



Araştırma Makalesi/Research Article

Trends and Developments in Nursing Electronic Health Record Research: A Bibliometric Analysis

Hemşirelik Elektronik Sağlık Kaydı Alanındaki Eğilimler ve Gelişmeler Araştırma: Bibliyometrik Analiz

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Abstract: This bibliometric analysis examined research trends, scholarly output, and thematic developments in nursing-related electronic health record studies. A bibliometric analysis was conducted using data retrieved from the Web of Science Core Collection via the online library of Balıkesir University. The search was performed using the term “electronic health record,” and data were analyzed using VOSviewer (v1.6.20) and Microsoft Excel. The study involved both performance analysis (annual publication trends, citation levels, productive authors, institutions, and countries) and scientific mapping techniques (co-citation analysis, collaboration networks, and keyword co-occurrence). Initially, 61,168 publications were accessed, including 753 articles written in English, focusing on nursing, and constituting original research. Key metrics include annual publication trends, citation analysis, authorship and institutional productivity, country contributions, collaborative networks, co-citation patterns, and keyword co-occurrence. *Computers, Informatics, Nursing* were the most prolific journals (n = 173, 22.97%). The most cited publication was “Documenting electronic health records in nursing: Nurses’ perceptions, attitudes, and preferences” (2004), with 161 citations. Research output peaked in 2021 (n = 73). The United States led in publication volume, followed by South Korea, the United Kingdom, Australia, Brazil, Canada, Finland, Spain, Taiwan, and Jordan. Keyword analysis revealed recurring terms such as “electronic health records,” “nursing informatics,” and “nursing documentation,” indicating a consistent focus on clinical usability, data management, and nurse perceptions. This study highlights evolving research patterns in the domains of nursing and electronic health records underscoring the central role of nursing informatics in digital health care transformation. These findings suggest that expanding nursing informatics education and strengthening in-service training for clinical staff on digital literacy and electronic health record usage will increase the effective use of electronic health records in nursing. Furthermore, the development of nurse-friendly interface designs and the support of standard documentation practices are considered important steps that will improve system integration and quality of use.

Keywords: Bibliometric analysis, electronic health records, nursing informatics, nursing documentation, scholarly trends

Öz: Bu bibliyometrik analiz, hemşirelikle ilgili elektronik sağlık kaydı çalışmalarındaki araştırma eğilimlerini, akademik çıktıları ve tematik gelişmeleri incelemiştir. Balıkesir Üniversitesi çevrimiçi kütüphanesi aracılığıyla Web of Science Core Collection'dan elde edilen veriler kullanılarak bir bibliyometrik analiz gerçekleştirilmiştir. Arama, “electronic health record” terimi kullanılarak yapılmış ve veriler VOSviewer (v1.6.20) ve Microsoft Excel kullanılarak analiz edilmiştir. Çalışma kapsamında hem performans analizi (yıllık yayın eğilimleri, atıf düzeyleri, üretken yazarlar, kurumlar ve ülkeler) hem de bilimsel haritalama teknikleri (ortak atıf analizi, iş birliği ağları ve anahtar kelime eşzamanlılığı) uygulanmıştır. Başlangıçta 61.168 yayına ulaşılmış olup, hemşireliğe odaklanan, İngilizce yazılmış ve özgün araştırma niteliği taşıyan 753 makale dahil edilmiştir. Anahtar metrikler arasında yıllık yayın eğilimleri, atıf analizi, yazarlık ve kurumsal üretkenlik, ülke katkıları, iş birliği ağları, ortak atıf kalıpları ve anahtar kelime eşzamanlılığı yer almaktadır. *Computers, Informatics, Nursing* en verimli dergilerdi (n = 173, %22,97). En çok atıf alan yayın, 161 atıfıla “Hemşirelikte elektronik sağlık kayıtlarının belgelenmesi: Hemşirelerin algıları, tutumları ve tercihleri” (2004) idi. Araştırma çıktıları 2021 yılında zirveye ulaşmıştır (n = 73). Yayın hacmi açısından Amerika Birleşik Devletleri ilk sırada yer alırken, onu Güney Kore, Birleşik Krallık, Avustralya,

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Brezilya, Kanada, Finlandiya, İspanya, Tayvan ve Ürdün izlemiştir. Anahtar kelime analizi, “elektronik sağlık kayıtları”, “hemşirelik bilişimi” ve “hemşirelik dokümantasyonu” gibi tekrarlanan terimleri ortaya çıkarmış ve bu da klinik kullanılabilirlik, veri yönetimi ve hemşirelerin algılarına tutarlı bir şekilde odaklanıldığını göstermiştir. Bu bulgular, hemşirelikte elektronik sağlık kayıtlarının etkin kullanımını artırmak için hemşirelik bilişimi eğitimlerinin yaygınlaştırılmasını ve klinik personel için dijital okuryazarlık ile elektronik sağlık kaydı kullanımına yönelik hizmet içi eğitimlerin güçlendirilmesini önermektedir. Ayrıca, hemşire dostu arayüz tasarımlarının geliştirilmesi ve standart dokümantasyon uygulamalarının desteklenmesi, sistem entegrasyonunu ve kullanım kalitesini artıracak önemli adımlar olarak değerlendirilmektedir.

Anahtar Kelimeler: Bibliyometrik analiz, elektronik sağlık kayıtları, hemşirelik bilişimi, hemşirelik dokümantasyonu, akademik eğilimler

Introduction

The use of Electronic Health Records (EHRs) in nursing practice has emerged as a pivotal component in advancing healthcare delivery, particularly in enhancing the quality, safety, and continuity of patient care. EHR systems support structured documentation, enable real-time access to clinical data, and promote more accurate and comprehensive patient assessments, thereby facilitating informed and timely nursing interventions. The incorporation of electronic care plans within routine nursing practice not only standardizes care, but also strengthens clinical accountability and improves patient outcomes through decision-making based on reliable, up-to-date information (Ayamolowo et al., 2023; McBride et al., 2022;). Furthermore, the use of digital signatures within EHR platforms reinforces legal validity, affirms documentation of nursing actions, and elevates professional responsibility (McBride et al., 2022).

As healthcare systems undergo widespread digital transformation, it has become imperative for nurses—the largest segment of the global healthcare workforce—to develop proficiency in EHR utilization (Gephart et al., 2015). This proficiency transcends mere technical competence, which is essential for upholding ethical, legal, and professional standards in clinical documentation (Khairat et al., 2018). Evidence indicates that nurses generally maintain positive attitudes toward EHR adoption, especially when supported by interdisciplinary collaboration and sufficient training (Alrasheeday et al., 2023). However, usability remains a significant concern. Poorly designed EHR systems may increase cognitive workload, reduce efficiency, and contribute to clinician frustration, all of which can adversely affect care quality (Moy et al., 2021). Conversely, intuitive and well-integrated systems have been associated with enhanced job satisfaction, improved workflow alignment, and improved patient outcomes (Khairat et al., 2020; Kutney-Lee et al., 2019).

Despite these recognized benefits, implementation challenges continue to affect nurses' experiences with EHR systems. Research has highlighted issues such as increased

documentation burden, workflow disruptions, and the potential for burnout when systems fail to align with clinical needs (Chipps et al., 2020; Gephart et al., 2015; Khairat et al., 2020). These findings emphasize the importance of involving frontline nursing staff in the design and optimization of EHR systems to ensure usability, clinical relevance, and efficiency (Moy et al., 2021).

Although numerous studies have been conducted on the use of EHR in nursing, it is evident that comprehensive bibliometric analyses systematically revealing the general trends, thematic orientations, productive institutions and researchers, or cross-country contribution differences of these studies are limited. This gap in the literature makes it difficult to understand how EHR-focused nursing research has developed, which topics have come to the fore, and in which direction the research field may progress in the future. Therefore, bibliometric analyses offer an important method for comprehensively evaluating the scientific accumulation in the field of nursing informatics by making publication trends, collaboration networks, citation structures, and thematic clusters visible (Maillet et al., 2024; O'Connor et al., 2000).

In this context, the aim of the study is not to make a claim that encompasses all literature; but to examine nursing-focused ESK studies indexed in the Web of Science database through performance indicators (publication trends, citation distributions, productive authors, institutions, and countries) and scientific mapping techniques (co-citation, collaboration networks, and keyword co-occurrence). This approach aims to reveal the current state of the field while identifying priority themes and potential gaps for future research.

By systematically analyzing the scientific literature on the use of electronic health records in nursing practice, this study sheds light on emerging trends in nursing informatics, clinical documentation, and digital health transformation.

Aim of the Analysis

This study was to provide a comprehensive overview of the current state of scholarly output at the intersection of electronic health records and nursing. By analyzing temporal trends, thematic clusters, international collaborations, and institutional contributions, this study offers valuable insights for researchers, informatics leaders, and policymakers interested in the development and application of digital health technologies in nursing practice.

Research Questions and Bibliometric Objectives

This bibliometric analysis was structured to address the following key questions:

- **Keyword Co-Occurrence:**

- What keywords are frequently used together in nursing-related EHR research?
- How do these co-occurrences inform thematic patterns and research focus?
- **Temporal Trends:**
 - How has the volume of EHR-related nursing research evolved over time?
 - Are there observable shifts in intensity or thematic direction across publication years?
- **Journal Distribution:**
 - What are the top 10 journals publishing EHR research in nursing?
 - How do these journals influence the dissemination and visibility of research findings?
- **Institutional Contributions:**
 - Which are the leading universities contributing to this field?
 - What roles do they play in shaping the research landscape?
- **International Collaborations:**
 - Which countries are the most active in nursing-related EHR research?
 - What patterns of collaboration exist between countries and institutions?

Material and Methods

Study Design

This study was designed as a descriptive bibliometric research to examine scientific studies published in the field of nursing using electronic health records (EHRs) in the Web of Science (WoS) Core Collection database. The methods section was structured in accordance with the reporting standards recommended for bibliometric studies by the EQUATOR Network.

Population and Sample

The initial population comprised 61,168 publications retrieved through a broad search using the keyword “electronic health records” in the WoS Core Collection. To identify nursing-related studies, the search results were refined by applying the WoS Category: Nursing and Research Area: Nursing filters. The final sample consisted of 753 original research articles that met the following inclusion criteria.

- Focus on the field of nursing
- Written in English

- Classified as original research articles (excluding reviews, editorials, conference proceedings, book chapters, and letters).

No restrictions were applied to the author names or publication years. The selection process aimed to isolate nursing-specific scholarly work to ensure the relevance and precision of thematic analysis.

Data Source and Search Strategy

Data were obtained on July 25, 2025, from the Web of Science Core Collection database via the Balıkesir University online library access portal (<https://access.clarivate.com/login?app=wos>). The search was conducted using the keyword TS = “electronic health records”. The following field filters were applied to identify nursing-related publications:

WoS Category: Nursing

Research Area: Nursing

No restrictions were applied based on publication year, author, country, or institution. Since Web of Science is updated daily, the single-day search approach is a limitation of the study and may affect the timeliness of the dataset.

Screening and Selection Process

The initial 61,168 publications were subjected to a systematic filtering process. First, using the WoS Category and Research Area filters, only publications related to the field of nursing were selected, reducing the number of records to 1,342. Then, a document type restriction was applied to include only original research articles, excluding review articles, editorials, book chapters, and conference proceedings, leaving 802 publications. Finally, a language filter was applied to select only articles written in English, resulting in a final sample of 753 articles. This multi-stage selection process ensured that the studies included in the analysis were both directly related to the field of nursing and of high scientific quality (Figure 1).

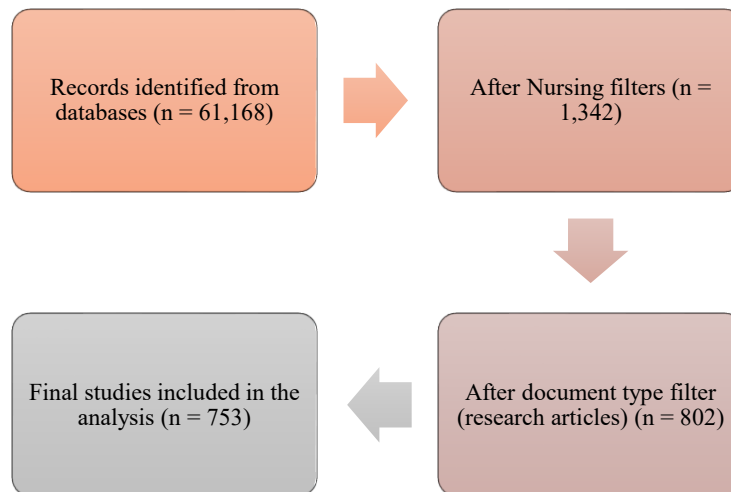


Figure 1. PRISMA flow diagram

Inclusion and Exclusion Criteria

Inclusion criteria

- Studies focused on the field of nursing
- Original research articles published in English
- Full-text accessible academic publications

Exclusion criteria

- Reviews, systematic reviews, meta-analyses
- Editorial articles, letters, conference abstracts
- Book chapters, reports
- Studies conducted in disciplines other than nursing
- Publications published in languages other than English

Data Analysis

The analysis did not employ inferential statistical tests. Descriptive statistics (frequencies and percentages) were used to summarize the findings. Microsoft Excel 2016 (Microsoft Corporation, UK) was used for data management, while VOSviewer version 1.6.20 (developed by Nees Jan van Eck and Ludo Waltman, Leiden University) was employed to visualize co-authorship networks, institutional collaborations, keyword co-occurrences, and citation mappings.

Ethical Considerations

As this study utilized secondary data derived from publicly available academic publications, formal ethical approval was not required. This study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

Keyword Associations and Thematic Focus

Keyword co-occurrence analysis using VOSviewer revealed that the term “*electronic health records*” occupied a central position in the literature and was frequently associated with related terms such as “*nursing informatics*,” “*nursing*,” “*documentation*,” “*workflow*,” “*patient safety*,” “*usability*,” “*nursing education*,” and “*health information technology*.” These associations indicated a strong thematic concentration on the integration of EHRs into clinical nursing practice, emphasizing their impact on care quality, safety, efficiency, and educational outcomes. Additional keywords such as “*clinical decision support systems*,” “*quality improvement*,” “*communication*,” “*palliative care*,” “*technology*,” and “*evidence-based care*” further suggest the breadth of EHR applications across various clinical contexts (Figure 2).

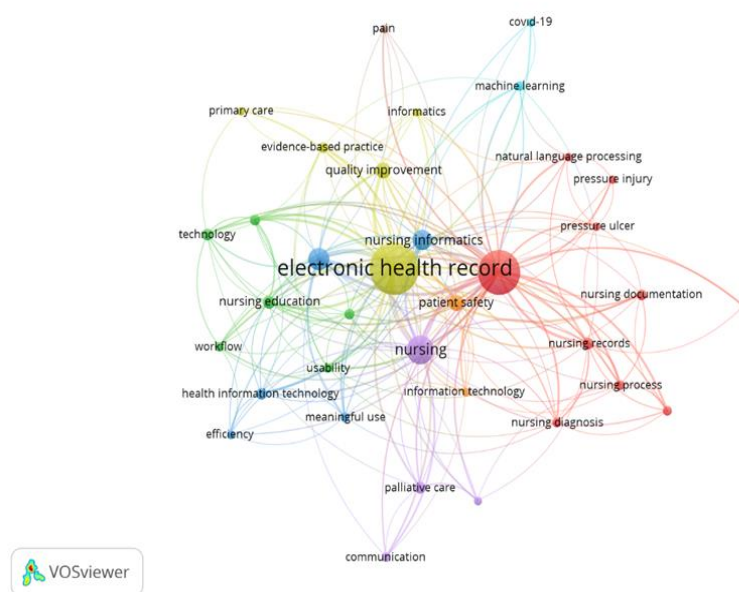


Figure 2. Distribution of keywords by keyword usage

Temporal Trends in Publication Output

Analysis of annual publication trends shows a steady increase in nursing research related to EHRs throughout the entire study period from 2002 to 2025. The first publications appeared in 2002. A distinct peak in publication volume was observed in 2021 (Figure 3). This upward trend reflects the increased academic interest in the digital transformation of healthcare and the expanding role of nursing informatics over the past two decades.

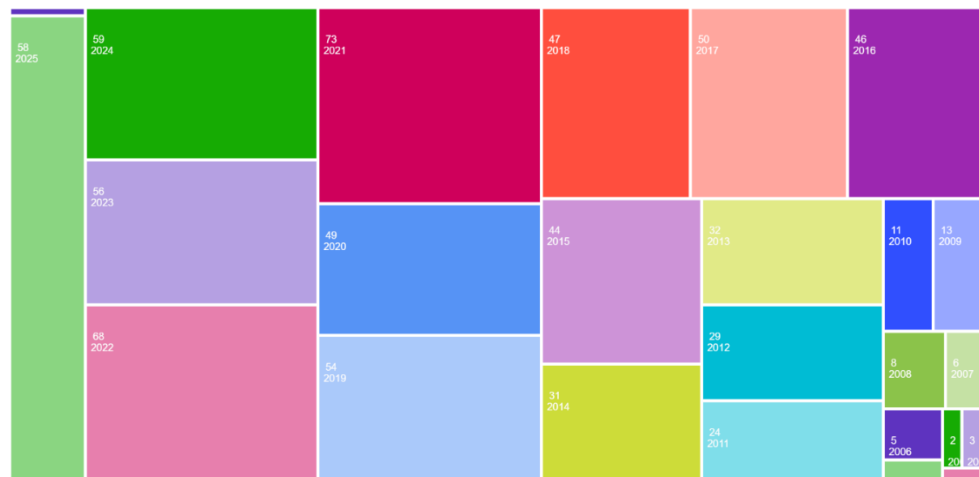


Figure 3. Distribution of articles by publication years

Leading Journals in Nursing and EHR Research

The 10 journals that publish the most on EHRs in nursing are summarized in Figure 4. *Computers, Informatics, Nursing* were the most prolific journals, contributing 173 articles (22.97%) to the field. Other leading journals included *Journal of Nursing Care Quality* (n=27), *Journal of Clinical Nursing* (n=22), *International Journal of Nursing Knowledge* (n=17), *Journal of Nursing Administration* (n=14), *Journal of Perianesthesia Nursing* (n=14), *Journal of Nursing Scholarship* (n=13), *Journal of the American Association of Nurse Practitioners* (n=12), *AORN Journal* (n=11), and *Clinical Nurse Specialist* (n=11). These journals play a vital role in disseminating research that bridges nursing practices with emerging health technologies.

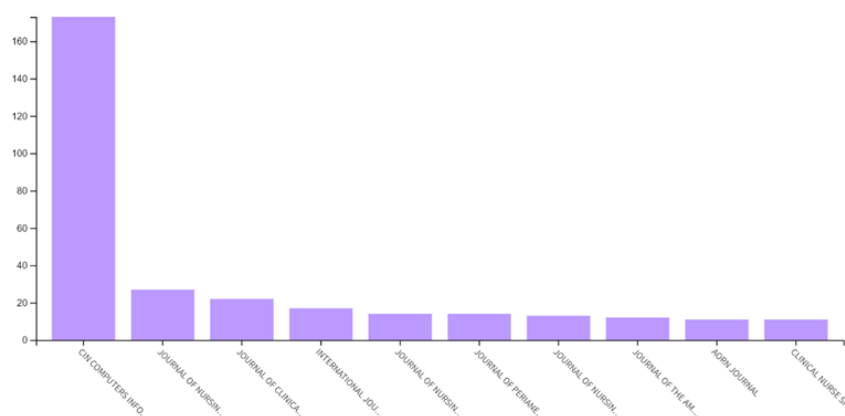


Figure 4. Distribution of journals by number of publications (top 10 journals)

Author Productivity and Collaboration Networks

Analysis indicated that Susan McBride (n=15) was the most prolific author in this field, followed by Maaxim Topaz (n=12), Gail M. Keenan (n=11), Diana J. Wilkie (n=11), Kathryn H. Bowles (n=10), Seonah Lee (n=10), Mari Tietze (n=10), Yingwei Yao (n=10), Myeong-

Seon Lee (n=9), and Karen Dunn Lopez (n=8) (Figure 5). Co-authorship and bibliographic coupling analyses revealed that foundational authors, such as Linda E. Moody (2004), established strong citation links across the network (Figure 6), with notable contributions from Powell (2017), Bruylands (2013), and Carrington (2011). Collaborative networks showed clusters of highly connected authors, particularly Diana J. Wilkie, Gail M. Keenan, and Bonnie L. Westra, demonstrating sustained interdisciplinary partnerships and collective scholarly productivity (Figure 7).

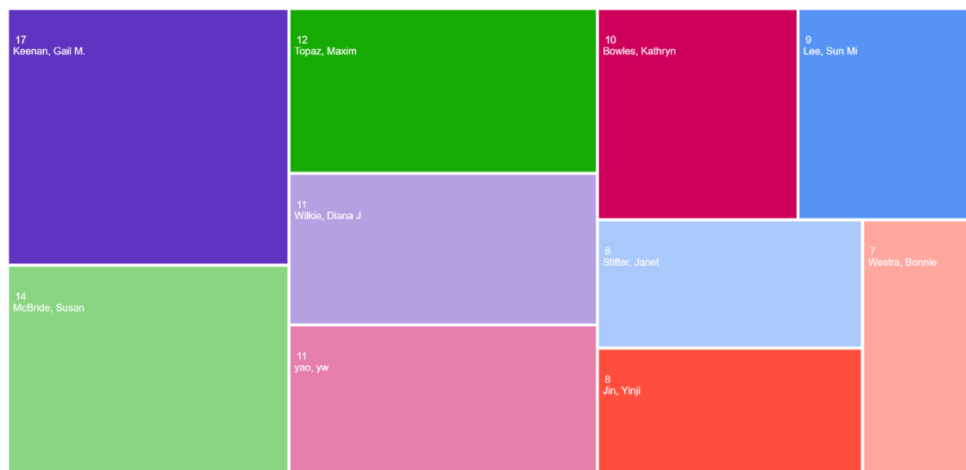


Figure 5. Distribution of the number of publications by authors (top 10 authors)

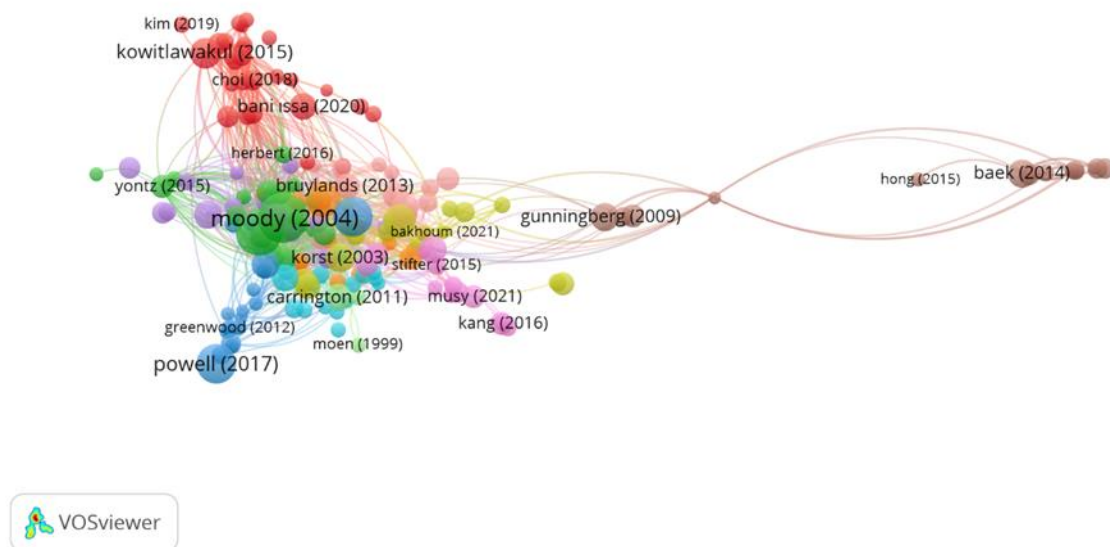


Figure 6. Bibliographic Coupling Analysis Among Authors

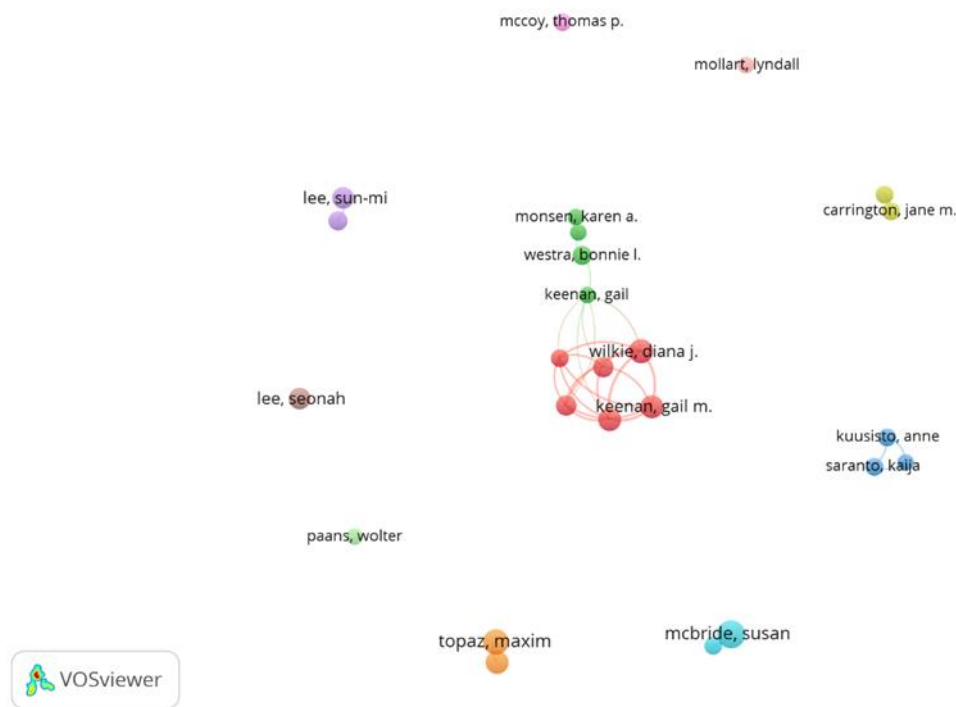


Figure 7. Co-authorship Network Among Authors

Citation Analysis

Citation metrics are presented in Table 1. The average number of citations per article in the sample is 9.39. The most frequently cited article was “*Electronic health records documentation in nursing: Nurses’ perceptions, attitudes, and preferences*” published in 2004, with 161 citations. This finding highlights the continued influence of early foundational work on shaping subsequent research on EHR adoption in nursing.

Table 1. Data on the Most Cited Authors and Publications

Authors	Article title	Year	Journal	Citations
Moody et al.	Electronic health records documentation in nursing: Nurses' perceptions, attitudes, and preferences	2004	CIN-Computers Informatics Nursing	161
Kossmann et al.	Nurses' perceptions of the impact of electronic health records on work and patient outcomes	2008	CIN-Computers Informatics Nursing	134
Powell	Patient-Perceived Facilitators of and Barriers to Electronic Portal Use: A Systematic Review	2017	CIN-Computers Informatics Nursing	104
Akhu-Zaheya et al.	Quality of nursing documentation: Paper-based health records versus electronic-based health records	2018	Journal of Clinical Nursing	99
Feder	Data Quality in Electronic Health Records Research: Quality Domains and Assessment Methods	2018	Western Journal of Nursing Research	86
Harris et al.	Estimating the association between burnout and electronic health record-related stress among advanced practice registered nurses	2018	Applied Nursing Research	70

Kowitlavakul et al.	Factors influencing nursing students' acceptance of electronic health records for nursing education (EHRNE) software program	2015	Nurse Education Today	63
Korst et al.	Nursing documentation time during implementation of an electronic medical record	2003	Journal of Nursing Administration	59
Huang et al.	COVID Symptoms, Symptom Clusters, and Predictors for Becoming a Long-Hauler Looking for Clarity in the Haze of the Pandemic	2022	Clinical Nursing Research	57
Kutney et al.	The Effect of Hospital Electronic Health Record Adoption on Nurse-Assessed Quality of Care and Patient Safety	2011	Journal of Nursing Administration	54

International and Institutional Collaborations

Country-level co-authorship analysis (Figure 8) revealed that the United States has a central role in the global EHR research network, both in terms of volume and collaboration. The U.S. maintains strong collaborative ties with countries such as Canada, Australia, South Korea, Taiwan, Indonesia, Brazil, Spain, the Netherlands, Finland, the United Kingdom, and Norway. Regional patterns have also emerged, with Europe (e.g., the Netherlands, England, Finland) and the Asia-Pacific region (e.g., South Korea, Australia) demonstrating active research participation. Citation network analysis further reinforced the U.S.'s centrality, with frequent reciprocal citation exchanges with Canada, Australia, South Korea, the UK, Japan, and Taiwan, illustrating the global dissemination and uptake of American scholarship in this domain.

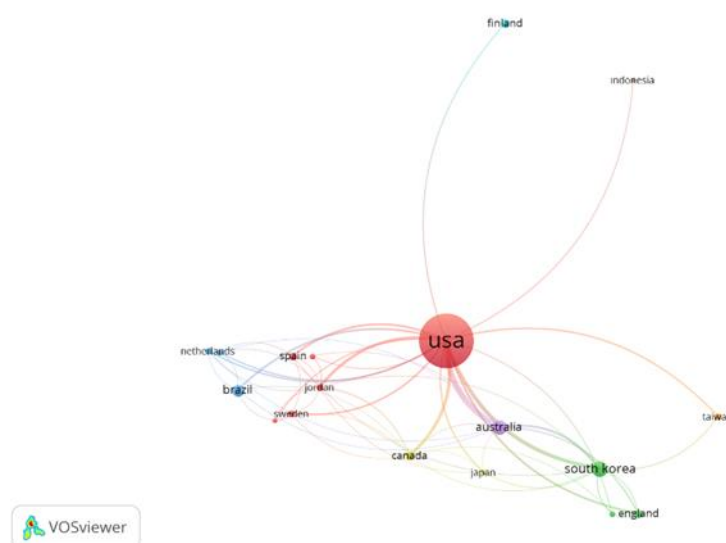


Figure 8. Country-Level Citation Network Visualization

Institutional Contributions

At the institutional level, the University of Illinois, University of Minnesota, and Columbia University were the leading contributors to collaborative publications (Figure 9). Other prominently connected institutions included the Mayo Clinic, the University of Michigan, and Seoul National University. The data indicate that EHR-related nursing research is characterized by robust inter-institutional and often international collaborations, reflecting the interdisciplinary and global nature of health informatics research.

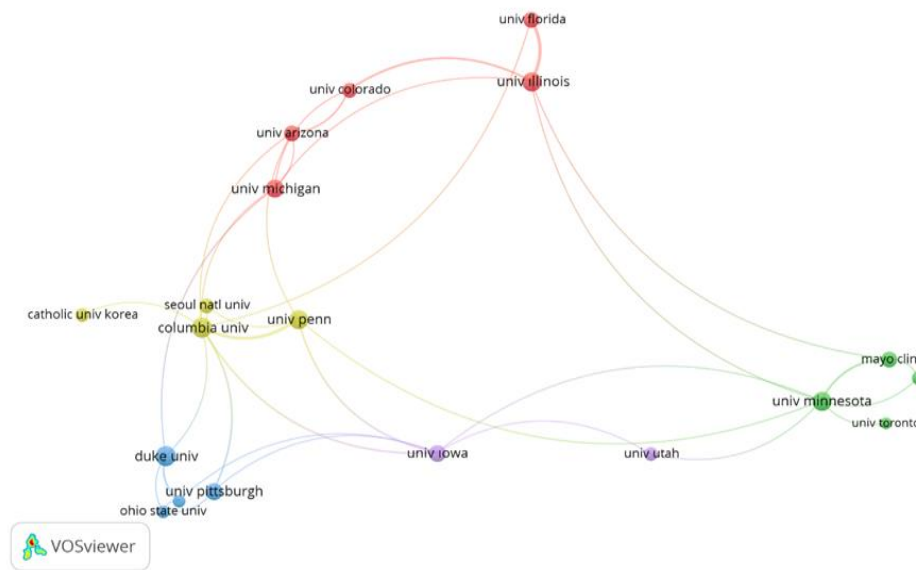


Figure 9. Organizational Co-authorship Network

Discussion

This bibliometric analysis provides a comprehensive overview of the scientific literature produced at the intersection of EHR and nursing between 2002 and 2025. Scientific mapping analyses conducted with VOSviewer have revealed research trends, leading contributors, and thematic clusters. The marked increase in publication volume between 2021 and 2022 reflects the acceleration of digital health initiatives during the COVID-19 pandemic and the growing global interest in health informatics. Similar increases in publications have been reported in other bibliometric studies in the fields of digital health and health informatics. (Luan et al., 2021; Zhou et al., 2025).

The author's assessments at the institutional and country levels have shown that publication productivity is concentrated in certain regions. The United States' leadership in both publication volume and international collaborations can be attributed to its advanced digital health infrastructure, strong research funding, and well-established nursing informatics

programs. These countries are followed by countries with high digital transformation investments, such as Australia, Canada, South Korea, and the Netherlands. However, collaboration analyses have revealed that high publication output does not always parallel broad international partnerships. When examining the distribution between countries, it is seen that the least publications come from low- and middle-income countries. This situation is thought to stem from structural factors such as limited digital health investments, the lack of widespread national electronic health record systems, low capacity for training specialists in nursing informatics, limited research funding, and limited opportunities for international collaboration (Moy et al., 2021; Adeniyi et al., 2024). These findings indicate that, for nursing informatics research to develop more evenly in the global literature, there is a need to strengthen digital transformation, research infrastructure, and international academic partnerships in low- and middle-income countries.

The article “Electronic health record documentation in nursing: Nurses' perceptions, attitudes, and preferences” (2004), which received the most citations in the analysis with 161 citations, demonstrates that EHR usability and nursing documentation have been central topics in the literature for many years. This finding is consistent with international research showing that early studies on the EHR-nursing relationship continue to have an impact today (McBride et al., 2022; Gephart et al., 2015).

The thematic focus of the analyzed publications indicates that nursing research on electronic health records (EHR) goes beyond technical system applications. The most frequently emerging themes in the keyword co-occurrence analysis included patient safety, documentation quality, clinical decision support, workflow efficiency, usability, and nursing informatics (Khairat et al., 2020; Adeniyi et al., 2024; Paatela et al., 2024). These findings are consistent with the literature showing that EHRs support safer and more coordinated care processes by improving the accuracy, completeness, and consistency of nursing documentation (Moy et al., 2021). Furthermore, the frequent repetition of concepts such as “nursing education,” “health information technology,” “quality improvement,” “communication,” and “evidence-based care” indicates that EHRs facilitate clinical reasoning, interdisciplinary communication, and continuous professional development.

It is noteworthy that terms directly related to emotional exhaustion or psychosocial resilience are not strongly represented in the keyword analysis. Therefore, the thematic evaluation focuses on the functional, educational, and quality improvement roles of ESK rather than its psychological effects. This approach is consistent with usability, workflow

optimization, documentation applications, and decision support processes, which are dominant in the field of nursing informatics. Studies demonstrating the impact of EHRs on clinical decision support (Chipps et al., 2020) and quality improvement efforts (Kutney-Lee et al., 2019) also support the positioning of electronic health records as integrated tools that shape clinical processes, increase decision-making accuracy, and contribute to systematic care improvements. However, although not strongly represented in the keywords, studies examining the relationship between digital workload and nurse burnout are increasingly appearing in the literature (Phillips et al., 2023; Glette et al., 2022). This indicates that current ESK research focuses more on technical and structural dimensions, but that psychosocial effects need to be addressed more comprehensively in the future.

Overall, the findings of this study illustrate that while the nursing field has made significant progress in adapting to digital health environments, there remains untapped potential for cross-national collaboration and engagement from low- and middle-income countries (LMICs). Future studies should explore diverse nurse experiences with EHRs in different cultural and health system contexts, and promote equitable participation in the development of global health informatics.

Limitations

Although this study provides a valuable synthesis of trends in nursing-related EHR research, certain limitations must be acknowledged. First, the analysis was limited to the articles indexed in the Web of Science (WoS) database. Although WoS is a comprehensive and reputable source, this restriction may have led to the exclusion of relevant studies published in non-indexed or regional journals, particularly in LMICs. Future research should consider including additional databases, such as Scopus, PubMed, and CINAHL, to broaden coverage and improve representation.

Second, this study included only original research articles, thereby excluding other important scientific contributions, such as systematic reviews, conference proceedings, editorials, and books. These excluded formats may contain valuable perspectives and evidence, and their omission may limit the completeness of thematic analysis. A more inclusive study design could offer a richer understanding of the scholarly landscape of EHRs and nursing.

Recognizing these limitations is essential for interpreting findings and guiding the design of more robust, diverse, and representative future bibliometric inquiries.

Conclusion and Recommendations

This study comprehensively evaluated the scientific literature produced in the field of nursing and electronic health records (EHR) between 2002 and 2025. Bibliometric analysis findings show that research on EHR use in nursing is becoming increasingly diverse and that EHRs have a multifaceted impact on care quality, patient safety, workflow efficiency, decision support mechanisms, and nursing informatics education. The United States' clear superiority in terms of publications, citations, and collaboration is associated with its digital health investments and advanced IT infrastructure, while the limited representation of low- and middle-income countries in the literature points to inequalities in the global digital transformation.

Based on these findings, the following recommendations are made:

- In clinical practice, developing nurse-friendly, intuitive, and workflow-compatible ESK interfaces can contribute to improving the quality of care by reducing nurses' cognitive load, lowering the risk of errors, and increasing patient safety.
- Strengthening in-service training will increase nurses' digital literacy and ESK usage skills, thereby supporting more effective and efficient use of the systems.
- Updating nursing education programs to include IT and digital documentation skills can prepare students for the digital healthcare environment.
- Integrating decision support systems into EHR platforms can support the spread of evidence-based care and the standardization of clinical decision-making processes.
- Policy makers and healthcare administrators should prioritize data standardization, interoperability, usability, and security in EHR systems.
- In low- and middle-income countries, increasing investments in strengthening digital infrastructure and supporting international collaborations can contribute to reducing global imbalances in EHR research.
- Ensuring the active participation of nurses in system development processes will help reduce usability issues and develop solutions appropriate to clinical realities.

In today's rapidly advancing digital health transformation, strengthening the field of nursing informatics is critical for both maintaining quality care and the effective and sustainable use of EHR systems. This study provides a guiding framework for future research, educational strategies, and digital health policies by revealing the current thematic structure and development trends of EHR research in the nursing field.

Ethical Considerations: As this study utilized secondary data derived from publicly available academic publications, formal ethical approval was not required. This study was conducted in accordance with the principles of the Declaration of Helsinki.

Conflict of Interest: The authors declare no conflicts of interest.

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Peer Review: Internal/External independent.

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