Insight into Global Research to Physician Selection: A Bibliometric Analysis in the Last 25 Years

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Abstract

The concept of physician selection is a phenomenon that shapes individuals' preferences in the process of receiving health care services and is of critical importance for patient satisfaction, health service quality, and health policies. This study aims to examine, using bibliometric methods, the studies on physician selection published in 59 journals within the framework of the specified parameters. The study population consists of articles published over the years. The publications were evaluated according to bibliometric parameters such as publication type, year, country of publication, type of institution, index grouping, number of authors, repeated universities, keywords used, number of citations, impact factor, most-cited journals, H-index statistics, and cross-country collaboration.

The study's findings reveal the development of the field of physician selection in the literature, showing trends, prominent journals, authors, and the dynamics of international cooperation. It also provides preliminary information to guide future academic research on physician selection. In particular, it will serve as a guide for researchers who want to conduct systematic reviews or meta-analyses on this subject.

Keywords: Bibliometric Analysis, Physician Selection, Health Services, Literature Trends

1. Introduction

In the 21st century, information societies face significant challenges in decision-making and implementation across health services and physician selection processes. Individuals face various challenges in choosing the correct physician based on their geographic location, lifestyle, and family situation (Baker et al., 2014; Liu et al., 2023).

Having inadequate knowledge of physician selection may negatively affect the effective utilization of health services by both individuals and society. In this context, a lack of expertise in physician selection may lead to incorrect choices, limited access to the correct information, and inadequate utilization of health services (Manning et al., 2017). Today, physician selection has become a critical factor in the quality of health services and patient satisfaction (Cao et al., 2017; Bai et al., 2024).

The factors influencing physicians' choice of practice have been the subject of numerous prior studies (Cook et al., 2017). Early research focused on offline physician-patient interactions in physical hospitals and clinics. In these settings, doctors dominated the traditional asymmetrical physician-patient relationship because of their medical expertise and patients' inability to choose their own doctors, as they had to follow hospital policies when seeking care (Ghazzawi

et al., 2025; Green et al., 2018; Han et al., 2021). Physician title, hospital rank, city, service attitude, and external word of mouth are the main contributing factors (Alinezhad et al., 2024).

In the literature, studies on physician choice are used as an essential tool to understand individuals' capacity to direct health decisions and the interactions among patients, their relatives, and the health system (Yassini et al., 2010). Research on physician selection provides essential data on the social, cognitive, and personal skills required to evaluate preference criteria, patient expectations, and the functioning of the healthcare system (Chen et al, 2016).

Proper management of physician selection processes is essential for individuals to benefit effectively from health services, to manage their illnesses correctly, and to make informed health decisions. In this context, a systematic bibliometric analysis of the physician selection literature is essential for revealing the field's development, identifying trends, and guiding future studies. The number of studies on physician selection in Turkey has increased in recent years (Kuruoglu et al, 2015). However, there are few studies in this field that have been systematically analyzed using bibliometric methods. Therefore, the compilation and analysis of existing studies will both fill the gaps in the literature and guide future research.

2. Materials and Methods

In this study, academic articles on physician selection and related bibliometric data were analyzed. Within the scope of the analysis, studies published in 59 different journals were used as evaluation material. For publication search, publications indexed in the SCI, SSCI, SCI-Exp, and ESCI indices on Web of Science were examined first. In addition, publications indexed in the SCOPUS system were examined, but none differed from those in WOS. Publications indexed in other field indexes and local indexes were also included. The search period was considered to be the last 25 years, that is, 2000-2025. The concepts typed in the search line are:

- Physician selection
- Physician ownership
- Physician choice

Within the scope of the bibliometric study, answers to the following research questions were sought:

1. What is the distribution of these studies according to years?

2. What is the distribution of the studies according to the countries in which they were published?

3. What is the distribution of the studies according to the types of institutions in which they were published?

4. What is the distribution of the studies according to index grouping?

5. What is the distribution of articles according to the number of authors?

6. What is the distribution of repeating universities and institutions?

7. Which are the 5 most cited journals?

8. What are the descriptive statistics on the number of citations?

9. What are the descriptive statistics on impact factors and the top 10 journals?

10. Descriptive statistics on H-index values and which are the top 10 journals?

11. What is the collaboration network between countries?

12. What are the keywords used in the physician selection literature and their frequency?

Ethics committee approval was not obtained since the study did not use a method that requires participatory data collection. The bibliometric data obtained were analyzed using word clouds, heat maps, and frequency analysis in Python; a cross-country collaboration map in R (RStudio 2025.05.1); statistical analysis in SPSS 26.0; and the creation of tables and graphs in Excel. In this way, the trends in studies in the literature, in prominent journals, and in cross-country collaboration networks were systematically revealed.

3. Results

Articles published in 59 different journals in the field of physician selection were analyzed. Within the scope of the study, all articles were evaluated, and the findings were presented in tables and graphs.

Firstly, when the distribution of publications by type was analyzed, it was determined that the majority were research articles, while some were reviews or short communications. When the distribution of published articles by year is examined, it is evident that interest in physician selection has increased, especially in recent years.

As a result of a comprehensive review of the studies, it was determined that the studies on physician selection evaluated relationships between patient preferences, physician profiles, and patient satisfaction in health services, used different data collection methods, and included scale development studies to measure physician selection criteria.

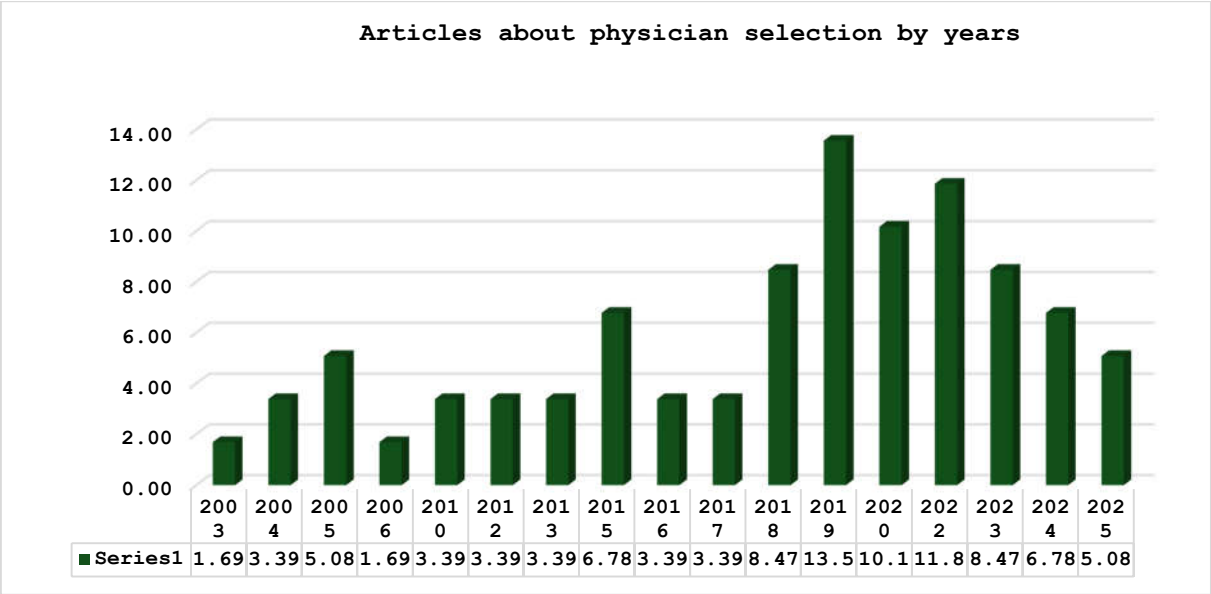

Figure 1. Number of physician selection studies by year

Looking at the chronological distribution, 2019 and later years stand out. Based on these data, it can be said that studies in the field of physician selection increased by 2019. In general, academic studies in the field have intensified in recent years (Figure 1).

Table 1. Countries where the analyzed studies were conducted

	Countries	N	%
1	Australia	2	2.8
2	Bangladesh	2	2.8
3	Canada	5	7.0
4	China	5	7.0
5	England	2	2.8
6	Germany	1	1.4
7	India	3	4.2
8	Iran	1	1.4
9	Japan	2	2.8
10	Scotland	1	1.4
11	South Korea	1	1.4
12	Spain	1	1.4
13	Taiwan	2	2.8
14	Turkey	4	5.6
15	USA	37	52.1
16	Wales	2	2.8
	Total	**71**	**100.0**

These rates reveal that the literature on physician selection shows an international diversity, but the majority of studies are based in the USA. Although publications from Turkey are limited, they indicate that the field is gaining importance locally (Table 1).

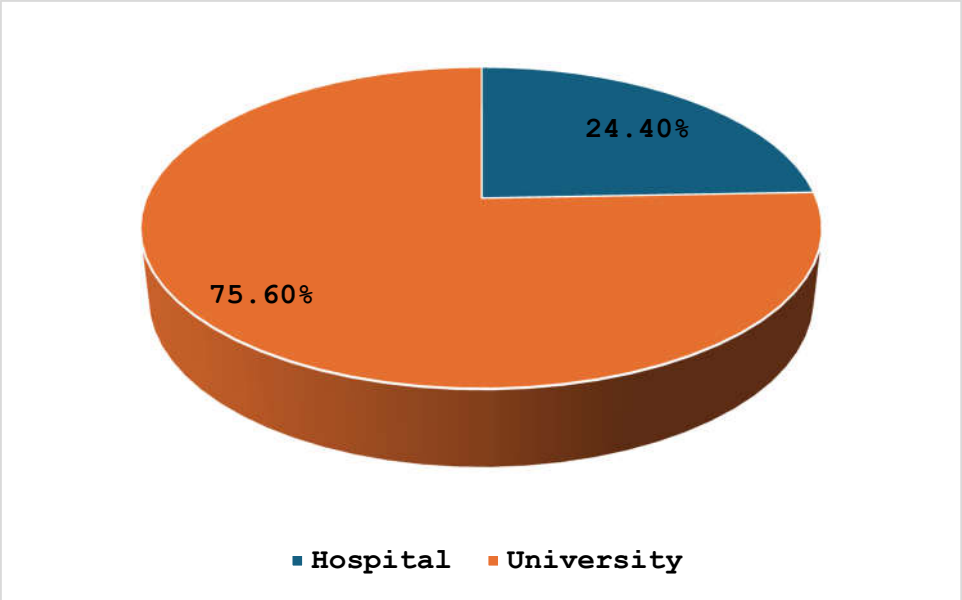

Figure 2. Institutions where the studies were conducted

When the institutions where the studies were conducted are analyzed, it is seen that research in the field of physician selection is largely conducted by academic institutions and universities make significant contributions to the literature. Studies conducted by hospitals reveal that experience and data related to clinical practice are included in the studies (Figure 2).

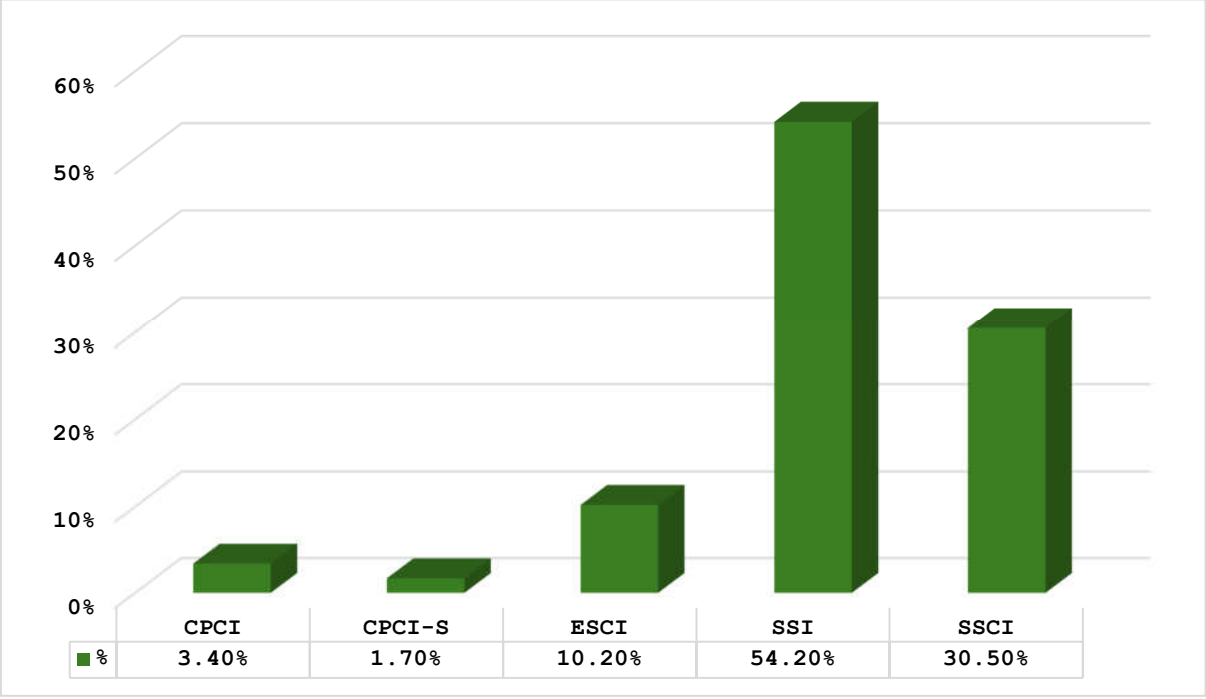

Figure 3. Journal search indexes of the studies

Figure 3 shows that the literature on physician selection is mainly found in SSI- and SSCI-indexed journals, and that studies with high international visibility are emphasized. Publications in ESCI and CPCI reflect the field's developing research potential (Figure 3).

Table 2. Frequencies of Number of Authors

Number of Authors	N	%
1	5	8.50%
2	6	10.20%
3	11	18.60%
4	15	25.40%
5	6	10.20%
6	2	3.40%
7	5	8.50%
8	3	5.10%
9	1	1.70%
10	3	5.10%
13	1	1.70%
21	1	1.70%
Total	59	100%

Examining the number of authors in the studies, it is evident that physician selection research is typically conducted by small to medium-sized research teams. This suggests that a relatively focused community has developed the field in the literature. On the other hand, a small number of studies with 10 or more authors (8.5%) represent research based on larger datasets or involving multi-center collaborations. Such large-scale studies are essential because they demonstrate the methodological diversity of the field and the potential for collaboration across institutions.

The distribution by number of authors also reveals trends in collaboration and team structure in the literature. The fact that the majority of studies are conducted with 2-4 authors shows that small teams with significant individual contributions effectively contribute to the literature. Studies with large teams were most often observed in projects with extensive data collection, multicenter analyses, or mixed-methods designs. These findings reveal that the team structure in physician selection studies is directly related to the scale and scope of the study (Table 2).

Table 3. Universities with the most frequent studies

Rank	Institution	N
1	Univ North Carolina	2
2	Univ Massachusetts	2
3	Univ Saskatchewan	2

These data show that certain universities play a more active role in the field's literature and stand out in research output. Repeating universities can be considered as centers that regularly conduct studies on physician selection and continuously contribute to the literature. This

situation is essential for understanding the geographical and institutional distribution of academic production.

Table 4. The most cited studies

Publication name	Citation number
The effect of physicians' body weight on patient attitudes: implications for physician selection, trust, and adherence to medical advice	183
Do Women Prefer Care from Female or Male Obstetrician-Gynecologists? A Study of Patient Gender Preference	138
Survey Shows That At Least Some Physicians Are Not Always Open or Honest With Patients	133
A novel WASPAS approach for the multi-criteria physician selection problem with intuitionistic fuzzy type-2 sets	86
Perspectives and Preferences among the General Public Regarding Physician Selection and Board Certification	78
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When this table is analyzed, it is seen that the studies with the highest number of citations focus primarily on patients' preferences, gender factor, trust, and ethics in the process of physician selection. The high number of citations indicates that these topics have received widespread attention in the academic literature and are prioritized in current debates within the research field. The table also shows that methodologically innovative approaches have increased the field's visibility. In the literature on physician selection, some studies have been highly cited, boosting the field's academic visibility, while others have had a more limited impact. The citation value was 26.84, and the median was 10. Descriptive statistics of the number of citations are presented in Table 5. The impact factors of the journals publishing the studies ranged from 11.47 to 0.13, with an average impact factor of 1.47. In addition, when the journals' H-indexes are examined, the average index value is 122.78 (14-512) (Table 5).

Table 5. Descriptive Statistics of Journal Information

Descriptive Statistics	Citation	Impact Factor	H-Index
Mean	26,84	1,47	122,78
Median	10	0,94	100
Standard Deviation	37,36	1,76	90,44
Maximum	183	11,47	512
Minimum	0	0,13	14

Table 6. Journals with the highest impact factor

Journals	Impact Factor
JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION	11,47
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	5,06
JAMA-ONCOLOGY	4,53
INTERNATIONAL JOURNAL OF SURGERY	4,35
The Journal of Pediatrics	3,5
INFORMATION FUSION	3,17
HEALTH AFFAIRS	2,82
HEALTHCARE	2,8
OPERATIONS RESEARCH	2,6
TELEMATICS AND INFORMATICS	2,41

Table 7. Journals with the highest H-index

Journals	H-Index
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	512
International Journal of Obesity	258
INTERNATIONAL JOURNAL OF OBESITY	258
The Journal of Pediatrics	246
JOURNAL OF PEDIATRICS	246
AMERICAN JOURNAL OF CARDIOLOGY	243
HEALTH AFFAIRS	224
JOURNAL OF MEDICAL INTERNET RESEARCH	214
CLINICAL MICROBIOLOGY AND INFECTION	N/A
JAMA-ONCOLOGY	193

When the highest impact factor of the journals in which the studies were published is analyzed, it is seen that JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (IF: 11.47) ranks first; when the H-index values are examined, it is seen that JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY ranks first. It shows that some journals provide pioneering and reference publications on physician selection. In particular, journals with high H-Index values can be considered central publication sources that set the methodological standards and the scientific impact level of the field (Table 6 & Table 7).

The distribution of studies in the field of physician selection by country and collaboration type is shown in Figure 4. Of the 59 studies analyzed, 52.1% originated in the USA, 7.0% in Canada and China, and 5.6% in Turkey. Other countries include Australia, Bangladesh, England, Germany, India, Iran, Japan, Scotland, South Korea, Spain, Taiwan, and Wales. This data shows that the US plays a dominant role in the field and holds a central position in the international literature. Countries such as Canada, China, and Turkey stand out as other active centers that cooperate with the US, albeit to a limited extent.

When the map is examined, it is observed that international collaborations are primarily centered in the USA, while other countries mainly contribute to studies with single-center or limited cooperation. This reveals that the field is developing globally and that some countries are pioneers in research output.

Figure 4. Map of Cross-Country Cooperation in the Field of Physician Selection

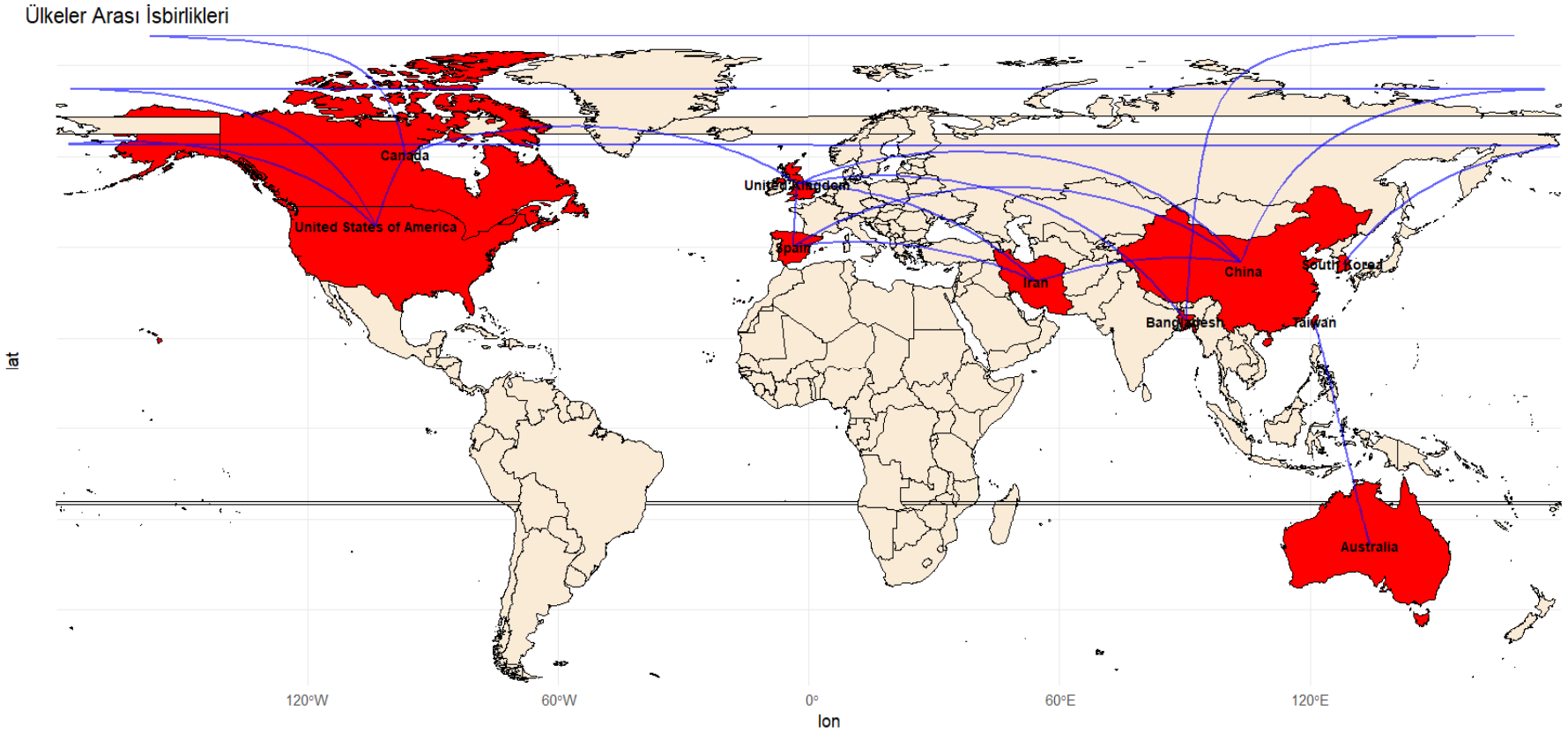


Table 8. Frequency of keywords included in the studies

Keywords	N
physician selection	8
health-care	7
information	6
trust	5
communication	5
decision-making	5
physicians	4
care	4
social media	4
outcomes	4
selection	4
performance	3
satisfaction	3
choice	3
quality	3
physician	3
consumers	3
gender	3
preferences	3
workforce	2

According to the analysis, the most frequently used keyword is physician selection (8 occurrences), which is the main topic in the literature. This was followed by health care (7 repetitions) and information (6 repetitions). The themes of trust, communication, and decision-making are also prominent in the literature (5 occurrences each). Other notable keywords include physicians, care, social media, outcomes, selection (4 repetitions), performance, satisfaction, choice, quality, physician, consumers, gender, preferences (3 repetitions), and workforce (2 repetitions) (Table 8). Accordingly, physician selection research focuses on patient preferences, the quality of health services, trust, communication, and decision-making processes. In addition, sub-themes such as demographic factors and performance criteria are also included in the literature.

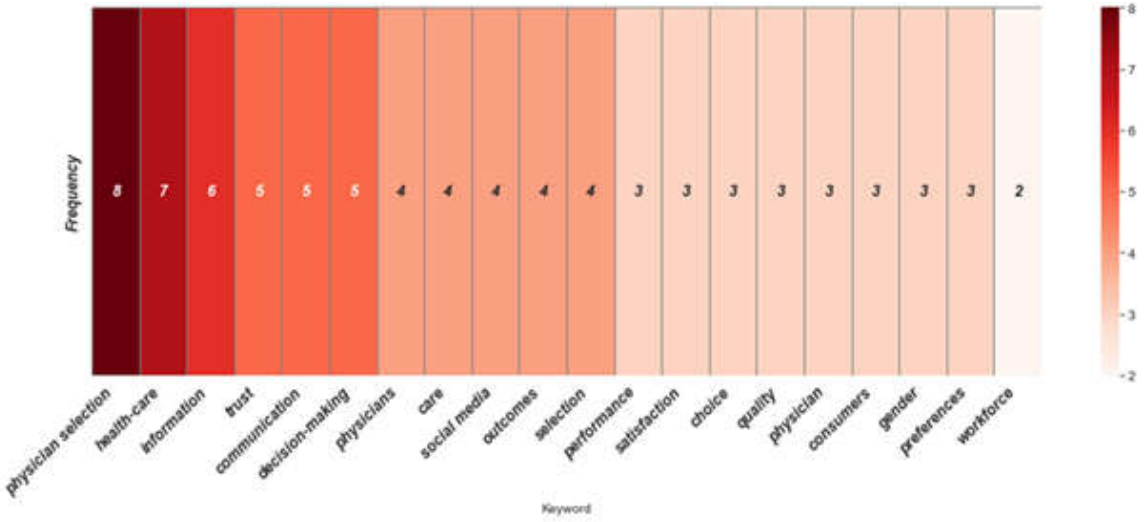
By visualizing the keywords, the intensity of use in the literature and thematic relationships were analyzed:

- Word Cloud (Figure 5): It visually shows the frequency of use of keywords in the literature. The size of the words is directly proportional to the frequency of repetition. Prominent words include physician selection, health-care, and information.
- Heat Map (Figure 6): Reveals the relationships between keywords and the intensity of concurrent use. The analysis shows that “physician selection” and “trust” are frequently examined together in the literature, while there are strong relationships between “decision-making” and ‘communication’ and “information”. In this way, thematic clusters and research trends were identified.

These analyses reveal the thematic structure of the field and the priority topics in the literature and provide guidance for future studies.

Figure 5. Word cloud of keywords

Figure 6. Heat map of most frequent keywords



Discussion and Conclusion

The literature on physician selection and engagement has evolved significantly over the last 25 years, reflecting the complexities of healthcare environments and the importance of various selection methods. This review synthesizes key insights from a series of studies examining the

multifaceted relationship among physician characteristics, selection processes, and patient perceptions.

Together, these articles provide a comprehensive overview of the evolving landscape of physician selection, emphasizing the critical factors influencing both physician engagement and patient perceptions. The findings underscore the necessity for ongoing research to refine selection methods and enhance the overall quality of healthcare delivery. A systematic review that establishes a critical link between physician burnout and the quality of care emphasizes the need for selection strategies that prioritize physician well-being. Their research highlights the importance of understanding burnout as a determinant of healthcare quality, suggesting that effective selection methods must integrate considerations of physician satisfaction (S Dewa et al., 2017).

Perreira et al. (2018) expanded on the theme of physician engagement, presenting a scoping review that underscores the need to involve physicians in hospital decision-making. Their findings indicate that enhanced physician engagement correlates with improved satisfaction and retention, which ultimately benefits patient safety and healthcare efficiency. However, they note a lack of robust evidence supporting the effectiveness of various engagement strategies, indicating a need for further research in this area (Perreira et al., 2018).

Moreover, James Amos et al. (2021) conducted a systematic review focusing on specialist selection methods and their implications for diversity in the medical workforce. Their rigorous methodology assessed various selection instruments and emphasized the importance of diversity in medical training. The review identified gaps in existing methods and called for improved selection standards to foster a more inclusive medical workforce (James Amos et al., 2021).

Lastly, another systematic review examined the role of web-based reviews in shaping patient choices, particularly in relation to physicians' gender. Their longitudinal study revealed that patients increasingly rely on online reviews when selecting healthcare providers, with significant implications for physician reputation and selection. The mixed results regarding the correlation between clinical performance and online ratings highlight the complexities of interpreting these reviews as indicators of quality (Hasnain Saifee et al., 2022).

In conclusion, the literature provides a comprehensive understanding of the evolving landscape of physician selection, highlighting the critical interconnections among physician engagement, selection methodologies, and patient perceptions. The findings underscore the necessity for ongoing research to refine selection methods, enhance physician well-being, and ultimately improve the quality of healthcare delivery.

In our study, 59 articles and 59 journals on the concept of physician selection were examined and analyzed through various bibliometric parameters. Within the scope of the analyses, articles were evaluated using criteria such as year, country of publication, type of institution, index grouping, number of authors, number of universities, number of citations, impact factor, H-index, and keywords. As a result of the analyses, it was observed that the years 2019 and later stand out in the chronological distribution of studies on physician selection. During this period, the number of studies in the literature increased significantly. The USA, Canada, and China have the highest publication rates. Most of the studies (75.6%) were conducted by universities.

In terms of index grouping, the most articles were published in journals within the scope of SCI/SSCI, and the study with the highest number of authors (25.4%) is a 4-author study.

The most cited study has 183 citations, and the journal with the highest impact factor is JAMA (11.47). In H-index values, JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY (512) ranks first. Keyword analysis revealed that concepts such as physician selection, health care, information, trust, communication, and decision-making were used extensively in the literature. These concepts indicate that the studies thematically focus on patient preferences, healthcare quality, and decision-making processes.

Critically, the article emphasizes the importance of a well-structured search strategy in bibliometric analyses, which is fundamental for ensuring the validity and reproducibility of findings. However, the description of the search process, while detailed in terms of databases and timeframes, could benefit from further elaboration on specific search terms and inclusion/exclusion criteria, which are crucial for assessing the scope and potential biases of the literature retrieved.

In conclusion, this study fills gaps in the literature on physician selection and serves as an essential guide and reference for future research.

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