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| RESEARCH ARTICLE

The Relation between Media and Public Health: A Bibliometric Analysis of Research Trends, Networks, and Thematic Evolution (1990–2025)

Lahbib LAHDAB[1] ✉ Imad BELAARAIDIA[2], Ahmed Fath-Allah RAHMOUNI[3] and Hicham ALLOUMI[4]
[1]ENCG of Tangier and 2i2s - Fez - Morocco
[24]ISPITS of Laayoune - Morocco
[3]ENCG of Tangier – Morocco
Corresponding Author: Lahbib LAHDAB, **E-mail**: lahdab@gmail.com

| ABSTRACT
Across recent decades, the relationship between media and public health has intensified, largely driven by the expansion of digital platforms and the recurrence of global health crises. Within this context, the media has become a central vector for the circulation and communication of public health information, thereby offering fertile ground for systematic academic inquiry. The present research applies a bibliometric approach to a corpus of 183 articles retrieved from the Web of Science (SSCI), following the SPAR-4-SLR protocol. Two complementary techniques (performance analysis and science mapping) were employed through Bibliometrix in R, VOSviewer, and MS Excel. The findings indicate a steady growth in scholarly output, with research clustered around specific journals and leading authors and thematic emphases on social media, misinformation, and the COVID-19 pandemic. The analysis of international collaboration networks further underscores the prominent contributions of the United States and China in shaping scientific production within this domain.

| KEYWORDS
Media, Public Health, Bibliometric Analysis, Web of Science (SSCI), SPAR-4-SRL

| ARTICLE INFORMATION
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1. Introduction

The interplay between media and public health has progressively evolved under the influence of technological innovation and changing modes of communication (Wakefield et al., 2010). Historically, traditional media (print press, radio, and television) were central in disseminating information that raised awareness and educated the public about health issues (Noar, 2006). Strategic communication campaigns implemented through these channels, such as those aimed at reducing tobacco use and encouraging healthy behaviors, provided strong evidence of the media's capacity to shape attitudes and modify behaviors (Durkin et al., 2012).

The emergence of digital media and social networking platforms has significantly reshaped this relationship. These new modalities enable faster and broader dissemination of public health information, increasing opportunities for engagement and access to resources (Chou et al., 2018). However, they also present major challenges. The ease of information circulation has facilitated the spread of misinformation and disinformation, undermining public trust in health institutions and distorting perceptions of health risks (Viswanath et al., 2006). The COVID-19 pandemic illustrated this paradox vividly: media platforms served as indispensable channels for transmitting protective

recommendations, yet at the same time they contributed to heightened public anxiety and the uncontrolled diffusion of false or misleading narratives (Cinelli et al., 2020).

In this context, it becomes essential to investigate how the relationship between media and public health has been addressed in the scientific literature. Bibliometric analysis offers a systematic and rigorous methodological framework to map the development of this research domain, uncover prevailing themes, and identify the most influential contributions. Accordingly, this study conducts a bibliometric assessment of publications on media and public health, with a focus on research performance, thematic evolution, and international collaboration patterns.

The article is structured as follows. First, we present the theoretical underpinnings of the media–public health nexus. Second, we describe the methodology adopted, including the bibliometric protocols applied. Third, we report and discuss the main findings of the analysis. Finally, we conclude with a synthesis of the results and suggestions for future research directions.

2. Theoretical Frameworks for Media-Public Health Interaction

The study of interactions between media and public health is anchored in several theoretical perspectives that explain how information is disseminated, processed, and acted upon in different social and technological contexts. These frameworks provide conceptual tools for analyzing the ways in which media shape risk perceptions and influence both individual and collective health behaviors.

The diffusion of innovation theory (Rogers, 2003) offers a foundational model for understanding how new ideas, technologies, or behaviors spread within populations. In public health, this perspective has been applied to assess the adoption of prevention measures and educational campaigns, highlighting variations in uptake across social groups.

Crisis communication theory, advanced by Reynolds and Seeger (2005), emphasizes the pivotal role of the media in shaping public responses during health emergencies. The effectiveness of crisis communication, according to this model, rests on the transparency, speed, and consistency of the information shared. The COVID-19 pandemic exposed critical challenges in this regard, particularly the contradictory messages circulated via social media, which underscored the importance of coordinated communication strategies (Cinelli et al., 2020).

Agenda-setting theory, as formulated by McCombs and Shaw (1972), further expands the understanding of media influence by showing how media outlets not only shape individual attitudes but also frame the salience of public health issues. This dynamic has implications for public opinion formation and, ultimately, the orientation of health policy (Viswanath et al., 2006).

The Elaboration Likelihood Model (Petty & Cacioppo, 1986) provides additional insights into the mechanisms of persuasion in health communication. It posits two distinct pathways through which individuals process information: a central route, involving systematic evaluation, and a peripheral route, relying on cues such as source credibility or emotional appeal. This framework is particularly useful in explaining the variable effectiveness of public health campaigns across diverse audiences.

While these theoretical perspectives have advanced the understanding of how media intersect with public health, the present research extends beyond theory by applying bibliometric methods. This approach introduces quantitative indicators of scientific production and network mapping, thereby offering a systematic evaluation of research trends and influential contributions in the field (Aria & Cuccurullo, 2017; Donthu et al., 2021).

3. Methodology

This study adopts the SPAR-4-SLR protocol (Scientific Procedures and Rationales for Systematic Literature Reviews) as proposed by Paul et al. (2021). The framework is structured into three main stages encompassing six sub-stages:

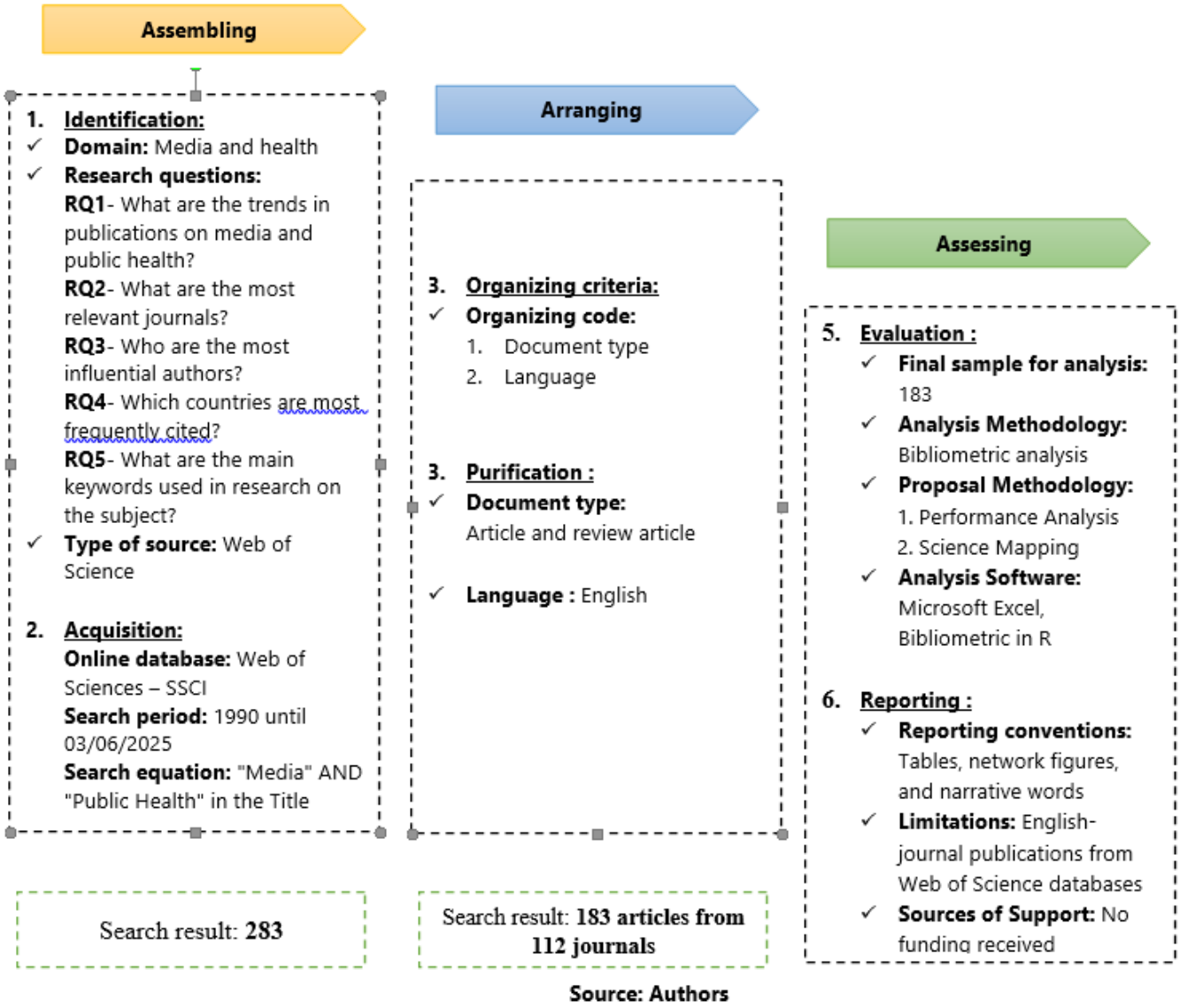
1. **Assembling:** Identification and acquisition;
2. **Arranging:** Organization and purification;
3. **Assessing:** Evaluation and reporting.

By following these steps, the protocol provides a transparent, systematic, and reproducible procedure for analyzing scholarly publications on the intersection of media and public health.

The SPAR-4-SLR model was selected for this research because of its descriptive orientation and its emphasis on rationales underlying methodological choices. Compared to the widely recognized PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), SPAR-4-SLR extends beyond procedural checklists by offering stronger justifications for inclusion and exclusion decisions. While PRISMA ensures structure, transparency, and methodological rigor, it provides limited explanatory depth to guide researchers in refining selection criteria. In contrast, SPAR-4-SLR explicitly incorporates such rationales, making it particularly suitable for bibliometric studies where the choice of databases, keywords, and analytical techniques requires careful justification (Paul et al., 2021).

Accordingly, this study integrates SPAR-4-SLR into its design to ensure methodological robustness in evaluating scientific production related to media and public health.

Figure 1. SPAR-4-SLR Framework



Source: Authors

4. Results

The main results obtained from the bibliometric analysis of **183** articles retrieved from the Web of Science (SSCI) database are summarized in the following table:

Table 1. Main results of the bibliometric analysis

Description	**Results**
Main information about data	
Timespan	1990:2025
Sources (Journals)	112
Documents	183
Annual Growth Rate %	4.71
Document Average Age	7.08
Average citations per doc	36.61
References	8174
Document contents	
Keywords Plus (ID)	439
Author's Keywords (DE)	533
Authors	
Authors	798
Authors of single-authored docs	13
Authors' collaboration	
Single-authored docs	13
Co-Authors per Doc	4.61
International co-authorships %	24.59
Document types	
Article	168
Review	15

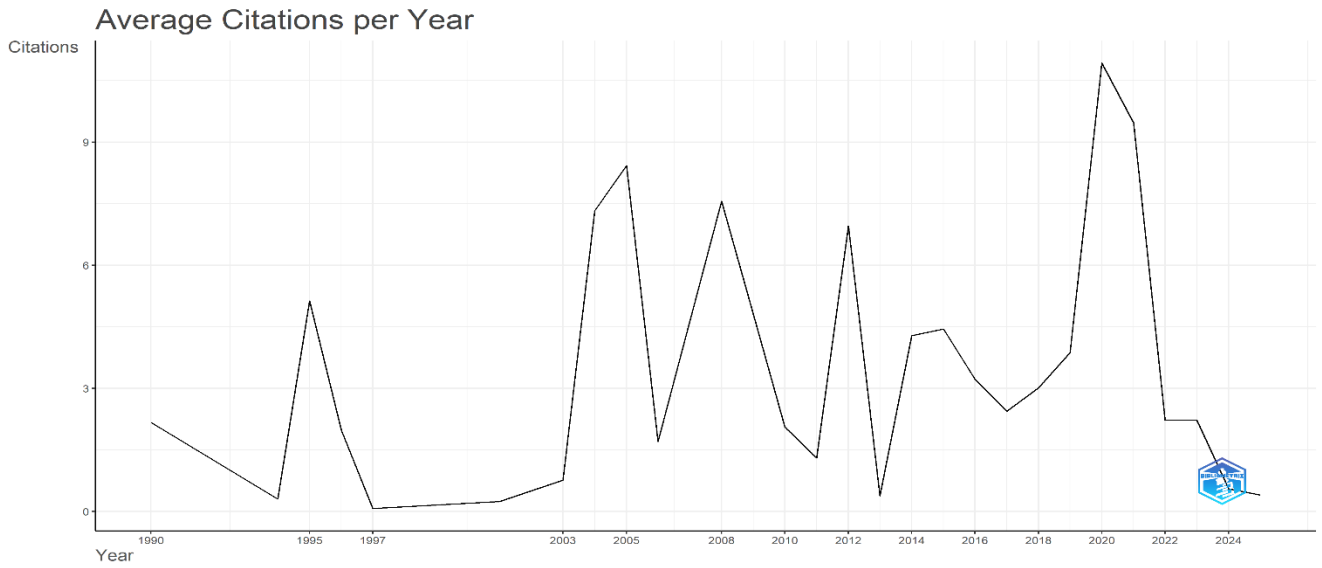
Source: Bibliometrix (Biblioshiny) in R

These results can be structured along two dimensions: performance analysis and scientific mapping. Performance analysis provides descriptive indicators such as publication growth, citation patterns, key authors, journals, institutions, and countries. In contrast, scientific mapping focuses on intellectual and conceptual structures by examining co-citation, bibliographic coupling, and co-word networks. Together, these approaches capture both the productivity dynamics and the thematic evolution of research on media and public health.

4.1 Performance analysis

4.1.1 Average Citations per Year

Figure 2. Average Citations per Year

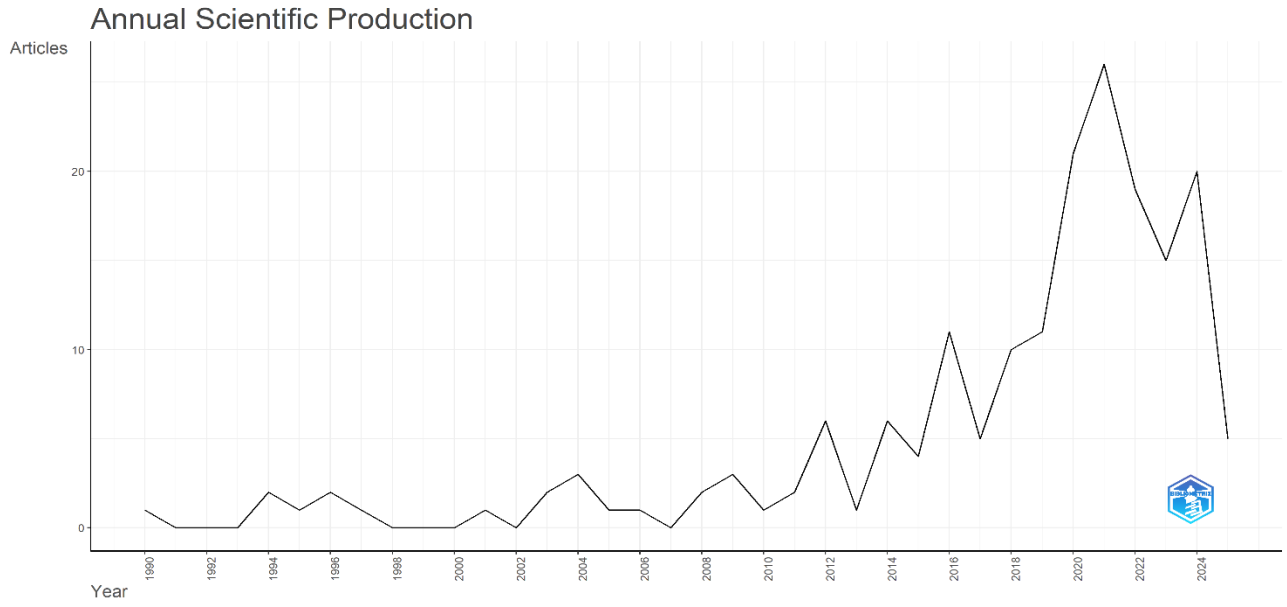


Source: Bibliometrix (Biblioshiny) in R

The graph depicts the evolution of the average annual total citations of publications between 1990 and 2025. A maximum peak was observed in 2020, reaching 10.93 citations on average. Earlier notable values include 8.43 in 2005 and 7.56 in 2008. Overall, the trend reveals marked fluctuations over the period, with scores ranging from 0.30 to 10.93.

4.1.2 Annual Scientific Production from 1990 to 2025

Figure 3. Annual Scientific Production



Source: Bibliometrix (Biblioshiny) in R

The graph presents the evolution of scientific production from 1990 to 2025. The highest output occurred in 2021 with 26 publications, followed by 21 in 2020 and 20 in 2024. A sharp decline was recorded in 2025, returning to levels comparable to those observed before 2016. This pattern indicates both a recent surge in research activity and a subsequent contraction.

4.1.3 Most Relevant Authors

Authors	Number of Articles	Fractionalized Articles
ZHANG Y	7	1.55
FUNG ICH	3	0.39
LI X	3	1.83
ZHANG X	3	1.17
ZHANG Z	3	0.44
AL-DMOUR H	2	0.37
AL-DMOUR R	2	0.37
CAO B	2	0.67
CHAPMAN'S	2	0.50
CHOWELL G	2	0.27

Table 2. Most Relevant Authors
Source: Bibliometrix (Biblioshiny) in R and MS Excel

The performance analysis identified ZHANG Y as the most productive author, with 7 publications and 1.55 fractionalized contributions. By contrast, LI X, with 3 publications, recorded the highest fractionalized score of 1.83, followed by ZHANG X (1.17), FUNG ICH (0.39), and ZHANG Z (0.44), each with 3 articles. Five additional authors (AL-DMOUR H, AL-DMOUR R, CAO B, CHAPMAN S, and CHOWELL G) produced two publications each. Their fractionalized contributions ranged from 0.27 to 0.67, reflecting moderate influence within the field.

4.1.4 Most local cited authors

Figure 4. Most Local Cited Authors

Source: Bibliometrix (Biblioshiny) in R and MS Excel

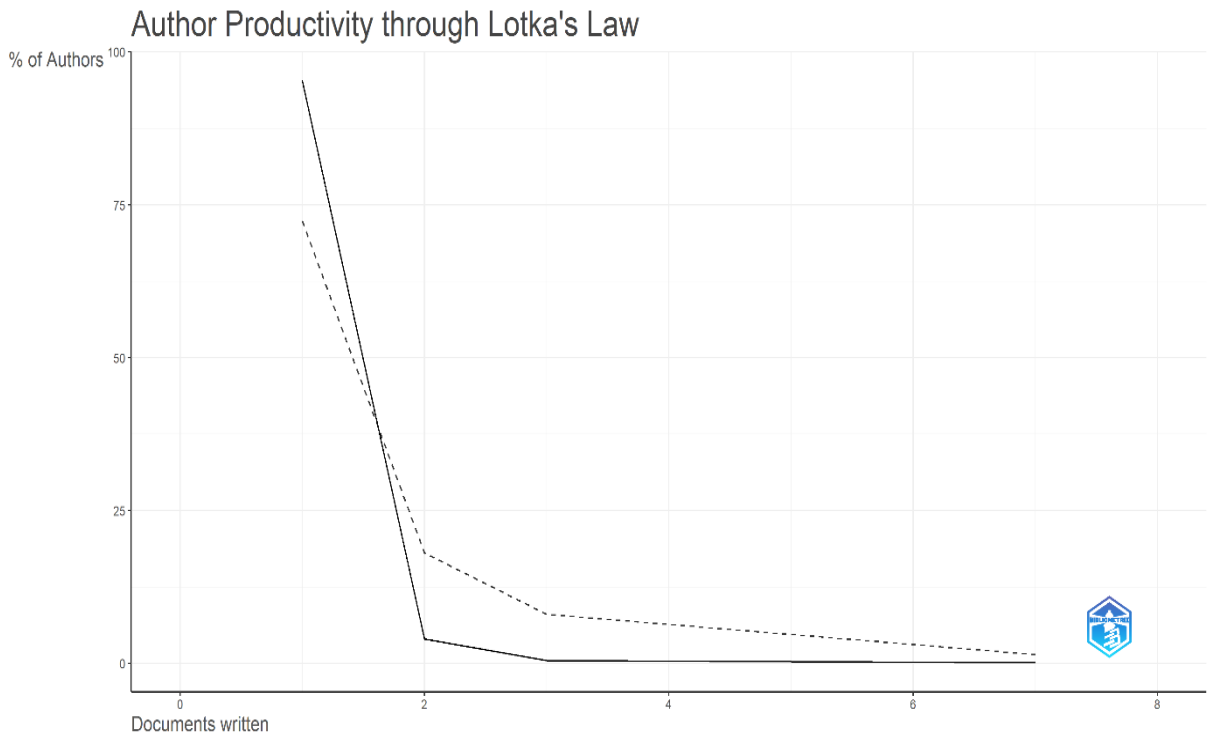
The graph illustrates the distribution of local citations among key researchers. PAGOTO S, WARING ME, and XU R emerge as the most cited, each with 5 local citations, reflecting notable recognition of their contributions. In

comparison, ECKMANNS T, DENECKE K, CHUGHTAI AA, CHOWDHURY KIA, ANWAR KS, AGHENEZA T, and ABU-HENA MOSTOFA AHM each received 4 local citations.

Overall, the pattern suggests relative homogeneity in local scholarly impact, with only a slight advantage for the three leading authors.

4.1.5 Lotka's Law

Figure 5. Author Productivity through Lotka's Law



Source: Bibliometrix (Biblioshiny) in R

Out of 798 identified authors, about 95.40% contributed only a single article to the field. A smaller proportion, around 4%, published two articles each. Only 0.10% of the authors reached a maximum of seven publications. This distribution confirms an exponential decline in author participation as the number of publications increases.

4.1.6 Most Relevant Sources

The analysis identifies the *International Journal of Environmental Research and Public Health* as the leading outlet, with 11 published articles. It is followed by *Frontiers in Public Health* (9 articles), *Journal of Medical Internet Research* (8 articles), and *Disaster Medicine and Public Health Preparedness* (7 articles). Additional contributions include *PLOS ONE* with 6 articles and both *Health Communication* and the *American Journal of Public Health* with 5 and 4 articles, respectively. *Critical Public Health*, with 3 articles, also demonstrates a consistent, though more modest, engagement with the topic.

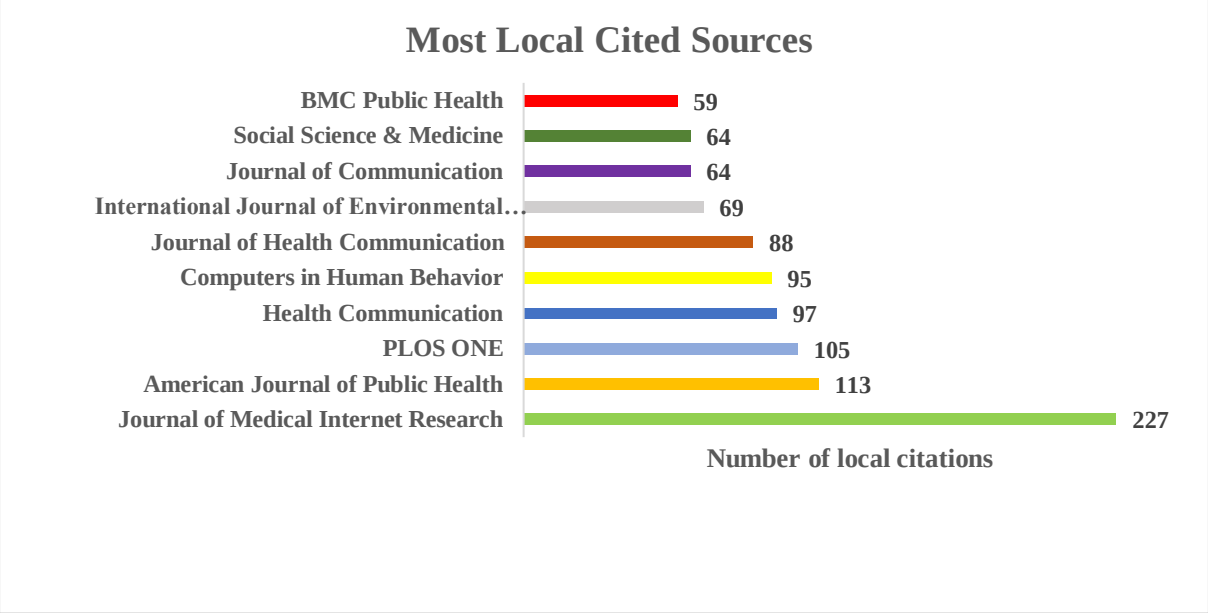
Table 3. Most Relevant Sources

Source	Number of articles
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH	11
FRONTIERS IN PUBLIC HEALTH	9
JOURNAL OF MEDICAL INTERNET RESEARCH	8
DISASTER MEDICINE AND PUBLIC HEALTH PREPAREDNESS	7
PLOS ONE	7
BMC PUBLIC HEALTH	6
HEALTH COMMUNICATION	6
AMERICAN JOURNAL OF PUBLIC HEALTH	5
JOURNAL OF HEALTH COMMUNICATION	4
CRITICAL PUBLIC HEALTH	3

Source: Bibliometrix (Biblioshiny) in R and MS Excel

4.1.7 Most Local Cited Sources

Figure 6. Most Local Cited Sources



Source: Bibliometrix (Biblioshiny) in R and MS Excel

The results indicate that the *Journal of Medical Internet Research* is the most frequently cited source, with 227 local citations, underscoring its central influence in the field. It is followed by the *American Journal of Public Health* with 113 citations and *PLOS ONE* with 105 citations, both confirming their relevance to the domain. Additional journals, including *Health Communication* (97 citations), *Computers in Human Behavior* (95 citations), and the *Journal of Communication* (88 citations), also demonstrate substantial impact. By contrast, the remaining journals exhibit comparatively lower citation levels, reflecting a more limited role in shaping the knowledge base.

4.1.8 Sources' Impact

Source	H-index	G-index	M-index	Total citations	Number of publications	Publication year_start
PLOS ONE	7	7	0.636	232	7	2015
FRONTIERS IN PUBLIC HEALTH	6	9	1	100	9	2020
JOURNAL OF MEDICAL INTERNET RESEARCH	6	8	0.333	432	8	2008
AMERICAN JOURNAL OF PUBLIC HEALTH	5	5	0.2	495	5	2001
BMC PUBLIC HEALTH	5	6	0.333	106	6	2011
DISASTER MEDICINE AND PUBLIC HEALTH PREPAREDNESS	5	7	0.5	121	7	2016
HEALTH COMMUNICATION	5	6	0.161	320	6	1995
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH	5	10	0.714	113	11	2019
CRITICAL PUBLIC HEALTH	3	3	0.375	24	3	2018
JOURNAL OF HEALTH COMMUNICATION	3	4	0.13	68	4	2003

Table 4. Sources' Local Impact

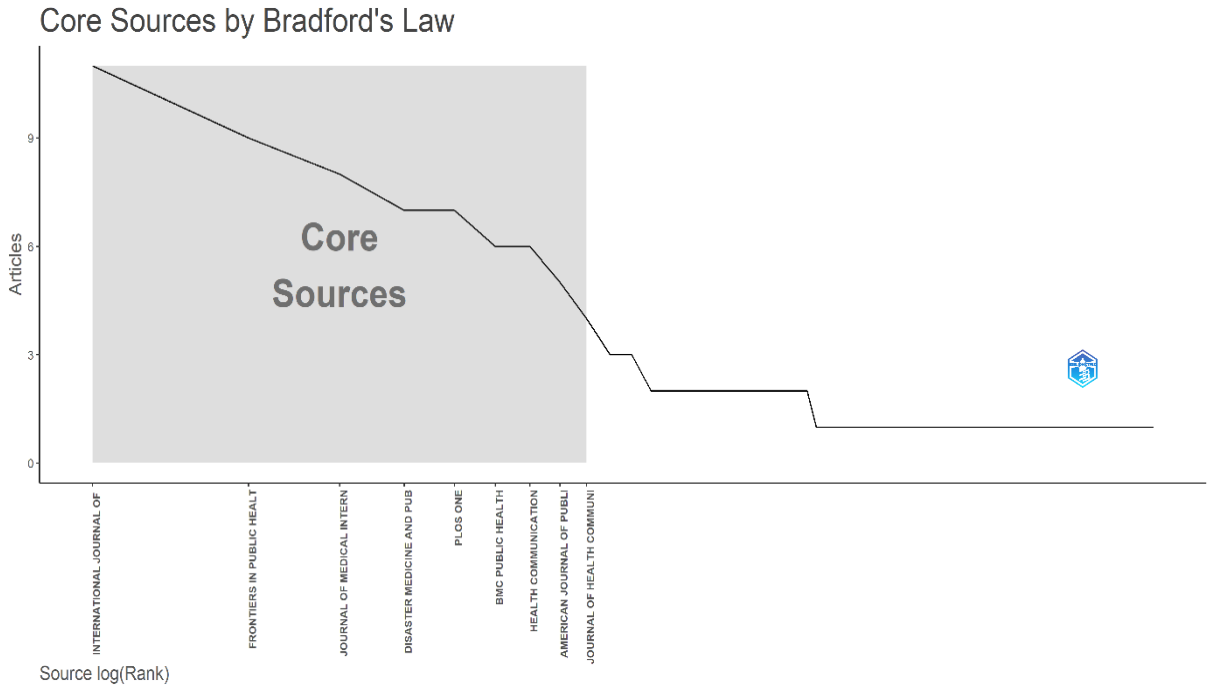
Source: Bibliometrix (Biblioshiny) in R and MS Excel

Among the identified sources, *PLOS ONE* emerges as the most influential, with an H-index and G-index of 7, supported by 232 citations from 7 publications since 2015. It is followed by *Frontiers in Public Health* (H-index = 6, G-index = 9, 100 citations from 9 publications since 2020) and the *Journal of Medical Internet Research* (H-index = 6, 432 citations from 8 publications since 2008). Other high-impact journals include the *American Journal of Public Health* (H-index = 5, 495 citations), *BMC Public Health* (H-index = 5, 106 citations), *Disaster Medicine and Public Health Preparedness* (H-index = 5, 121 citations), *Health Communication* (H-index = 5, 320 citations), and the *International Journal of Environmental Research and Public Health* (H-index = 5, 113 citations). *Critical Public Health* and the *Journal of Health Communication*, both with H-indices of 3, also rank among the top ten sources, with 24 and 68 citations, respectively, reflecting a more modest yet notable role in the field.

4.1.9 Bradford's Law

As illustrated in the figure, nine journals are positioned in Zone 1 and constitute the core sources of the field. Among them, the *International Journal of Environmental Research and Public Health*, *Frontiers in Public Health*, and the *Journal of Medical Internet Research* stand out as central outlets for disseminating knowledge on media and public health. These journals function as the primary channels through which influential research is published and circulated. By contrast, journals in Zones 2 and 3 account for the remaining publications, reflecting a broader but less influential distribution across numerous outlets.

Figure 7. Core Sources by Bradford's Law

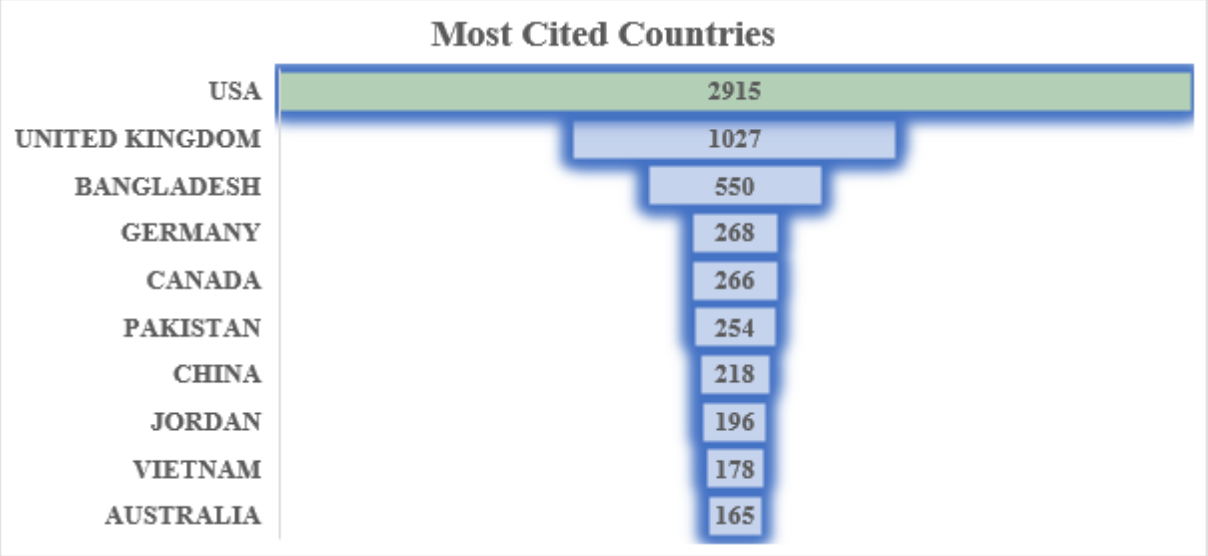


Source: Bibliometrix (Biblioshiny) in R

4.1.10 Most Cited Countries

The figure below indicates that the United States leads with 2,915 citations, followed by the United Kingdom with 1,027 and Bangladesh with 550. Germany (268 citations), Canada (266), and Pakistan (254) also register notable contributions. Additional countries such as China (218 citations), Jordan (196), Vietnam (178), and Australia (165) further enrich the landscape. Overall, the distribution highlights the broad international participation in scientific production within this field, with clear dominance by a small group of countries.

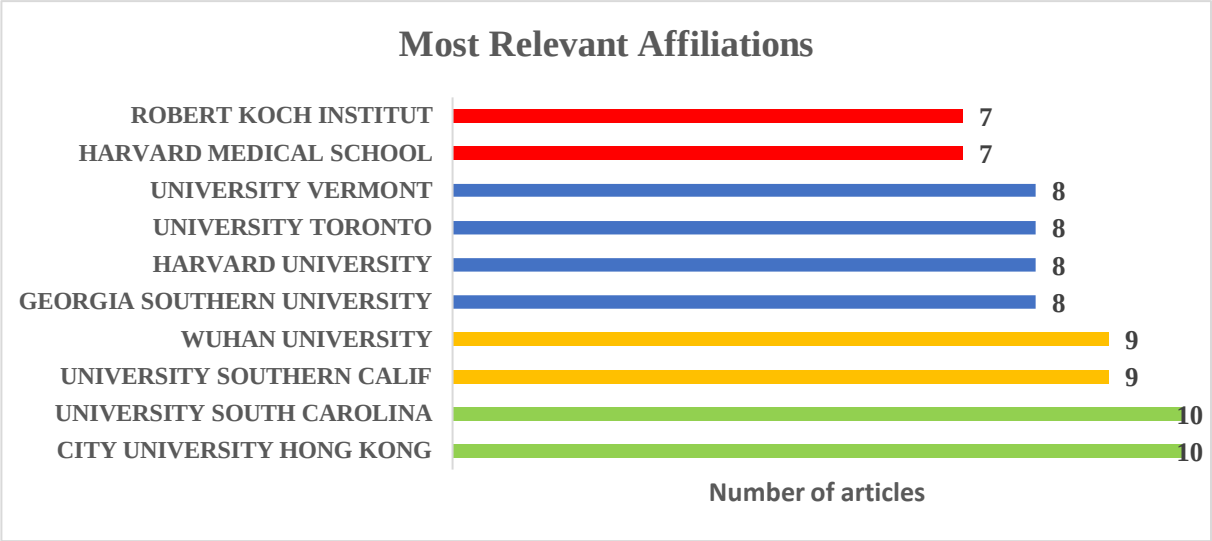
Figure 8. Most Cited Countries



Source: Bibliometrix (Biblioshiny) in R and MS Excel

4.1.11 Most Relevant Affiliations

Figure 9. Most Relevant Affiliations



Source: Bibliometrix (Biblioshiny) in R and MS Excel

The analysis of institutional productivity shows that the *City University of Hong Kong* and the *University of South Carolina* lead the field, each with 10 publications. They are followed closely by the *University of Southern California* and *Wuhan University*, both with 9 publications. Other active contributors include *Georgia Southern University*, *Harvard University*, the *University of Toronto*, and the *University of Vermont*, each with 8 publications. Finally, *Harvard Medical School* and the *Robert Koch Institute* complete the ranking with 7 publications, reflecting their consistent engagement in the field.

4.1.12 Most relevant Keywords

Figure 10. WordCloud

Source: Bibliometrix (Biblioshiny) in R

The analysis of author keywords reveals the most recurrent themes in research on media and public health. As illustrated in Figure 10 and detailed in Table 5, the terms "information" (27 occurrences) and "Twitter" (21) appear most frequently. They are followed by "communication" (17), "impact" (12), and "model" (11), while "attitudes" and "Facebook" occur 9 times each, and "internet," "knowledge," and "obesity" register 8 occurrences each. Overall,

these results underscore the prominence of topics related to information dissemination, social media platforms, and health behavior in the analyzed literature.

Table 5. Most Frequent Words

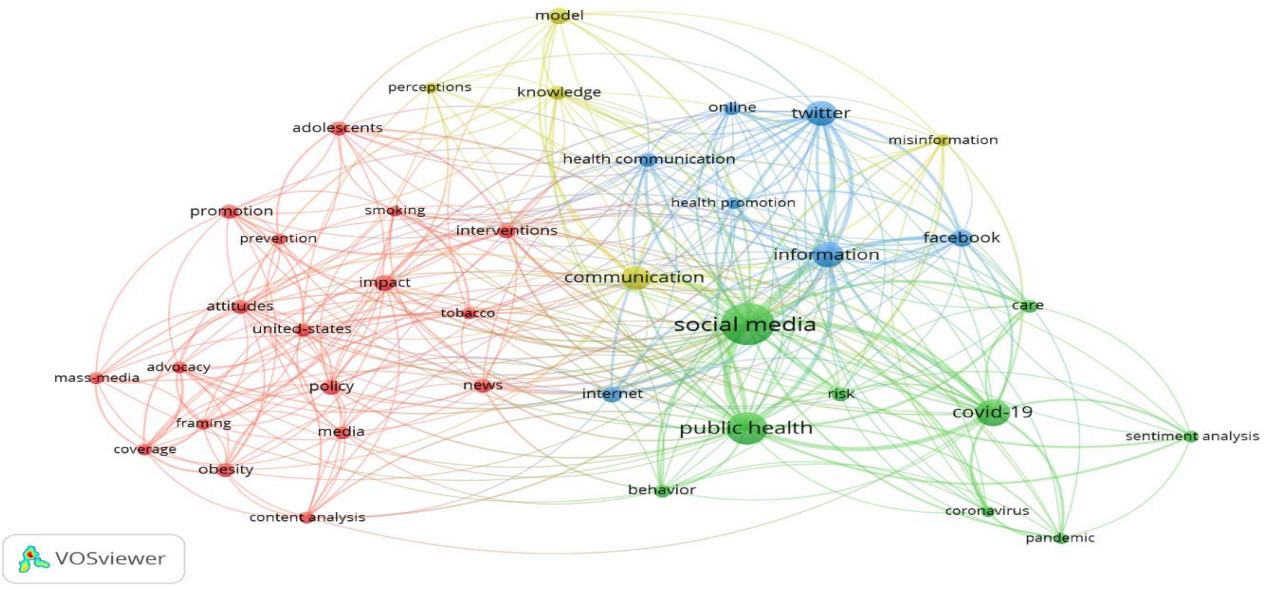
Words	Occurrences
Information	**27**
Twitter	**21**
Communication	**17**
Impact	**12**
Model	**11**
Attitudes	**9**
Facebook	**9**
Internet	**8**
Knowledge	**8**
Obesity	**8**

Source: Bibliometrix (Biblioshiny) in R and MS Excel

4.2 Science mapping

4.2.1 Co-occurrence of keywords

Figure 11. Co-occurrence of keywords



Source: VOSviewer

The analysis of keywords reveals several interconnected thematic groups. The central term "social media" appears as the most influential, strongly linked to concepts such as "communication," "public health," "information," and "covid-19."

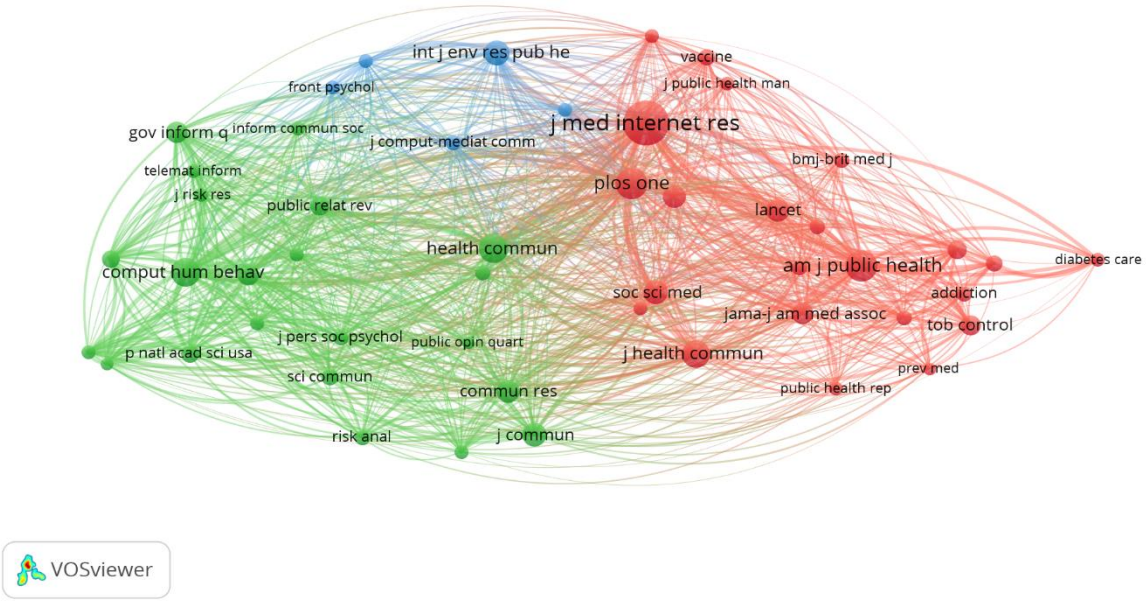
Four major clusters emerge from this network:

- ✓ **The green cluster** is focused on public health, with words like "covid-19," "risk," "behavior," "coronavirus," and "pandemic." The blue cluster is focused on social media and misinformation, including "Twitter," "Facebook," "online," "misinformation," and "health communication."
- ✓ **The red cluster** is related to health policies and traditional media, with terms like "policy," "media," "attitudes," "obesity," "adolescents," and "smoking."
- ✓ **The yellow cluster** addresses the concepts of models and knowledge, including "model," "knowledge," "perceptions," and "health promotion."

This network highlights the strong interaction between social media and public health topics, particularly in the context of the COVID-19 pandemic and online misinformation.

4.2.2 Co-citation network of sources

Figure 12. Co-citation network of sources



Source: VOSviewer

This network highlights three main clusters of highly connected journals:

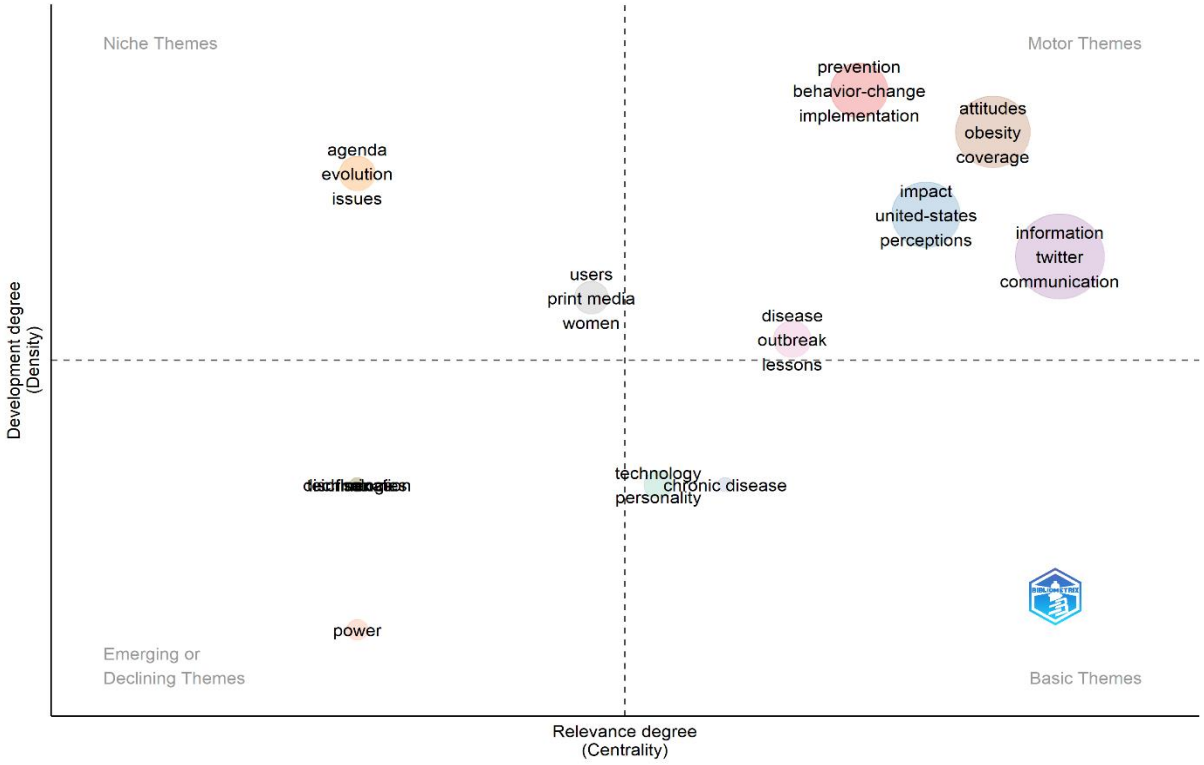
- ✓ **The red cluster**, focused on medicine and public health, is represented by influential journals such as the *American Journal of Public Health (AJPH)*, *Journal of Medical Internet Research (JMIR)*, *PLOS ONE*, *Lancet*, *Tobacco Control*, and *Journal of the American Medical Association (JAMA)*. This grouping centers on medical and public health research, covering topics such as vaccination, addiction, diabetes care, and tobacco control.
- ✓ **The green cluster**, oriented toward social sciences, communication, and human behavior, includes journals such as *Computers in Human Behavior (CHB)*, *Public Relations Review (PRR)*, *Journal of Communication (JOC)*, *Communication Research (CR)*, and *Science Communication (SC)*. This cluster emphasizes research related to communication, behavioral studies, and the broader social sciences.

- ✓ **The blue cluster** represents interdisciplinary journals, including the *International Journal of Environmental Research and Public Health (IJERPH)*, *Frontiers in Psychology (Front Psychol)*, and *Journal of Computer-Mediated Communication (JCMC)*, which bridge psychology, environmental health, and digital communication.

Overall, the network underlines the strong interconnection between public health research and studies on human behavior and communication, with shared themes such as misinformation, health risks, and the influence of social media on health.

4.2.3 Thematic Mapping

Figure 13. Thematic Mapping



Source: Bibliometrix (Biblioshiny) in R

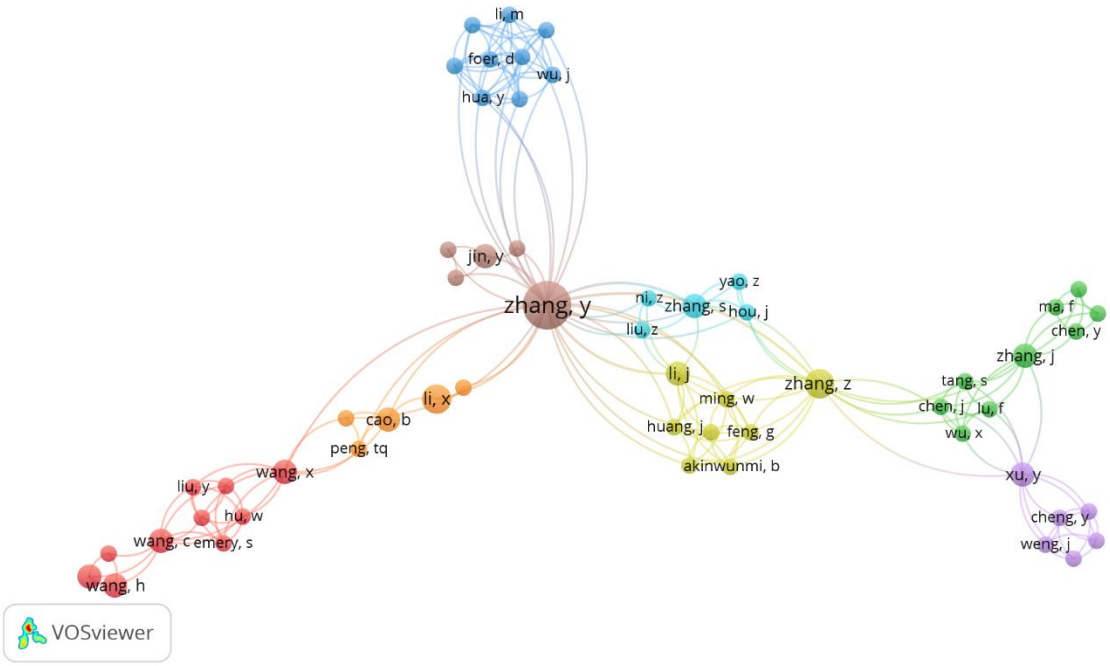
This map reveals the main research themes, which are structured around two axes: importance (centrality) and development (density).

- ✓ **Motor themes**, which are both dominant and well-developed, form the core of the field and include *communication*, *Twitter*, *information*, as well as *obesity*, *attitudes*, *behavior change*, and *prevention*.
- ✓ **Basic themes**, considered important but still underdeveloped, include *chronic disease*, *technology*, and *personality*, and represent areas with strong potential for future research.
- ✓ **Niche themes** are well-developed but more specific in scope, covering topics such as *agenda*, *evolution*, and *issues*.
- ✓ **Emerging or declining themes**, including *power*, *distinctions*, and *identification*, remain marginal and may either gain prominence or fade depending on how the field evolves.

Overall, research is currently concentrated on health communication and social networks, with a notable emphasis on obesity-related behaviors and prevention, while chronic diseases and technologies stand out as strategic domains to be strengthened in order to address existing gaps and anticipate new trends.

4.2.4 *Collaboration network of authors*

Figure 14. *Collaboration network of authors*



Source: VOSviewer

The co-authorship network reveals that Zhang, Y. is the most connected author and constitutes the core of the collaboration structure, playing a central role in scientific production on media and public health.

Seven main clusters were identified in this analysis:

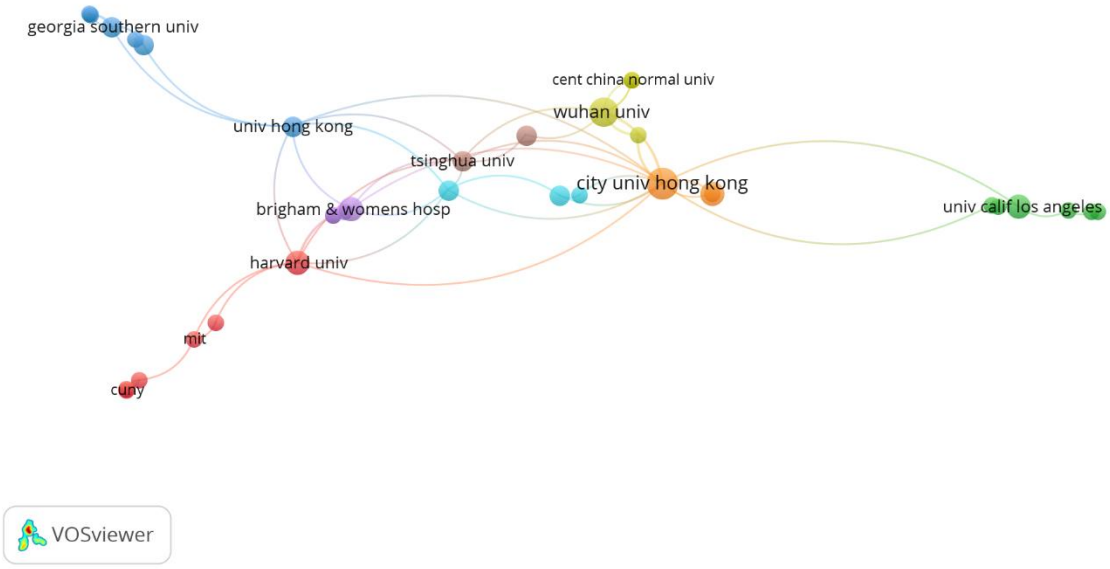
- ✓ **The brown cluster (Zhang, Y.; Jin, Y.; Porter, J.; Stewart, S.; Tang, Y.)** acts as a pivot, with Zhang, Y. serving as the main connector linking other clusters.
- ✓ **The red cluster (Chen, N.; Emery, S.; Hu, W.; Liu, Y.; Wang, C.; Wang, H.; Wang, X.; Xiong, L.; Zhan, Q.; Zhuo, W.)** is characterized by strong internal interaction but limited openness to external groups.
- ✓ **The blue cluster (Foer, D.; Hua, Y.; Li, M.; Lin, S.; Wang, S.; Wu, J.; Yang, J.; Zhou, L.; Zhou, P.)** is closely connected internally and directly linked to Zhang, Y.
- ✓ **The orange cluster (Cao, B.; Gong, W.; Li, X.; Peng, TQ)** is smaller in size but remains connected to Zhang, Y.
- ✓ **The turquoise cluster (Hou, J.; Liu, Z.; Ni, Z.; Yao, Z.; Zhang, S.)** is highly specialized, with dense internal collaboration.
- ✓ **The yellow cluster (Akinwunmi, B.; Feng, G.; Huang, J.; Li, J.; Ming, W.; Xu, J.; Zhang, CJP; Zhang, Z.)** is dynamic and functions as a relay between different parts of the network.
- ✓ **The green cluster (Chen, J.; Chen, Y.; Lu, F.; Ma, F.; Tang, S.; Wolfram, D.; Wu, X.; Zhang, J.; Zhao, Y.)** is well connected and plays an intermediary role by facilitating the circulation of ideas across groups.
- ✓ **The purple cluster (Cheng, Y.; Tian, Y.; Wang, F.; Weng, J.; Xie, C.; Xu, Y.)** is smaller but maintains ties with others through Zhang, J.

The structure of the co-authorship network reflects a strong and diversified collaborative dynamic among researchers in this field.

4.2.5 Collaboration network of institutions

The figure highlights a network organized around the *City University of Hong Kong*, which serves as the central hub. This institution acts as the core node, consolidating exchanges between American, Asian, and European hubs and linking the medical, scientific, and academic sectors. On the western side, *Harvard University* is grouped with the *Massachusetts Institute of Technology* and the *City University of New York*, forming a cluster primarily oriented toward fundamental and academic research in the United States. A medical cluster is represented by *Brigham & Women's Hospital*, which connects American biomedical research institutions to Asian institutions through ties with *Tsinghua University* and the *City University of Hong Kong*. The Asian component of the network is thus reinforced, reflecting its strong integration into global collaboration dynamics.

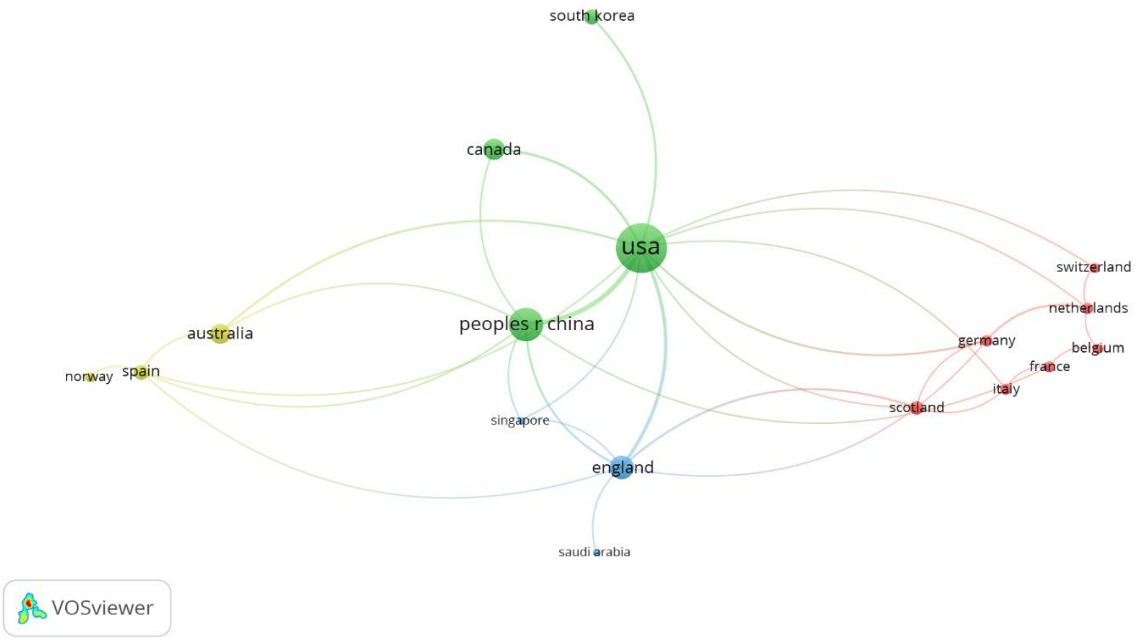
Figure 15. Collaboration network of institutions



Source: VOSviewer

4.2.6 Collaboration network of countries

Figure 16. Collaboration network of countries



Source: VOSviewer

The network analysis shows that the United States is the central node and serves as the global leader in scientific cooperation. It maintains strong connections with Europe, Asia, Oceania, and the Middle East, consolidating its dominant position. China also occupies a strategic role, as it is closely linked to the United States and to several additional countries. England contributes significantly by establishing strong connections with both Asia, particularly Singapore and Saudi Arabia, and Europe. Germany functions as a major European anchor point, connected to France, Italy, Belgium, the Netherlands, and Switzerland.

5. Discussion

The bibliometric study of the scientific literature on media and public health demonstrates a marked increase in scholarly interest in this field, a trend driven by technological advances and successive health crises, as emphasized by Wakefield et al. (2010) and Chou et al. (2018). The surge in publications during the COVID-19 pandemic is consistent with the crisis communication theory of Reynolds and Seeger (2005), which underscores the critical role of the media in managing health risks during periods of rapid and widespread information dissemination.

The prominence of social media in this field, reflected in the frequency of terms such as "Twitter" and "Facebook," illustrates the relevance of the probability model developed by Petty and Cacioppo (1986). These platforms activate both the peripheral route, through the virality of messages and the perceived credibility of sources, and the central route, when individuals engage in more critical evaluation of information during health crises.

The concentration of research in highly cited journals such as the *Journal of Medical Internet Research* and *PLOS ONE* reveals a shift in scholarly focus toward digital media and health behaviors. This observation confirms Viswanath et al. (2006), who highlight the influence of media on risk perception and public attitudes, a phenomenon made particularly visible by the rise in citations during critical periods.

The application of McCombs and Shaw's (1972) agenda-setting theory is evident in the emergence of themes such as COVID-19, misinformation, and obesity. Both traditional and digital media are shown to influence the prioritization of public health issues on a global scale, a process reinforced by the interconnection of journals in medicine, public health, and communication.

Lotka's law, applied in this context, shows that the majority of authors contribute only a single article, while a small core of researchers, exemplified by Zhang Y., drive the bulk of scientific production. This finding reflects Rogers' (2003) diffusion of innovation theory, in which certain "opinion leaders" accelerate the dissemination of ideas and research practices.

The dominant role of Anglo-Saxon countries, particularly the United States and the United Kingdom, along with the emergence of China, illustrates how socio-political contexts shape scientific production. These results echo Cinelli et al. (2020), who observed that misinformation about COVID-19 has become globalized, complicating health risk management in a hyper-connected media environment.

The mapping of keywords underscores the importance of concepts such as "information," "communication," and "impact," which align with key theoretical approaches. As Hornik (2002) points out, the effectiveness of health communication campaigns depends on their capacity to influence behaviors, as demonstrated by the growing scholarly attention to obesity, prevention, and attitudes.

The prominence of collaborations between American and Asian institutions, with the City University of Hong Kong serving as a central pivot, highlights the international scope of research and the necessity of interdisciplinary cooperation. This finding supports Donthu et al. (2021), who advocate for in-depth bibliometric analyses to map knowledge networks and stimulate the production of research with significant social impact.

Finally, the thematic map indicates that chronic diseases and technology remain underexplored areas requiring further investigation. Future research should integrate insights from diffusion and persuasion theories to better understand the mechanisms behind the adoption of digital health innovations and to assess their concrete impact on populations.

6. Limitations

This study, while comprehensive, presents certain limitations that must be considered. The restriction to English-language articles indexed in the Web of Science (SSCI) database may have excluded relevant research published in other languages or covered in alternative databases. The bibliometric method, although effective for mapping trends and identifying influential contributions, does not provide the qualitative depth needed to analyze how media content influences health behaviors. remains a critical challenge, and doing so would strengthen strategies to counter misinformation and improve the effectiveness of health communication.

7. Conclusion

This study underscores the pivotal role of the media in shaping public health perceptions and behaviors, with particular emphasis on the impact of social networks during health crises such as COVID-19. Theoretical frameworks including diffusion of innovation, crisis communication, agenda-setting, and persuasion provide valuable lenses to understand how media influence health outcomes. The results demonstrate the necessity of developing robust health communication strategies capable of countering misinformation and mitigating information overload. Such strategies are essential for supporting policymakers and health professionals in fostering positive health behaviors. By systematically mapping research trends, the study identifies both established areas of focus and critical gaps that require further exploration. In doing so, it lays the groundwork for future interdisciplinary and global research to strengthen public health communication in an increasingly digital environment.

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