

Healthy Connections: Crafting Compelling Healthcare Marketing Strategies

Riat El Khair,1 Qurratul Aini1

Abstract

Due to the importance of healthcare on both an individual and public level, the efficient functionality of the healthcare system is a fundamental component of society's overall well-being. The primary purpose of this research was to assess how academic contributions to healthcare marketing investigations have evolved over time. The paper delved into various aspects from 2015 to 2024, including publishing trends, core journals, authorship patterns, institutional affiliations, nation-wise contributions, theme distributions, author collaborations and keywords. Data was collected from the Scopus database by using appropriate keywords. The collected dataset underwent meticulous analysis and visualisation using the VOSviewer software. This analytical approach facilitated the identification of significant bibliometric metrics, enabling a deeper understanding of the dynamics and peculiarities of healthcare marketing research throughout the specified period. The most fruitful affiliation or institutional source for healthcare marketing was University Sains Malaysia. Top 5 most productive authors contributing to the field of healthcare marketing were Bellio et al, Buccoliero et al, Djakeli et al, Ghinita et al and Harrison et al. The United States was the nation that produces the greatest number of scientific articles related to healthcare marketing. The most important journal for healthcare marketing was International Journal of Pharmaceutical and Healthcare Marketing. The most common subjects in healthcare marketing were business, management and accounting. With twenty-one publications, the number of international scholarly publications on healthcare marketing reached a peak in 2023. Eleven writers were closely associated with the ownership of two or more documents. There were 24 keywords with a significant human correlation.

Key words: Healthcare; Marketing; Industry; Bibliometrics.

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Introduction

Due to the importance of healthcare on both an individual and public level, the efficient functionality of the healthcare system is a fundamental component of society's overall well-being. Therefore, healthcare is an essential component of society's long-term progress and its prosper-

ity should be a top concern for all stakeholders involved.² At global scale, maintaining people in good health is widely recognised as crucial to a nation's long-term prosperity.³ Applying a sustainable development perspective to healthcare systems can provide clear guidance on how mar-

keting can help to achieve the objectives of a sustainable healthcare system overall, as well as of sustainable healthcare organisations.⁴

One of the most pressing issues facing those involved in healthcare is "engaging with users and improving the patient experience," two areas that fall squarely within the purview of marketing. Healthcare facilities should prioritise understanding consumer behaviour and preferences in order to create individualised programs that satisfy each patient expectations. People in the healthcare industry have also proposed that businesses take advantage of new technologies to better communicate with their patients. This includes telemedicine, virtual reality and social media.⁵ Research shows that hospitals can enhance their operational and financial performance by focusing on the patient experience. The presence of a marketing department is correlated with enhanced market orientation and improved performance in hospitals.⁶

Applying marketing concepts and approaches to the "broad, heterogeneous and complex field of health" is what healthcare marketing is all about.⁷ The term "healthcare marketing" has

been used to describe social marketing, health service marketing and life science marketing.⁵ Healthcare marketing is quite similar to the marketing of intangible services, which is a big part of mainstream marketing.⁸ One of the main goals of healthcare marketing is to identify and comprehend the needs and requirements of potential patients so that one may provide them with the best possible treatment.⁹

Since all businesses compete to some extent on a foundation of quality, service quality has emerged as a critical differentiation and a basic source of advantage in competition.¹⁰ Just like any other business, private healthcare providers face market forces. As a result, there is growing demand on them to provide exceptional healthcare and ensure service excellence to satisfy patients.11 This will help them gain a competitive edge. 12 Consistent with modern consumer trends, healthcare consumers are demanding more from their providers in terms of value for money and quality is now a major element in their decision-making process. This is because healthcare has far-reaching effects on mortality, morbidity and lifespan.¹³

Methods

A combination of bibliometric analysis and a descriptive quantitative approach was used.¹⁴ The study relied on scientific publications that evaluated healthcare marketing as the primary source of research data.¹⁵ The unit of analysis used in this study was scientific paper.

This study leveraged healthcare marketing-related worldwide publication data gathered from the database *Scopus* (www.scopus.com).^{16, 17} The data collecting process entailed performing a literature search in *Scopus* spanning from 2015 to 2024. The search was conducted using the keywords "healthcare marketing" in combination with the article title, abstract and keywords categories. After obtaining the search results, researchers analysed the data in the *Scopus* database. Their aim was to examine patterns in research advancement, prominent journals, productivity and collaboration among researchers, growth of publications based on institution or affiliation and the number of publications by coun-

try. Visualisation of the progress of healthcare marketing research was performed by utilising the *VOSviewer* software. ¹⁸ The technique for generating a keyword map involved exporting the search results from the *Scopus* database in CSV format and then inserting the contents of the CSV file into the *VOSviewer* software. ¹⁹

The information collected in the current research analysed using a combination of qualitative and descriptive methodologies. The researchers obtained data and analysed statistics in JPEG format. There was secondary data accessible in *Scopus*'s CSV format as well. The researchers also utilised Excel and *VOSviewer* for data processing.^{15,19}

A summary of the methodology used in this study can be seen in Figure 1. The Figure 1 shows a total of 122 documents collected from the *Scopus* database between 2015 and 2024 that discuss healthcare marketing.

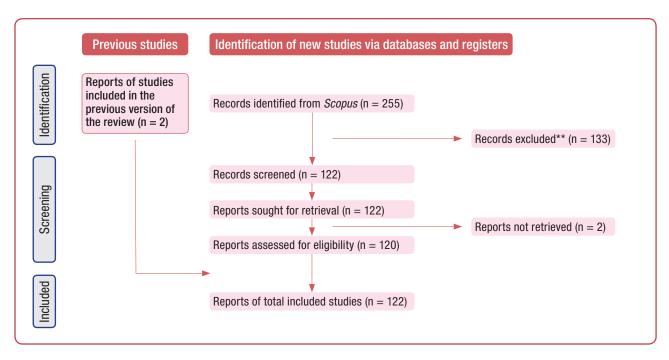


Figure 1: Publication selection in Scopus

Results

The database collected from the *Scopus* website was analysed using *VOSviewer* and *Biblioshiny*, obtaining primary information on research related to healthy connections for the period 2015 to 2024.²⁰

Number of scientific publications on healthcare marketing by affiliation/institution showed the most active affiliates and institutions in terms of healthcare marketing-related scientific publications (Table 1): Xi'an Jiaotong University, Sun Yat-Sen University, University Bocconi, University of Technology Sydney, University of Massachusetts Boston, KU Leuven, University of Georgia, University of Southern Mississippi, The University of Texas at Austin and University Sains Malaysia, all published three times each.

There were ten researchers who demonstrated high productivity in disseminating research findings related to healthcare marketing (Table 2). Bellio E, Buccoliero L, Djakeli K, Ghinita G, Harrison K, Maruseac M, Purcarea VL and Yoo B have each authored two scholarly papers. Ab Wahab MN and Abidi MH have each authored one scientific publication.

Table 1: Affiliates/institutions that were productive in scientific publications on healthcare marketing

Affiliation/Institution name	N
University Sains Malaysia	3
University of Georgia	2
University of Southern Mississippi	2
The University of Texas at Austin	2
Xi'an Jiaotong University	2
Sun Yat-Sen University	2
University Bocconi	2
University of Technology Sydney	2
University of Massachusetts Boston	2
KU Leuven	2

N: number of publications; Source: secondary data processed, 2024;

Ten nations were particularly active in the publication of research findings pertaining to health-care marketing (Table 3). With 36 publications, the USA ranked first, followed by India (19 publications), Italy (7 publications), the UK (7 publications), Malaysia (6 publications), China (5 publications), Romania (5 publications), the UAE (5 publications), Australia (4 publications) and Canada (4 publications) in terms of healthcare marketing scientific output.

Table 2: Productive researchers with scientific publications on healthcare marketing

Researcher	N	Reference
Bellio E	2	21, 22
Buccoliero L	2	22, 23
Djakeli K	2	24, 25
Ghinita G	2	26, 27
Harrison K	2	28, 29
Maruseac M	2	26, 27
Purcarea VL	2	30, 31
Yoo B	2	28, 29
Ab Wahab MN	1	32
Abidi MH	1	33

N: number of publications; Source: secondary data processed, 2024;

Table 3: Countries that were productive in scientific publication on healthcare marketing

Country	N
United States of America	36
India	19
Italy	7
United Kingdom	7
Malaysia	6
China	5
Romania	5
United Arab Emirates	5
Australia	4
Canada	4

N: number of publications; Source: secondary data processed, 2024;

Table 4 shows the five journals with the highest number on healthcare marketing. There were seven publications in the *International Journal of Pharmaceutical and Healthcare Marketing*, six in *Health Marketing Quarterly*, four in Developments in *Marketing Science Proceedings of The Academy of Marketing Science*, four in *International Journal of Healthcare Management* and two in *BMC Health Services Research*.

Table 4: Scientific journals with publications on healthcare marketing

Journal name	N
International Journal of Pharmaceutical	7
and Healthcare Marketing	/
Health Marketing Quarterly	6
Developments in Marketing Science Proceedings of	1
The Academy of Marketing Science	4
International Journal of Healthcare Management	4
BMC Health Services Research	2

N: number of publications; Source: secondary data processed, 2024;

According to Table 5, the following fields had the most scientific articles published on healthcare

marketing: business, management and accounting (57), medicine (47), computer science (29), economics (including econometrics and finance) (20), engineering (20), decision sciences (12), social sciences (also 12), health professions (7), environmental sciences (6) and energy (5).

Table 5: Subjects of scientific publications on healthcare marketing

Subject	N
Business, management and accounting	57
Medicine	47
Computer science	29
Economics, econometrics and finance	20
Engineering	20
Decision sciences	12
Social sciences	12
Health professions	7
Environmental science	6
Energy	5

N: number of publications; Source: secondary data processed, 2024;

In 2023, healthcare marketing had the most scholarly papers indexed on *Scopus*, with a total of 21 publications (17.2 %). The following is a detailed view of the number of publications arranged by year: With 17 publications in 2022, 16 in 2021, 15 in 2015, 13 in 2020, 8 in 2019, 7 in 2018, 6 in 2024 and 4 in 2016, the percentage of publications was 13.9 %. In 2020, there were 14 publications, 14 in 2020, 13 in 2019, 8 in 2017, 7 in 2018 and 13 in 2019. The trend of scientific publications on healthcare marketing is shown in Table 6.

Table 6: Trend of scientific publications on healthcare marketing

Year	N	%
2015	15	12.30 %
2016	5	4.10 %
2017	8	6.56 %
2018	7	5.74 %
2019	13	10.66 %
2020	14	11.48 %
2021	16	13.11 %
2022	17	13.93 %
2023	21	17.21 %
2024	6	4.92 %
Total	208	100.00 %

Year: year of publication; N: number of publications; %: percentage of total number of publications on subject; Source: secondary data processed, 2024;

Out of 389 writers included in the analysis, 11 were closely associated with the ownership of two or more documents.³⁴ The authors' joint effort is graphically represented in Figure 2.

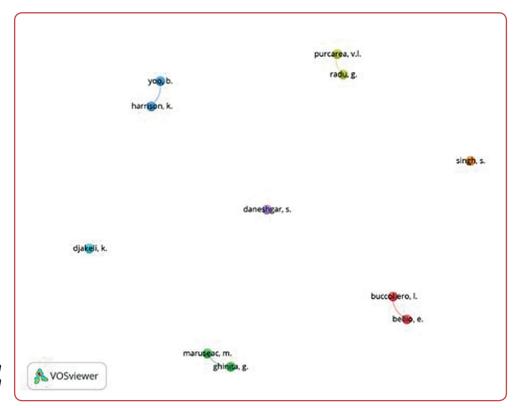


Figure 2: Visualisation of author's collaboration analysis

Keyword analysis

The study's key word analysis consisted of selecting 24 human-related keywords from a pool of 1.000 using a cut-off of 5 occurrences per keyword. "Human" was the author's go-to key word. Figure 3 shows the results of the study's keyword analysis.

Figure 3 shows four clusters were formed from search results using the phrase in the development map of healthcare marketing research papers indexed in the *Scopus* database from 2015 to 2024. There were eight red keywords in Cluster 1, six green keywords in Cluster 3, six blue keywords in Cluster 4 and three yellow keywords in

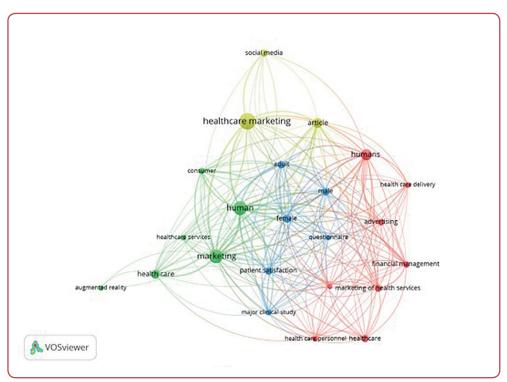


Figure 3: Keyword visualisation of scientific publications on healthcare marketing

Cluster 5 keyword density in *VOSviewer*'s density visualisation. It can be seen that there have been many studies related to this problem, as shown by the increasing number of keywords.

Discussion

In this digital age of information overload and fierce competition, healthcare marketing strategies have become a key factor for healthcare institutions to not only survive but thrive. An effective marketing strategy helps healthcare institutions in increasing their visibility and reputation among the public, which in turn attracts and retains patients. This not only contributes to an increased patient base, but also strengthens the relationship between the healthcare institution and the community, building trust and loyalty. In addition, by understanding patients' needs and preferences through market research and data analysis, healthcare institutions can provide more relevant and satisfying services, thereby improving the overall quality of healthcare. Therefore, a strong healthcare marketing strategy is not only essential for the business success of healthcare organisations but also for improving service quality.

This analysis reveals that most of the scholarly research on healthcare marketing is published by the International Journal of Pharmaceutical and Healthcare Marketing, which highlights the importance of the journal in disseminating knowledge and advancements in this field. The United States emerged as the most prolific country, contributing a large number of research publications on healthcare marketing. The research identified University Sains Malaysia as the most prolific institution. This underscores the importance of collaboration between institutions and healthcare professionals in generating knowledge and driving progress on healthcare marketing. The authors' collaboration visualisation provides a glimpse into the network of researchers working in this domain, highlighting interconnections and opportunities for collaboration in future research efforts on healthcare marketing.

The most common subjects in healthcare marketing are business, management and accounting.

With twenty-one publications, the number of international scholarly publications on healthcare marketing reached a peak in 2023. Eleven writers were closely associated with the ownership of two or more documents. There were 24 keywords with a significant correlation.

Using *Scopus* for bibliometric analysis offers a robust and comprehensive approach to understanding research dynamics, thanks to its extensive coverage, citation data and visualisation tools. Previous studies utilised bibliometric based approach for various studies.³⁵⁻³⁹

Conclusion

While bibliometric studies offer powerful tools for understanding research dynamics and impact, they also require careful consideration of methodological design and parameter selection to avoid biases and ensure comprehensive insights. The findings provide a solid foundation for further research in this domain.

Ethics

This study was a secondary analysis based on the currently existing dataset from the *Scopus* and did not directly involve with human participants or experimental animals. Therefore, the ethics approval was not required in this paper.

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Conflicts of interest

The authors declare that there is no conflict of interest.

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Data access

The data that support the findings of this study are available from the corresponding author upon reasonable individual request.

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Writing - original draft: REK, QA Writing - review and editing: REK, QA

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References

- 1. Popa AL, Țarcă NN, Sasu DV, Bodog SA, Roșca RD, Tarcza TM. Exploring marketing insights for healthcare: trends and perspectives based on literature investigation. Sustainability (Switzerland). 2022;14(17). doi: 10.3390/su141710499.
- Momete DC. Building a sustainable healthcare model: a cross-country analysis. Sustainability. 2016;8(836). doi: 10.3390/su8090836.

- 3. Liao CH. Evaluating the social marketing success criteria in health promotion: A F-DEMATEL approach. Int J Environ Res Public Health. 2020;17(1698). doi: 10.3390/ijerph17176317.
- 4. Feldman D, Kruger P, Delbecque L, Duenas A, Bernard-Poenaru O, Wollenschneider S, et al. Co-creation of practical "how-to guides" for patient engagement in key phases of medicines development-from theory to implementation. Res Invol Engagement. 2021;7(57):1–11. doi: 10.1186/s40900-021-00294-x.
- Butt I, Iqbal T, Zohaib S. Healthcare marketing: A review of the literature based on citation analysis. Health Mark Q. 2019;36(4):271–90.doi:10.1080/07359683.2019.1680120.
- Atilla EA, Tengilimoglu D, Dursun-Kilic T, Ekiyor A. Listening to the voice of the patients: The marketing function, market orientation and performance in hospitals in emerging markets. Ethno-Med. 2015;9(1):25-41. doi: 10.1080/09735070.2015.11905419.
- Evans ZCT, Gee S, Eddy T. Building bridges: Connecting sport marketing and critical social science research. Front Sports Act Living. 2022 Sep 16;4:970445. doi: 10.3389/fspor.2022.970445.
- 8. Brands W, Brands M, Brands-Bottema G. Limited rights of minors in the Dutch healthcare. J Forensic Odontostomatol. 2014 Nov 30;32 Suppl 1(Suppl 1):30-3. PMID: 25557413.
- 9. Radu G, Solomon M, Gheorghe CM, Hostiuc M, Bulescu IA, Purcarea VL. The adaptation of health care marketing to the digital era. J Med Life. 2017;10(1):44–6. PMID: 28255375.
- 10. Anabila P. Service quality: A subliminal pathway to service differentiation and competitive advantage in private healthcare marketing in Ghana. Health Mark Q. 2019;36(2):136–51.doi:10.1080/07359683.2019.1575062.
- 11. Sanil M, Eminer F. An integrative model of patients' perceived value of healthcare service quality in North Cyprus. Arch Public Health. 2021 Dec 20;79(1):227. doi: 10.1186/s13690-021-00738-6.
- 12. Cengiz H, Fidan Y. Comparing alternative service quality scales: An investigation using confirmatory factor analysis in a health care setting. Services Marketing Quarterly. 2017;38(1):15–22. doi: 10.1080/15332969.2017.1271198.
- 13. Tenkorang EY. Health provider characteristics and choice of healthcare facility among Ghanaian health seekers. Health Syst Reform. 2016 Apr 2;2(2):160-70. doi: 10.1080/23288604.2016.1171282.
- 14. Afief AR, Irham LM, Adikusuma W, Perwitasari DA, Brahmadhi A, Chong R. Integration of genomic variants and bioinformatic-based approach to drive drug repurposing for multiple sclerosis. Biochem Biophys Rep. 2022 Sep 5;32:101337. doi: 10.1016/j. bbrep.2022.101337.
- 15. Liu Y, Jiang S, Lin Y, Yu H, Yu L, Zhang X. Research landscape and trends of lung cancer radiotherapy: A bibliometric analysis. Front Oncol. 2022 Nov 10;12:1066557. doi: 10.3389/fonc.2022.1066557.
- Tabatabaei-Malazy O, Ramezani A, Atlasi R, Larijani B, Abdollahi M. Scientometric study of academic publications on antioxidative herbal medicines in type 2 diabetes mellitus. J Diabetes Metab Disord. 2016 Oct 21;15:48. doi: 10.1186/s40200-016-0273-3.
- 17. Fauzy A. Pemetaan Keunggulan Riset Berbasis Publikasi Terindeks Scopus. [Mapping Research Excellence Based on Scopus Indexed Publications]. Yogyakarta: Ardana Media; 2016. ISBN: 978-602-99843-4-7.

- 18. Prieto-Gutiérrez JJ, Segado-Boj F. Annals of library and information studies: a bibliometric analysis of the journal and a comparison with the top library and information studies journals in Asia and worldwide (2011–2017). Serials Librarian. 2019;77(1–2):38–48. doi: 10.1080/0361526X.2019.1637387.
- 19. Figueroa-Rodríguez KA, Hernández-Rosas F, Figueroa-Sandoval B, Velasco-Velasco J, Aguilar Rivera N. What has been the focus of sugarcane research? A bibliometric overview. Int J Environ Res Public Health. 2019 Sep 10;16(18):3326. doi:10.3390/ijerph16183326.
- Van Eck NJ, Waltman L. Software Survey: VOSviewer, A computer program for bibliometric mapping. Scientometrics. 2010;84(2):523–38. doi: 10.1007/s11192-009-0146-3.
- Bellio E, Buccoliero L. Main factors affecting perceived quality in healthcare: a patient perspective approach. TQM Journal. 2021;33(7):176–92. doi: 10.1108/TQM-11-2020-0274.
- 22. Buccoliero L, Bellio E, Prenestini A. Patient web empowerment index (PWEI): an index for assessment of healthcare providers' web strategies. Case study: PWEI application in Italy. Stud Health Technol Inform. 2010;160(Pt 1):38-42. PMID: 20841646.
- 23. Buccoliero L, Bellio E, Mazzola M, Solinas E. A marketing perspective to "delight" the "patient 2.0": New and challenging expectations for the healthcare provider. BMC Health Serv Res. 2016 Feb 9;16(1). doi: 10.1186/s12913-016-1285-x.
- 24. Djakeli K. Healthcare marketing, meaning, historical development, applications, and current status. In: Djakeli K, ed. Modern healthcare marketing in the digital era. Pennsylvania, United States: IGI Global, 2024. doi: 10.4018/979-8-3693-0679-6.ch001.
- 25. Djakeli K, ed. Modern healthcare marketing in the digital era. Pennsylvania, United States: IGI Global, 2024. doi: 10.4018/979-8-3693-0679-6.
- 26. Maruseac M, Ghinita G. Differentially-private mining of moderately-frequent high-confidence association rules. In Proceedings of the 5th ACM Conference on Data and Application Security and Privacy (CODASPY '15). New York, NY, USA: Association for Computing Machinery, 2015. pp 13-24. doi: 10.1145/2699026.2699102.
- 27. Maruseac M, Ghinita G. Precision-enhanced differentially-private mining of high-confidence association rules. IEEE Trans Dependable Secure Comput. 2020. doi: 10.1109/TDSC.2018.2868190.
- 28. Yoo B, Thelen ST, Harrison K. Patient consideration of local hospital, center of excellence, and medical tourism options for surgery. Health Mark Q. 2023 Apr-Jun;40(2):119-140.doi:10.1080/07359683.2021.1994171.
- Thelen ST, Yoo B. The impact of country image and patient cosmopolitanism on medical tourism. Health Mark Q. 2023 Jan-Mar;40(1):98-118.doi:10.1080/07359683.2023.2167260.

- Solomon M, Radu G, Hostiuc M, Margan MM, Bulescu IA, Purcarea VL. Ethical issues in advertising and promotion of medical units. Rom J Ophthalmol. 2016 Oct-Dec;60(4):216-218. PMID: 29450352.
- 31. Pop-Micle LSM, Stenczel ND, Purcarea VL, Gheorghe IR, Oniga GH. Marketing management practices in an emergency care department.] Med Life. 2021;14(2):271-6. doi: 10.25122/jml-2021-0059.
- 32. Ab Wahab MN, Nazir A, Zhen Ren AT, Mohd Noor MH, Akbar MF, Mohamed ASA. Efficientnet-Lite and hybrid CNN-KNN implementation for facial expression recognition on raspberry Pi. IEEE Access. 2021;9:134065-80. doi: 10.1109/ACCESS.2021.3113337.
- 33. Abidi M, Ur Rehman A, Mian SH, Alkhalefah H, Usmani YS. The role of AI in elevating hospital service quality: framework, development, and applications. In: Djakeli K, ed. Modern healthcare marketing in the digital era. Pennsylvania, United States: IGI Global, 2024. doi: 10.4018/979-8-3693-0679-6.ch012.
- 34. Thelen S, YB, HK. What a trip! How patients evaluate centers of excellence in the medical tourism industry. In: Allen J, Jochims B, Wu S, eds. Celebrating the past and future of marketing and discovery with social impact. AMSAC-WC 2021. Developments in Marketing Science: Proceedings of the Academy of Marketing Science. Cham, Switzerland: Springer. doi: 10.1007/978-3-030-95346-1_110.
- 35. Rohanda R, Winoto Y. [Bibliometric analysis of collaboration level, author productivity, and profile of information & library studies journal articles 2014-2018]. J Library Inf Sci. 2019;3(1):1–15. doi: 10.18326/pustabiblia.v3i1.1-16. Indonesian.
- 36. Rosidayani F, Aini Q. The 1st International Conference Muhammadiyah Yogyakarta-Hospital & Healthcare Management Marketing Mix Strategy for Health Services Business: Bibliometric Analysis on Scopus Database. Proc West Mark Ed Assoc Conf. 2024;104–15.
- 37. Kurniawan W, Pranata S, Vranada A, Agustini A, Irham LM. Bibliometric analysis of triggers on environmental stress among medical and health sciences students at the university. Scr Med. 2024 May 1;55(3):371–8. doi: 10.5937/scriptamed55-49741.
- 38. Maliza R, Irham LM, Pradika J, Pratama K, Dania H, Arya B, et al. Genetic polymorphism and the risk of diabetic foot: a bibliometric analysis from 2011-2021. Int J Publ Health Sci. 2023 Dec 1;12(4):1744–52. doi: 10.11591/ijphs.v12i4.23028.
- 39. Muzayyana A, Aini Q. Bibliometric analysis of the health belief model in healthcare workers: trends, insights, and future directions. J Angioth. 2024 May 1;8(5). doi: 10.25163/angiotherapy.859698.