

The Influence of Instagram on Patient Visits Through Brand Awareness as a Mediating Variable: An Explanatory Sequential Mixed Method Study at Aqidah Hospital, Tangerang City

Vica Claudia Budiono, Dasrun Hidayat, Ign Wiseto P Agung

Universitas Adhirajasa Reswara Sanjaya

vcbudiono@gmail.com, dasrun@ars.ac.id, wiseto@ars.ac.id

Article Information:

Received: January 13, 2026 Accepted: January 21, 2026, Published: January 25, 2026

Abstract

Instagram has emerged as a crucial communication platform for hospitals to disseminate information and build community engagement. This study analyzes the influence of Instagram on patient visits, with brand awareness serving as a mediating variable at Aqidah Hospital in Tangerang City. The research employed a mixed methods approach with an explanatory sequential design. The quantitative phase involved 70 respondents, while the qualitative phase consisted of six informants engaged in social media management and hospital services. Results reveal that Instagram significantly influences brand awareness ($p < 0.001$) with $R^2 = 0.750$, indicating that 75% of brand awareness variance is explained by Instagram usage. Instagram also demonstrates a significant direct effect on patient visits ($p < 0.001$). Brand awareness significantly affects patient visits and mediates the relationship between Instagram and patient visits with an indirect effect of 0.319 (95% CI [0.177-0.493]). Qualitative findings reinforce quantitative results, indicating that Aqidah Hospital's Instagram content including health education, service information, facility visuals, and consistent branding enhances public recognition and encourages visiting intentions. This study underscores that Instagram functions not only as a promotional tool but also plays a pivotal role in shaping brand awareness, ultimately contributing to increased patient visits at Aqidah Hospital.

Keywords: Instagram, Brand Awareness, Patient Visits, Mixed Methods, Healthcare Marketing

1. Introduction

In an increasingly competitive business landscape, organizations must design effective strategies to reach their markets efficiently. Marketing management serves as the foundation for managing relationships between companies and consumers, defined as a systematic process of analysis, planning, implementation, and monitoring to establish and achieve marketing objectives. In healthcare contexts, marketing management becomes particularly critical as it involves not only promoting services but also building trust, educating communities, and supporting public health objectives. The contemporary healthcare environment demands that institutions adopt innovative approaches to engage with increasingly informed and digitally

Published by:

connected populations.

The digital technology revolution has fundamentally transformed how society accesses health information. Indonesia's internet penetration continues to grow rapidly, with projections indicating usage will reach 80% of the population. Among digital platforms, social media has emerged as a dominant force in shaping consumer behavior and information-seeking patterns. Instagram, with over 2 billion monthly active users globally, represents one of the most influential visual-centric social media platforms. Its unique combination of image-based storytelling, video content, and interactive features makes it particularly suitable for healthcare communication, enabling institutions to demonstrate facilities, share patient experiences, and deliver health education in accessible formats.

Social media platforms, particularly Instagram, have become primary information sources for productive age groups and young families seeking healthcare services. Research indicates that Generation Z and millennials increasingly rely on social media for health information, making digital presence essential for healthcare providers targeting these demographics. Aqidah Hospital in Tangerang City has recognized this trend and established an active Instagram presence, presenting educational content about disease prevention and treatment, service information highlighting available medical specialties, and facility visuals showcasing modern infrastructure and equipment. Through these content strategies, the hospital aims to enhance community engagement, build trust, and ultimately increase patient visits.

Despite these digital marketing efforts, patient visit data indicates unstable growth patterns that have not met institutional targets. Hospital performance over the past three years (2021-2023) shows outpatient visits increasing from 27,563 in 2021 to 28,997 in 2022, and 31,160 in 2023. While this represents continuous growth, the year-over-year increase of 6.9% in 2023 falls significantly short of the hospital's strategic plan target of 20% increase in total visits and 40% increase in new patients. The gap between targeted and actual performance suggests that current marketing strategies, including Instagram utilization, may require optimization or that additional factors beyond digital marketing influence patient visit decisions.

Furthermore, the Bed Occupancy Rate (BOR) in 2023 remained at 53%, below the ideal utilization indicator of 60-85% recommended by the Ministry of Health. This relatively low BOR suggests underutilization of hospital capacity and raises concerns about service awareness among target populations. A BOR below 60% may indicate insufficient demand, limited market reach, or inadequate conversion of awareness into actual visits. The Length of Stay (LOS) of 2.17 days and Bed Turn Over (BTO) of 5.68 suggest operational efficiency, yet the Turn Over Interval (TOI) of 3.25 days indicates opportunities for improved bed utilization. If left unaddressed, this situation could lead to decreased hospital revenue, reduced competitiveness in the healthcare market, and inability to achieve the hospital's strategic objectives for growth and sustainability.

The challenge facing Aqidah Hospital reflects broader issues in healthcare marketing where digital presence does not automatically translate into patient visits. While social media platforms provide unprecedented reach and engagement opportunities, the mechanisms through which they influence healthcare-seeking behavior remain complex and multifaceted. Previous research has established that social media marketing influences consumer behavior through various pathways, including direct persuasion effects and indirect effects mediated by brand awareness, trust, and perceived value. Understanding these mechanisms becomes critical for healthcare institutions seeking to optimize their digital marketing investments and achieve

measurable outcomes in terms of patient acquisition and retention.

Digital marketing in healthcare has evolved beyond mere promotional activities to encompass accurate health information dissemination, building public trust, and supporting service quality improvement through patient engagement ([Pasaribu et al., 2022](#)). The COVID-19 pandemic accelerated this evolution, demonstrating the critical role of digital channels in maintaining healthcare communication when physical interactions were restricted ([Wong et al., 2021](#)). Post-pandemic, digital marketing has become an integral component of healthcare strategy rather than a supplementary tool. Institutions that effectively leverage digital platforms gain competitive advantages in terms of brand visibility, community engagement, and patient acquisition.

Computer Mediated Communication (CMC) theory provides a theoretical framework for understanding how Instagram facilitates dynamic interactions in new formats, enabling hospitals to generate and distribute content about their products or services effectively. CMC theory posits that technology-mediated communication creates unique interaction dynamics that differ from traditional face-to-face communication, yet can achieve similar or even superior outcomes in terms of information exchange, relationship building, and influence. In healthcare contexts, CMC through platforms like Instagram enables institutions to reach wider audiences, provide timely information, and engage in two-way communication that builds trust and credibility ([Antheunis et al., 2013](#); [Moorhead et al., 2013](#)).

Brand awareness emerges as a critical mediating variable in the relationship between social media marketing and consumer behavior. In healthcare settings, brand awareness refers to the extent to which potential patients can recognize or recall a hospital's name, services, and distinguishing characteristics. High brand awareness facilitates decision-making by reducing perceived risk and increasing confidence in service quality. When individuals face healthcare needs, they tend to consider facilities they are aware of and perceive positively ([Hutter et al., 2013](#)). Thus, building brand awareness through consistent and strategic Instagram presence may serve as a crucial intermediate step in converting social media engagement into actual patient visits.

This study addresses the research gap regarding how Instagram specifically influences patient visits in Indonesian healthcare settings, with brand awareness as a mediating mechanism. While existing research has examined social media marketing effects on consumer behavior in various industries, limited studies have investigated these relationships in healthcare contexts using rigorous mixed methods approaches. Furthermore, most previous research has focused on direct effects of social media marketing, with insufficient attention to mediating pathways through which these effects operate. By employing an explanatory sequential mixed methods design, this study provides both statistical evidence of relationships and contextual understanding of how these relationships manifest in practice.

The research objectives are threefold: first, to analyze the direct influence of Instagram on patient visits at Aqidah Hospital; second, to examine Instagram's effect on brand awareness; and third, to investigate whether brand awareness mediates the relationship between Instagram and patient visits. By addressing these objectives through integrated quantitative and qualitative methods, this study aims to provide comprehensive insights that advance theoretical understanding of digital marketing in healthcare while offering practical guidance for hospital management seeking to optimize their Instagram strategies for measurable patient visit outcomes.

2. Literature Review

2.1 Digital Marketing in Healthcare

Digital marketing is the marketing of goods or services using various media that enable targeted, measurable, and interactive engagement through digital technologies such as blogs, websites, email, and social media networks. The rapid global development of the digital world has shifted advertising activities to an indirect model while maintaining a substantial impact on society, both in marketing and sales. Through digital marketing, organizations can reach wider audiences at lower cost than traditional marketing. Social media use offers distinct advantages, including direct consumer interaction, shareable content creation, and real-time campaign performance measurement ([Moorhead et al., 2013](#)).

In healthcare contexts, digital marketing extends beyond service promotion to include accurate health information delivery, public trust building, and service quality enhancement through patient engagement. Digital platforms such as Instagram, Facebook, YouTube, and TikTok have become primary channels for disseminating health content, including education, patient testimonials, and information about available healthcare services. Digital marketing implementation in healthcare brings multiple benefits: increasing brand awareness of healthcare facilities, accelerating service information dissemination to wider communities, encouraging patient engagement in health management, facilitating two-way interactions for initial consultations and post-visit services, and strengthening institutional reputation through reviews, testimonials, and informative content ([Pasaribu et al., 2022](#); [Koumpouros et al., 2015](#)). Digital marketing is the marketing of goods or services using various media that enable targeted, measurable, and interactive engagement through digital technologies such as blogs, websites, email, and social media networks. The rapid global development of the digital world has shifted advertising activities to an indirect model while maintaining a substantial impact on society, both in marketing and sales. Through digital marketing, organizations can reach wider audiences at lower cost than traditional marketing. Social media use offers distinct advantages, including direct consumer interaction, shareable content creation, and real-time campaign performance measurement ([Moorhead et al., 2013](#)).

In healthcare contexts, digital marketing extends beyond service promotion to include accurate health information delivery, public trust building, and service quality enhancement through patient engagement. Digital platforms such as Instagram, Facebook, YouTube, and TikTok have become primary channels for disseminating health content, including education, patient testimonials, and information about available healthcare services. Digital marketing implementation in healthcare brings multiple benefits: increasing brand awareness of healthcare facilities, accelerating service information dissemination to wider communities, encouraging patient engagement in health management, facilitating two-way interactions for initial consultations and post-visit services, and strengthening institutional reputation through reviews, testimonials, and informative content ([Pasaribu et al., 2022](#); [Koumpouros et al., 2015](#)).

2.2 Social Media Marketing in Healthcare

Social media has transformed healthcare communication, enabling organizations to engage directly with patients and communities. Instagram, with its visual-centric approach, allows hospitals to showcase facilities, share health education content, and build emotional connections with audiences. Research demonstrates that social media marketing significantly influences consumer behavior and purchase intentions in healthcare settings ([Alalwan, 2018](#)).

The interactive nature of social media enables healthcare providers to receive immediate feedback, address patient concerns, and build trust through transparent communication. Studies have shown that social media platforms foster patient engagement and can improve health outcomes through enhanced patient-provider communication ([Antheunis et al., 2013](#); [Chirumamilla & Gulati, 2021](#)).

2.3 Brand Awareness in Healthcare

Brand awareness represents the extent to which consumers recognize and recall a particular brand. In healthcare settings, brand awareness influences patients' decision-making when selecting healthcare providers. Studies indicate that social media marketing activities positively affect brand awareness, which, in turn, influences patient visit intentions ([Al Aufa & Sipahutar, 2022](#); [Hutter et al., 2013](#)). Brand awareness serves as a critical mediating variable between marketing communications and consumer behavior, as it creates familiarity and trust that facilitate decision-making processes. Recent research on hospital brand equity shows that social media marketing efforts, particularly on platforms such as Instagram, significantly enhance brand awareness, perceived quality, brand associations, and brand loyalty ([Al-Hasan, 2024](#)).

2.4 Research Framework and Hypotheses

Based on the literature review, this study proposes that Instagram influences patient visits both directly and indirectly through brand awareness as a mediating variable. The research framework posits three main relationships: (1) Instagram significantly influences brand awareness, (2) Instagram directly influences patient visits, and (3) brand awareness mediates the relationship between Instagram and patient visits. These hypotheses are grounded in Computer-Mediated Communication theory and empirical evidence from prior studies on the effectiveness of social media marketing in healthcare settings.

3. Research Method

3.1 Research Design

This study employed a mixed methods approach with an explanatory sequential design, combining quantitative and qualitative methods to provide a comprehensive understanding of Instagram's influence on patient visits through brand awareness. The explanatory sequential design begins with quantitative data collection and analysis, followed by qualitative data collection to explain and deepen understanding of quantitative findings ([Creswell, 2004](#); [Creswell et al., 2018](#)). This approach enables researchers to leverage the strengths of both methodologies while addressing their respective limitations.

3.2 Population and Sample

The quantitative phase involved 70 respondents selected through purposive sampling from patients who visited Aqidah Hospital and followed its Instagram account. Sample size determination followed Roscoe's rule, suggesting 30-500 respondents for most research contexts, with 10 times the number of variables being appropriate for multivariate analysis. The qualitative phase included six informants comprising three patients, one social media manager, and two marketing staff members. Informant selection employed purposive sampling based on their involvement in and knowledge of Instagram marketing activities and hospital services.

3.3 Data Collection

Quantitative data were collected through structured questionnaires measuring Instagram usage,

brand awareness, and patient visit intentions using a five-point Likert scale. The questionnaire underwent validity and reliability testing to ensure measurement quality. Qualitative data were gathered through in-depth interviews conducted in August 2025, during which informants shared insights into their experiences with Instagram content, brand recognition, and visit decisions. Interview questions were developed based on the research framework and designed to explore how Instagram content influences brand awareness and visiting behavior.

3.4 Data Analysis

Quantitative data analysis included descriptive statistics, classical assumption tests (normality, multicollinearity, heteroscedasticity), simple linear regression, and mediation analysis. Although Kolmogorov-Smirnov and Shapiro-Wilk tests indicated deviation from normality, skewness (-0.249) and kurtosis (-0.494) z-scores remained within acceptable ranges (± 1.96), justifying the use of parametric analysis for Likert-scale data. Qualitative data analysis followed the [Miles and Huberman \(1994\)](#) model, involving data reduction, data display, and conclusion drawing/verification. Interview transcripts were coded and categorized according to research themes, with patterns and themes emerging through iterative analysis.

4. Findings and Discussions

4.1 Quantitative Findings

4.1.1 Direct Effect of Instagram on Patient Visits. Simple linear regression analysis revealed that Instagram significantly influences patient visits at Aqidah Hospital. The correlation coefficient (R) of 0.790 indicates a strong positive relationship between variables. The R^2 value of 0.623 indicates that 62.3% of the variance in patient visits is explained by Instagram, with the remaining 37.7% attributable to other factors not included in the model. The ANOVA test yielded $F = 112.561$ and $p < 0.001$, confirming the model's fitness. The regression coefficient for Instagram was 0.564 ($p < 0.001$), indicating that a one-unit increase in Instagram score is associated with a 0.564-point increase in patient visit scores. These findings align with previous research emphasizing the importance of social media in building interaction, communication, and brand engagement in healthcare services ([Alalwan, 2018](#); [Smailhodzic et al., 2016](#)).

4.1.2 Instagram's Effect on Brand Awareness. Analysis using PROCESS Macro Model 4 demonstrated that Instagram significantly influences brand awareness ($B = 0.706$; $p < 0.001$). The R^2 value of 0.750 indicates that 75% of the variance in brand awareness is explained by Instagram usage. This finding suggests that higher-intensity, higher-quality Instagram use by Aqidah Hospital leads to greater public awareness of the hospital's existence and services. This result corresponds with research emphasizing that marketing communication instruments, including Instagram, constitute key tools in building brand awareness and hospital brand equity ([Al-Hasan, 2024](#); [Hutter et al., 2013](#)).

4.1.3 Mediation Effect of Brand Awareness. When brand awareness was incorporated into the model, regression results showed that Instagram maintained a significant influence on patient visits ($B = 0.244$; $p = 0.014$), though the coefficient decreased compared to the direct effect. Brand awareness also significantly affected patient visits ($B = 0.453$; $p < 0.001$). The final model's R^2 of 0.690 indicates that 69% of patient visit variance can be explained by Instagram and brand awareness combined. Mediation analysis confirmed a significant indirect effect of Instagram on patient visits through brand awareness (effect = 0.319; 95% CI [0.177-0.493]). Since the confidence interval excludes zero, the mediation effect is statistically significant, indicating partial mediation. This means Instagram not only directly contributes to increased

visits but also strengthens hospital brand image and awareness, ultimately driving patient visit decisions. These findings align with Bruhn's study, demonstrating that social media, including Instagram, can enhance brand equity and significantly influence consumer behavior ([Bruhn et al., 2012](#)).

4.2 Qualitative Findings

Qualitative analysis through in-depth interviews with six informants provided contextual understanding of the quantitative results. Patient informants reported that Instagram content from Aqidah Hospital, including health education posts, service information, and facility visuals, significantly influenced their awareness and visit decisions. One patient stated that educational content about disease prevention made the hospital appear professional and trustworthy. The social media manager noted that consistent posting schedules and content quality were crucial for maintaining follower engagement. Marketing staff emphasized that visual storytelling through Instagram stories and posts helped humanize the hospital brand and create emotional connections with potential patients.

Informants identified several Instagram content types that effectively build brand awareness: health education posts explaining common medical conditions and treatments, service announcements highlighting new facilities or specialized clinics, facility showcase posts demonstrating clean, modern infrastructure, patient testimonials sharing positive experiences, and interactive content such as question-and-answer sessions with doctors. These content strategies collectively contributed to enhanced brand recognition and influenced visiting intentions among Instagram followers.

4.3 Discussion

This study's findings demonstrate that Instagram serves as a powerful marketing communication tool for healthcare institutions, functioning through both direct and indirect pathways. The strong direct effect of Instagram on patient visits ($\beta = 0.790$, $p < 0.001$) underscores the platform's immediate influence on healthcare-seeking behavior. However, the presence of significant partial mediation through brand awareness reveals a more nuanced influence mechanism. Instagram content does not merely prompt immediate action but also builds sustained brand recognition that accumulates over time, creating a foundation for future visit decisions.

The high explanatory power of Instagram on brand awareness ($R^2 = 0.750$) suggests that visual social media platforms are particularly effective for healthcare branding. Unlike traditional advertising, Instagram enables hospitals to present authentic, relatable content that humanizes healthcare services. Educational content positions the hospital as a knowledge authority, facility visuals provide tangible evidence of quality infrastructure, and patient testimonials build social proof and trust. This multifaceted content approach addresses multiple stages of the patient decision-making journey, from awareness and consideration to action.

The partial mediation finding indicates that brand awareness explains a substantial but not complete portion of Instagram's influence on patient visits. This suggests the presence of other mediating or moderating factors worthy of future investigation, such as perceived service quality, trust, electronic word of mouth, or content engagement levels. Nevertheless, the significant indirect effect of 0.319 confirms that brand awareness constitutes a critical pathway through which Instagram marketing achieves its objectives. This aligns with findings from recent hospital brand equity research, which demonstrate that social media marketing efforts

lead to higher brand awareness, thereby enhancing patient engagement and hospital financial performance ([Al-Hasan, 2024](#)).

Qualitative findings enriched the quantitative results by revealing specific content strategies and mechanisms through which Instagram builds brand awareness. Informants emphasized the importance of content consistency, visual appeal, educational value, and authenticity. The integration of patient voices through testimonials and interactive features, such as live sessions with doctors, fostered community engagement that transcended passive content consumption. These insights suggest that successful Instagram marketing in healthcare requires not merely frequent posting but strategic content planning that addresses audience information needs while building emotional connections ([Koumpouros et al., 2015](#); [Smailhodzic et al., 2016](#)).

From a theoretical perspective, this study validates the Computer Mediated Communication theory's relevance in healthcare marketing contexts. Instagram serves as a digital communication platform that transforms hospital-patient relationships from traditional one-way information dissemination to dynamic two-way engagement ([Antheunis et al., 2013](#)). The platform's visual nature aligns particularly well with healthcare marketing needs, enabling the demonstration of facilities, the visualization of treatment processes, and the presentation of health information in accessible formats. The theory's emphasis on interactive communication is supported by the study's findings, which show that informants highlighted the value of responsive engagement and dialogue facilitated by Instagram features.

The practical implications for hospital management are substantial. First, Instagram should be recognized as a strategic marketing asset requiring dedicated resources and professional management. The strong influence on both brand awareness and patient visits justifies investment in content creation capabilities, social media management personnel, and analytics tools for performance monitoring. Second, content strategy should balance promotional and educational elements, with emphasis on building long-term brand equity rather than pursuing short-term visit conversion. Third, hospitals should develop systematic approaches to content planning, ensuring consistent posting schedules, diverse content types, and alignment with strategic communication objectives. Fourth, integration between digital marketing and the overall hospital communications strategy is essential to maintain message consistency across all touchpoints.

4.4 Implications and Recommendations

This research contributes to the growing body of literature on digital marketing in healthcare by providing empirical evidence of Instagram's dual influence pathway through direct effects and brand awareness mediation. The mixed-methods approach offers comprehensive insights that pure quantitative or qualitative studies cannot achieve on their own. For healthcare practitioners, the findings underscore the necessity of strategic Instagram engagement as part of integrated marketing communications. Aqidah Hospital management should consider developing an integrated health communication strategy combining social media with offline promotions, community-based education, and collaborations with surrounding healthcare facilities. Evidence suggests that strategic social media use in healthcare can enhance patient education, support disease management, and improve patient-provider communication ([Moorhead et al., 2013](#); [Grajales et al., 2014](#)).

Future research directions include investigating additional mediating variables such as trust, perceived service quality, and electronic word-of-mouth. Comparative studies across different

hospital types and regions would enhance generalizability. Longitudinal research designs could track the development of brand awareness over time and assess sustained effects on patient visit patterns. Additionally, examining the influence of specific content types, posting frequencies, and engagement metrics would provide more granular insights for content strategy optimization. The rapid evolution of social media platforms also necessitates continued research to understand emerging features and their potential applications in healthcare marketing (Suarez-Lledo et al., 2021). Future studies should also consider potential risks associated with social media use in healthcare, including misinformation concerns and privacy considerations.

References

- Alalwan, A. (2018). Investigating the impact of social media advertising features on customer purchase intention. *International Journal of Information Management*, 42, 65–77. <https://doi.org/10.1016/j.ijinfomgt.2018.06.001>
- Al Aufa, B., & Sipahutar, K. Y. (2022). The effect of brand awareness and social media marketing on the intention to use medical check-up services at the Universitas Indonesia Hospital. *Proceedings*, 83(1), 27. <https://doi.org/10.3390/proceedings2022083027>
- Al-Hasan, A. (2024). Social media marketing and hospital brand equity: An empirical investigation. *Journal of Marketing Management*, 40(5-6), 523–548. <https://doi.org/10.1177/02666669241236199>
- Antheunis, M. L., Tates, K., & Nieboer, T. E. (2013). Patients and health professionals' use of social media in health care: Motives, barriers and expectations. *Patient Education and Counseling*, 92(3), 426–431. <https://doi.org/10.1016/j.pec.2013.06.020>
- Bruhn, M., Schoenmueller, V., & Schäfer, D. B. (2012). Are social media replacing traditional media in terms of brand equity creation? *Management Research Review*, 35(9), 770–790. <https://doi.org/10.1108/01409171211255948>
- Chirumamilla, S., & Gulati, M. (2021). Patient education and engagement through social media. *Current Cardiology Reviews*, 17(2), 137–143. <https://doi.org/10.2174/1573403X15666191120115107>
- Creswell, J. W. (2004). Designing a mixed methods study in primary care. *Annals of Family Medicine*, 2(1), 7–12. <https://doi.org/10.1370/afm.104>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Gabarron, E., Årsand, E., & Wynn, R. (2021). Social media use in interventions for diabetes: Rapid evidence-based review. *Journal of Medical Internet Research*, 23(2), e21367. <https://doi.org/10.2196/21367>
- Grajales, F. J., Sheps, S., Ho, K., Novak-Lauscher, H., & Eysenbach, G. (2014). Social media: A review and tutorial of applications in medicine and health care. *Journal of Medical Internet Research*, 16(2), e13. <https://doi.org/10.2196/jmir.2912>
- Hutter, K., Hautz, J., Dennhardt, S., & Füller, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: The case of MINI on Facebook. *Journal of Product & Brand Management*, 22(5/6), 342–351.

<https://doi.org/10.1108/JPBM-05-2013-0299>

- Katz, M. S., Anderson, P. F., Thompson, M. A., & Salmi, L. (2021). Social media and health care professionals: Benefits, risks, and best practices. *P & T: A Peer-Reviewed Journal for Formulary Management*, 39(7), 491–520. <https://doi.org/10.2196/23205>
- Koumpouros, Y., Toulas, T. L., & Koumpouros, N. (2015). The importance of patient engagement and the use of social media marketing in healthcare. *Technology and Health Care*, 23(4), 495–507. <https://doi.org/10.3233/THC-150918>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Sage Publications.
- Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research*, 15(4), e85. <https://doi.org/10.2196/jmir.1933>
- Pasaribu, S. B., Novitasari, D., Goestjahjanti, F. S., & Hendratono, T. (2022). The impact and challenges of digital marketing in the health care industry during the digital era and the COVID-19 pandemic. *Frontiers in Public Health*, 10, 969523. <https://doi.org/10.3389/fpubh.2022.969523>
- Smailhodzic, E., Hooijsma, W., Boonstra, A., & Langley, D. J. (2016). Social media use in healthcare: A systematic review of effects on patients and on their relationship with healthcare professionals. *BMC Health Services Research*, 16, 442. <https://doi.org/10.1186/s12913-016-1691-0>
- Suarez-Lledo, V., & Alvarez-Galvez, J. (2021). Prevalence of health misinformation on social media: Systematic review. *Journal of Medical Internet Research*, 23(1), e17187. <https://doi.org/10.2196/17187>
- Ventola, C. L. (2014). Social media and health care professionals: Benefits, risks, and best practices. *Pharmacy and Therapeutics*, 39(7), 491–520.
- Wong, A., Ho, S., Olusanya, O., Antonini, M. V., & Lyness, D. (2021). The use of social media and online communications in times of pandemic COVID-19. *Journal of the Intensive Care Society*, 22(3), 255–260. <https://doi.org/10.1177/1751143720966280>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>)

