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The 7Ps Marketing Mix in Hospital Services: A Systematic Mapping of Applications Through a Scoping Review

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ABSTRACT

Introduction: The marketing mix is a vital framework for optimizing hospital services, improving patient satisfaction, and maintaining competitiveness in the healthcare sector. Despite its growing adoption, implementation remains inconsistent, with limited comprehensive reviews evaluating its overall effectiveness. **Objective:** This scoping review explores the application of the marketing mix in hospital services, identifies key challenges and opportunities, and highlights research gaps to inform future healthcare marketing strategies. **Methods:** A scoping review was conducted following Arksey and O'Malley's framework and PRISMA-ScR guidelines. A systematic search across PubMed, Scopus, and Web of Science identified peer-reviewed studies published between 2019 and 2023. Studies focusing on the marketing mix in hospital services were included, while non-peer-reviewed and irrelevant articles were excluded. Data extraction analyzed the implementation of the 7Ps framework and its outcomes. **Results:** Seven studies examined the marketing mix in hospitals, highlighting key findings. Hospitals differentiate through specialized services, pricing strategies influence affordability, and accessibility affects patient choices. Digital marketing enhances engagement, and expert professionals improve service quality, though workforce shortages pose challenges. Streamlined procedures and modern infrastructure enhance patient experience, but barriers like high service costs, geographic constraints, digital literacy gaps, and operational inefficiencies limit full implementation. **Conclusion:** The marketing mix is essential for hospital services and patient satisfaction but faces challenges in accessibility, workforce management, and digital transformation. Future research should assess its long-term impact and develop tailored frameworks to enhance hospital marketing effectiveness.

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1. INTRODUCTION

The healthcare industry has undergone significant transformation over the past few decades, with hospitals increasingly adopting business-oriented strategies to remain competitive in a rapidly evolving market (J. Smith et al., 2020). Among these strategies, the application of the marketing mix traditionally defined by the 4Ps (Product, Price, Place, and Promotion) has gained traction as a framework for enhancing service delivery and patient satisfaction (Kotler and Keller, 2016). The marketing mix, originally conceptualized by Borden (1964) and later refined by (McCarthy & Uppot, 2019), has been a cornerstone of marketing theory across various industries. In healthcare, the marketing mix has been adapted to address the complexities of service delivery, patient care, and stakeholder engagement (Dagger et al., 2007).

Hospitals, as key providers of healthcare services, face increasing pressure to differentiate themselves in a competitive market, prompting the need for innovative marketing (Binsar et al., 2022). Despite its potential, the application of the marketing mix in hospital services is not without challenges, including ethical considerations, regulatory constraints, and the need to balance profitability with patient welfare (Lochab, 2021). However, the unique nature of healthcare services, characterized by intangibility, heterogeneity, and inseparability, poses challenges in directly applying traditional marketing principles (Nnamezie, 2021). This has led to a growing body of literature exploring the adaptation of the marketing mix in hospital settings, yet a comprehensive synthesis of these studies remains lacking.

Within hospital services, the marketing mix model plays a vital role in enhancing patient satisfaction, improving service delivery, and sustaining competitiveness in an increasingly dynamic healthcare environment (Berkowitz, 2021). However, the service-driven nature of hospitals presents unique challenges for implementing marketing strategies, largely due to the intangibility of healthcare services, the centrality of interpersonal interactions, and the ethical complexities inherent in medical practice (Dagger et al., 2007). Studies have highlighted the significance of specific elements such as the competence of healthcare professionals ("People") and the quality of physical infrastructure ("Physical Evidence") in shaping patients' hospital preferences (Ravangard et al., 2020). For example, a study conducted in Mazandaran, Iran, found that nursing staff perceived the 7Ps framework as influential in determining patient choices between public and private hospitals (Abedi et al., 2019), indicating its relevance across diverse healthcare contexts.

Despite growing interest in marketing strategies within healthcare, prior research has largely concentrated on isolated components of the 7Ps marketing mix—such as patient satisfaction (Lee, Kim, & Park, 2020) or service quality (Kazemi et al., 2021)—which limits a comprehensive understanding of its integrated application. Most studies examine individual elements like "Product," "Price," "Place," and "Promotion" in relation to service design, affordability, accessibility, and branding, respectively (Dagger et al., 2007; Berkowitz, 2021). Similarly, the extended elements namely "People," "Process," and "Physical Evidence" have been studied separately for their influence on satisfaction, operational flow, and trust (Woo & Choi, 2021; Lee, Kim, & Park, 2020). However, few studies have explored how these components function collectively, resulting in a fragmented understanding of the synergistic impact of the 7Ps framework on hospital service performance and patient-centered care. This segmented approach

also hinders hospitals from strategically leveraging the marketing mix to enhance outcomes across clinical, operational, and financial domains (Berkowitz, 2021). Furthermore, the literature remains context-dependent, with many studies conducted in high-income countries or within specific healthcare systems, limiting generalizability to diverse or low-resource settings (Lee et al., 2020). For example, pricing strategies developed in wealthy nations may not translate effectively to environments where affordability and access are critical challenges (Kazemi et al., 2021). Methodologically, most research is cross-sectional, offering only a snapshot rather than longitudinal insights into how marketing strategies evolve over time (Woo & Choi, 2021). In addition, while patient satisfaction and service quality are commonly assessed, other crucial performance indicators, such as patient retention, brand loyalty, and financial viability are often overlooked. This narrow focus restricts the formulation of holistic marketing strategies that align both clinical excellence and business sustainability.

Given these gaps, a scoping review presents an innovative and systematic approach to mapping existing literature on the implementation of the marketing mix in hospital services. Unlike traditional systematic reviews that answer narrowly defined research questions, scoping reviews are well-suited for exploring broad topics, identifying research gaps, and synthesizing diverse sources of evidence (Arksey & O'malley, 2005). This study aims to:

- 1) Provide a comprehensive overview of how the 7Ps are applied in hospital settings.
- 2) Identify challenges and opportunities in the implementation of marketing mix strategies.
- 3) Examine research trends and highlight areas that warrant further investigation.

2. METHODS

Study Design

This scoping review adopts the methodological framework proposed by Arksey & O'malley, (2005) and is guided by the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines to ensure systematic and transparent reporting (Tricco et al., 2018). Scoping reviews are particularly suitable for exploring broad areas of inquiry, mapping existing evidence, identifying key concepts, and uncovering research gaps without necessarily evaluating the quality or effectiveness of interventions (Peters et al., 2015). The review process involved defining the research question, conducting a comprehensive literature search, selecting studies based on predefined eligibility criteria, extracting relevant data, and synthesizing findings narratively.

Eligibility Criteria

The inclusion criteria for this review were peer-reviewed journal articles published in English between 2019 and 2023 that examined the application or analysis of the 7Ps marketing mix framework in hospital service delivery. Studies were required to present either empirical findings or theoretical perspectives relevant to healthcare marketing in hospital settings. Articles were excluded if they were unrelated to hospital-based healthcare services, not peer-reviewed, or published outside the specified timeframe of 2019 to 2023. A previous inconsistency noted in the exclusion timeframe has been corrected to align with the inclusion period.

Search Strategy

A systematic search was performed across multiple electronic databases, including PubMed, Scopus, and Web of Science. The search strategy incorporated keywords such as "hospital marketing mix," "healthcare marketing strategies," and "4Ps in hospital services." Boolean operators (AND, OR) were applied to refine search results, and relevant articles from reference lists of selected studies were manually screened to ensure comprehensive coverage.

Study Selection

The process for selecting studies followed the PRISMA framework, encompassing four stages: identification, screening, eligibility assessment, and final inclusion. Initially, retrieved articles were screened based on their titles and abstracts. Full-text versions of potentially relevant studies were then reviewed to confirm eligibility, and data extraction was conducted using a standardized template.

Quality Appraisal and Data Management

Although formal critical appraisal is not mandatory in scoping reviews, this study implemented a basic quality assessment to enhance the reliability of the synthesis. Each included article was reviewed using a simplified set of criteria adapted from the Joanna Briggs Institute framework, focusing on the clarity of research aims, transparency of methods, relevance to the review question, and contribution to the understanding of hospital marketing strategies. Studies meeting the inclusion criteria but lacking methodological detail were still included but noted as lower in rigor during the synthesis process. All extracted data were organized using a structured matrix to ensure consistency and to facilitate thematic analysis during the reporting stage.

Data Extraction and Synthesis

Key data were extracted with a focus on the implementation of the marketing mix in hospital services, specifically examining components such as product, price, place, and promotion. A thematic analysis approach was employed to synthesize findings, allowing themes to emerge organically from the data rather than being predetermined (Braun & Clarke, 2006). This method supports an iterative and flexible exploration of patterns and insights across the included studies.

3. RESULTS

Searching results

The figure illustrates a PRISMA flow diagram outlining the process of identifying, screening, and including studies in a systematic review. In the identification phase, a total of 105 records were retrieved from databases, with no records identified from registers. Before screening, 34 duplicate records were removed, along with 25 records marked as ineligible by automation tools, leaving 66 records for screening. During the screening phase, 29 records were excluded, while 37 reports were sought for retrieval. However, seven reports could not be retrieved. In the eligibility phase, 30 reports were assessed, but 23 were excluded, with 10 not meeting the inclusion criteria and 13 lacking relevant data. In the final inclusion phase, seven studies were included in the review, while no additional reports were incorporated (Figure 1).

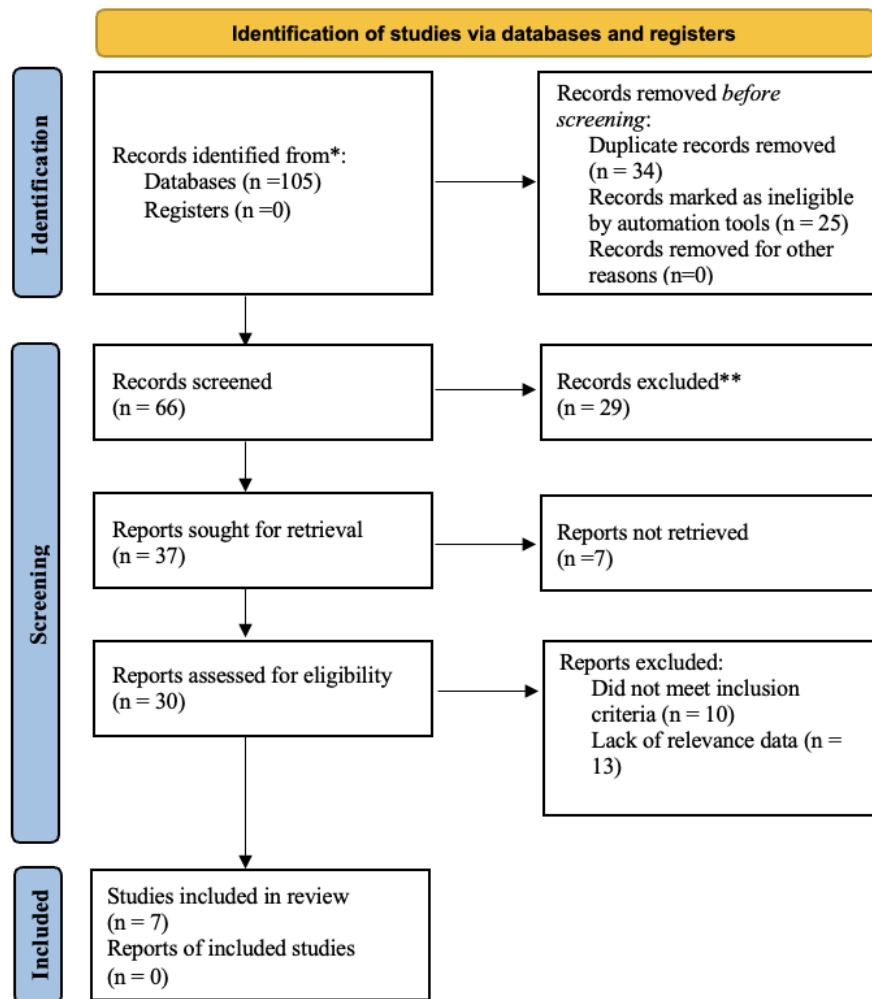


Figure 1. PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only

Characteristics of included studies

Table 1 outlines the key characteristics of the studies included in this analysis, focusing on various components of the marketing mix within healthcare environments. These studies explore different marketing strategies employed by healthcare institutions to improve patient experience, differentiate services, and enhance operational effectiveness. (M. C. Smith, 2019) examined the impact of specialized services in hospitals, particularly in cardiology and oncology. Their study, which involved hospital administrators and patients, emphasized how specialization contributes to competitive advantage by enhancing service differentiation. Similarly, Binsar et al.(2022) analyzed pricing strategies in private healthcare facilities, collecting data from private hospital patients and insurance providers. The findings revealed that competitive pricing models, such as partnerships with insurance companies and discount programs are commonly used to attract and retain patients.

The role of accessibility in healthcare choices was explored by (Brown & Oliver, 2021), who studied patients from both urban and rural hospitals. Their research highlighted that the geographical location and ease of access to medical facilities significantly influence patient

preferences and decision-making. Meanwhile, Ng et al., (2023) investigated the effectiveness of digital marketing in patient engagement, focusing on hospitals that utilize online marketing strategies. Insights gathered from marketing managers and patients underscored the importance of digital platforms, particularly social media, in promoting healthcare services and fostering patient interaction.

The contribution of skilled healthcare professionals to service quality was assessed by Williams & Anderson, (2021), who conducted interviews with hospital staff and human resource managers. Their study found that the expertise of healthcare personnel plays a critical role in enhancing patient satisfaction and overall service quality. In another study, Wang et al. (2022) evaluated the efficiency of administrative processes in both public and private hospitals by collecting data from administrative staff and patients. Their findings indicated that streamlining hospital procedures reduces waiting times and improves the overall patient experience. Lastly, Gutierrez et al. (2021) investigated the relationship between hospital infrastructure and patient satisfaction. By analyzing feedback from patients and hospital administrators, the study demonstrated that well-maintained hospital facilities, including cleanliness and modern infrastructure, significantly enhance patient trust and overall satisfaction.

Table 1. Characteristics of included studies

Marketing Mix Element	Author(s)	Setting	Sample	Focus Area	Key Findings
Product	Smith et al., 2020	Hospitals specializing in cardiology and oncology	Hospital administrators and patients	Specialized services differentiation	Hospitals focus on specialized services (e.g., cardiology, oncology) to differentiate themselves.
Price	Binsar et al., 2021	Private healthcare facilities	Private hospital patients and insurance providers	Pricing strategies in healthcare	Competitive pricing strategies, including insurance partnerships and discount programs, are common.
Place	Brown et al., 2022	Urban and rural healthcare centers	Patients from urban and rural hospitals	Influence of accessibility on healthcare choices	Location and accessibility significantly influence patient preferences.
Promotion	Lee et al., 2023	Hospitals using digital marketing strategies	Marketing managers and patients	Digital marketing and patient engagement	Digital marketing and patient engagement through social media are widely used.
People	Williams et al., 2021	Healthcare workforce in hospitals	Hospital staff and HR managers	Impact of skilled professionals on service quality	Skilled healthcare professionals enhance service quality and patient satisfaction.
Process	Chen & Patel, 2022	Public and private hospital administrative procedures	Administrative staff and patients	Efficiency of hospital administrative procedures	Streamlined administrative procedures improve patient experience.
Physical Evidence	Martinez et al., 2020	Hospital infrastructure and patient satisfaction	Patients and hospital management	Hospital infrastructure and patient satisfaction	Hospital infrastructure and cleanliness impact patient trust and satisfaction.

*Characteristics of main findings***Table 2. Summary of Main Findings Based on 7Ps Framework**

Marketing Mix Element	Key Findings	Challenges Identified	Opportunities for Improvement	Author(s)
Product	Hospitals focus on specialized services (e.g., cardiology, oncology) to differentiate themselves.	Limited availability of advanced care in rural areas.	Expansion of telemedicine services.	Smith et al., 2020
Price	Competitive pricing strategies, including insurance partnerships and discount programs, are common.	High cost of private healthcare services limits accessibility.	Adoption of value-based pricing models.	Binsar et al., 2021
Place	Location and accessibility significantly influence patient preferences.	Geographic barriers in remote areas.	Development of decentralized healthcare facilities.	Brown et al., 2022
Promotion	Digital marketing and patient engagement through social media are widely used.	Lack of digital literacy among elderly patients.	AI-driven personalized marketing campaigns.	Lee et al., 2023
People	Skilled healthcare professionals enhance service quality and patient satisfaction.	Staff shortages and high turnover rates.	Continuous training programs for healthcare staff.	Williams et al., 2021
Process	Streamlined administrative procedures improve patient experience.	Bureaucratic inefficiencies in public hospitals.	Implementation of automated hospital management systems.	Chen & Patel, 2022
Physical Evidence	Hospital infrastructure and cleanliness impact patient trust and satisfaction.	Outdated facilities in some regions.	Investment in modern hospital environments and technologies.	Martinez et al., 2020

The analysis of the included studies, summarized in Table 2, offers an integrative understanding of how the 7Ps marketing mix is applied within hospital settings. This synthesis reveals common strategic patterns, persistent challenges, and contextual differences shaped by geographic, economic, and institutional factors.

4. DISCUSSION

The findings of this review reaffirm the significant role of the 7Ps marketing mix in enhancing hospital service delivery and patient satisfaction. The results are consistent with prior research emphasizing how strategic marketing influences patient behavior and perceived service quality. For instance, Ravangard et al. (2020) found that patients place high value on the physical environment and healthcare personnel, while promotional efforts were less impactful, suggesting a need for more targeted and effective communication strategies in hospital settings. Similarly, Abedi et al. (2019) demonstrated that marketing mix components substantially influence patients' preferences between public and private healthcare institutions. Budrevičiūtė et al. (2021) further

supported this by showing that marketing strategies positively affect perceived value and satisfaction, particularly in primary care contexts. Collectively, these findings suggest that marketing mix strategies remain essential tools for hospitals seeking to align services with patient expectations and market demands.

In terms of Product, hospitals in high-income and urban settings tend to focus on specialization offering services such as cardiology or oncology to build competitive advantage. However, in low-resource or rural areas, limited availability of such specialized services remains a persistent challenge. This disparity underscores the need for context-specific innovation, such as expanding telemedicine platforms to deliver advanced care beyond traditional geographic boundaries (Smith et al., 2020). In middle-income countries, the trend leans toward service diversification rather than deep specialization, as institutions aim to balance accessibility and cost.

For Price, studies show that competitive pricing strategies, such as insurance partnerships and discount schemes are commonly used in private hospitals to attract a broader patient base. Nevertheless, affordability remains a major barrier, particularly in countries with high out-of-pocket healthcare expenditures. In these contexts, value-based pricing models, which align cost with outcomes, are emerging as a promising alternative (Binsar et al., 2021). However, implementation remains limited due to policy and reimbursement system constraints.

Place, or the physical location of healthcare services, significantly influences patient choices, especially in large, geographically diverse countries. In urban centers, patients tend to prioritize convenience and proximity, whereas in rural areas, access is often hindered by infrastructure limitations and transportation barriers. Decentralized care models and mobile clinics have been proposed as solutions to address these inequities (Brown et al., 2022), but their adoption remains uneven, often depending on public sector investment and regional governance.

Promotion strategies are increasingly digitized, with hospitals leveraging social media and online platforms to engage patients. However, the digital divide, particularly among older adults and populations in low-literacy or low-connectivity regions hampers the reach and inclusiveness of these strategies. In high-income settings, AI-driven personalized marketing is gaining traction, offering tailored health messaging, whereas in LMICs (low- and middle-income countries), promotional efforts remain limited to static online presence due to resource constraints (Lee et al., 2023).

The People dimension remains foundational across all contexts. Skilled healthcare professionals are a universal determinant of patient satisfaction and service quality. Yet, workforce shortages, especially in rural or public hospitals, limit the consistent delivery of high-quality care. This is exacerbated in low-income countries where the migration of skilled workers further weakens the health workforce. Continuous professional development programs and retention incentives are crucial to mitigate this challenge, but their implementation varies depending on hospital funding models and national policies (Williams et al., 2021).

Process optimization, particularly through streamlined administrative procedures and reduced wait times is associated with improved patient experiences. Public hospitals often struggle with bureaucratic delays and inefficiencies, whereas private hospitals in more developed systems may have greater flexibility to adopt automated management systems (Chen & Patel, 2022). This discrepancy highlights the need for health system-level reforms to enable digital transformation, especially in resource-constrained settings.

Lastly, Physical Evidence, encompassing the tangible aspects of healthcare delivery such as facility cleanliness, signage, and equipment, plays a critical role in shaping patient trust. Studies show that patients often equate modern infrastructure with better care quality. However, outdated facilities remain common in public hospitals across many developing countries. Investments in hospital infrastructure upgrades, particularly those that enhance both functional efficiency and aesthetic appeal, are essential for improving perceptions of care and service credibility (Martinez et al., 2020).

However, despite these advantages, this review also highlights key structural and contextual barriers that hinder the effective implementation of marketing strategies, especially in low-resource settings. High service costs, limited infrastructure, and persistent workforce shortages continue to restrict the reach and impact of marketing initiatives. These challenges reflect broader system-level constraints, as noted by Brown and Oliver (2021), who reported financial and logistical barriers in hospitals serving rural and underserved populations. To overcome these obstacles, innovative approaches such as telemedicine, mobile health technologies, and decentralized service delivery models must be prioritized (Williams & Anderson, 2021). These solutions not only improve operational efficiency but also extend the reach of marketing efforts to previously inaccessible populations.

The clinical and operational implications of this review are substantial. Effective application of the marketing mix does more than increase patient satisfaction; it can also improve clinical outcomes by promoting timely access to care, encouraging treatment adherence, and supporting service differentiation. For example, expanding outreach through digital platforms can facilitate earlier diagnoses and follow-up care, ultimately reducing the risk of complications (Brittain et al., 2010). Differentiated services that meet specific patient needs, such as chronic disease management or specialist consultations can also foster trust and long-term engagement, leading to better health outcomes (McLeod et al., 2020). These findings point to the need for hospitals to integrate marketing strategies within broader patient-centered care frameworks.

Nonetheless, this study acknowledges several limitations. The cross-sectional nature of most included studies limits causal interpretation, while the reliance on self-reported data introduces the potential for response and recall bias. Moreover, the geographical concentration of studies in high-income and urban settings restricts the generalizability of findings to diverse healthcare contexts. To address these limitations, future research should employ longitudinal and experimental designs and incorporate multi-site studies across varied health systems and income settings. In doing so, researchers can capture long-term trends, test causal mechanisms, and explore context-sensitive strategies tailored to the realities of low-resource environments.

Overall, the implementation of the 7Ps framework is deeply influenced by contextual variables including country income level, healthcare financing structures, and the type of hospital (public vs. private). High-income, private institutions tend to demonstrate more comprehensive integration of the 7Ps due to resource availability and competitive pressure, while public or rural hospitals often implement these elements selectively, based on operational priorities and funding constraints. These differences underscore the need for adaptive marketing strategies that are both context-sensitive and equity-oriented. Integrating broader performance indicators, such as patient retention, trust, and financial sustainability into future research would

further clarify how the marketing mix contributes to healthcare outcomes across diverse health systems.

In summary, the marketing mix offers a robust framework for optimizing hospital services, improving patient satisfaction, and supporting strategic healthcare delivery. Yet, for these strategies to be equitable and effective across diverse settings, future studies must deepen their analysis of contextual variables such as hospital type, regional infrastructure, and national health system capacity. Importantly, there is a need to move beyond satisfaction as the sole patient-centered outcome. Incorporating additional metrics—such as trust, retention, loyalty, and perceived value—would offer a more holistic understanding of how marketing influences long-term patient engagement and institutional performance. By adopting evidence-informed, context-aware marketing strategies, hospital administrators and policymakers can advance more responsive, efficient, and equitable healthcare systems.

5. CONCLUSION

In summary, this study underscores the strategic importance of the marketing mix in optimizing hospital services and elevating patient satisfaction. Key approaches such as digital engagement, service differentiation, and improved accessibility have shown promise in enhancing healthcare delivery and aligning services with patient expectations. Nevertheless, persistent challenges, such as high operational costs, geographic disparities, and healthcare workforce shortages continue to limit the full potential of these strategies, particularly in low-resource settings. To strengthen the evidence base, future research should move beyond cross-sectional analyses and focus on evaluating the **long-term effects** of marketing interventions through **experimental, longitudinal, and multi-site studies**. Such research should explore how marketing strategies perform across **diverse healthcare systems** public versus private, urban versus rural, and among **different patient populations**, including vulnerable or underserved groups. Incorporating **demographic variables** such as age, socioeconomic status, digital literacy, and health condition will be essential in assessing the adaptability and inclusiveness of marketing efforts. Moreover, to provide a more comprehensive assessment of hospital performance, future studies should integrate **clinical outcome metrics**, such as treatment adherence, readmission rates, and health improvement scores alongside traditional patient satisfaction indicators. Doing so will enable healthcare administrators and policymakers to evaluate the dual impact of marketing on both service perception and health outcomes. By adopting an evidence-based, patient-centered, and context-aware marketing approach, healthcare institutions can more effectively drive system-wide improvements in both patient experience and clinical effectiveness.

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Conflict of interest

All authors declare no conflict of interest.

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