

Marketing and Social Media Management in Healthcare: A Bibliometric Analysis (2015-2024)

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ABSTRACT

This study presents a bibliometric analysis of peer-reviewed articles from the Web of Science (2015–2024) to examine the evolution of marketing and social media management in healthcare. Three search strategies “topic-based”, “title-focused”, and “Türkiye-specific” identify publication trends, collaboration networks, and thematic shifts. Results indicate a 16.44% annual growth in publications, driven by digital transformation and pandemic-related studies. The United States, the United Kingdom, and China lead in research output, while Türkiye, despite ranking among the top 20 contributors and increasing its academic engagement, shows limited international collaboration (6.5%). Topic-based searches emphasize “social media,” “COVID-19,” and “public health,” while refined searches highlight “marketing,” “branding,” “health communication,” and “patient satisfaction.” “Twitter,” “Facebook,” and “YouTube” play key roles in patient engagement and information dissemination. By mapping thematic shifts, this study uncovers global trends, regional collaborations, and also includes a country-level perspective by examining Türkiye as a case example, underscoring the evolving role of social media and communication strategies in healthcare marketing.

Keywords: Healthcare Marketing, Social Media, Bibliometric Analysis.

JEL Classification Codes: I11, M31, M37

Referencing Style: APA 6

INTRODUCTION

The digital transformation of healthcare has revolutionized the delivery and promotion of health services, integrating advanced communication technologies to enhance patient engagement, institutional branding, and service accessibility (Djakeli, 2023; Usuemerai et al., 2024; Senyapar, 2024). Digital marketing and social media platforms such as Facebook, Twitter, Instagram, YouTube, and LinkedIn have become indispensable in shaping patient-provider interactions, improving public health awareness, and fostering institutional trust (Moorhead et al., 2013; Ventola, 2014; Gupta, Tyagi & Sharma, 2024). These platforms not only enable real-time communication but also serve as critical tools for managing health misinformation, enhancing patient education, maintaining reputational integrity, and fostering trust in healthcare systems (Patrick, Venkatesh & Stukus, 2022; Senyapar, 2024; Tang, Ren & Zhang, 2018).

Beyond their direct role in health communication, these platforms now function as continuous feedback mechanisms, allowing healthcare organizations to collect and analyze patient opinions in real time. This

capability helps institutions identify emerging needs, refine service delivery models, and align their marketing strategies with evolving public expectations (Gupta, Tyagi & Sharma, 2024). As a result, digital presence has transitioned from being a supplementary communication tool to a fundamental determinant of competitiveness in healthcare markets. Moreover, the capacity to track and interpret patient engagement data has accelerated the shift toward evidence-based marketing approaches, enabling targeted interventions that enhance both satisfaction and loyalty without increasing operational complexity (Patrick, Venkatesh & Stukus, 2022).

Despite the increasing academic interest in healthcare marketing and social media, a comprehensive bibliometric analysis mapping its scholarly evolution remains scarce. Existing studies predominantly examine how social media influences public health initiatives and campaigns (Dash et al., 2023), patient decision-making processes (Benetoli, Chen & Aslani, 2018), and digital marketing strategies (Sohel, Farzana, Rashid & Ali, 2024), yet they often lack a systematic assessment of global publication trends, citation networks, and emerging research themes.

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This study addresses the identified gap through a bibliometric analysis of healthcare marketing and social media management literature (2015–2024) from the Web of Science database. The period was deliberately selected, as scholarship in this field expanded considerably after 2015, whereas earlier research remained relatively limited and dispersed. Three search strategies were employed: (1) a comprehensive topic-based query (titles, abstracts, keywords), (2) a title-focused refinement to prioritize core contributions, and (3) a country-specific filter to assess Türkiye's regional research focus. While the first two strategies provide a comprehensive overview of global research patterns, the Türkiye-specific search was included as a secondary analysis to illustrate how a single country's contributions align with, or diverge from, broader global trends. By methodically analyzing publication trends, collaboration networks, and thematic shifts, this study highlights the evolving role of marketing and social media management in healthcare delivery. The analysis provides a foundation for developing evidence-based digital engagement strategies and offers actionable insights for researchers, practitioners, and policymakers navigating the ethical and operational complexities of digital healthcare.

CONCEPTUAL BACKGROUND

The Evolution of Marketing and Social Media in Healthcare

The integration of marketing principles and social media into healthcare is a transformative response to the digital age. Over the past two decades, social media platforms—initially designed for social interaction—have evolved into critical tools for health promotion, health communication, patient engagement, and institutional branding (Moorhead et al., 2013; Musso et al., 2020; Senyapar, 2024). This shift reflects broader societal changes, where digital interactions now shape patient expectations, health literacy, and trust in healthcare systems (Ventola, 2014; Musso et al., 2020; Tang et al., 2018).

Recent analyses highlight that this transformation has not been uniform across regions or healthcare systems. High-income countries frequently adopt social media to reinforce brand identity, disseminate research outputs, and strengthen corporate communication, whereas developing regions often focus on fundamental awareness campaigns and low-cost health promotion initiatives (Senyapar, 2024; Djakeli, 2023). This variation underscores the necessity of developing digital strategies adapted to local needs, avoiding uniform

solutions that may not suit all settings. Furthermore, the ability of institutions to adapt to changing technological trends has become a significant factor determining their effectiveness in engaging diverse populations and ensuring equitable access to information.

Traditional healthcare marketing relied on print media, television, and direct outreach. However, the rise of digital platforms has enabled personalized, real-time interactions. For example, Facebook and Twitter are used for targeted health campaigns, while YouTube serves as a hub for patient education (Gough et al., 2017; Neely et al., 2024). The COVID-19 pandemic accelerated this shift, with platforms like Instagram and LinkedIn emerging as key channels for disseminating guidelines and combating misinformation (Farsi, 2021; Cinelli et al., 2020).

The evolution of healthcare marketing through social media is closely linked to related fields. Communication studies show how message framing and audience segmentation influence patient responses, while digital transformation research highlights the technological infrastructure that enables real-time engagement. Health policy perspectives further explain the role of regulation, governance, and ethical oversight in digital healthcare communication. These interdisciplinary links indicate that healthcare marketing should be seen not as a separate area but as a field shaped by technological, behavioral, and policy dynamics (Djakeli, 2023; Musso et al., 2020; Ventola, 2014).

Applications of Social Media in Healthcare Marketing

Social media has emerged as a transformative force in healthcare marketing, enabling institutions to address diverse challenges while fostering patient engagement and institutional credibility (Gupta, Tyagi & Sharma, 2013; Usuemerai et al., 2024; Gupta et al., 2024). Its applications span several key areas, each contributing uniquely to modern healthcare delivery.

One of its primary roles is patient education and empowerment. Platforms like Facebook, Instagram, Reddit, and PatientsLikeMe provide spaces where individuals managing chronic conditions such as diabetes or mental health disorders can share experiences, access evidence-based resources, and find community support (Moorhead et al., 2013; Musso et al., 2020). Additionally, YouTube channels hosted by medical professionals offer instructional videos on various medical procedures and health management strategies, bridging gaps in health literacy and fostering patient autonomy (Neely et al., 2024).

Another critical application is crisis communication, where social media's speed and reach are both an asset and a challenge. During the COVID-19 pandemic, platforms like Twitter and Facebook became essential for disseminating real-time updates on infection rates, vaccine availability, and public health guidelines. However, they also facilitated the spread of misinformation about unproven treatments and conspiracy theories (Patrick et al., 2022; Cinelli et al., 2020). Addressing this challenge requires a combination of technological and educational strategies. AI-powered tools have been increasingly employed to detect and limit the spread of false health information, while media literacy education has been recognized as a crucial component in strengthening public resilience against misinformation. By equipping individuals with critical thinking skills and promoting responsible digital engagement, these initiatives help mitigate the risks associated with misleading content (Washington, 2023). This integrated approach highlights the importance of balancing technological interventions with educational efforts to ensure more effective crisis communication in healthcare.

Beyond its public health applications, social media has become a key tool for building institutional credibility and fostering trust among stakeholders (Chaudhri, Oomen, Pridmore & Joon, 2021). Prominent healthcare systems—including the Johns Hopkins Medicine, Cleveland Clinic, and Mayo Clinic—utilize platforms such as Facebook, Twitter, LinkedIn, TikTok, and Instagram to connect with and engage a wide range of audiences. These platforms serve as channels for showcasing workplace culture, staff achievements, and medical innovations while also fostering collaboration among employees and stakeholders. Additionally, social media is widely used in public health campaigns to increase awareness on issues such as preventive care and health promotion (Dash et al., 2023; Musso et al., 2020). By combining relatable content with evidence-based messaging, healthcare institutions enhance their digital presence, strengthen patient trust, and build long-term community relationships (Djakeli, 2023).

Social media further strengthens healthcare marketing by improving patient adherence through personalized interventions (Usuemerai et al., 2024). For example, mobile apps and platforms like WhatsApp deliver customized medication reminders and lifestyle guidance, directly enhancing treatment compliance and health outcomes (Tabi et al., 2019). Moreover, the dynamic capabilities of social media allow healthcare institutions to respond to evolving demands. During the

COVID-19 pandemic, hospitals leveraged social media to rapidly disseminate information on evolving regulations and patient care adaptations, reinforcing its role as an essential communication tool within modern healthcare systems (Lim, 2016; Farsi, 2021). Ethical practices remain central to these efforts, with institutions anonymizing patient data and adhering to privacy regulations like GDPR and HIPAA to maintain public trust (Ventola, 2014; McGraw & Mandl, 2021; İri, 2024).

In summary, social media has become an essential driver of innovation and equity in healthcare, especially in underserved regions (Moorhead et al., 2013). Its role in marketing extends to education, crisis response, and trust-building. However, challenges such as misinformation and ethical concerns require strategic solutions to maximize its potential for patient-centered care (Lim, 2016; Jeyaraman et al., 2023).

METHODOLOGY

The methodological design centers on a bibliometric approach, structured to capture publication trends, collaboration patterns, and thematic shifts within healthcare marketing and social media research. It focuses on identifying key trends, influential contributors, and emerging themes to address gaps in the literature and guide future research. Accordingly, the study is designed to explore the following research questions:

- RQ1. How have publication trends and growth rates in marketing and social media management in healthcare research evolved globally between 2015 and 2024?
- RQ2. How do the contributions and collaboration patterns of countries differ across regions?
- RQ3. What are the dominant thematic priorities in marketing and social media management in healthcare, and how have these themes evolved over time?
- RQ4. What distinguishes Türkiye's research contributions in marketing and social media management in healthcare from global trends?

A bibliometric approach was adopted, combining structured search strategies, data validation, and multidimensional analysis.

Data Source and Search Strategies

The Web of Science (WoS) database was selected to ensure a systematic and high-quality selection of

peer-reviewed journal articles. The analysis covered publications from January 1, 2015, to December 31, 2024. The 2015–2024 timeframe was selected because research on healthcare marketing and social media increased significantly during this period, while earlier studies remained relatively limited. To maintain academic rigor, only articles were included, while non-empirical works such as editorials, commentaries, and conference proceedings were excluded. The dataset was refined through a three-stage search strategy, as illustrated in Figure 1.

To align with the predefined study period (2015–2024), articles assigned a formal publication year of 2025 (despite being indexed as “early access” in 2024) were identified and removed. Additionally, despite initial filtering, non-article document types (e.g., letters, book reviews, editorials, commentaries) that inadvertently passed through the automated WoS filters were manually identified and excluded to ensure dataset purity. Following these steps, the final dataset comprised 16,607 articles in the first stage (Strategy I), 631 articles in the second stage (Strategy II), and 595 articles in the third stage (Strategy III).

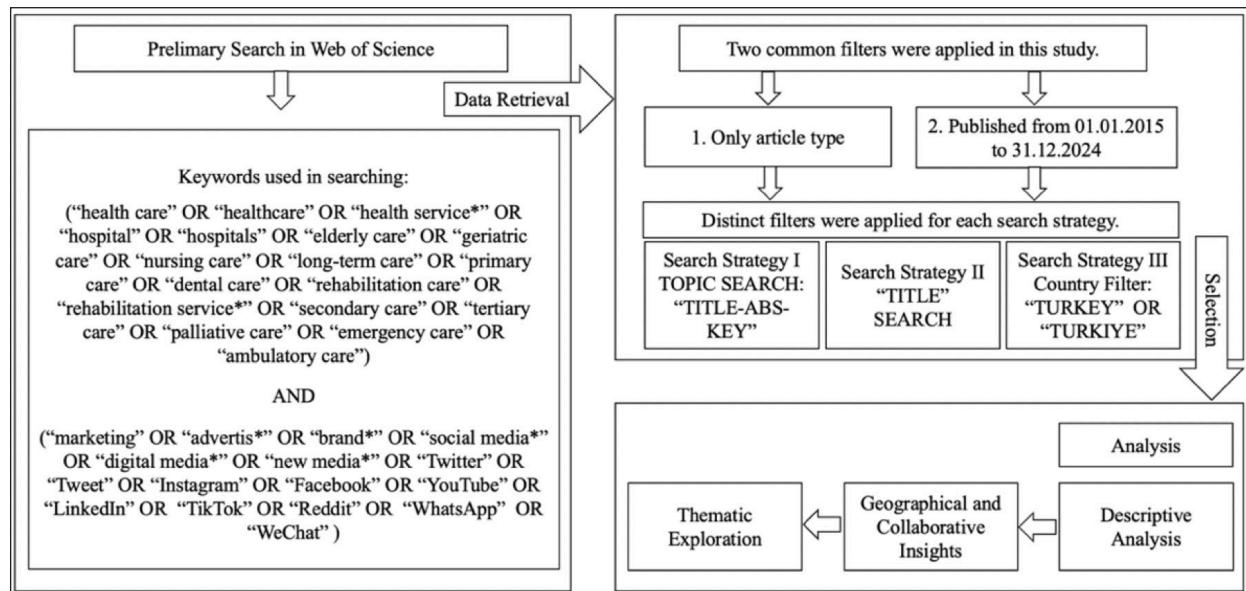


Figure 1: Research Strategy and Study Flowchart

As outlined in Figure 1, a sequential screening process ensured methodological transparency. The first stage (Topic Based Search) involved querying the TITLE-ABS-KEY field in WoS, covering terms related to marketing (e.g., “marketing,” “advertis*,” “brand*,” “social media*,” “Twitter,” “Youtube”) and healthcare (e.g., “healthcare,” “health care,” “health service*”). Filters for the publication period and document type were applied, yielding an initial dataset of 17,092 articles. The second stage (TITLE SEARCH) improved thematic relevance by limiting the search to the TITLE field, reducing the dataset to 662 articles with a clear research focus. The final stage (Country Filter) refined the first-stage search results by applying the country identifiers “TURKEY” and “TURKIYE,” identifying studies specific to Türkiye and resulting in a final dataset of 602 articles.

Data Cleaning and Preprocessing

All metadata fields under WoS’s “Custom Selection” tab were exported to ensure comprehensive data extraction. Records were processed in BibTeX format using the Bibliometrix package in RStudio (Aria & Cuccurullo, 2017).

Analytical Framework

This study used a multidimensional bibliometric approach to examine the evolution and impact of marketing and social media management in healthcare. The analysis was structured around three key dimensions:

Descriptive Analysis: Publication trends, authorship patterns, and citation metrics were analyzed to map the field’s growth and scholarly impact, including annual productivity and collaboration networks.

Geographical and Collaborative Insights: International contributions were examined to identify global and regional trends, with a focus on collaboration dynamics. Co-authorship patterns were analyzed to position Türkiye within the broader research landscape.

Thematic Exploration: Keyword co-occurrence and temporal analyses were used to identify dominant topics and emerging research priorities. Thematic clusters were categorized as core, niche, or evolving trends,

highlighting shifts in focus, such as the rise of digital platforms and the impact of COVID-19.

This study provides a structured overview of the evolution of marketing and social media management in healthcare over the past decade, offering valuable insights for academics and practitioners.

RESULTS

This bibliometric analysis produced three distinct datasets, each corresponding to a different search strategy. These datasets provide unique insights into the evolution of marketing and social media management research in healthcare from 2015 to 2024. The findings highlight notable variations in dataset size, citation metrics, and authorship patterns, demonstrating the influence of search scope on bibliometric outcomes. Table 1 summarizes key descriptive metrics, including document volume, citation impact, and collaboration trends across the three search strategies, offering a comparative perspective on how each approach contributes to understanding research trends.

were moderate. The country-specific search (Search Strategy III) exhibited the highest annual growth rate, underscoring the increasing research focus on healthcare marketing in Türkiye. Additionally, international co-authorship rates varied significantly, with Search Strategy I demonstrating the highest level of global collaboration, highlighting the extensive international engagement in this research area. Figure 2 illustrates the upward trend in healthcare marketing and social media research, as identified through the topic-based search (Search Strategy I) between 2015 and 2024.

The number of publications increased substantially from 657 in 2015 to 2,585 in 2024, indicating a growing academic and professional interest in the field. This steady rise reflects the increasing integration of digital marketing strategies and social media in healthcare. The acceleration in recent years underscores the field's dynamic nature. It highlights the need for continued exploration of emerging trends, evolving research priorities, and their implications for healthcare practice and policy.

Table 1. Descriptive Statistics of the Studies Included in the Bibliometric Analysis

Description	Search Strategy I	Search Strategy II	Search Strategy III
Timespan	2015:2024	2015:2024	2015:2024
Sources (journals, books, etc.)	4340	427	407
Number of articles (documents)	16,607	631	595
Annual growth rate	16.44%	11.43%	41.56%
Document's average age	4.16	4.69	3.26
Average citations per document	12.68	11.43	8.63
Total number of references used in the documents	501,865	24,173	16,789
Number of author's keywords	29,338	1,905	1,678
Number of authors	78254	2,609	2,666
Number of authors of the single-authored docs	930	58	43
Number of the co-authors per document	6.24	4.56	5.01
International co-authorships	25.16%	20.13%	15.29%

The results indicate substantial differences in dataset size, citation impact, and collaboration patterns across search strategies. The topic-based search (Search Strategy I) yielded the largest dataset, reflecting the widespread academic interest in marketing and social media within healthcare. The title-only search (Search Strategy II) produced a more focused dataset with a higher average document age (4.69 years), suggesting that studies on healthcare marketing and social media are more established. However, its citation impact (11.43 per document) and international collaboration (20.13%)

An analysis of publication distribution across countries reveals substantial regional and institutional contributions to healthcare marketing and social media research. Figure 3 illustrates how corresponding author countries are distributed in terms of Multiple Country Publications (MCP) and Single Country Publications (SCP). A higher MCP ratio indicates stronger international collaboration, while a predominance of SCPs suggests a more localized research focus.

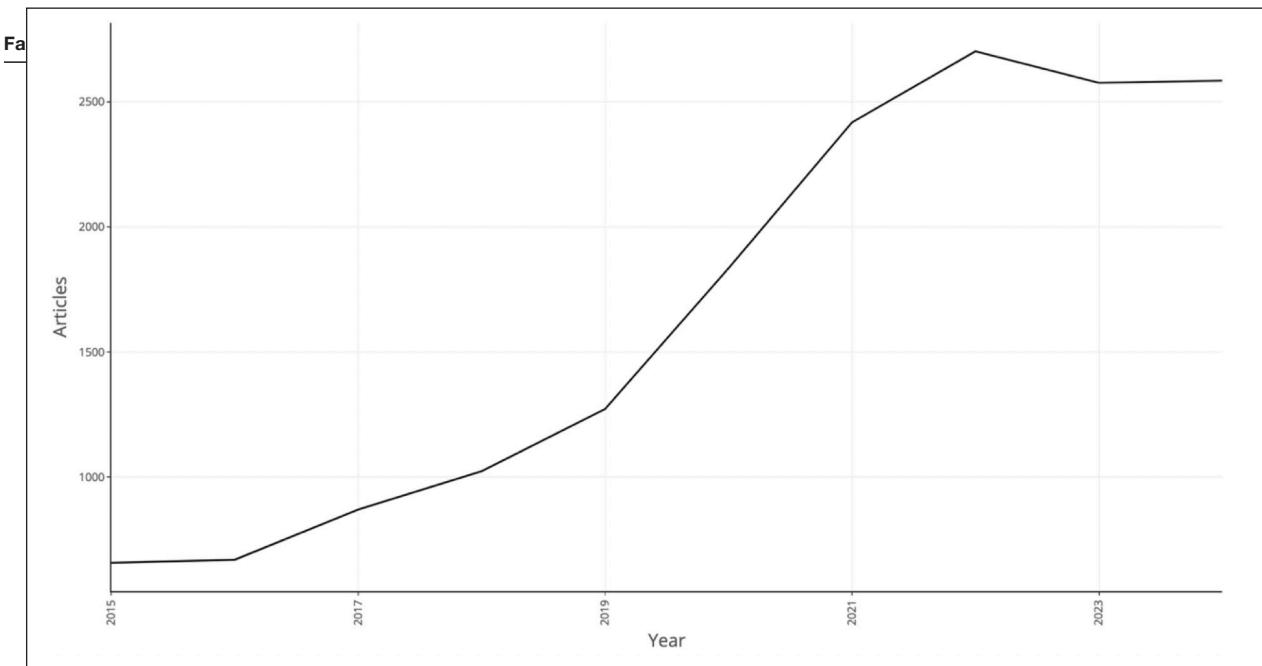


Figure 2: Annual Publication Trends Based on Search Strategy I (2015–2024)

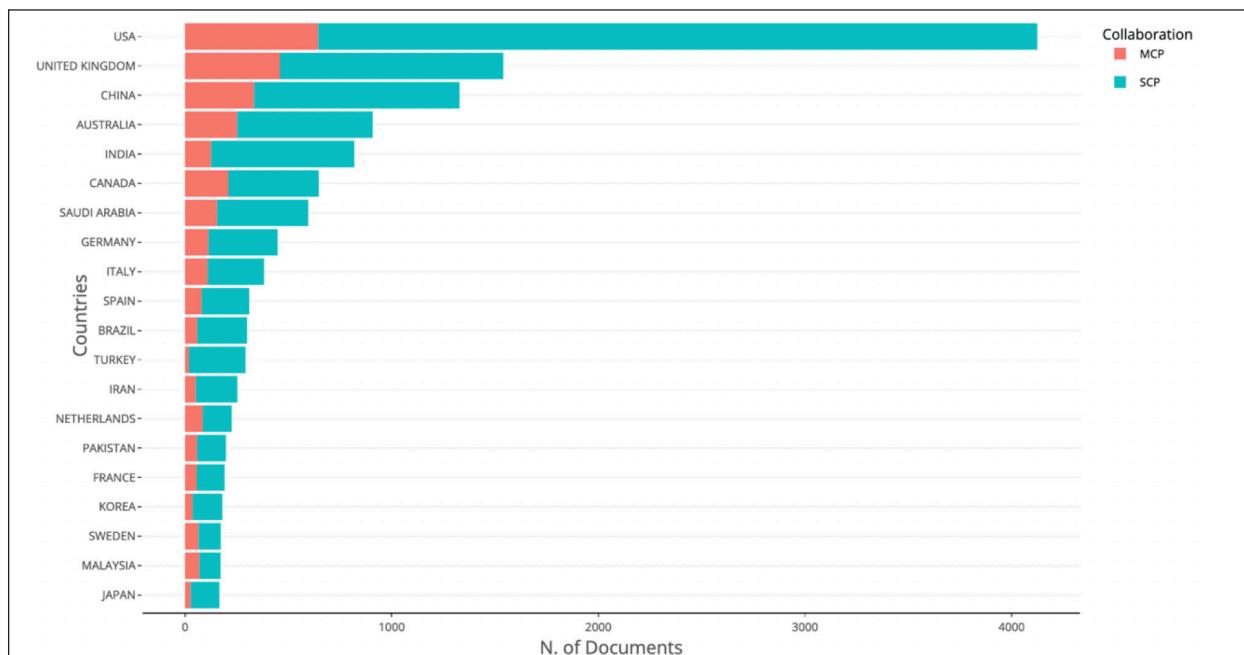


Figure 3: Corresponding Authors' Countries for Search Strategy I

As illustrated in Figure 3, the United States leads by a significant margin, with 4,124 publications, followed by the United Kingdom (1,540), China (1,328), Australia (908), India (819), and Canada (647). These figures highlight strong research engagement in marketing and social media management in healthcare, with notable contributions not only from English-speaking and high-income countries but also from China and India, reflecting their expanding academic influence in this field.

Türkiye ranks among the top 20 countries in publication volume but exhibits the lowest MCP ratio (6.5%) within this group. This suggests relatively limited international collaboration, presenting an opportunity to enhance

global partnerships and increase the international impact of Türkiye's contributions to healthcare marketing research. Türkiye was not the primary focus of the analysis, yet its rapid growth rate (41.56%) and limited international collaboration (6.5%) provide a useful case example of how emerging research contexts contribute to, but also diverge from, global patterns.

The analysis further explores global collaboration patterns and thematic distributions in healthcare marketing and social media research. To provide a comprehensive visual representation of the connections between countries, author keywords, and research titles, Figure 4 is presented below.

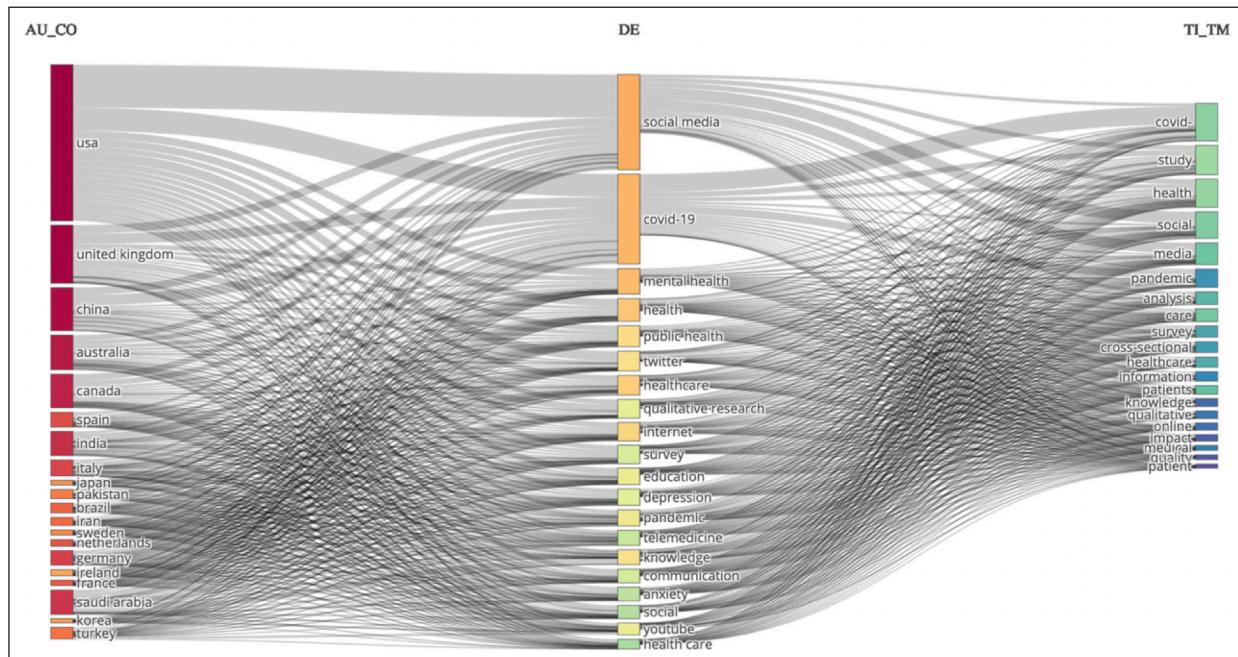


Figure 4: Three-Field Plot of Countries, Keywords, and Titles for Search Strategy I

The visualization highlights the U.S. and the U.K. as key contributors to international collaborations, while other countries exhibit more localized research patterns. Central themes such as social media, COVID-19, mental health, and public health dominate the scholarly discourse, reflecting the increasing role of digital platforms in healthcare communication. The title-based distribution further emphasizes the sector's shift towards patient engagement, evidence-based marketing approaches, and the growing use of online channels to enhance healthcare communication and information dissemination. These findings underscore the importance of strengthening global research networks and leveraging digital tools to improve public health outreach and patient-centered strategies.

To further explore the thematic focus of healthcare marketing and social media research across different search strategies, the following word cloud visualization provides a comparative perspective. By analyzing author keywords, we can identify the dominant themes that emerge in both broad and more targeted search approaches.

The broad search strategy (left) identifies “social media” (1,948) and “COVID-19” (1,722) as dominant themes, emphasizing the critical role of digital platforms in healthcare. Key topics such as “mental health” (463), “healthcare” (449), and “public health” (368) highlight a strong focus on health services and population well-being. The presence of “internet” (385), “twitter” (368), and “youtube” (303) underscores the influence of online networks in health-related interactions, while “education” (310), “marketing” (196), and “artificial intelligence” (147) reflect the increasing integration of technology in healthcare communication and decision-making.

The refined search (middle) narrows this focus, maintaining “social media” (220) and “healthcare” (60) as central topics while incorporating “marketing” (35), “Twitter” (41), and “Facebook” (28)—indicative of growing interest in digital engagement strategies. The inclusion of “service quality” (16), “patient satisfaction” (15), and “branding” (11) highlights a shift towards healthcare marketing and reputation management. Additionally, “machine learning” (9), “trust” (9), and “misinformation” (7) highlight emerging concerns regarding AI applications and content credibility in health communication.



Figure 5: Word Cloud of Author Keywords for Search Strategies I, II, and III (Left to Right)

The country-specific search (right) further refines this scope, emphasizing "YouTube" (119), "social media" (94), and "COVID-19" (88) while introducing "quality" and "reliability," suggesting a stronger focus on evaluating online health information. The prominence of "anxiety," "depression," and "mental health" underscores research on the psychological impact of digital content, while "patient education," "medical education," and "nursing" highlight the role of online learning in healthcare. Emerging topics such as "vaccine hesitancy," "artificial intelligence," and "ethics" reflect ongoing discussions on public trust and technological advancements in health communication. Overall, broad queries capture global trends, refined searches highlight digital marketing and engagement, and specific queries focus on platform-based content analysis and information credibility. This comparison underscores the evolving role of social media in healthcare communication, shaping trust, education, and public health strategies. Figure 6 further explores these trends over time, revealing shifts in research priorities.

on topics such as 'COVID-19,' 'misinformation,' 'content analysis,' and 'information' reflecting heightened concerns about health communication and the spread of digital health content. Additionally, the increasing presence of "corporate communication" and "customer satisfaction" suggests a rising interest in institutional reputation management and the evaluation of patient experiences within healthcare marketing. The growing emphasis on analytical approaches highlights the need to critically assess online health interactions, as well as the wider influence of social media on healthcare-related conversations.

To further explore the interconnected themes within healthcare marketing and social media research, the following network visualization illustrates the co-occurrence patterns of author keywords (Figure 7). This provides a deeper understanding of how key concepts are linked, revealing dominant research clusters and emerging interdisciplinary connections.

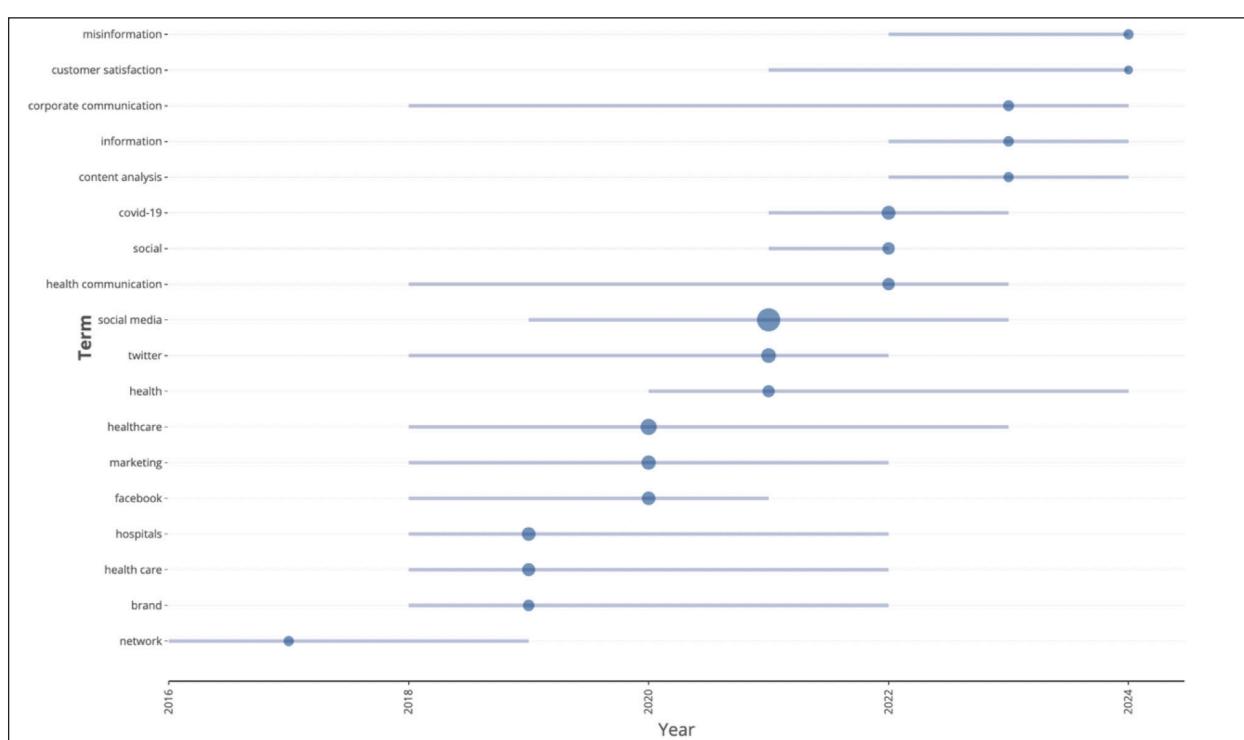


Figure 6: Trend Topics Over the Years Based on Search Strategy II

The evolving research landscape highlights a shift in thematic priorities over time. Earlier studies predominantly explored concepts such as "brand" and "network," while the growing influence of digital platforms led to an increasing focus on topics like "social media," "Facebook," and "Twitter." In recent years, research attention has significantly increased

The network analysis highlights "social media" as the central theme, strongly linked to key topics such as "health communication," "patient satisfaction," "marketing," and "misinformation." These connections highlight the increasing influence of digital platforms on healthcare communication, public perception, and patient engagement.

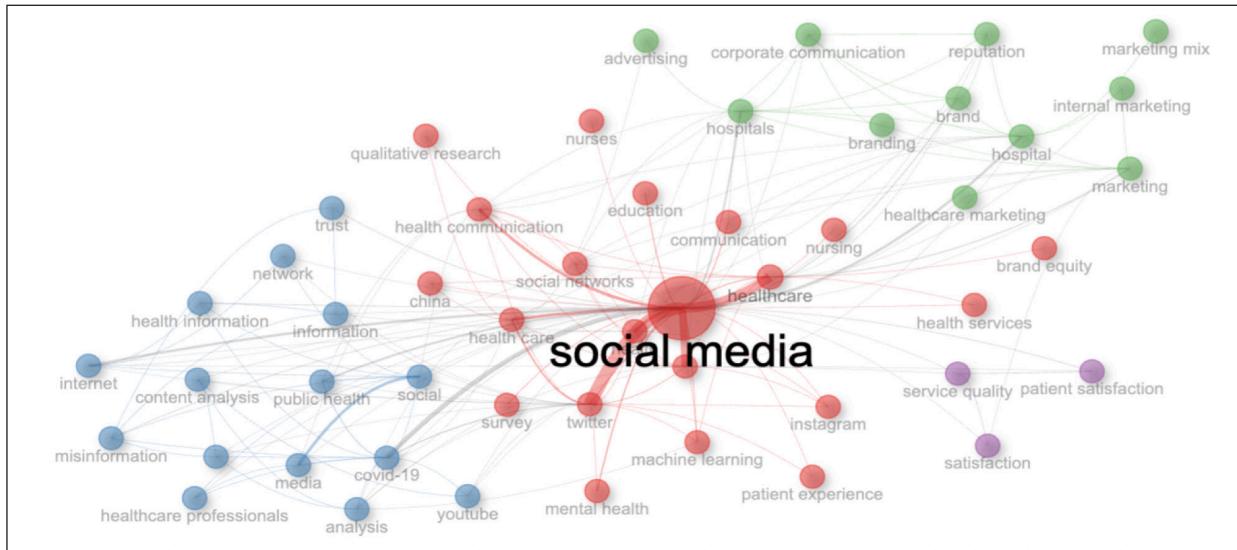


Figure 7: Co-occurrence Networks Based on Author Keywords for Search Strategy II

The analysis reveals distinct thematic clusters, including healthcare communication and nursing, public health and information dissemination, and healthcare marketing and branding. Topics such as "machine learning," "survey," and "qualitative research" suggest a methodological shift, incorporating both data-driven and interpretative approaches to analyze social media interactions in healthcare.

a structured overview of research trends, the following thematic map (Figure 8) categorizes key topics based on their centrality and development.

This thematic map provides a structured analysis of research trends in healthcare marketing and social media, categorizing them by relevance and development. Motor themes such as "COVID-19," "social," "internet," and "trust" emerge as dominant forces shaping the field, reflecting

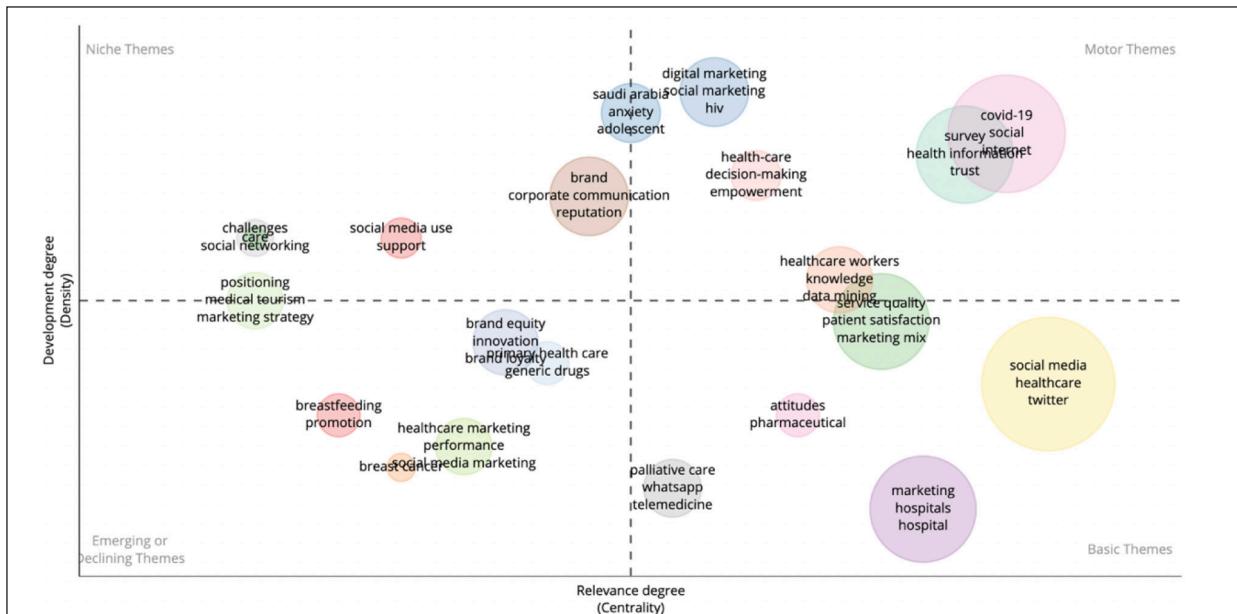


Figure 8: Thematic Map Based on Author Keywords for Search Strategy II

The network structure illustrates the interdisciplinary nature of studies which bring together communication, marketing, and aspects of public trust. These findings highlight the need for further interdisciplinary research to address both the opportunities and challenges within the evolving digital health landscape. To provide

their central role in contemporary healthcare discourse. Basic themes like "social media," "healthcare," "Twitter," "marketing," and "marketing mix" serve as foundational pillars, maintaining their relevance while continuing to evolve. Niche themes, including "brand," "corporate

communication," "reputation," "social media use," and "support," highlight specialized but well-developed topics, emphasizing the role of branding, reputation management, and digital engagement strategies in healthcare marketing. Notably, concepts such as "healthcare marketing," "social media marketing," and "brand equity" appear as emerging themes, indicating growing research interest in these areas. This classification underscores the dynamic and interdisciplinary nature of healthcare marketing research, emphasizing the growing impact of digital platforms and the necessity for continued exploration of evolving trends.

As research in healthcare marketing and social media continues to evolve, distinct thematic shifts have emerged over time. Analyzing trends across different periods provides valuable insights into how research priorities have developed, highlighting both the emergence of new focal areas and the persistence of core topics. Figure 9 presents a thematic evaluation based on author keywords, offering a structured perspective on the field's progression.

"customer satisfaction" reflects a heightened focus on patient experience and service quality in digital healthcare, particularly in the post-COVID-19 period. The continued presence and evolution of "social media" and "marketing" across these phases underscore their central role in shaping digital health discourse and consumer engagement.

While global research trends offer a broad perspective on thematic shifts, analyzing them at the country level provides deeper insights into the sociocultural, economic, and policy-driven factors shaping research priorities. Türkiye, with its rapidly evolving healthcare system and digital transformation, has developed a distinct research focus at the intersection of social media and healthcare marketing. To explore these localized research patterns, Figure 10 presents a thematic map of studies conducted in Türkiye, categorizing dominant, emerging, and specialized themes that define the country's research landscape.

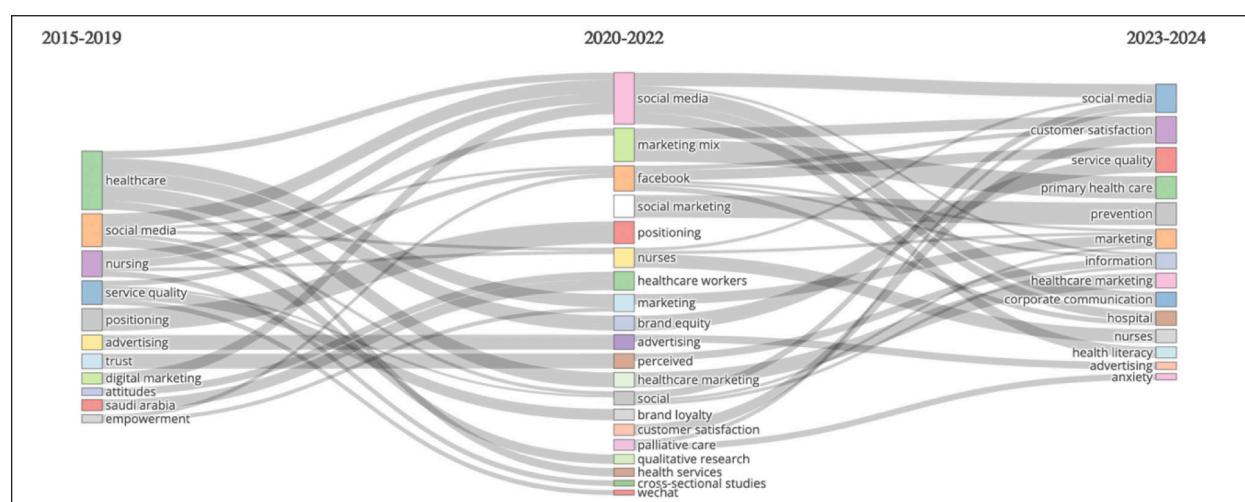


Figure 9: Thematic Evaluation by Periods Based on Author Keywords for Search Strategy II

Between 2015 and 2019, studies predominantly focused on foundational topics such as "social media," "healthcare," "advertising," and "digital marketing," alongside themes related to "service quality" and "positioning." In the subsequent period (2020–2022), the growing influence of "social marketing," "marketing mix," and "brand equity" reflected an increasing emphasis on digital engagement, strategic branding, and consumer perception in healthcare. By 2023–2024, themes such as "social media," "marketing," and "information" gained prominence, underscoring the deeper integration of digital platforms into healthcare communication and branding strategies. Additionally,

Figure 10 presents a structured thematic analysis of Türkiye's research landscape in marketing and social media within healthcare, highlighting key thematic clusters. Basic themes such as "COVID-19," "social media," "marketing," "advertising," "deep learning," and "machine learning" reflect a focus on data-driven strategies in healthcare marketing. These themes highlight the role of technology in patient engagement and brand positioning. Motor themes, including "artificial intelligence," and "ChatGPT," underscore the growing integration of AI-driven tools in healthcare communication and content evaluation. Niche themes such as "loyalty," "patient satisfaction," and "trust" highlight the importance of

consumer perceptions and service quality in shaping digital healthcare strategies. Additionally, emerging or declining themes like "complementary and alternative medicine" and "medical tourism" suggest evolving research interests influenced by healthcare policies and market dynamics. This thematic distribution shows how Türkiye's research landscape aligns with global trends while addressing region-specific challenges.

a more comprehensive mapping of healthcare marketing and social media research. By employing diverse bibliometric techniques, this analysis not only complements previous studies but also contributes a comprehensive outlook on the evolution of this research area. Furthermore, this study underscores how methodological choices influence bibliometric outcomes, reinforcing the importance of rigor in

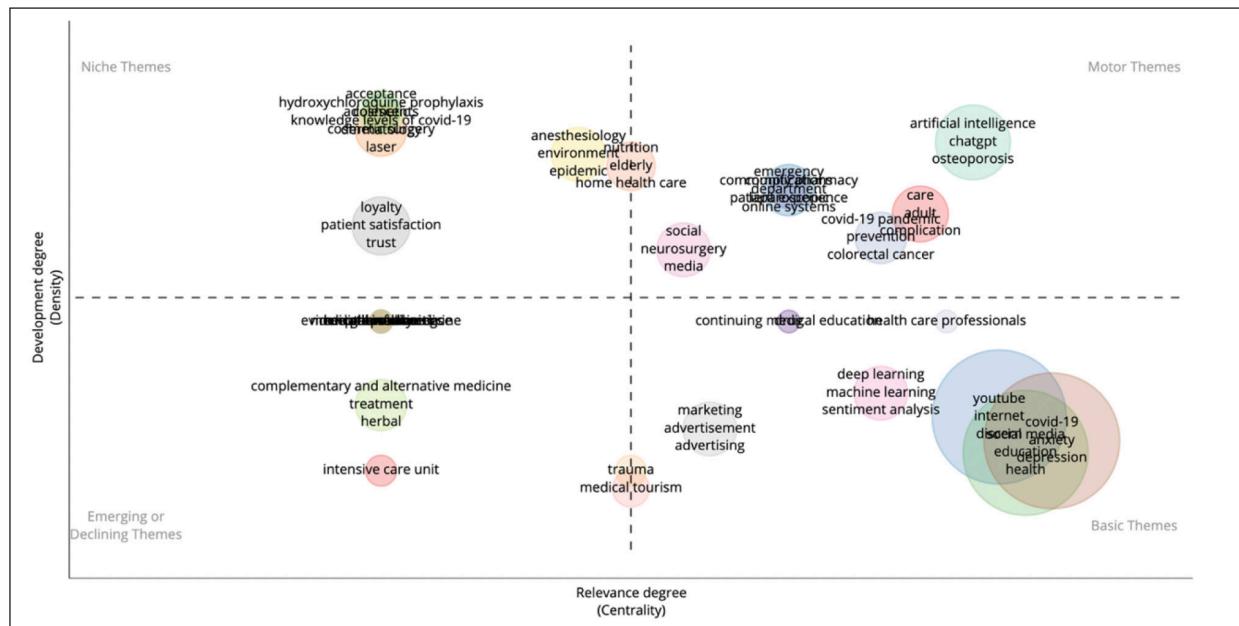


Figure 10: Thematic Map Based on Author Keywords for Search Strategy III

DISCUSSION AND CONCLUSION

This study utilizes a bibliometric approach to examine the development of healthcare marketing and social media research over the past decade, highlighting key publication trends, collaboration networks, and thematic priorities. Previous studies, such as those by Shrestha, Ferreira & Galti (2019), Rosidayani & Aini (2024), and Rościszewski, Stępień & Berniak-Woźny, (2024), have made contributions to understanding the role of social media in healthcare. Shrestha et al. (2019) highlight the opportunities and challenges of social media in healthcare communication, emphasizing the importance of reliable information dissemination. Similarly, Rosidayani & Aini (2024) provide valuable insights into hospital social media marketing, illustrating its growing significance in healthcare promotion. Rościszewski et al. (2024) further contribute by exploring primary healthcare marketing, identifying key research gaps in this area.

Building on these important findings, this study adopts a broader methodological approach by integrating three distinct search strategies, enabling

research synthesis and offering a framework for future investigations.

The sharp increase in publications (657 in 2015 to 2,585 in 2024) highlights the growing influence of digital platforms in healthcare marketing and social media-driven communication. This pattern reflects the global shift toward patient-centered care, where social media serves as a critical bridge for enhancing health literacy, shaping public perceptions, and increasing institutional accessibility (Musso et al., 2020; Washington et al., 2023; Moorhead et al., 2013). Similarly, Dash et al. (2023) examined the role of social media in public health development through a bibliometric approach, emphasizing its significance in disseminating health-related information and influencing public engagement. At the same time, the predominance of COVID-19-related keywords (e.g., "misinformation," "content analysis") suggests that recent research has been largely shaped by pandemic-focused studies (Cinelli et al., 2020; Washington et al., 2023). While pandemic-related research has deepened our understanding of real-time health communication and social media engagement, it may have drawn attention

away from ongoing structural issues such as healthcare disparities in rural areas and the long-term effectiveness of digital health initiatives—concerns previously noted in the literature (Farsi, 2021; Jeyaraman et al., 2023). These findings emphasize the need for a more balanced research agenda that addresses both immediate crises and long-term challenges in healthcare marketing and social media engagement.

Several limitations should be noted. First, the analysis covers only the 2015–2024 period, excluding earlier works that may provide historical context. Second, reliance on the Web of Science database alone may have omitted relevant publications indexed elsewhere, such as Scopus or PubMed. Third, the application of bibliometric techniques exclusively, while valuable for mapping scholarly structures, limits the depth of interpretative insights. These constraints highlight opportunities for future research, including extending the timeframe, integrating multiple databases, and combining bibliometrics with surveys, interviews, or cross-country comparisons.

The analysis of collaboration patterns further reveals structural disparities in global research output. High-income countries continue to lead in both publication volume and international partnerships, whereas countries like Türkiye—despite being among the top 20 in research productivity—have relatively low global collaboration rates (6.5% MCP ratio). Nevertheless, Türkiye's remarkable annual growth rate (41.56%) underscores the growing scholarly focus on healthcare marketing and social media research, reflecting the field's dynamic evolution and expanding academic engagement (Ilgun & Ugurluoglu, 2019; Gümüş, 2022). Although Türkiye was analyzed only as a secondary case, its rapid publication growth and relatively low collaboration levels exemplify how national research systems in emerging contexts both reflect and diverge from global trends. Such secondary perspectives enrich our understanding of broader global dynamics. To promote greater inclusivity in global research, policies should encourage cross-border collaboration and facilitate the integration of emerging economies into international research networks.

Shifts in research themes further illustrate the evolution of the field. While early research often examined the functionality of specific platforms, including widely used networks such as Facebook and Twitter, more recent research has centered on issues such as trust, corporate communication, and patient satisfaction (Gomes & Coustasse, 2015; Nabi, Zohora

& Misbauddin, 2023). The increasing focus on "service quality" and "brand equity" reflects the growing role of digital tools in shaping patient-provider relationships and managing institutional reputation (Al-Hasan, 2024; Chaudhri et al., 2021; Senyapar, 2024).

The findings also reveal interdisciplinary implications. Patient attitudes and behaviors influence online interactions with healthcare professionals, highlighting the behavioral dimension of digital engagement (Benetoli, Chen & Aslani, 2018). Marketing studies underscore the importance of measuring patient perceptions and participation to strengthen loyalty, reflecting the value of data-driven approaches (Gümüş, 2022). Governance considerations, including privacy, regulation, and ethics, further emphasize institutional accountability in digital health communication (McGraw & Mandl, 2021). Together, these insights demonstrate the interdisciplinary relevance of healthcare marketing research, integrating behavioral, analytical, and policy perspectives.

In addition to these findings, the broader implications of this study highlight the strategic importance of embedding digital literacy and organizational agility into healthcare marketing practices. As patients increasingly rely on online platforms for health-related decision-making, healthcare providers must move beyond viewing social media as a promotional channel and instead treat it as an integrated component of care delivery (Ventola, 2014). Developing responsive strategies that combine technological innovation with ethical safeguards can enhance the credibility and inclusiveness of healthcare communication (McGraw & Mandl, 2021). For instance, institutions that invest in training staff to manage digital interactions, monitor emerging health discourses, and evaluate the quality of online engagement are better positioned to strengthen trust and loyalty among diverse patient populations. Furthermore, aligning marketing efforts with policy frameworks and international guidelines may reduce disparities between countries with varying levels of digital infrastructure. This calls for a holistic approach in which marketing, communication, and public health perspectives are merged to achieve sustainable improvements in patient education, satisfaction, and long-term health outcomes. Future research could therefore expand on the intersection of digital ethics, cross-cultural engagement, and the integration of artificial intelligence in healthcare marketing, ensuring that digital transformation creates value for patients, professionals, and institutions alike.

Practically, healthcare managers can integrate social media monitoring into quality management, capture patient feedback, and deploy data-driven tools to enhance engagement and loyalty. Training staff in digital literacy ensures effective, responsible online communication. Policymakers should promote ethical digital engagement, safeguard patient data, and foster international collaboration to address disparities in digital health capacity.

In conclusion, this study reveals a marked evolution in healthcare marketing and social media research over the past decade, as reflected by rising publication numbers, changing thematic focuses, and varied international collaboration patterns. By acknowledging its limitations and outlining directions for future research, the analysis provides a roadmap for deepening the conceptual, methodological, and interdisciplinary scope of this field. At the same time, the practical recommendations ensure relevance for healthcare managers and policymakers seeking to align digital transformation with patient-centered, ethically grounded, and globally inclusive healthcare communication strategies.

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