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A Scientometrics Analysis of the Research Publications in JIF Quartile Open-Access Journals of Medical Informatics

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Abstract
Background: Medical informatics has become an increasingly important interdisciplinary field that integrates healthcare, information technology, and data management. The rapid growth of open-access publishing has expanded the dissemination of medical informatics research, yet a comprehensive understanding of publication patterns, citation impact, collaboration networks, and emerging research themes within high-impact open-access journals remains limited.
Objective: This study aims to analyze the scientific publication landscape of medical informatics research published in Journal Impact Factor (JIF) quartile-ranked open-access journals, focusing on publication growth, citation performance, influential sources, author collaboration, thematic evolution, and research trends.
Methods: A scientometric approach was employed using data retrieved from the Web of Science database. Following the PRISMA screening procedure, 17,915 open-access articles published in ten JIF quartile-ranked medical informatics journals were included in the analysis. Bibliometrix/Biblioshiny, VOSviewer, and Microsoft Excel were utilized to examine publication productivity, citation impact, co-citation networks, keyword co-occurrences, funding patterns, and international collaborations.
Results: The dataset comprised 17,915 publications that received 381,038 citations and demonstrated an annual growth rate of 23.62%. The *Journal of Medical Internet Research* emerged as the most productive and influential source, contributing 7,344 publications and receiving 214,341 citations. Keyword analysis identified *mHealth*, *health*, and *care* as dominant themes, while *internet*, *impact*, *artificial intelligence*, and *COVID-19* represented emerging research topics. International collaboration was strongest between the United States and China, while the United States Department of Health and Human Services and the National Institutes of Health were the leading funding agencies.
Conclusion: The findings demonstrate the substantial growth and global influence of open-access medical informatics research. The field is increasingly shaped by digital health technologies, mobile applications, artificial intelligence, and internet-based healthcare innovations. This study provides a comprehensive overview of research productivity, scholarly impact, and thematic developments, offering valuable insights for researchers, publishers, policymakers, and funding agencies in advancing medical informatics research.

Keywords: *Medical informatics; medical information science; open-access journals; thematic evaluation; scientometrics; medical journals*

INTRODUCTION

The main objective of Medical Informatics is to advance medical research while raising the standard, effectiveness, and safety of healthcare delivery. Medical informatics is essential

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to developing telemedicine and telehealth technologies, which enable the provision of distant healthcare services. This technology allows patients to receive medical attention and consultations while relaxing in their homes (Ravi et al., 2017; Lwoga & Questier, 2014; Pinfield, 2010). Making research articles, data, and other scholarly content freely accessible to the public without paywalls is known as "open-access (OA)" publication in Health Informatics. However, it is also observed that Health Sciences professors are enthusiastic about implementing and using open access, despite the limited adoption of open access regarding self-archiving and publishing through OA web outlets (O'hanlon et al., 2020). The majority of the OA journals levy the authors the Article Processing Charges (APCs) for publishing their research to meet the routine expenses of the journals, and these APCs are paid by the authors, institutions or funding agencies (Borrego, 2023).

There are various OA journals of medical science that make available the scholarly communications freely to the readers for the sake of medical research. The study was conducted to focusing on the trends in research publications in journal impact factor quartile open-access journals of medical informatics by analysing the documents through scientometric methods.

This study provides a thorough scientometric summary of medical informatics research trends that have been published in JIF quartile open-access (OA) journals. It helps academics find important journals, highly cited sources, and new areas of study by charting publication growth, citation impact, collaboration patterns, and theme change. The results encourage researchers to make evidence-based choices when choosing which journals to publish in and work with. This study specifically focuses on Journal influence Factor (JIF) quartile-ranked open-access journals, offering a focused assessment of quality, visibility, and influence within the OA publishing ecosystem, in contrast to previous bibliometric studies that generally examine medical informatics literature. The combination of Article Processing Charges (APCs) with Impact Factor analysis, which illuminates the economic aspects of OA publishing in medical informatics an area seldom covered in previous research is a unique addition of this work.

Research Questions:

- To delve the strength of Health Informatics Open-Access Journals
- To find the yearly growth of "Open-Access Journals" in Health Informatics
- To assess the publications and citations in Health Informatics Journals
- To navigate the hot topics in Health Informatics
- To analyses the keyword co-occurrences, reference co-citations, sources, and author networks
- To identify leading funders, prolific authors, and globally influential papers
- To map the international collaborations in Health Informatics

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LITERATURE REVIEW

This article makes note of a change which has been made to 'Journal of Medical Internet Research' or JMIR, that is the honorarium for protocol peer reviewers to be paid partly, from a new submission fee for protocol reviews. For a lower price, authors can select 'peer-review only' (which does not involve publication) if they wish to wait for a funding decision or for other reasons do not wish to make a protocol public. No study is more crucial to people than Medical Research, so it needs to be published in prestigious journals that expertly handle peer review and offer value by copyediting and promoting articles after they are published (Gabrielle et al., 2018). There are other obstacles to guaranteeing the legitimacy of readily available scientific literature, including the recent emergence of predatory journals that want submissions from writers but charge exorbitant fees for each piece published and offer no monitoring (Iyandemye & Thomas, 2019). Society relies on high-quality, peer-reviewed articles for public policy, legal cases, and improving public health (Gabrielle et al., 2018; Kuballa, 2017).

The publishing poverty-related disease research in open access and through international collaboration has a meaningful, quantifiable citation advantage. The benefit of international collaboration, however, appears to be region-specific, with collaborations between European universities and those in sub-Saharan Africa having a more significant influence on research than those limited to sub-Saharan African research institutions. Another advantage of collaborative research is indicated by the considerable amount of OA that results from multinational collaborations (Patel & Kaufman, 1998). The range of fee-for-access publications appears to be somewhat higher in some applied fields of Medical Science including nursing, surgery, and those related to environmental issues. This may be due to the factors that limit the flow of knowledge produced by researchers and practitioners operating in low income setting to literature in those contexts (Müller et al., 2019). Navigating more than 11,000 open-access medical journals now available may be made more accessible for the readers by acknowledging the importance and efforts of reputable open-access online publications (Iyandemye & Thomas, 2019).

The majority of Medical Informatics journals use the hybrid approach; however, they have acknowledged the trend toward "open-access publishing" and hybrid open-access may cause issues with double dipping as well as the frequently required gold open-access (Haux, 2023). The hybrid experiment has not succeeded in greatly increasing the number of open-access papers, at least not with the big publishers, and at the present price point. As a result, hybrid OA continued to be a relatively uncommon occurrence in the world of scientific publishing (Belfiore et al., 2023). Several ways were listed for cognitive science might advance goals that are important to Medical Informatics researchers and practitioners (Aria et al., 2020). In order to accelerate the growth of new medical diagnostic assistants, it is essential to construct an open-access knowledge base, and thus conduct thorough the assessments. Such knowledge base should allow the users to contribute and edit, serving as a catalyst for technology innovation and the enhancement of systems across various contexts (Li & Yan, 2018). Medical informatics or biomedical and health informatics is the systematic approach and practice in organizing, representing, and analyzing data, information, and knowledge in Biomedicine and in the healthcare delivery (Van Eck & Waltman, 2016).

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METHODS

Tools and Data Collection

The study used the first bibliographic database, "Web of Science" (formerly known as Web of Knowledge). It is a citation database which allows its records to be updated daily. The bibliometric study carried carried out to map the research that was published in the open-access Medical Informatics journals that produced the findings, visualize the co-citation analysis, co-authorships, author's influence, source's impact, and analyze the trends of publishing in the journals. The Bibliometrix R Package, a tool to execute the full mapping analysis of science and enable a process to undertake bibliometric analysis, was used to conduct the study. The VOSViewer was used to visualize the results for generating and mapping the co-occurrence networks of important words, which have been extracted from a collection of full text articles from the scientific publications.

The study was conducted to extract data from the "Web of Science", which is a comprehensive citation database that provides bibliographic and citation information about journals and their metrics. In the first step, the category of Medical Informatics was selected in the "Journal Citation Report (JCR)" of the "Web of Science", and found 42 journals which were filtered of Open-Access (OA) with journal-level filters of DOAJ Gold Open-Access that resulted in 16 OA journals and further the limitations of JIF (Journal Impact Factor) Quartile as Q1, Q2, Q3, Q4 was used that finally resulted into 10 OA journals of Medical Informatics. The search strategy of Category (Medical Informatics), Open-Access (DOAJ Gold Open-Access) and JIF Quartile (Q1, Q2, Q3, & Q4) were used for the selection of 10 OA Journals of Medical Informatics, which is elaborated in Figure 1.

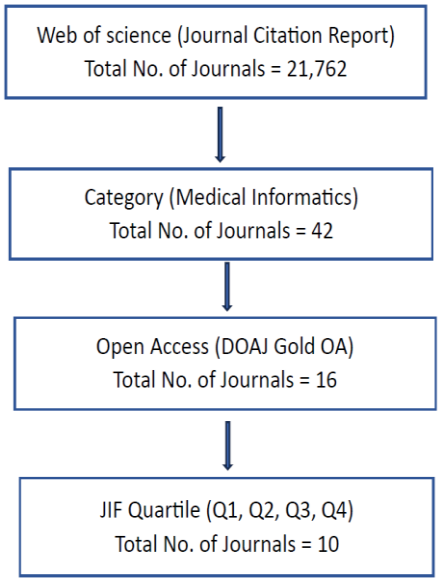

Figure 1: Flowchart of Journals Filtration

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The selected journals checked their websites for Article Processing Charges (APCs) and Impact Factor (IF) with JIF Quartile were obtained from the WOS database, as mentioned in Table 1.

After the selection of ten JIF Quartile Open-Access journals in the Web of Science category of Medical Informatics, the documents were searched by designing the queries on 29th December 2023, as "LANCET DIGITAL HEALTH (Publication Titles) or NPJ DIGITAL MEDICINE (Publication Titles) or JOURNAL OF MEDICAL INTERNET RESEARCH (Publication Titles) or JMIR MHEALTH "AND" UHEALTH (Publication Titles) or INTERNET INTERVENTIONS OF THE APPLICATION OF INFORMATION TECHNOLOGY IN MENTAL "AND" BEHAVIOURAL HEALTH (Publication Titles) or JMIR SERIOUS GAMES (Publication Titles) or DIGITAL HEALTH (Publication Titles) or BMC MEDICAL INFORMATICS "AND" DECISION MAKING (Publication Titles) or HEALTH INFORMATICS JOURNAL (Publication Titles) or JMIR MEDICAL INFORMATICS (Publication Titles) and Medical Informatics (Web of Science Categories) and Open Access and English (Languages)".

The data passed through the four "processes of identification, screening, eligibility, and inclusion" which is shown in Figure 2. It explains about the PRISMA procedure that covers the identification, screening of documents, find the eligibility of documents for study and finally includes the documents for study. In this process, selected journals were searched in the web of science and resulted 18349 documents from which non-english documents excluded and refined for only articles and again it was refined for only open access articles and found 17924 OA article for screening. 17924 articles were screened excluded incomplete and mismatched articles that resulted 17915 articles for eligibility testing. In the eligibility testing, no duplicate articles found and 17915 OA articles included for the study. Data validity was ensured by screening the data and duplicity was found zero because specific journals were selected from the single bibliographic data base for the study.

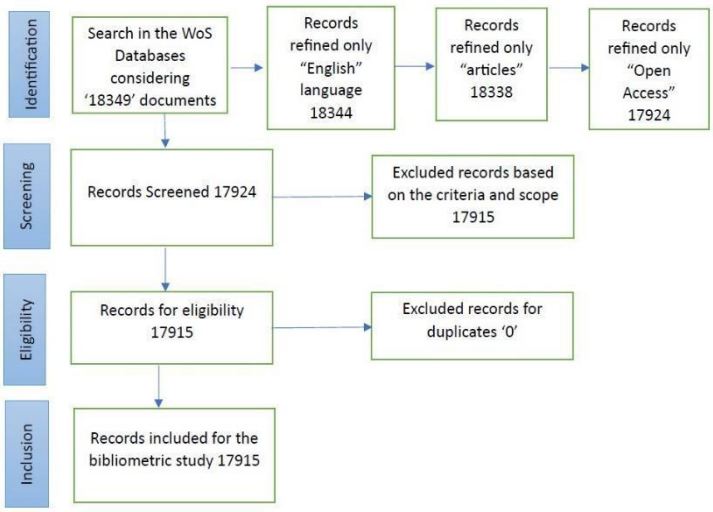

Figure 2: PRISMA Flow Chart

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Figure 3 shows the research design that included four stages (1) the source selection process; (2) bibliometric analysis by using the Biblioshiny R tool; (3) science mapping techniques by using VOSViewer; and (4) discussions along with a conclusion.

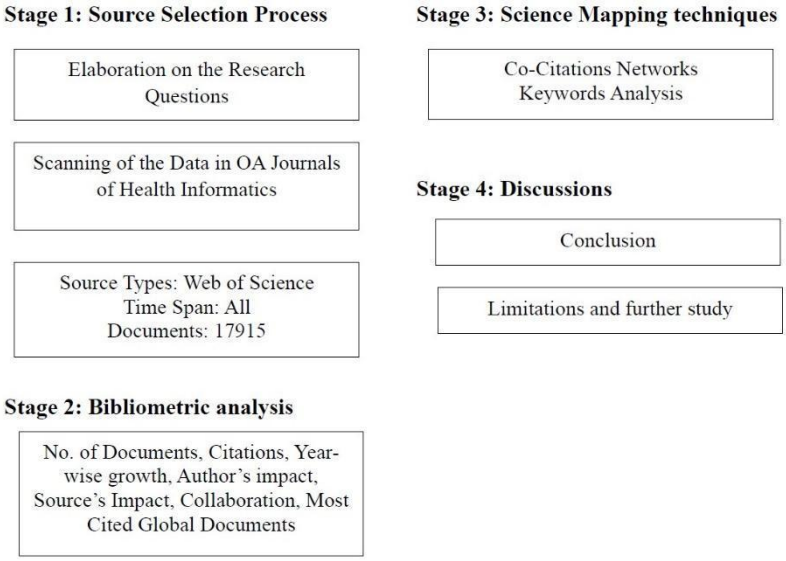

Figure 3: Research Design Flow Chart

FINDINGS

Selected 10 JIF Quartile Open-Access Journals of Medical Informatics

In the Table 1, the Journal Impact Factor (JIF) is used to group the journals into quartiles. According to the Impact Factor, Quartile 1 (Q1) represents the top 25% of journals, Quartile 2 (Q2) the next 25%, Quartile 3 (Q3) the next 25%, and Quartile 4 (Q4) the lowest 25%. The majority of the journals on the list fall into Q1 and Q2, demonstrating their strong impact in the area. The influence and reputation of a journal within its area are gauged by the Impact Factor. The Table displays different Impact Factors, with Health Informatics Journal having the lowest Impact Factor at 3 and 'Lancet Digital Health' having the greatest at 30.8. These figures represent the various degrees of popularity and influence of citations among these publications. These open-access journals' APCs vary as well, with 'Digital Health' having the lowest APC at $2000 and 'Lancet Digital Health' having the most at $5,780. When determining where to publish their work, researchers, institutions, and funders need to have access to this information because it may affect their budget. The journal 'JMIR Medical Informatics' published the maximum number of articles with 99.86% gold OA followed by 'JMIR Serious Games' and 'Journal of Medical Internet Research' with 99.66% and 99.54% gold OA respectively, and finally found that 80% of the journals publish more than 90% gold OA articles that show the strong support to the OA publishing.

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TABLE 1
Selected 10 JIF Quartile Open-Access Journals of Medical Informatics

Name of the OA Journals	Country	JIF Quartile	OA Since	Impact Factor	% of Gold OA	APCs
Lancet Digital Health	The Netherlands	Q1	2019	30.8	94.71	$ 5,780
NPJ Digital Medicine	Germany	Q1	2018	15.2	99.33	$ 3,053
Journal of Medical Internet Research	Canada	Q1	1999	7.4	99.54	$ 3,350
JMIR mHealth and uHealth	Canada	Q2	2013	5	99.52	$ 3,150
"Internet Interventions: The Application of IT in Mental and Behavioral Health"	Netherlands	Q2	2014	4.3	93.79	$ 3,110
"JMIR Serious Games"	Canada	Q2	2013	4	99.66	$ 2,950
Digital Health	England	Q2	2015	3.9	88.11	$ 2,000
"BMC Medical Informatics and Decision Making"	England	Q2	2001	3.5	99.43	$ 2,690
"JMIR Medical Informatics"	Canada	Q3	2013	3.2	99.86	$ 2,300
Health Informatics Journal	USA	Q3	2020	3	80.4	$ 2,000

Year-wise Growth of Publications and Citation of OA Journals

Table 2 presents the detailed analysis of distribution of the extracted data from the Web of Science (WOS) concerning with the increase of publication and citation in the 25 years period. The following Tables provide a useful information of the nature of research output and its impacts.

Highlights of the Dissertation: The fluctuation in the number of citations per article from year to year highlights the changing focus of research in different periods. The trend in the number of papers published is relatively rising and seems to experience some decline from 2021 to 2022. The rate at which each research work was cited each year increases gradually, allowing one to experience the compound impact of a research for a number of years.

TABLE 2
Year-wise Growth of Publications and Citation of OA Journals of Medical Informatics

Year	Articles	No. of Citations	Mean TC per Art	Mean TC per Year	Citable Year
1999	10	176	17.6	0.7	25
2000	21	305	14.52	0.6	24
2001	32	2,211	69.09	3	23
2002	21	1,690	80.48	3.66	22
2003	33	2,013	61	2.9	21

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2004	31	4,001	129.06	6.45	20
2005	50	3,791	75.82	3.99	19
2006	32	3,870	120.94	6.72	18
2007	79	5,450	68.99	4.06	17
2008	125	8,310	66.48	4.16	16
2009	123	8,407	68.35	4.56	15
2010	154	8,783	57.03	4.07	14
2011	206	14,109	68.49	5.27	13
2012	348	16,613	47.74	3.98	12
2013	489	25,837	52.84	4.8	11
2014	476	19,991	42	4.2	10
2015	565	25,912	45.86	5.1	9
2016	729	25,936	35.58	4.45	8
2017	862	27,499	31.9	4.56	7
2018	1175	33,617	28.61	4.77	6
2019	1986	43,075	21.69	4.34	5
2020	3212	61,782	19.23	4.81	4
2021	2990	28,893	9.66	3.22	3
2022	2543	8,065	3.17	1.58	2
2023	1623	702	0.43	0.43	1
	17,915	3,81,038			

Source's Impact of 10 Open-Access Journals

The specialization of the shown indexes and relationships is given in detail in Table 3, the quantity of articles and citations of the journals and the h-index, g-index and m-index demonstrates the strength of sources. The "Journal of Medical Internet Research" stands out as having the greatest h-index (171), g-index (270), and overall citations (2,14,341), demonstrating its significant influence and lengthy citation history. It also has one of the longest histories among the journals on the list. Despite having fewer overall citations than "Journal of Medical Internet Research", "NPJ Digital Medicine" and "Lancet Digital Health" have reasonably high g-indices and m-indices, indicating the presence of prominent publications and authors in these journals. The h-index and g-index of "JMIR mHealth and uHealth" and "BMC Medical Informatics and Decision Making" are noteworthy, demonstrating their influence within the field. The journals' publishing dates' range, with some, including "Internet Interventions" and "NPJ Digital Medicine," being more recent additions.

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TABLE 3
Source's Impact of 10 Open-Access Journals in Medical Informatics

Sources	h_index	Impact factor	Citescore	TC	NP	PY_start
Journal of Medical Internet Research	171	6.0	11.7	2,14,341	7,344	1999
JMIR mHealth and uHealth	84	6.2	11.2	48,880	2,365	2013
BMC MIDM	80	3.8	7.4	50,790	2,929	2007
NPJ Digital Medicine	74	15.1	20.30	22,386	898	2018
Lancet Digital Health	58	24.1	38.4	12,918	525	2019
JMIR Medical Informatics	42	3.8	7.7	9,977	1,134	2013
Digital Health	33	3.3	2.9	5,423	1,096	2015
JMIR Serious Games	32	4.1	8.6	5,036	480	2013
Health Informatics Journal	31	2.3	4.8	5,646	636	2009
Internet Interventions	31	4.1	7.3	5,641	508	2017

BMC Medical Informatics and Decision Making = BMC MIDM

Top 10 Funding Agencies for Research Publications

The information in Table 4 helps to understand the key funding organizations that support research publications on the subject of Medical Informatics. With 11.69% of all funding for research publications in Health Informatics, the US Department of Health and Human Services (HHS) leads the list. This signifies that a U.S. government organization has made a large investment in this area. With 10.639% of publications financed, the "National Institutes of Health (NIH)", another U.S. government organization, comes in as second. The NIH is renowned for providing significant funding for Scientific Research. The third-place is China's National Natural Science Foundation that highlights the country's expanding contribution to global Health Informatics research. The "Medical Research Council, National Institutes of Health, and UK Research and Innovation" are all that rank in the top 10 funding organizations category, giving the United Kingdom a strong showing. With the European Union sponsoring 2.205% of research publications in Health Informatics, there is an international collaboration.

TABLE 4
Top 10 Funding Agencies for Research Publications in Medical Informatics

Rank	Funding Agencies	Country	No. of Articles	% of Articles
1	United States Department of Health Human Services	USA	2,095	11.69%
2	National Institutes of Health	USA	1,906	10.639
3	National Natural Science Foundation	China	649	3.623

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4	UK Research Innovation	UK	500	2.791
5	European Union	Europe	395	2.205
6	National Institutes of Health Research	UK	354	1.976
7	National Health and Medical Research Council of Australia	Australia	326	1.82
8	Medical Research Council	UK	321	1.792
9	Canadian Institutes of Health Research	Canada	318	1.775
10	NIH National Cancer Institute	USA	305	1.702

Top 10 Author's Index of OA Research Publications

The Table 5 provides insight with an h-index of 29 and a g-index of 55, which indicate significant research impact and highly referenced publications, 'Gunther Eysenbach' from Canada is in the lead. Since 1999, he has been engaged in research in Health Informatics. The top 10 list includes authors from a wide variety of nations, reflecting the international scope of Health Informatics research. These nations include the Netherlands, South Korea, Australia, China, and Japan. Many authors have relatively high h-indices, which shows that their work consistently has an influence and is recognized within the field. Each author has a different total amount of citations, with some authors receiving thousands for their work. The length of a researcher's career in health informatics varies; some writers began contributing in the early 2000s, while others did so more recently, in the 2010s.

TABLE 5
Top 10 Author's Impact of OA Research Publications in Medical Informatics

Element	Country	h_index	g_index	m_index	TC	NP	PY_start
Eysenbach, Gunther	Canada	29	55	1.16	11,087	55	1999
Van Deursen, A J A M	Netherlands	29	55	1.611	3,143	83	2006
Riper, Heleen	Netherlands	25	54	1.563	3,005	57	2008
Lee, Junkyu	S. Korea	23	37	2.091	1,613	83	2013
Christensen, Helen	Australia	22	34	1	3,402	34	2002
Vries, Hein De	Netherlands	22	32	1.571	1,068	35	2010
Li, Julie	Australia	22	35	1.571	1,744	152	2010
Zhang, Yi	China	22	48	1.833	2,664	137	2012
Li, Yunxia	China	21	39	1.75	1,795	118	2012
Wang, Siqin	Japan	21	32	2.1	1,122	66	2014

Top 10 Global Cited Documents of Medical Informatics

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The Table 6 depicts the list notably emphasizes Gunther Eysenbach's work, with many of his documents being in the top 10. Ongoing changes have been brought about by his research in the area of Health Informatics. These highly referenced articles span a wide range of subjects, such as Deep Learning in Electronic Health Records (EHRs), web survey quality, mobile health apps, and definitions of e-health. The interdisciplinary character of Health Informatics is reflected in this variety. Several papers emphasize the significance of research methodology and reporting standards in the area by focusing on the assessment and standardization of web-based and mobile health treatments. Some publications may continue to have an impact a year after their initial publication, based on the high TCPY ratings for those particular documents. The most recent publication in the top 10 is Rajkomar et al.'s research on scalable and accurate Deep Learning using Electronic Health Records, which was released in 'NPJ Digital Medicine' in 2018. Due to its high NTC value, it has the potential to continue having an influence going forward.

TABLE 6
Top 10 Global Cited Documents of Medical Informatics

Documents	TC	TCPY	NTC
Eysenbach, G. (2004). Improving the quality of Web surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES). Journal of Medical Internet Research, 6(3), e34. DOI: 10.2196/jmir.6.3.e34	2,375	118.75	18.40
Eysenbach G (2005). The Law of Attrition. Journal of Medical Internet Research, 7(1):e11. DOI: 10.2196/jmir.7.1.e11	1,553	81.74	20.48
Webb, T., Joseph, J., Yardley, L., & Michie, S. (2010). Using the internet to promote health behavior change: A systematic review and meta-analysis of the impact of theoretical basis, use of behavior change techniques, and mode of delivery on efficacy. Journal of Medical Internet Research, 12(1), e1376. DOI: 10.2196/jmir.1376	1,531	109.36	26.84
"Schardt, C., Adams, M.B., Owens, T. et al. (2007). Utilization of the PICO framework to improve searching PubMed for clinical questions. BMC Medical Information Decision Making, 7(16). DOI: 10.1186/1472-6947-7-16"	1,333	78.41	19.32
"Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. Journal of Medical Internet Research, 15(4), e1933. DOI: 10.2196/jmir.1933"	1,189	108.09	22.50
"Eysenbach G (2001). What is e-health? Journal of Medical Internet Research, 3(2):e20. DOI: 10.2196/jmir.3.2.e20"	1,169	50.83	16.92
"Norman CD, Skinner HA (2006). eHealth Literacy: Essential Skills for Consumer Health in a Networked World. Journal of Medical Internet Research, 8(2):e9. DOI: 10.2196/jmir.8.2.e9"	1,160	64.44	9.59

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"Stoyanov SR, Hides L, Kavanagh DJ, Zelenko O, Tjondronegoro D, Mani M (2015). Mobile App Rating Scale: A New Tool for Assessing the Quality of Health Mobile Apps. JMIR mHealth uHealth, 3(1):e27. DOI: 10.2196/mhealth.3422"	1,040	115.56	22.68
"Eysenbach G, CONSORT-EHEALTH Group (2011). CONSORT-EHEALTH: Improving and Standardizing Evaluation Reports of Web-based and Mobile Health Interventions. Journal of Medical Internet Research, 13(4):e126. DOI: 10.2196/jmir.1923"	988	76.00	14.43
"Rajkomar, A., Oren, E., Chen, K., Dai, A. M., Hajaj, N., Hardt, M., & Dean, J. (2018). Scalable and accurate Deep Learning with Electronic Health Records. NPJ Digital Medicine, 1(1), 18. DOI: 10.1038/s41746-018-0029-1"	977	162.83	34.15

Total Citations = TC, TC per Year = TCPY, Normalized TC = NTC

Co-Occurrence Author's Keywords in OA Journals on Medical Informatics

The author's keywords of Medical Informatics co-occurrence network were created by using the VOSViewer visualization tool. The threshold of a minimum of 10 keywords was applied that meet the 1,570 thresholds of 26,033 author keywords. For each of the 1,570 keywords, the total strength of co-occurrence links with other keywords is calculated. The keywords with greater total link strength are selected. In this way, 50 keywords are selected for visualization.

Figure 4 shows the most used author keywords in OA Journals of Health Informatics. The further analysis of the data after having removed the core keywords related to the search query from Web of Science was that the most commonly used author keyword term was indeed 'mHealth' which appeared 1,534 times and the total link strength being 2,788. The anonymity of such studies into publications of OA Journals of Health Informatics studies was based on the VOSViewer software, whereby such 1,570 authors perform keywords were grouped into three clusters with different colors.

- Cluster 1 (Red, 20 items): Artificial Intelligence (AI), Cancer, Communication, Covid-19, Deep Learning, Education, Electronic Health Record, Healthcare, Health Information, Infodemiology, Learning, Machine Learning, Medical Informatics, Natural Language Processing, Pandemic, Patient, Public Health, Research, Social Media, Twitter.
- Cluster 2 (Green, 16 items): App, Digital, Digital Health, eHealth, Health, mHealth, Mobile, Mobile Apps, Mobile Health, Mobile Phone, Review, Self-management, Smartphone, Technology, Telehealth, Telemedicine.
- Cluster 3 (Blue, 14 items): Adherence, Anxiety, Behavior, Depression, Engagement, Exercise, Internet, Intervention, Mental Health, Obesity, Physical Activity, Prevention, Randomized Controlled Trail, Systematic Review.

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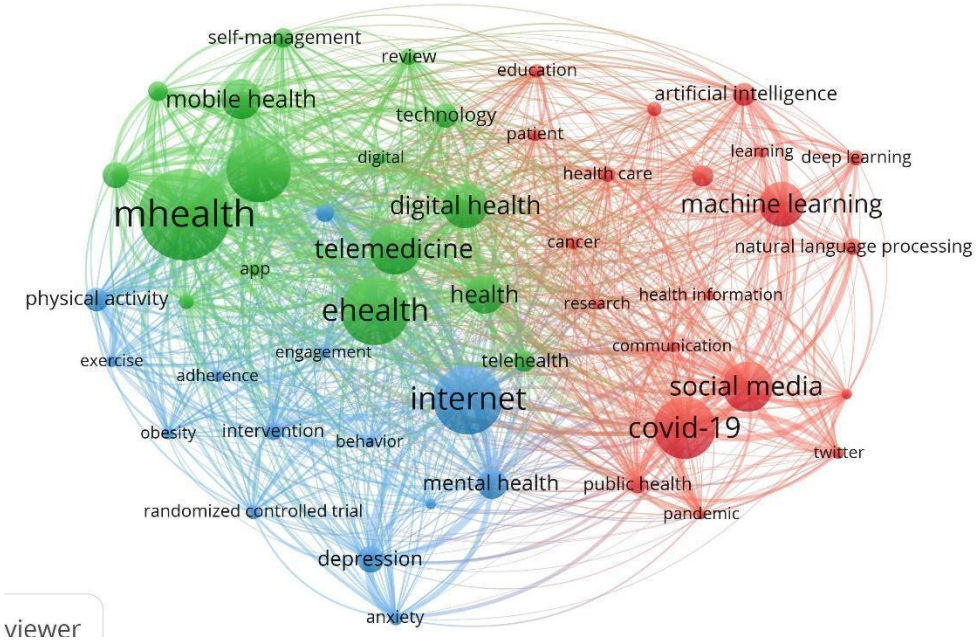

Figure 4: Co-Occurrence Author's Keywords in OA Journals on Medical Informatics

Trending Topics in the OA Journals:

Figure 5 shows the dominant themes like "Care" and "Health" with 1,677 and 1,481 mentions respectively. These are the two themes that are most frequently brought up in OA Journals of Health Informatics. These broad subjects imply that the fundamentals of healthcare remained continue to be a priority.

Emerging trends are also observed in Figure 5 which provides the notable emerging trends of "Internet" and "Impact". From 2014 to 2020, "Internet" grew steadily, which is a reflection of the growing significance of digital healthcare technology. The word "impact" also became more prevalent, indicating a rising focus on evaluating the results and consequences of Health Informatics research. Over time, subjects like "Information" and "Interventions" have steadily attracted more attention. This shows a persistent interest in creating healthcare solutions and successfully managing health-related information. Particularly in 2021 and 2022, references to "Artificial Intelligence" (AI) increased. This highlights the growing importance of Artificial Intelligence (AI) in Health Informatics, with applications ranging from decision assistance to diagnostics. From 2021 to 2023, "COVID-19" emerged as a noteworthy topic. This reflects the pandemic's direct effects on Health Informatics research, which had to deal with pressing problems and possibilities as a result.

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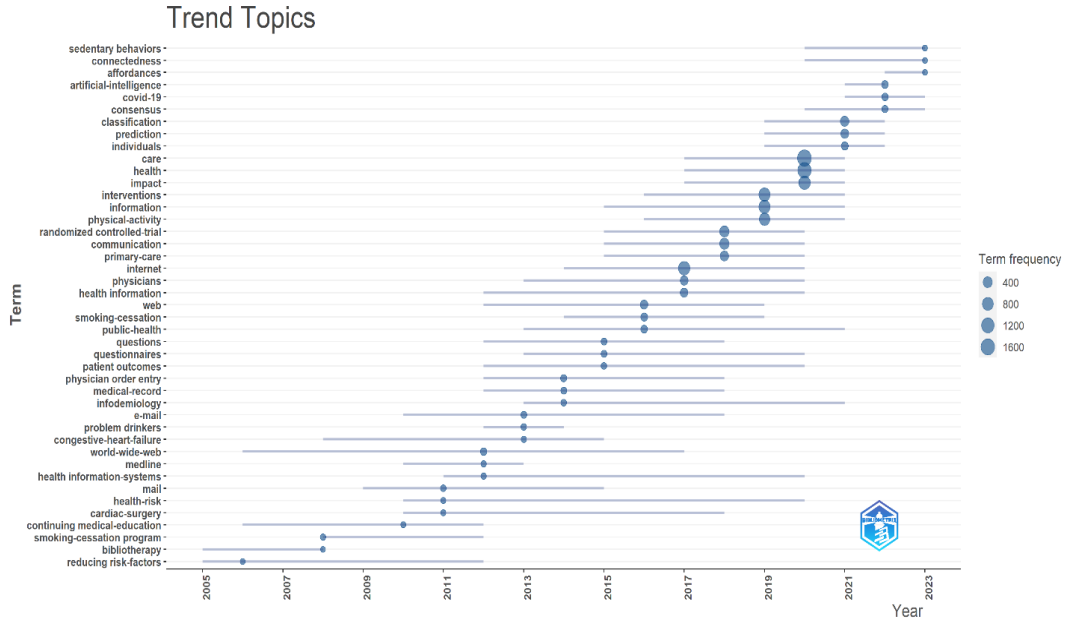

Figure 5: Trending Topics in the OA Journals of Medical Informatics

Reference Publication Year Spectroscopy of OA Journals:

In the Figure 6, the year 2020 had the most citations, according to the data, with 56,856, highlighting its importance in terms of research activity and relevance. A significant number of citations were made for the years 2016, 2017, and 2018, indicating their significance in the subject of Health Informatics. Citations significantly decreased in 2021 and 2022 compared to the prior years, a symptom of a dramatic shift in research goals or outside forces affecting research production. Overall, the statistics point to periods of high expansion followed by brief decreases in Health Informatics research.

The years 2020, 2017 and 2018 dominated in recent years, and received a large number of citations. Fluctuations are also observed in Figure 6. According to the notable year-to-year variations in citations, there are times of strong development followed by brief decreases in Health Informatics research. Changes in research goals, technological improvements, or discoveries may have an impact on these oscillations. For the potential impact of external variables on research production, the COVID-19 pandemic or changes in the funding priorities may be partially responsible for the steep fall in citations during 2021 and 2022. Despite oscillations, the positive median differences shown over several years provide evidence of long-term development in the Health Informatics research.

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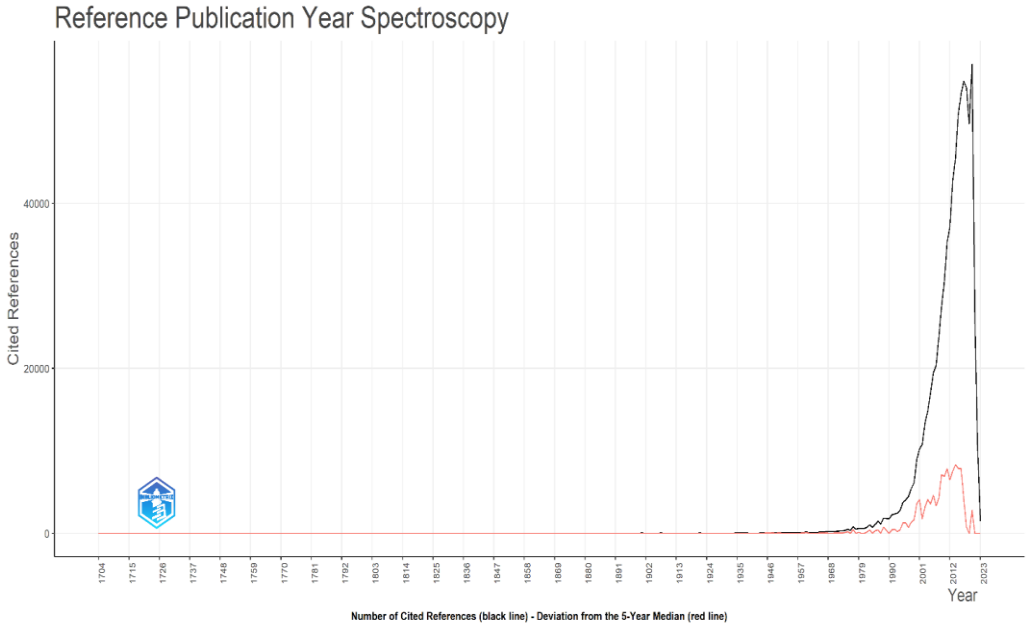

Figure 6: Reference Publications Years Spectroscopy of Medical Informatics

Co-Citation Analysis of Cited References, Cited Sources and Cited Authors:

The VOSViewer software created the Medical Informatics Co-Citation analysis of cited references, cited sources and cited authors used in Health Informatics, and mapped in Figure 7a (Cited References), Figure 7b (Cited Sources) and Figure 7c (Cited Authors). The threshold of a minimum number of 20 citations of cited references, cited sources and cited authors was applied which meets the 2,108 for cited references, 3,727 cited sources and 4,830 cited authors threshold. For each of the total number of thresholds of cited references, cited sources and cited authors, the total strength of the co-citation network with other references, sources and authors is calculated. The cited references cited sources and cited authors with greater total link strength are selected. In this way, a minimum of 100 cited references, sources and authors are selected for visualization.

All the references featured in the co-citation network map are the top cited reference, retrieved from OA Journals of Medical Informatics. The node and link sizes mean the weight of the nodes. Visibility of care-professionals' time and staff's contact are highly dependent on the scale of a relation between two nodules where short distances mean that the relation is intensive. As presented in Figure 7, this is the list of most cited references in OA Journals of Medical Informatics. Figure 7a revealed that "Eysenbach G (2005), The Law of Attrition. Journal of Medical Internet Research, 7(1): e11" was the top cited reference (n = 452 and total link strength 1,554) followed by "Braun V. (2006). Quality Research Psychology, V3. P77" (n = 620, total link strength 905). Figure 7b depicts a co-citation analysis of cited sources that "Journal of Medical Internet Research" was the top cited source (n = 36,626 and total link

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strength 6,59,592) followed by "JMIR mHealth and uHealth" (n = 10,224, total link strength 2,06,406). Moreover, the co-citation analysis of cited authors was shown in Figure 7c, "Eysenbach, G" was the top cited author (n = 2,451 and total link strength 26,238) followed by "Michie, S" (n = 1,055, total link strength 17,254).

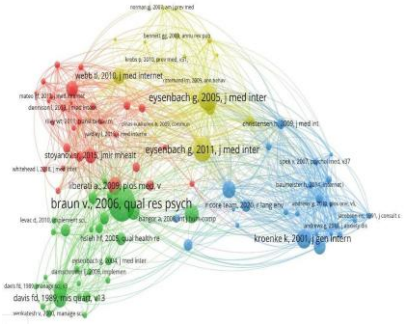

Figure 7a. Cited References

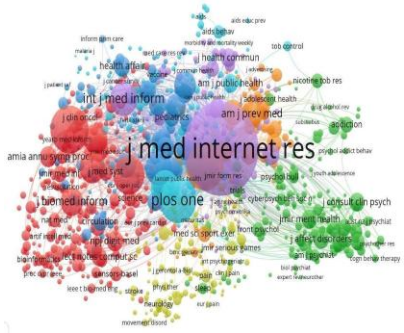

Figure 7b. Cited Sources

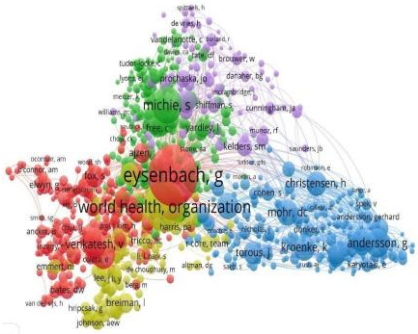

Figure 7c. Cited Authors

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Bradford Law of Most Prolific Journals

Table 7 shows that with an article frequency of 7,344, the 'Journal of Medical Internet Research' is ranked highest. It belongs to Zone 1, which is made up of the journals with the highest productivity in the industry. and with a frequency of 2929 articles, the journal 'BMC Medical Informatics and Decision Making' comes in second. It belongs to Zone 2, which is made up of journals that produce a lot of publications, but not as many as Zone 1. The journal 'JMIR mHealth and uHealth' with a frequency of 2365 articles falls into Zone 2 and similarly, the journal 'JMIR Medical Informatics' has a frequency of 1134 articles placing it in Zone 3. Journals in Zone 3 often publish fewer articles than those in Zones 1 and 2.

The analysis shows that there is a distinct concentration of articles in Zone 1 (the most prolific of which is the Journal of Medical Internet Research), with Zone 2 and Zone 3 journals following. This is consistent with Bradford's Law, which postulates that a sizeable fraction of published publications on a particular subject come from a limited number of core journals.

TABLE 7
Bradford Law of the Open-Access Journals of Medical Informatics

Sources	Rank	Freq	CumFreq	Zone
Journal of Medical Internet Research	1	7344	7344	Zone 1
BMC Medical Informatics and Decision Making	2	2929	10273	Zone 2
JMIR mHealth and uHealth	3	2365	12638	Zone 2
JMIR Medical Informatics	4	1134	13772	Zone 3
Digital Health	5	1096	14868	Zone 3
NPJ Digital Medicine	6	898	15766	Zone 3
Health Informatics Journal	7	636	16402	Zone 3
Lancet Digital Health	8	525	16927	Zone 3
Internet Interventions-The Application of Information Technology in Mental and Behavioural Health	9	508	17435	Zone 3
JMIR Serious Games	10	480	17915	Zone 3

International Collaboration for Research in Medical Informatics

The Figure 8 explains the terms of collaboration between the United States (USA) and China (484), with a significant number of 484 partnerships, the USA and China are the most often collaborating countries. This suggests that these two nations work closely together in the area of Health Informatics. It can imply that there is a considerable interchange of academics and researchers between the USA and China or that they are actively working on cooperative research initiatives. Similarly, the collaboration between the United States and the United

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Kingdom (435) found in 435 documents, the USA and the United Kingdom (UK) are the second most frequent partners. Given the historical links and shared language between the two nations, this suggests a robust transatlantic research relationship.

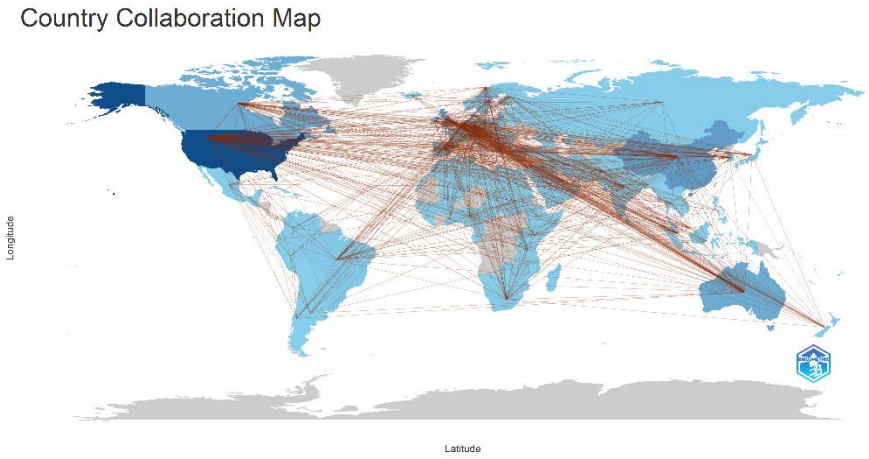

Figure 8. International Collaboration for Research in Medical Informatics

DISCUSSION

The majority of Medical Informatics journals use the hybrid approach; however, they have acknowledged the trend toward open-access publication (Haux, 2023). The bulk of Biomedical and Health Informatics researchers are still unaware of OA (William et al., 2006). One significant addition to 'JMIR' is the honorarium that protocol peer reviewers received, which become part from a new cost for protocol review submissions. Either writers wish to wait for a funding decision or have any other reason that they do not wish the protocol to go public, they can opt to pay less for "peer-review only," where no publication occurs after the peer-reviewing process. This can be accomplished by unbundling the article processing charge into a submission and a publishing fee (He et al., 2022).

The year-wise Growth of Publications and Citation are analysed through the extracted data from the WOS and summarize the development of research production and its effects over 25 years. The fall and rise of research publications depend upon global events as COVID-19 affected all fields of research as well as Medical Informatics. Significant international events frequently have a dramatic impact on science, and overcoming these academic obstacles calls for focused research (Sazzed, 2021). From the early days of Medical Informatics to the present, Medical Data Analysis has been a crucial area of study and increased by 12% year on average (Nadri et al., 2017). It may be used to monitor patterns in research output, pinpoint crucial years, and comprehend the dynamics of citation in a certain area of study. Both in the year of publication and overall, citation counts for open-access papers were much higher (Aria et al., 2022).

The higher h-index, g-index, and m-index of the journals indicate the impact of the research publications in which 'Journal of Medical Internet Research' has the highest h-index

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and the g-index shows the strength and highest citations reflects the popularity of the journal. Despite having few resources, the journal has become a leader in Health Informatics over the past ten years and is currently rated first by Impact Factor in the areas of Medical Informatics and Health Services Research (Gülkesen & Haux, 2019). The new bibliometric indices and databases alter the visibility of smaller technology-oriented fields such as Medical Informatics, which may result in appropriately adjusted publication strategies. Accessible author-related indexes are free of charge, making individual evaluations simple and sufficient (Zou & Sun, 2020).

To discuss the funding organizations, it is found a thorough summary of the key funding organizations supporting publications in the field of Health Informatics by providing the Article Processing Charge (Blažun et al., 2019). Medical Informatics is a research-intensive field, and funding agencies frequently assist with research initiatives (Haux, 2023). Many of the largest supporters of biomedical research throughout the world have joined NIH and the Welcome Trust (Paton et al., 2013). 'Eysenbach, Gunther' has received the highest number of citations with fewer publications followed by 'Li, Julie' has received fewer citations with the highest number of publications shows that several publications do not matter. However, another study revealed that 'David W Bates' is the most productive author followed by 'Hua Xu' (He et al., 2022). Information specialists in the Health Sciences may use this acceptance of open access to promote OA publishing (O'hanlon et al., 2020). Scholars from developing nations, who frequently lack access to anything that requires a membership, tend to reference open-access materials. Thus, the publication mechanism can have an impact on the citation count, which is the primary criterion for ranking (Sazzed, 2021).

The results of the past study give an understanding of the quality of the works, journals, and trends influencing Medical Informatics as well as the frequency of citations for highly referenced publications produced in that field (Nadri et al., 2017). In terms of the co-citations analysis of the cited references, cited sources and cited authors, the 'Journal of Medical Information Research' found the top co-cited source with co-citations of 36,626 followed by "JMIR mHealth and uHealth" with co-citation 10,224. JMIR Publications is a social venture in addition to a company. As a result of these initiatives, academic organizations are progressively moving their publications to JMIR Publications (Eysenbach, 2019). The results of the past study give an understanding of the quality of the works, journals, and trends influencing Medical Informatics as well as the frequency of citations for highly referenced publications produced in that field (Nadri et al., 2017).

Initiating the analysis on the Web of Science dataset excluding the core keywords related to the search query, 'mHealth' dominated the author keywords list followed by 'internet' and then 'eHealth'. The VOSViewer software classified the 1,570 authors' keywords into three groups of colors for pubs in OA journals of Health Informatics studies. Using Thematic Analysis, a bibliometrics technique that point out a study domain's conceptual structure by providing information on the most discussed topics (Aria et al., 2022). Figure 4 provides insightful information about the dominance of "care" and "health" subjects, together with newly developing trends like "internet," "impact," and "Artificial Intelligence," illustrating the field's dynamism. These findings may be used by Health Informatics researchers, practitioners, and

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policymakers to direct their work and change with the evolving healthcare and technological landscapes.

The 'mHealth' concept generally deals with the 'web', 'online education', 'mobile phone', 'mobile app', and 'messaging', etc. due to the introduction of mobile technologies used in healthcare applications (He et al., 2022; Gülkesen & Haux, 2019). The analysis shows the trend that the most prolific journals are the 'Journal of Medical Internet Research', 'JMIR mHealth and uHealth', and 'BMC Medical Informatics and Decision Making'; however, the journals with lesser production are 'JMIR Medical Informatics' and 'Digital Health' and 'Medical Informatics Journal' in Zone 3; which emphasizes the concentration of papers in core journals and the decrease in publication frequency as one goes away from them, is consistent with Bradford's Law. However, another study investigated that 'International Journal of Medical Informatics' is a more productive source of Health Informatics (Zou & Sun, 2020).

The most collaborative countries like the USA and China for 484 publications. It is also found in another study that international collaboration and OA publication of PRD research have a meaningful, quantifiable citation benefit (Gabrielle et al., 2018). In publishing, the United States has regularly come out on top (He et al., 2022). The United States of America, the United Kingdom, Germany, The Netherlands, and Canada are the most productive nations (Blažun et al., 2019). A continued increase in the publishing pace and accessibility of papers is anticipated as the demand for and acceptance of online open-access journals grows (Paton et al., 2013).

CONCLUSIONS

Medical Informatics can assist in achieving better and more affordable medical care for people worldwide by expanding chances for global access to medical information and services (Zou & Sun, 2020). The open-access business model can play an important role in making it globally accessible to all readers without any technical, financial or social barriers. The study was conducted to investigate the open-access journals of Medical Informatics and analyze their publications. Finally, it is concluded from the study that the majority of the journals of Medical Informatics support open access publishing with the adoption of more than 90% gold OA articles and Medical Informatics has been growing with the new technology of mobile apps, Artificial Intelligence (AI) and the internet.

The study has limitations of only ten journals as a representative sample and the research findings do not have comprehensive coverage of all the Medical Informatics journals. The data collected from only Web of Science can be expanded from WOS to PubMed and Scopus. The study only included the open-access journals indexed in the Web of Science with JIF Quartile under the Web of Science Subject Category of Medical Informatics which can be expanded to other subjects of Medical Sciences, Science & Technology and Social Sciences and more journals for emerging source citation indexed in future perspective and compared to our results. The chosen bibliographic databases (such as Web of Science, Scopus, or Dimensions) have a significant impact on scientometric analysis. Datasets may be biased or incomplete because each database has its own coverage, indexing guidelines, and journal

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inclusion standards. The study can be conducted in many manners which is confined to limited inference and generalization in size and scope for analysis of data set.

AUTHOR CONTRIBUTIONS

[Gulam Jilani]: Conceptualization, writing the original draft, data curation, investigation. [Swapna Banerjee]: Review, editing, and supervision.

CONFLICTS OF INTEREST

It is declared that no conflict of interest regarding this article.

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REFERENCES

Aria, M., Cuccurullo, C., D'aniello, L., Misuraca, M., & Spano, M. (2022). Thematic analysis as a new culturomic tool: the social media coverage on COVID-19 pandemic in Italy. *Sustainability (Switzerland)*, *14*(6), 1–22. https://doi.org/10.3390/su14063643

Aria, M., Misuraca, M., & Spano, M. (2020). Mapping the evolution of social research and data science on 30 years of social indicators research. *Social Indicators Research*, *149*(3), 803–831. https://doi.org/10.1007/s11205-020-02281-3

Beall, J. (2013). Medical publishing triage - chronicling predatory open access publishers. *Annals of Medicine and Surgery*, *2*(2), 47–49. https://doi.org/10.1016/S2049-0801(13)70035-9

Belfiore, A., Scaletti, A., Lavorato, D., & Cuccurullo, C. (2023). The long process by which HTA became a paradigm: A longitudinal conceptual structure analysis. *Health Policy*, *127*(December 2021), 74–79. https://doi.org/10.1016/j.healthpol.2022.12.006

Blažun Vošner, H., Železnik, D., & Kokol, P. (2019). Bibliometric analysis of the International Medical Informatics Association official journals. *Informatics for Health and Social Care*, *44*(4), 405–421. https://doi.org/10.1080/17538157.2018.1525734

Borrego, Á. (2023). Article processing charges for open access journal publishing: a review. *Learned Publishing*, *36*(3), 359–378. https://doi.org/10.1002/leap.1558

Eysenbach, G. (2010). 10 years experience with pioneering open access publishing in health informatics: The Journal of Medical Internet Research (JMIR). *Studies in Health Technology and Informatics*, *160*(PART 1), 1329–1333. https://doi.org/10.3233/978-1-60750-588-4-1329

Cite this article: Jilani, G., & Banerjee, S. (2026). A Scientometrics Analysis of the Research Publications in JIF Quartile Open-Access Journals of Medical Informatics. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi dan Kearsipan, 12*(1), 86–109. http://doi.org/10.14710/lenpust.v12i1.78293

E-ISSN: 2540-9638, ISSN: 2302-4666.
doi: http://doi.org/10.14710/lenpust.v12i1.78293

Eysenbach, G. (2019). Celebrating 20 years of open access and innovation at JMIR publications. *Journal of Medical Internet Research*, *21*(12), 1–7. https://doi.org/10.2196/17578

Gabrielle Breugelmans, J., Roberge, G., Tippett, C., Durning, M., Struck, D. B., & Makanga, M. M. (2018). Scientific impact increases when researchers publish in open access and international collaboration: A bibliometric analysis on poverty-related disease papers. *PLoS ONE*, *13*(9), 1–8. https://doi.org/10.1371/journal.pone.0203156

Gülkesen, K. H., & Haux, R. (2019). Research subjects and research trends in medical informatics. *Methods of Information in Medicine*, *58*(1), 1–13. https://doi.org/10.1055/s-0039-1681107

Han, W., Han, X., Zhou, S., & Zhu, Q. (2022). The development history and research tendency of medical informatics: Topic Evolution Analysis. *JMIR Medical Informatics*, *10*(1), 1–16. https://doi.org/10.2196/31918

Harnad, S. (2009). Open access scientometrics and the UK research assessment exercise. *Scientometrics*, *79*(1), 147–156. https://doi.org/10.1007/s11192-009-0409-z

Haux, R. (2023). Reflections towards the future of medical informatics a farewell lecture after almost half a century of medical informatics activities professional life phases and discipline. In *IMIA Yearbook of Medical Informatics* (pp. 1–16). https://doi.org/10.1055/s-0043-1768716

He, X., Peng, C., Xu, Y., Zhang, Y., & Wang, Z. (2022). Global scientific research landscape on medical informatics from 2011 to 2020: bibliometric analysis. *JMIR Medical Informatics*, *10*(4), 1–13. https://doi.org/10.2196/33842

Iyandemye, J., & Thomas, M. P. (2019). Low income countries have the highest percentages of open access publication: a systematic computational analysis of the biomedical literature. *PLoS ONE*, *14*(7), 1–11. https://doi.org/10.1371/journal.pone.0220229

Khozani, N. K., Mansouri, A., Pashootanizadeh, M., & Dorcheh, E. E. (2025). Bibliometric analysis of the evaluation concepts of humanities research outputs. *Scientometrics Research Journal*, *11*(1), 25–48. https://doi.org/10.22070/rsci.2024.18702.1710

Kilgallon, J. L., Khanna, S., Dey, T., Smith, T. R., & Ranganathan, K. (2023). Open(ing) Access: top health publication availability to researchers in low-and middle-income countries. *Annals of Global Health*, *89*(1), 1–9. https://doi.org/10.5334/aogh.3904

Kuballa, S. (2017). Open access publishing in the field of medical informatics. *Journal of Medical Systems*, *41*(5), 3–6. https://doi.org/10.1007/s10916-017-0729-0

Li, K., & Yan, E. (2018). Co-mention network of R packages: scientific impact and clustering structure. *Journal of Informetrics*, *12*(1), 87–100. https://doi.org/10.1016/j.joi.2017.12.001

Cite this article: Jilani, G., & Banerjee, S. (2026). A Scientometrics Analysis of the Research Publications in JIF Quartile Open-Access Journals of Medical Informatics. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi dan Kearsipan, 12*(1), 86–109. http://doi.org/10.14710/lenpust.v12i1.78293

E-ISSN: 2540-9638, ISSN: 2302-4666.
doi: http://doi.org/10.14710/lenpust.v12i1.78293

Lwoga, E. T., & Questier, F. (2014). Faculty adoption and usage behaviour of open access scholarly communication in health science universities. *New Library World*, *115*(3), 116–139. https://doi.org/10.1108/NLW-01-2014-0006

Müller, L., Gangadharaiah, R., Klein, S. C., Perry, J., Bernstein, G., Nurkse, D., Wailes, D., Graham, R., El-kareh, R., Mehta, S., Vinterbo, S. A., & Aronoff-spencer, E. (2019). An open access medical knowledge base for community driven diagnostic decision support system development. *BMC Medical Informatics and Decision Making*, *19*(93), 1–7. https://doi.org/https://doi.org/10.1186/s12911-019-0804-1

Nadri, H., Rahimi, B., Timpka, T., & Sedghi, S. (2017). The top 100 articles in the medical informatics: a bibliometric analysis. *Journal of Medical Systems*, *41*(150), 1–12. https://doi.org/10.1007/s10916-017-0794-4

Norouzi, Y., Radfar, H., & Far, N. J. (2025). Analyzing scientific authority: an approach based on scientific mapping. *Scientometrics Research Journal*, *11*(1), 161–186. https://doi.org/10.22070/rsci.2024.18834.1717

O'hanlon, R., McSweeney, J., & Stabler, S. (2020). Publishing habits and perceptions of open access publishing and public access amongst clinical and research fellows. *Journal of the Medical Library Association*, *108*(1), 47–58. https://doi.org/10.5195/jmla.2020.751

Patel, V. L., & Kaufmann, D. R. (1998). Medical informatics and the science of cognition. *Journal of the American Medical Informatics Association*, *5*(6), 493–502. https://doi.org/10.1136/jamia.1998.0050493

Paton, C., Househ, M., & Malik, M. (2013). The challenges of publishing on health informatics in developing countries. *Applied Clinical Informatics*, *4*, 428–433. https://doi.org/10.4338/ACI-2013-04-IE-0030

Pinfield, S. (2010). Paying for open access? institutional funding streams and OA publication charges. *Learned Publishing*, *23*(1), 39–52. https://doi.org/10.1087/20100108

Pinfield, S., & Middleton, C. (2016). Researchers' adoption of an institutional central fund for open-access article-processing charges: a case study using innovation diffusion theory. *SAGE Open*, *6*(1), 1–18. https://doi.org/10.1177/2158244015625447

Ravi, D., Wong, C., Deligianni, F., Berthelot, M., Andreu-Perez, J., Lo, B., & Yang, G. Z. (2017). Deep learning for health informatics. *IEEE Journal of Biomedical and Health Informatics*, *21*(1), 4–21. https://doi.org/10.1109/JBHI.2016.2636665

Sazzed, S. (2021). Association between the rankings of top bioinformatics and medical informatics journals and the scholarly reputations of chief editors. *Publications*, *9*(3), 42. https://doi.org/10.3390/publications9030042

Scaffidi, M. A., Elsolh, K., Li, J., Verma, Y., Bansal, R., Gimpaya, N., Larivière, V., Khan, R., & Grover, S. C. (2021). Do authors of research funded by the canadian institutes of health research comply with its open access mandate?: a meta-epidemiologic study. *PLoS ONE*, *16*(8 August 2021), 1–13. https://doi.org/10.1371/journal.pone.0256577

Cite this article: Jilani, G., & Banerjee, S. (2026). A Scientometrics Analysis of the Research Publications in JIF Quartile Open-Access Journals of Medical Informatics. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi dan Kearsipan, 12*(1), 86–109. http://doi.org/10.14710/lenpust.v12i1.78293

Schulze, M., Mielke, C., Taddicken, M., Haux, R., & Kuballa, S. (2019). Identification of influencing factors regarding the decision for or against an open access publication of scientists of medical informatics: description and first results of group discussions and interviews. *Studies in Health Technology and Informatics*, *264*, 1248–1252. https://doi.org/10.3233/SHTI190426

Sohrabi, C., Mathew, G., Franchi, T., Kerwan, A., Griffin, M., Soleil C Del Mundo, J., Ali, S. A., Agha, M., & Agha, R. (2021). Impact of the coronavirus (COVID-19) pandemic on scientific research and implications for clinical academic training – a review. *International Journal of Surgery*, *86*(January), 57–63. https://doi.org/10.1016/j.ijsu.2020.12.008

Tazegul, G., & Emre, E. (2021). Scientometric data and open access publication policies of clinical allergy and immunology journals. *Cureus*, *13*(2). https://doi.org/10.7759/cureus.13564

Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Van Eck, N. J., & Waltman, L. (2012). Manual for VOSviewer version 1.5.2. In *Leiden Univeristy* (Issue September). http://www.vosviewer.com/documentation/Manual_VOSviewer_1.5.4.pdf

Van Eck, N. J. Van, & Waltman, L. (2016). Text mining and visualization. In *text mining and visualization*. https://doi.org/10.1201/b19007

Wang, J. Z., Pourang, A., & Burrall, B. (2019). Open access medical journals: benefits and challenges. *Clinics in Dermatology*, *37*(1), 52–55. https://doi.org/10.1016/j.clindermatol.2018.09.010

William, S. G., Webb, A., Gleghorn, C., & Hospital NHS Trust, C. (2006). Open access publishing in the biomedical sciences: could funding agencies accelerate the inevitable changes? *Health Information and Libraries Journal*, *23*, 197–202. https://doi.org/10.1111/j.1471-1842.2006.00657.x

Zou, L., & Sun, L. (2020). Visualization analysis of health informatics research from 2001 to 2018. *Current Science*, *118*(5), 714–721. DOI: 10.18520/cs/v118/i5/714-721

Cite this article: Jilani, G., & Banerjee, S. (2026). A Scientometrics Analysis of the Research Publications in JIF Quartile Open-Access Journals of Medical Informatics. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi dan Kearsipan, 12*(1), 86–109. http://doi.org/10.14710/lenpust.v12i1.78293

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