International Journal of Scientific Research and Management (IJSRM)

||Volume||12||Issue||04||Pages||1814-1822||2024|| |Website: https://ijsrm.net ISSN (e): 2321-3418

DOI: 10.18535/ijsrm/v12i04.sh03

Influence of Social Media on Physicians' Behaviors

Ibtihal Agoulmam¹, Abdellatif Chakor²

^{1, 2}Mohammed V University, Faculty of Juridical, Economics and Social Sciences, Rabat, Morocco

Abstract:

The influence of social media on health-related behaviors is a major research topic. Social media platforms play a crucial role in disseminating health information, thus influencing individuals' perceptions, attitudes, and behaviors towards health and healthcare. These platforms allow quick access to a large amount of information but can also convey inaccurate or misleading information. Social media also enables individuals to share their personal health experiences, which can influence the behavior of other users. Health awareness and promotion campaigns conducted on social media can have a significant impact by reaching a wide audience. Additionally, social media platforms have become popular spaces for healthcare professionals and healthcare organizations to interact with patients, answer their questions, and provide medical advice. However, excessive use of social media can also have negative effects on mental health, including contributing to anxiety, depression, and social isolation. It is therefore crucial to understand how social media shapes health-related behaviors in order to promote healthy behaviors and counter misinformation.

Keywords: Social media, Physicians, Health behaviors, Professional conduct, Patient care, Medical practice, Health communication, Health promotion.

1. Introduction

In today's digitally connected world, the pervasive influence of social media has fundamentally reshaped various aspects of human interaction, profoundly altering how we communicate, seek information, and navigate professional domains. Within this transformative landscape, the field of healthcare emerges as a prominent arena deeply influenced by the advent of digital platforms. Notably, physicians find themselves increasingly immersed in social media networks, marking a significant shift in professional behavior and patient engagement practices. This phenomenon prompts critical inquiries into its wide-ranging implications for professional ethics, patient care delivery, and the evolving roles of medical practitioners. Our comprehensive exploration embarks on a journey into the intricate interplay between social media and physician behaviors within the contemporary medical milieu. Highlighting the contemporary relevance of this discourse, McKinley & Ghaffarifar (2021) underscore the urgent imperative to scrutinize patients' social behaviors and integrate behavior change theories, particularly underscored by the ongoing COVID-19 pandemic. Their insights illuminate the dynamic nature of healthcare delivery, emphasizing the necessity of adapting to evolving patient needs and communication modalities.

Expanding the scope of inquiry, Fatollahi et al. (2020) delve into the nuanced dimensions of patient trust and ethical considerations surrounding physicians' engagement with social media. Their examination reveals the intricate interplay between digital interactions and professional credibility, urging a thoughtful reconsideration of online conduct within medical communities. Ventola (2014) further enriches this discourse by offering comprehensive insights into the broader landscape of social media utilization among healthcare professionals. His work delineates the multifaceted benefits, inherent risks, and emerging best practices associated with digital platforms, urging practitioners to navigate these spaces judiciously. However, amidst the proliferation of social media usage, Lifchez et al. (2012) shed light on significant knowledge gaps and potential pitfalls prevalent among physicians, necessitating a rigorous interrogation of digital professionalism within medical practice. In contrast, Nguyen et al. (2020) advocate for leveraging social media as a catalyst for enhancing both professional collaboration and patient engagement. Their

perspectives underscore the transformative potential of digital platforms in facilitating knowledge dissemination and fostering interdisciplinary dialogue within the medical community.

Moreover, organizational strategies assume paramount importance in shaping the impact of social media within healthcare contexts, as elucidated by Thaker et al. (2011) in their examination of hospitals' utilization of digital platforms for communication and outreach initiatives. Jain (2009) contributes to this discourse by exploring the evolving dynamics of patient-physician interactions in the digital age, emphasizing the need for adaptive communication strategies and ethical considerations in online engagements. George (2011) provides a comprehensive appraisal of Facebook's role as a professional networking tool within healthcare communities, underscoring its potential for fostering collaboration and knowledge exchange. Brand et al. (2022) broaden the scope of inquiry by exploring social media's broader impact on medical research and education, illuminating its potential as a transformative force in advancing scientific knowledge dissemination and enhancing educational outreach initiatives.

However, amidst the promising potentials of social media in healthcare, safeguarding vulnerable populations assumes paramount importance, as emphasized by Guseh et al. (2009) in their examination of online risks associated with the exploitation of social networking sites in perpetuating online sex crimes against minors. Their findings underscore the critical imperative of instituting robust regulatory frameworks and ethical guidelines to mitigate potential risks and safeguard vulnerable populations. Through ongoing dialogue, empirical research endeavors, and educational initiatives, we can navigate the intricate intersection of social media and healthcare, ensuring that physicians uphold the highest standards of professionalism, ethical conduct, and patient-centered care. By critically examining the opportunities and challenges presented by social media, we can harness its transformative potential to improve patient outcomes, advance medical education, and foster interdisciplinary collaboration, thereby shaping a more responsive and ethically grounded healthcare landscape for generations to come.

Furthermore, the evolution of social media has not only redefined patient-physician interactions but also revolutionized medical education and professional development practices. Peck (2014) shed light on social media's broader impact on medical research and education, emphasizing its potential as a transformative force in advancing scientific knowledge dissemination and enhancing educational outreach initiatives. By leveraging digital platforms, medical professionals can engage in interdisciplinary collaborations, access cutting-edge research findings, and participate in online discussions and forums, thereby fostering continuous learning and professional growth. Amidst these transformative shifts, it becomes imperative to safeguard the integrity of online information dissemination and uphold ethical standards within digital spaces. As highlighted by Lombardi & Baum (2011), the proliferation of social networking sites has led to heightened risks of online exploitation, particularly concerning vulnerable populations such as minors. Their examination underscores the critical imperative of instituting robust regulatory frameworks and ethical guidelines to mitigate potential risks and safeguard the well-being of individuals within digital ecosystems. In navigating the complex interplay between social media and healthcare, it is essential to adopt a nuanced understanding of digital professionalism and ethical engagement practices. While social media platforms offer unprecedented opportunities for knowledge dissemination and professional networking, they also pose inherent risks, including breaches of patient confidentiality and dissemination of inaccurate medical information. Therefore, medical practitioners must exercise discretion and adhere to established ethical guidelines when engaging with digital platforms, ensuring that their online conduct aligns with professional standards and patient-centered care principles. Moreover, organizational strategies play a pivotal role in shaping the impact of social media within healthcare contexts. Thaker et al. (2011) provide insights into hospitals' utilization of digital platforms for communication and outreach initiatives, highlighting the importance of robust institutional policies and infrastructure to support responsible social media engagement. By fostering a culture of digital literacy and ethical responsibility, healthcare organizations can empower their staff to harness the transformative potential of social media while mitigating potential risks and liabilities.

As we navigate the dynamic landscape of social media in healthcare, it is essential to recognize the multifaceted nature of digital interactions and their far-reaching implications for patient care, professional conduct, and medical education. By fostering ongoing dialogue, interdisciplinary collaborations, and

evidence-based research endeavors, we can harness the transformative potential of social media to advance healthcare delivery, enhance patient outcomes, and foster a more connected and informed medical community. Through continuous reflection, education, and adaptation, medical professionals can navigate the complexities of social media while upholding the highest standards of professionalism, ethical conduct, and patient-centered care. By embracing digital platforms as tools for collaboration, knowledge dissemination, and patient engagement, we can harness the power of social media to shape a more responsive, equitable, and ethically grounded healthcare landscape for generations to come. With these considerations in mind, our exploration seeks to delve deeper into the intricate interplay between social media and healthcare, offering insights into the opportunities and challenges presented by digital platforms and providing recommendations for fostering responsible and ethical engagement within the evolving landscape of modern medicine. Through collaborative efforts and shared commitment to ethical principles, we can harness the transformative potential of social media to drive positive change and promote the well-being of patients, practitioners, and communities alike.

2. Social Media Use among Physicians

The adoption of social media among physicians has seen a significant rise in recent years, transforming the landscape of healthcare communication and professional networking. As digital natives, physicians are increasingly using social media platforms not only for personal use but also for professional purposes, such as networking, education, patient engagement, and advocacy (Twiddy, 2014; Hartley, 2016; Finch, 2004). This section explores the various ways in which physicians are leveraging social media, highlighting the platforms commonly used and the types of interactions and activities they engage in. Understanding the evolving role of social media in the medical field is crucial for healthcare professionals and institutions seeking to harness its potential for improving patient care and advancing medical knowledge.

2.1 Statistics and trends regarding social media adoption by physicians

The integration of social media into the medical field has been steadily increasing, reflecting a broader trend in healthcare (Wald et al., 2007; Rothschild, 2002). Recent statistics indicate that more than 80% of physicians in the United States use social media for personal and professional purposes, marking a significant shift towards embracing digital communication channels (Twiddy, 2014; Whyte & Hennessy, 2017). Physicians commonly utilize platforms such as Twitter, Facebook, LinkedIn, and Instagram, each offering unique features to meet various professional needs like networking, knowledge sharing, and patient interaction. Physicians leverage social media for a multitude of reasons, including staying informed about medical advancements, connecting with colleagues, and engaging with patients. Twitter, for instance, is a favored platform due to its ability to provide real-time updates and facilitate discussions on medical topics. The increasing prevalence of social media in the medical community underscores its significance in modern healthcare, serving as a vital tool for maintaining professional connections, accessing valuable information, and interacting with patients and the broader public.

2.2 Common platforms used by physicians

Physicians are increasingly utilizing social media platforms to connect, collaborate, and engage with peers, patients, and the wider healthcare community. Commonly used platforms include:

- **Twitter:** Physicians favor Twitter for its real-time updates and ability to share succinct information. They use it to disseminate research findings, participate in medical discussions, and interact with patients.
- **Facebook:** While primarily a personal networking platform, many physicians maintain professional pages or groups on Facebook. Here, they share medical information, discuss cases, and engage with patients in a more relaxed setting.
- **LinkedIn:** Physicians rely on LinkedIn for professional networking, job opportunities, and sharing industry news. It allows them to connect with colleagues, join professional groups, and showcase their expertise.
- **Instagram:** Instagram's visual appeal has made it increasingly popular among physicians. Many use it to share educational content, health tips, and glimpses into their daily lives as healthcare providers.

• YouTube: Physicians are turning to YouTube to share educational videos, patient testimonials, and medical procedures. The platform offers a means for physicians to reach a broader audience and educate the public about various health topics.

In summary, social media has become an integral tool in the professional lives of physicians, providing valuable opportunities for networking, education, and patient engagement.

2.3 Types of interactions and activities on social media

Physicians are increasingly leveraging social media platforms for a variety of professional interactions and activities, revolutionizing the way they engage with colleagues, patients, and the broader healthcare community. These platforms offer a range of opportunities for physicians to enhance their practices and patient care:

- **Professional Networking**: Social media enables physicians to connect with peers, specialists, and healthcare organizations worldwide. They can participate in professional groups, engage in discussions, and establish valuable professional relationships.
- **Patient Education**: Physicians use social media to educate patients about health conditions, treatment options, and preventive care. By sharing informative content such as articles, videos, and infographics, physicians empower patients to take control of their health.
- **Medical Collaboration**: Social media facilitates collaboration among healthcare professionals, allowing them to discuss complex cases, seek second opinions, and share best practices. This collaboration can lead to improved patient outcomes and more effective healthcare delivery.
- **Health Promotion**: Physicians use social media to promote public health initiatives and raise awareness about important health issues. They may engage in campaigns, share health tips, and encourage healthy behaviors among their followers.
- **Research and Innovation**: Social media platforms help physicians stay informed about the latest medical research, trends, and innovations. They can access research articles, attend virtual conferences, and engage with experts in their field.
- **Professional Development**: Social media serves as a valuable tool for physicians' professional development. They can access online courses, webinars, and workshops to enhance their skills and knowledge, ultimately improving patient care.
- **Patient Engagement**: Social media enables physicians to engage with patients outside of traditional healthcare settings. They can answer patient questions, provide follow-up care, and offer support and encouragement, fostering stronger patient-physician relationships.

Overall, social media has transformed the way physicians interact professionally, offering unprecedented opportunities for communication, collaboration, and professional growth (Hartley, 2016).

3. Influence on Professional Networking

Social media has revolutionized the way physicians network and collaborate, offering new opportunities for professional growth and engagement. This section explores how social media platforms have transformed professional networking among physicians, enabling them to connect, collaborate, and share knowledge in ways that were previously unimaginable. From facilitating global connections to providing platforms for real-time discussions, social media has become an integral part of the modern physician's professional life.

3.1 Facilitating Professional Networking Among Physicians

Social media has profoundly reshaped how physicians network professionally, offering an array of tools and platforms that enhance connectivity and collaboration. One key feature of social media in professional networking is its ability to transcend geographical boundaries, enabling physicians to connect with colleagues and experts worldwide instantly (Bosslet et al., 2011).

Platforms like LinkedIn provide a virtual space where physicians can create professional profiles, showcase their expertise, and connect with peers in similar fields. These platforms often host groups and communities dedicated to specific medical specialties or areas of interest, allowing physicians to engage in discussions, share insights, and seek advice from seasoned professionals (Martin et al., 2012).

Twitter has emerged as a prominent platform for real-time updates and networking within the medical community. Physicians can follow influential figures, participate in live discussions using hashtags, and share their own insights and experiences. This real-time interaction fosters a sense of community and enables rapid information exchange (Greysen et al., 2010).

Furthermore, social media platforms enable physicians to stay abreast of the latest medical research, news, and trends. By following reputable sources and organizations, physicians can access valuable information that informs their practice and professional development (Von Muhlen & Ohno-Machado, 2012). In summary, social media has revolutionized professional networking among physicians, providing a dynamic and accessible platform for collaboration, knowledge sharing, and professional growth (Forgie et al., 2021).

3.2 Impact on collaboration and knowledge sharing

Social media platforms have transformed the way physicians collaborate and exchange knowledge, breaking traditional barriers and facilitating unprecedented levels of interaction. One significant impact is the ease of connecting with experts and colleagues worldwide, which fosters collaboration on research projects, the sharing of best practices, and seeking advice on complex cases. Platforms such as Twitter and Facebook enable physicians to join groups and communities tailored to specific medical specialties or interests. These groups serve as forums for discussions, where members can share insights, pose questions, and collaborate on various topics. This heightened engagement cultivates a culture of continual learning and professional growth.

Moreover, social media platforms offer avenues for disseminating research findings, medical advancements, and educational resources. Physicians utilize platforms like LinkedIn and ResearchGate to share their research publications, solicit feedback from peers, and remain abreast of the latest developments in their fields. The impact of social media on collaboration and knowledge sharing transcends professional networking. It has democratized access to information, making medical knowledge more accessible to a broader audience. Patients and the public can now access reliable health information shared by physicians, empowering them to make informed decisions regarding their health. Overall, social media has revolutionized collaboration and knowledge sharing among physicians, fostering a more connected and informed medical community.

3.3 Exemplary Networking Initiatives

Numerous successful networking initiatives have arisen within the medical community, illustrating the transformative influence of social media on professional networking among physicians. One noteworthy example is the "TweetChat" phenomenon, where physicians and healthcare professionals convene on Twitter at specified times to discuss specific topics using a designated hashtag. These TweetChats facilitate real-time discussions, enabling participants to exchange insights, ideas, and forge professional relationships (Brown et al., 2014). Another illustration is the utilization of LinkedIn groups for specialized networking. Many medical societies and organizations have established LinkedIn groups dedicated to specific medical specialties or areas of interest. These groups serve as valuable platforms for physicians to engage in discussions, share resources, and collaborate on projects with colleagues globally (Sterling et al., 2017). Moreover, social media has enabled the inception of virtual conferences and webinars, offering opportunities for physicians to network and learn from experts without the constraints of physical location. These virtual events often attract a diverse audience and foster global collaboration among healthcare professionals (Amgad & AlFaar, 2014).

Additionally, social media platforms have played a crucial role in organizing fundraising and awareness campaigns for various medical causes. Physicians have utilized these platforms to garner support, raise funds, and advocate for policy changes, underscoring the potency of social media in driving positive transformations in healthcare (Cartledge et al., 2013). These instances underscore the varied ways in which social media has facilitated successful networking initiatives among physicians, highlighting its capacity to enrich collaboration, knowledge dissemination, and professional advancement within the medical field.

4. Impact on Patient Education and Communication

Social media has become a powerful tool for patient education and health promotion, enabling physicians to disseminate accurate health information and engage with patients on various health topics. This section delves into the multifaceted role of social media in patient education and health promotion, exploring

effective communication strategies, and addressing the associated challenges and ethical considerations.

4.1 Role of Social Media in Patient Education and Health Promotion

Social media platforms serve as valuable tools for physicians to share reliable health information, raise awareness about health issues, and promote healthy behaviors among patients. Platforms such as Facebook, Twitter, and Instagram offer avenues to reach a broad audience and deliver targeted health messages (Grindrod et al., 2014). Physicians leverage social media to share articles, videos, infographics, and other educational content to enhance patients' understanding of their health conditions and treatment options. Moreover, interactive features enable patients to ask questions, share experiences, and engage in discussions with healthcare providers and peers (Brown et al., 2014). Social media also plays a vital role in promoting health screenings, vaccination campaigns, and other public health initiatives. By utilizing these platforms, physicians can effectively reach and engage with a larger audience, encouraging individuals to adopt healthier lifestyles and seek preventive healthcare services (Romano & Baum, 2014).

4.2 Examples of Effective Patient Communication Strategies Using Social Media

Healthcare providers have implemented various effective patient communication strategies on social media. For instance, patient support groups on Facebook provide a platform for individuals with similar health conditions to connect, share information, and offer emotional support. Twitter chats hosted by healthcare providers allow for live discussions on specific health topics using designated hashtags. These chats facilitate real-time interaction between healthcare providers and patients, enabling them to exchange information and seek advice. YouTube has also emerged as a valuable platform for healthcare providers to create educational videos on health topics, empowering patients to make informed decisions about their health. These videos cover a range of topics, from managing chronic conditions to promoting healthy behaviors.

4.3 Challenges and Ethical Considerations

Despite its benefits, social media use in patient education and communication presents challenges and ethical considerations. One challenge is the rapid spread of misinformation, which can lead to confusion and misinformation among patients. Healthcare providers must ensure that the information they share is accurate, reliable, and up-to-date (Finch, 2004; Zahaluk & Baum, 2012). Maintaining patient privacy and confidentiality is another critical consideration. Healthcare providers must adhere to patient privacy laws and guidelines when communicating with patients on social media to protect their sensitive health information. Furthermore, healthcare providers must navigate the boundary between personal and professional communication on social media. It is essential to maintain a professional demeanor and avoid sharing personal or confidential information about patients. While social media offers valuable opportunities for patient education and communication, healthcare providers must approach its use thoughtfully and ethically to maximize its benefits and minimize potential risks.

5. Effects on Professional Development

Social media has transformed the landscape of professional development for physicians, providing innovative avenues for continuing medical education (CME), staying updated with medical advancements, and advancing career opportunities.

5.1 Medical Education Continuation

Social media platforms have become essential tools for physicians seeking CME opportunities. Platforms like Twitter, LinkedIn, and YouTube offer a plethora of educational resources, including webinars, conferences, and educational videos. These platforms allow physicians to access the latest medical knowledge and best practices conveniently. Moreover, social media facilitates interactive learning through online discussions and forums. Physicians can engage with colleagues worldwide, exchanging insights and experiences. This collaborative environment promotes continuous learning and professional growth.

5.2 Influences on Staying Updated with Medical Advancements

Social media plays a crucial role in keeping physicians abreast of the latest medical advancements and research. By following reputable medical journals, healthcare organizations, and experts on platforms like Twitter and Facebook, physicians can access real-time updates and discussions on cutting-edge medical

topics. Additionally, social media enables direct engagement with researchers and thought leaders, facilitating the exchange of ideas and insights. This dynamic interaction enhances physicians' understanding of new medical developments and encourages the integration of evidence-based practices into their clinical work.

5.3 Opportunities for Career Advancement and Reputation Management

Social media offers numerous opportunities for career advancement and reputation management for physicians. Active engagement on platforms like LinkedIn allows physicians to expand their professional network, showcase their expertise, and explore new career opportunities. Furthermore, social media allows physicians to build a strong online presence and establish themselves as thought leaders in their field. By sharing informative content, participating in discussions, and contributing to medical communities, physicians can enhance their professional reputation and attract new opportunities for collaboration and advancement. Social media has revolutionized professional development in the medical field, offering new avenues for learning, networking, and career advancement. By leveraging social media effectively, physicians can enhance their skills, stay updated with medical advancements, and advance their careers in meaningful ways.

Conclusion

In conclusion, the impact of social media on physicians' behaviors is significant and constantly evolving. Social media has transformed how physicians interact with their peers, patients, and the medical community as a whole. Social media platforms offer physicians unique opportunities for continuing medical education, patient communication, professional networking, and career development. Additionally, social media has facilitated the dissemination of accurate medical information and has helped raise public awareness about important health issues. However, the use of social media in medicine also presents challenges, such as protecting patient privacy and managing sensitive medical information. It is therefore essential for physicians to use social media responsibly and ethically, ensuring compliance with professional standards and regulations. Looking ahead, the future of social media in medicine is likely to continue expanding, offering new possibilities for collaboration, education, and patient care. As technology advances, social media platforms may become even more integrated into the healthcare landscape, providing innovative solutions for improving healthcare delivery and patient outcomes. However, it is important to recognize the limitations of social media in medicine, such as the potential for misinformation and the need for careful regulation and oversight. Despite these challenges, the benefits of social media for physicians are vast, and its potential to transform healthcare for the better is undeniable. By embracing social media responsibly, staying informed about best practices, and adapting to new technologies, physicians can harness the power of social media to improve patient care, advance medical knowledge, and shape the future of medicine.

References

- 1. Amgad, M., & AlFaar, A. S. (2014). Integrating web 2.0 in clinical research education in a developing country. *Journal of Cancer Education*, 29(3), 536-540. https://doi.org/10.1007/s13187-013-0595-5.
- 2. Bosslet, G. T., Torke, A. M., Hickman, S. E., Terry, C. L., & Helft, P. R. (2011). The patient-doctor relationship and online social networks: results of a national survey. *Journal of General Internal Medicine*, 26(10), 1168-1174. https://doi.org/10.1007/s11606-011-1761-2.
- 3. Brand, J. C., Rossi, M. J., & Lubowitz, J. H. (2022). Internet and Social Media Contribute to Medical Research Journal Growth. *Arthroscopy*, 38(7), 2111-2114. https://doi.org/10.1016/j.arthro.2022.04.017.
- 4. Brown, J., Ryan, C., & Harris, A. (2014). How doctors view and use social media: a national survey. *Journal of Medical Internet Research*, *16*(12). https://doi.org/10.2196/jmir.3589.
- 5. Cartledge, P., Miller, M., & Phillips, B. (2013). The use of social-networking sites in medical education. *Medical Teacher*, *35*(10), 847-857. https://doi.org/10.3109/0142159X.2013.804909.
- 6. Fatollahi, J. J., Colbert, J. A., Agarwal, P., Lee, J. L., Lehmann, E. Y., Yuan, N., Lehmann, L. S., & Chretien, K. C. (2020). The impact of physician social media behavior on patient trust. *AJOB Empirical Bioethics*, 11(2), 77-82. https://doi.org/10.1080/23294515.2019.1678533
- 7. Finch, T. (2004). Marketing your medical practice with an effective web presence. *Journal of Medical Practice Management*, 20(3), 143-147.

- 8. Forgie, E. M. E., Lai, H., Cao, B., Stroulia, E., Greenshaw, A. J., & Goez, H. (2021). Social Media and the Transformation of the Physician-Patient Relationship: Viewpoint. *Journal of Medical Internet Research*, 23(12). https://doi.org/10.2196/25230.
- 9. George, D. R. (2011). "Friending Facebook?" A minicourse on the use of social media by health professionals. *Journal of Continuing Education in the Health Professions*, 31(3), 215-219. https://doi.org/10.1002/chp.20129.
- 10. Greysen, S. R., Kind, T., & Chretien, K. C. (2010). Online professionalism and the mirror of social media. *Journal of General Internal Medicine*, 25(11), 1227-1229. https://doi.org/10.1007/s11606-010-1447-1.
- 11. Grindrod, K., Forgione, A., Tsuyuki, R. T., Gavura, S., & Giustini, D. (2014). Pharmacy 2.0: A scoping review of social media use in pharmacy. *Research in Social and Administrative Pharmacy*, 10(1), 256-270. https://doi.org/10.1016/j.sapharm.2013.05.004
- 12. Guseh, J. S. 2nd, Brendel, R. W., & Brendel, D. H. (2009). Medical professionalism in the age of online social networking. *Journal of Medical Ethics*, *35*(9), 584-586. https://doi.org/10.1136/jme.2009.029231.
- 13. Hartley, R. (2016). Opening the door to patient retention: A look at new technology trends. *Journal of Medical Practice Management*, 31(4), 212-215.
- 14. Jain, S. H. (2009). Practicing medicine in the age of Facebook. *New England Journal of Medicine*, 361(7), 649-651. https://doi.org/10.1056/NEJMp0901277.
- 15. Lifchez, S. D., McKee, D. M., Raven, R. B. III, Shafritz, A. B., & Tueting, J. L. (2012). Guidelines for ethical and professional use of social media in a hand surgery practice. *Journal of Hand Surgery (American Volume)*, 37(12), 2636-2641.
- 16. Lombardi, G., & Baum, N. (2011). Health 2.0: how interactive Web sites are changing the healthcare industry. *Journal of Medical Practice Management*, 26(4), 242-244.
- 17. Martin, A., Grundin, E., Harrison, D., & Espinoza, J. (2012). Marketing your practice in a social world. *Journal of Medical Practice Management*, 27(4), 227-229.
- 18. McKinley, D. W., & Ghaffarifar, S. (2021). The necessity of examining patients' social behavior and teaching behavior change theories: Curricular innovations induced by the COVID-19 pandemic. *BMC Medical Education*, 21(1). https://doi.org/10.1186/s12909-021-02582-2
- 19. Nguyen, B.-M., Lu, E., Bhuyan, N., Lin, K., & Sevilla, M. (2020). Social media for doctors: Taking professional and patient engagement to the next level. *Family Practice Management*, 27(1), 19-24.
- 20. Peck, J. L. (2014). Social media in nursing education: responsible integration for meaningful use. *Journal of Nursing Education*, 19, 1–6.
- 21. Romano, R., & Baum, N. (2014). How pediatric surgeons use social media to attract new patients. *European Journal of Pediatric Surgery*, 24(4), 313-316. https://doi.org/10.1055/s-0034-1386648.
- 22. Rothschild, M. A. (2002). Marketing your practice on the Internet. *Otolaryngologic Clinics of North America*, *35*(6), 1149-1161. https://doi.org/10.1016/s0030-6665(02)00083-x.
- 23. Sterling, M., Leung, P., Wright, D., & Bishop, T. F. (2017). The Use of Social Media in Graduate Medical Education: A Systematic Review. *Academic Medicine*, 92(7), 1043-1056. https://doi.org/10.1097/ACM.000000000001617.
- 24. Thaker, S. I., Nowacki, A. S., Mehta, N. B., & Edwards, A. R. (2011). How U.S. hospitals use social media. *Annals of Internal Medicine*, *154*(*10*), 707-708. https://doi.org/10.7326/0003-4819-154-10-201105170-00021.
- 25. Twiddy, D. (2014). Social media: Strategies for building greater connections with your patients. *Family Practice Management*, 21(4), 7-12.
- 26. Ventola, C. L. (2014). Social media and health care professionals: Benefits, risks, and best practices. *P* & *T* : a peer-reviewed journal for formulary management, 39(7), 491-520.
- 27. Von Muhlen, M., & Ohno-Machado, L. (2012). Reviewing social media use by clinicians. *Journal of the American Medical Informatics Association*, 19(5), 777–781.
- 28. Wald, H. S., Dube, C. E., & Anthony, D. C. (2007). Untangling the Web--the impact of Internet use on health care and the physician-patient relationship. *Patient Education and Counseling*, 68(3), 218-224. https://doi.org/10.1016/j.pec.2007.05.016.

- 29. Whyte, W., & Hennessy, C. (2017). Social Media use within medical education: A systematic review to develop a pilot questionnaire on how social media can be best used at BSMS. *MedEdPublish*, 6. https://doi.org/10.15694/mep.2017.000083.
- 30. Zahaluk, D., & Baum, N. (2012). Marketing metrics for medical practices. *Journal of Medical Practice Management*, 27(6), 390-392.