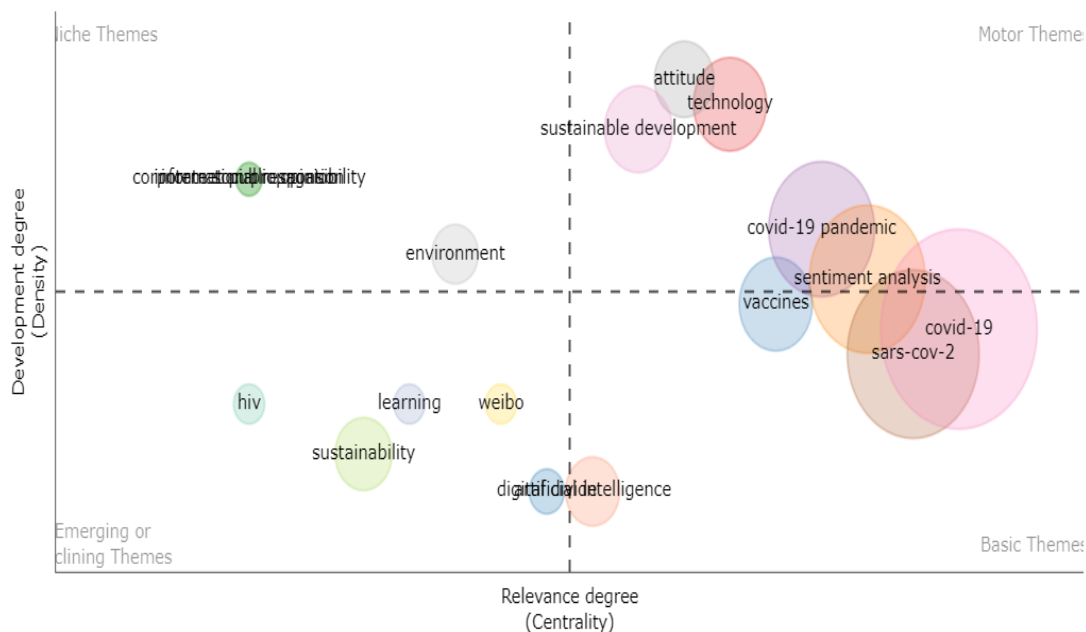


Figure 4 shows a map of co-occurrence of keywords that when interpreted reveals that the main topics which are located on the right side of the top are:

- Attitude: conformed by the terms, knowledge, personal protective equipment and practice.
- Tecnology: Older adults, aging, covid, determinants, equity and rehabilitation
- sustainable development: Brazil, climate change, Latin America and Peru.
- sentiment analysis: social media, twitter, machine learning, vaccine, vaccine hesitancy, deep learning, fake news, public opinion and big data.
- Covid-19 pandemic: survey, social, higher education, alcohol and coping strategies.

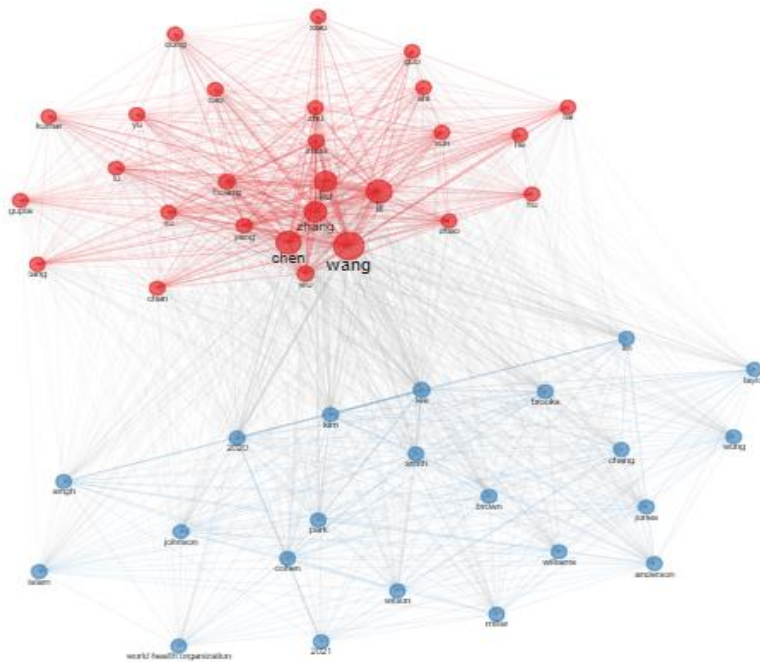
As for the transversal themes that are located on the right side of the figure, the following terms are taken:

- Vaccines: composed by words such as, social aspects, risk, immunity and risk assessment
- Covid-19: pandemic, mental health, coronavirus, anxiety, depression, lockdown, stress, children, social distancing.
- Sars-cov-2: public health, epidemiology, health disparities, pandemics, social determinants of health and health policy.
- Artificial intelligence: social responsibility.

This reflects that, in the bibliometric analysis carried out on the field of study, the terms and words found focus on topics such as technology, sustainable development, data management and public opinion, all related to covid-19. While in the basic or transversal themes there is a strong relationship with the social, public health and psychiatric part.

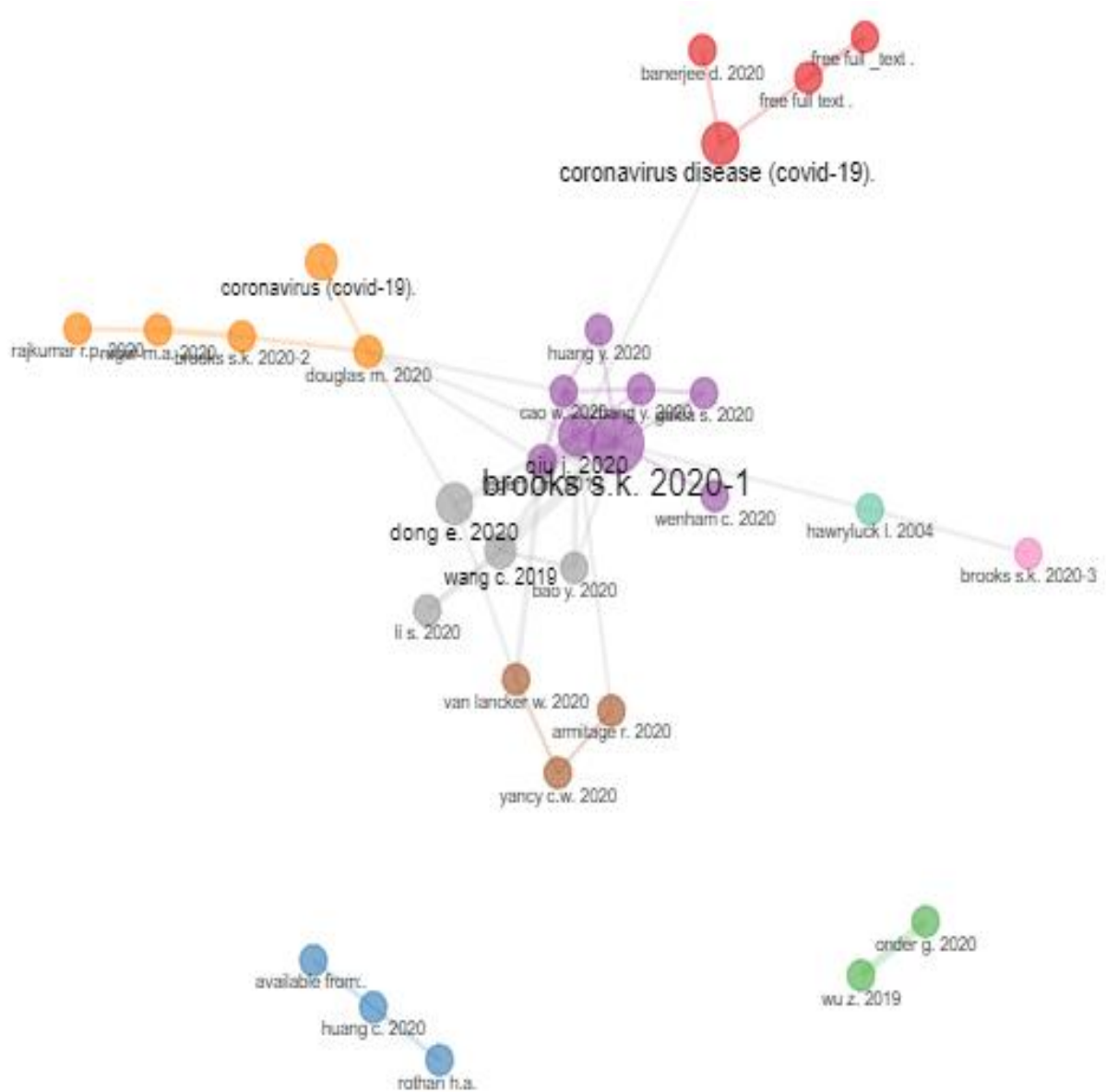
Co-citation analysis

Figure 5. Authors' co-citation



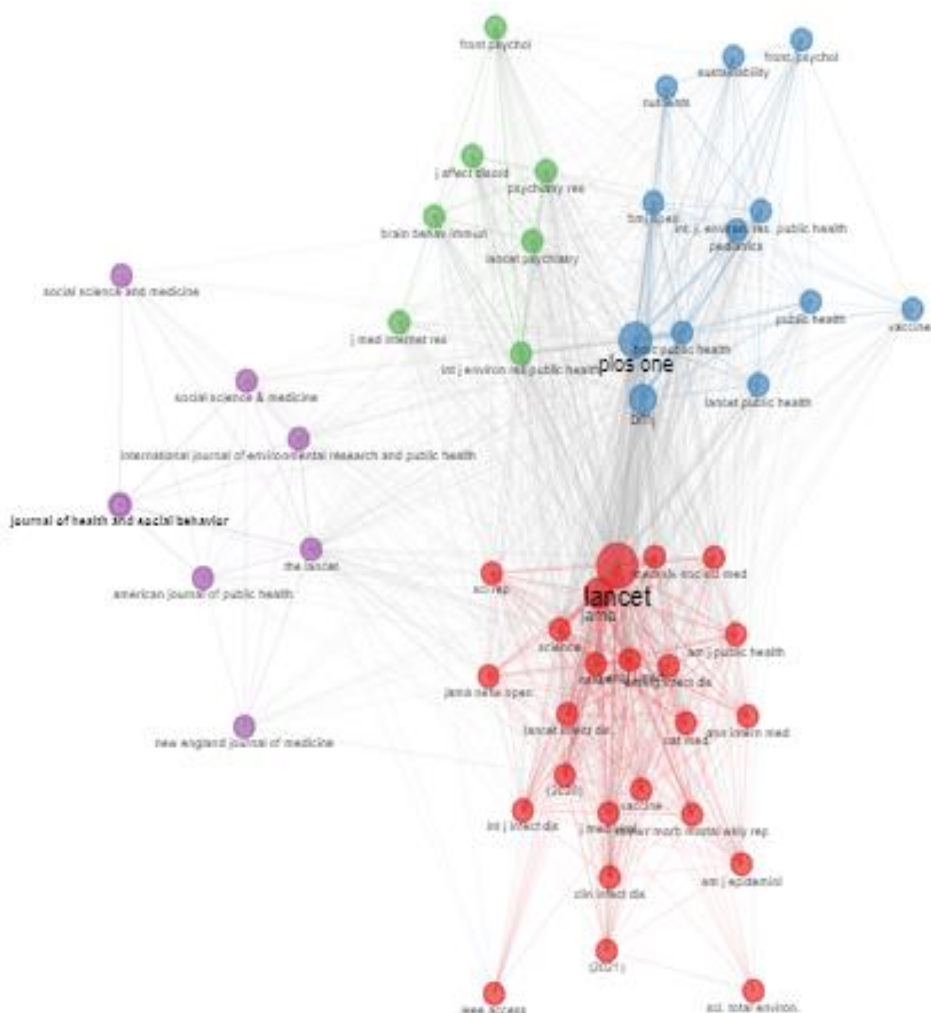
Through the bibliometric network of the authors' citation analysis, two clusters were identified, represented by the colors red and blue, that group the researchers of greater intellectual influence within the analyzed documents (Fig 5). The size of the circle represents the co-citation force, according to the measure of similarity or association of the Bibliometrix package of the Rstudio statistical software, three influential authors are seen for each group: Whang, Chen and Zhang in the red cluster and Lee, Kim and Smith in the blue cluster.

Figure 6. Co-citation papers



The co-citations' map of the research papers shown in Figure 6 shows that 10 groups were formed, each with a high degree of thematic similarity. The number of clusters created also indicates that it is a topic with many aspects or lines of research, very heterogeneous; the most representative group are presented below: Group 1 (purple): It is made up of 8 works, among which those who are highlighted are from, Brooks (2020-1), Fegert (2019) and Qiu (2020). Group 2 (orange): Composed by 5 documents, the most relevant are, Douglas (2020), Brooks (2020-2) and Reger (2020). Group 3 (gray): made up of 4 articles, which are, Dong (2020), Wang (2019), Li (2020) and Bao (2020).

Figure 7. Co-citation Sources



The network of co-citation of sources in Figure 7 shows as a result that four clusters were created with similar thematic lines, the largest nodes are related to the journals with a greater number of citations obtained, while they were also identified with a higher level of association. The conglomerates formed were the following: Conglomerate 1 (red): integrated by the journals: Lancet, Jama and Science. Conglomerate 2 (blue): Conformed by Plos One, BMJ and BMC Public Health. Conglomerate 3 (green): Integrated by, International journal of environmental research and public health, Lancet psychiatry and Psychiatry res. Conglomerate 4 (purple): it is conformed by, The Lancet and International journal of environmental research and public health.

Conclusion

In conclusion, it is determined that the literature found for the research topic Covid-19 socio-political effects in Colombia has not been exploited by the researchers who deal with the

subject, because only 6 documents were found in one of the most important index databases such as Scopus, for this reason in this work the search for the field of study worldwide was expanded with the aim of identifying new lines of research that are being developed and that can be implemented at national level.

It was determined in this analysis that the country that makes the most contributions to the subject is the United States, followed by the United Kingdom and China, the authors with the highest H index or that most impact on the area are Wang Y, Wang X, and Flahault, in terms of journals the ones that stand out the most are International journal of environmental research and public health, Plos one, and The Lancet.

To conclude the analysis of the thematic maps and clusters of authors, documents and sources, they show that the investigations focus mainly on subspecialties, such as sustainable development, data analysis, technology and public opinion; while in the basic or transversal issues there is a strong relationship with the social, public health and psychiatric part, all of them related to covid-19.

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