Review Article

E-professionalism and Health-care Professionals

Kavya Ganesh Kamaraj, Girish R. Shavi, Shankar Shanmugam, Senthil Kumar Sennan, Gunasekaran Lalithambigai, Jennifer Monisha Rajan
Department of Public Health Dentistry, Vivekanandha Dental College for Women, Tiruchengode, Tamil Nadu, India

Abstract

The fast rise and widespread use of online social networking platforms, which are accessed by millions of people, provide significant ethical and professional issues for practitioners. The usage of online social networking forums has grown in popularity, particularly across the younger generation of physicians and patients. To find the most recent literature regarding this subject, the present review made the use of Web of Science, PubMed (Medline), and Google Scholar (as a search engine). The searches were conducted using the following search terms: professionalism, social media, social networks, Internet, Web 2.0, eHealth, Facebook, Twitter, Instagram, TikTok; included in the title or abstract or keywords. The search was restricted to studies published in English from 2009 to 2021. In this article, we explore the ethical issues that have arisen as a result of the increased usage of online social networking platforms in the patient–doctor interaction as well as the way these social media tools can be equipped for the improvement of health education and health care.

Keywords: Health personnel, health-care professionals, Internet, professionalism, social media, web 2.0

Submitted: 28-Dec-2022; **Revised:** 31-May-2023; **Accepted:** 04-Jun-2023; **Published:** 03-Nov-2023

Introduction

E-professionalism is an increasingly important topic in health care, as the use of digital platforms and technologies by health-care professionals continues to grow. Medical professionalism is a multifaceted construct that encompasses the expected virtues, behaviors, and attitudes of health-care professionals. E-professionalism entails the attitudes and behaviors described through traditional professionalism strands, that are manifested through social networking sites.[1]

Although socialization to professional behavior is a crucial component of health professions, professionalism has generally been challenging to define and assess due to its inherent nature.[2] Even though the majority of educators and practitioners have a broad idea of professionalism, it is a difficult subject to define, with different definitions being given by different writers.[2-5] There is some uniformity in the definitions and attributes used to characterize professionalism since the behaviors and attitudes own a direct connection to professional practice, patient care, and/or activities in the context of formal education.[1-4] We refer to the professionalism construct as comprising the universally acknowledged qualities of benevolence, respect, honesty, integrity, duty, honor, excellence, and responsibility because there is no particular definition and concept of professionalism.[2]

There are 5.18 billion active internet users worldwide, as of April 2023. This contributes to 64.6% of the global population.[6] From the total world population, about 59.9% used social media.[6]

Over the years, social networks have changed into the contemporary version we know today that utilizes digital media.[6] E-mail was introduced to the public in the 1960s. However, the public did not have access to the Internet until 1991.[7] With the emergence of several social networking sites in 2000, social media saw a significant uptick.[7] This significantly increased and revolutionized social networking-based interactions between people and organizations with similar interests in friendship, music, education, and movies.[8]

With the expansion of cellular coverage, the initial mode of desktop or laptop interaction gradually shifted toward mobile

Address for correspondence: Dr. Kavya Ganesh Kamaraj, Department of Public Health Dentistry, Vivekanandha Dental College for Women, Elayampalayam, Tiruchengode, Namakkal - 637 205, Tamil Nadu, India.
E-mail: kavyaganeshkamaraj@gmail.com

Access this article online

Quick Response Code:

Website: https://journals.lww.com/DMRS

DOI: 10.4103/dmr.dmr_49_22

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Kamaraj KG, Shavi GR, Shanmugam S, Sennan SK, Lalithambigai G, Rajan JM. E-professionalism and health-care professionals. Dent Med Res 2023;11:1-6.

phones and tablets, as noted by previous research.[7] The increased availability of high-speed wireless Internet in various settings, including homes, workplaces, and public areas, further facilitated this transition. As a result, the capabilities and functionalities of cellular phones underwent significant enhancements, eventually culminating in the development of modern smartphones.[7]

Facebook, Twitter, and other social platforms such as TikTok, WhatsApp, and WeChat started to develop commercial applications as social media firms grew their numbers of users in the hundreds of millions.[6]

The future of social media is limited only by the imagination of its stakeholders. Utilizing it for the betterment of community health and for improving awareness could be the future of health care. This leads us to the topic of e-professionalism.

Cain and Romanelli defined the term "e-professionalism" as "attitudes and behaviours" that "mirror traditional professionalism paradigms and are exhibited through digital media."[2] Online professionalism or digital professionalism have also been used to describe the confluence between medical professionalism and social media.[9]

Past reviews have concentrated on the e-professionalism of medical students, residents, or doctors, or have presented the full range of social media related difficulties and opportunities in the regard of medical professionalism of different kinds of health-care professionals, but these studies were carried out almost 9 years ago.[10-12] Over this period, there has been a significant surge in the number of social media users (including both the health-care professionals and patients), social media influence on private and professional life, and new features within social media making it difficult for scientific research to keep up.[13] The motivation to delve deeper into this subject arises from the realization that existing research in this domain may not adequately capture the current landscape, necessitating a comprehensive exploration to gain a more nuanced understanding.

Methods

We conducted a comprehensive search using the PubMed database, Google Scholar, and Web of Science. The selection of articles for this review was based on an initial search using the specific search terms related to our research question. The search strategy employed a combination of keywords related to e-professionalism, social media, health-care professionals, and public health. The search was limited to the articles published in the English language. The search yielded a substantial number of results (1496 from PubMed, 1310 from Web of Science, and about 5710 from Google Scholar).

The inclusion criteria for the article selection encompassed studies published from 2009 to 2021, empirical studies, reviews, and other relevant publications that directly addressed e-professionalism among health-care professionals. We excluded non-English articles, dissertations, conference abstracts, and articles not specifically focused on e-professionalism. Initially, titles and abstracts were screened to identify the potentially relevant articles. Full-text articles were obtained for further evaluation. The selection process involved a thorough review of the articles based on their relevance to the research question and adherence to the inclusion criteria. We also performed a manual search of the references in selected articles to identify any additional relevant publications.

Given the extensive volume of literature available, we employed a systematic approach to refine and narrow down our selection to a focused subset of articles. Considering the scope and objective of our review, we carefully evaluated the relevance and quality of each article to ensure they directly addressed our research question. The quality and validity of the included articles were assessed using the Joanna Briggs Institute Critical Appraisal Checklist for Systematic Reviews and the Newcastle–Ottawa Scale for observational studies. This assessment aimed to evaluate the methodological rigor and potential biases of the included studies. It resulted in a final selection of articles that were deemed representative and pertinent to our review's objectives.

Relevant information was extracted from the selected articles, including data on global social media usage among health-care professionals, the most commonly used social media platforms, effective strategies employed by health-care professionals on social media and evidence of the public health significance of e-professionalism.

Any discrepancies or disagreements during the analysis process were resolved through discussions and consensus among the research team. This review follows the ANDJ Narrative Review guidelines.

E-professionalism

E-professionalism is the way you engage yourself online in relation to your profession, including your attitudes, actions, and your adherence to relevant professional codes of conduct. It is important for professionals to conduct themselves in a professional manner on electronic or digital platforms, including the use of social media and social networking sites.[14-16] It encompasses the application of professional standards, principles, and behaviors in the online realm, aligning with the values and expectations of the health-care profession.

The benefits of practicing e-professionalism are manifold. First, it enables health-care professionals to establish and maintain a positive online presence, which can enhance their professional reputation and credibility. Second, e-professionalism allows for effective communication and dissemination of healthcare information.[13,17] Through responsible use of social media and other digital platforms, health-care professionals can reach a wider audience, share evidence-based information, promote health literacy, and contribute to public health initiatives. Online platforms also offer opportunities for health-care professionals to engage in professional networking,

collaboration, and knowledge exchange with peers from worldwide.[13,17]

Awareness to online identities and the way professionals carry themselves in private spaces called for the development of the existing professionalism worldview. It is of utmost importance to note how students in a professional setting portray themselves in online spaces.[18]

E-professionalism includes problems that may start out privately (in the form of videos, photos, tweets, and any other forms of digital representations) but become public in online and digital spaces since online information of any manner that showcases the professional mindset and demeanor of an individual falls right into the concept of e-professionalism. Online images displaying drug/alcohol abuse, involvement in Facebook groups exhibiting sexual or racial discrimination, and blog posts demonstrating a lack of regard for patient care responsibilities are all the examples of e-professionalism violations.[2] Certain views and perspectives which may be political and/or religious should not be included in the concept unless those cues or statements contravene established professionalism standards.[2]

E-professionalism is rather one that gatekeeps what is being shown to the online public such that standards are not breached.

Personal Lives in the Eyes of Digital Public

Web 2.0 is a system that actively engaged the user and among its components were social networking sites and self-publishing platforms, relishing in the candor and freedom that came with it, thus enabling people to display themselves, describe their social networks, and build or sustain connections with others while also giving them the opportunity to establish relationships and stay deeply acquainted with the daily lives of friends, peers, and colleagues.[6,19]

Research[5] regarding the monthly active users of social media globally is:

1. Facebook – 2.934 billion
2. YouTube's potential advertising – 2.515 billion
3. WhatsApp – 2 billion
4. Instagram's potential advertising – 1.386 billion
5. WeChat (Inc. Weixin 微信) – 1.299 billion
6. TikTok – 1 billion
7. Facebook Messenger's potential advertising – 976 million
8. Telegram – 700 million
9. Douyin (抖音) – 613 million daily active users (note: monthly active users may be higher)
10. Kuaishou (快手) – 587 million.

With personal interests, interactions, and other lifestyle markers shifting across the realms of social lifestyle, lines between work and personal life will inevitably be blurred.[20] Because of the transparent, broad and social aspects of Web 2.0 applications, the conduct and decorum of professionals may be put to test more readily in digital spaces than in traditional ones.

Effective Use of Social Media by Health-care Professionals

Because of the extensive use of social media, bioethicists have begun to investigate how it influences the provider-patient relationship, particularly in terms of the readily accessible personal information available to both physicians and patients. Scholars have investigated the potential advantages and drawbacks of browsing for patient data online, especially in the field of mental health.[21]

Photographs and text shared online by patients, such as in blog entries and wall posts, might provide important collateral data. Online posts may supplement self-reported data by giving light on facets of patients' lives that they might neglect while speaking with a clinician or any other health-care professional.[19-22] This might help detect signs like suicidal behavior or check for potential causes of disease. As part of periodic check-ups, a doctor might offer to inspect and discuss a patient's social media activity. Alternatively, a clinician may seek to analyze online patient information if he or she recognizes certain "red flags" during a clinical interaction or if there is indication that the patient plans to harm himself or others.[19-22]

Patients can obtain more access to private and professional details about their clinicians by searching online and following clinicians' social media posts, just as physicians can discover patients online. However, medical professionals should use caution when posting material online. Posting personal information on social media platforms like Facebook or Instagram may blur the lines between the doctor–patient relationship. If found by patients, ill-advised or impetuous posts on social media, retweets, or publicly accessible "likes" of other people's information may tarnish a clinician's reputation or result in a loss of respect or credibility. A surgeon, for example, may reveal that he has attention deficit disorder, causing his superiors and patients to doubt his eligibility to conduct surgery.[23,24]

While medical blogs can be beneficial for professional growth and health education, patients may identify themselves or others in the articles when health-care practitioners disclose cases as examples. Negative patient descriptions, even in the absence of any identifying information or malevolent intent, can have a negative impact on the salubrious rapport between patients and doctors.[25,26]

Public Health Significance

Social media platforms are appealing not just for social engagement but also for business transactions, spawning a new type of business model, hence can be used in effective ways to spread awareness about health, treatments, and technological advancements. These new platforms can have a good impact on care: doctors can now provide more accessible channels for educating patients, such as professional blogs, podcasts or online essays, and they can communicate with colleagues and receive professional development more easily online.[27,28]

Digital health-care tools, such as video consultations or text messaging with physicians, might promote more regular engagement with medical practitioners in circumstances where people might not otherwise have access to treatment. Telemedicine permits patients from rural areas to benefit from medical consultations with experts they would not otherwise be able to access, making it a useful and cost-effective method for providing treatment to hard-to-reach communities.[27]

Thus, there is evidence that social media facilitates access to health information. When planning social media campaigns and interventions to distribute health information, it is critical to create messages that will connect with and evoke responses from individuals.

Optimizing E-professionalism Education: Curriculum Recommendations

There is a need for health-care education programs to integrate e-professionalism education within their curriculum. This should include dedicated modules or courses that focus on teaching health-care professionals the principles of ethical online behavior, maintaining professional boundaries, and navigating social media platforms responsibly.[29-32] Incorporating interactive case-based learning methods can enhance e-professionalism education. By presenting realistic scenarios and engaging learners in discussions, role-plays, or simulations, educators can provide opportunities for health-care professionals to develop critical thinking skills and ethical decision-making abilities in the context of online professionalism.

It should address the importance of protecting patient privacy and maintaining confidentiality in the digital realm. Health-care professionals should be educated about the potential risks of sharing sensitive patient information online and the best practices for safeguarding patient privacy when engaging in social media or other digital platforms. The curriculum should explore the ethical considerations specific to social media engagement. This includes discussions on appropriate professional boundaries, managing personal and professional online identities, and understanding the potential impact of online interactions on patient trust and the health-care professional's reputation.

E-professionalism education should emphasize the importance of interprofessional collaboration in maintaining a positive online presence. Health-care professionals should be encouraged to work collaboratively with colleagues from various disciplines to establish and promote professional guidelines, codes of conduct, and shared values for online engagement.

The curriculum needs to be adaptable and continuously updated to keep pace with rapid advancements in technology and emerging social media platforms. It should provide health-care professionals with the knowledge and skills necessary to navigate evolving digital landscapes and make informed decisions regarding their online presence.

Identifying Gaps in the Literature and Proposing Avenues for Future Research

While the literature may provide insights into the overall landscape of e-professionalism, there may be a lack of in-depth exploration of specific social media platforms. Future research could focus on investigating the unique characteristics, benefits, and challenges associated with individual platforms such as Facebook, Twitter, Instagram, or TikTok. The existing literature may predominantly focus on certain health-care professions, potentially overlooking the perspectives and experiences of other health-care professionals. Future studies could strive to include a broader range of health-care disciplines to provide a more comprehensive understanding of e-professionalism across the health-care spectrum.

While the significance of e-professionalism is acknowledged, there may be a paucity of research exploring its direct impact on patient outcomes. Future investigations could delve deeper into the link between health-care professionals' e-professionalism and patient satisfaction, health behaviors, adherence to treatment, and health outcomes.

Additional research can be conducted to identify and evaluate effective training methods and interventions aimed at promoting e-professionalism among healthcare professionals. This could include developing evidence-based guidelines, educational programs, or digital tools that facilitate ethical and professional online behavior.

Given the evolving nature of social media and online platforms, there is a need for research that explores the ethical and legal implications of e-professionalism. Investigating issues such as privacy, confidentiality, boundaries, and professional regulations in the context of healthcare professionals' online presence would contribute to the development of best practices and policies.

Conducting longitudinal studies that track the e-professionalism behaviors and attitudes of health-care professionals over time can provide valuable insights into the changes, challenges, and impacts associated with e-professionalism. Such studies would offer a deeper understanding of the dynamics and trends in e-professionalism practices.

Considering the global nature of social media and health care, research exploring cross-cultural variations in e-professionalism practices and attitudes among healthcare professionals is warranted. Comparisons between different countries or regions can shed light on cultural influences, regulatory frameworks, and social norms that shape e-professionalism behaviors.

Further investigation is needed to explore the impact of e-professionalism on healthcare organizations, including the implications for teamwork, interprofessional collaboration, organizational culture, and patient–provider relationships. Understanding the organizational factors that support or hinder e-professionalism can inform strategies for fostering a positive online professional presence.

By addressing these gaps and exploring potential areas for further research, future studies can contribute to a more comprehensive and nuanced understanding of e-professionalism among healthcare professionals, and its implications for patient care, healthcare delivery, and public health outcomes.

Limitations

One limitation of this review is that it only considered literature published in the English language. This language restriction may introduce a language bias and potentially overlook relevant studies published in other languages, which could limit the comprehensiveness and generalizability of the findings. Another limitation is that the review only included articles published until 2021. By not considering more recent publications, there is a possibility of missing out on newer studies and emerging trends in e-professionalism among healthcare professionals. Consequently, the findings may not fully reflect the most up-to-date information available.

While efforts were made to conduct a comprehensive search using relevant databases, it is possible that some relevant articles might have been missed due to the specific search terms and databases utilized. In addition, the inclusion and exclusion criteria used for article selection may introduce potential bias or inadvertently exclude relevant studies. The limited number of articles included in the review may introduce selection bias, as it may not capture the full breadth of literature available on e-professionalism among health-care professionals. This could potentially result in a narrower scope of analysis and limit the generalizability of the findings.

Conclusion

In this age where social media and other web 2.0 tools are a natural extension of life, both for healthcare professionals and patients alike, a clear concept of where the line should be drawn must be made known to health-care professionals. Teaching methods should incorporate a proactive approach to teaching students how to utilize social media properly and make them understand the importance of e-professionalism. We advocate for the incorporation of different methodologies into medical education. Explicit curricula that give learners with examples of acceptable and unsuitable online professional actions should be designed. These examples should be reinforced by organized chances for learners to evaluate the words and visuals they share and assess how colleagues and the general public might perceive them.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Guraya SS, Guraya SY, Harkin DW, Ryan Á, Mat Nor MZ, Yusoff MS. Medical education e-professionalism (MEeP) framework; from conception to development. Med Educ Online 2021;26:1983926.
2. Cain J, Romanelli F. E-professionalism: A new paradigm for a digital age. Curr Pharm Teach Learn 2009;1:66-70.
3. Brater DC. Viewpoint: Infusing professionalism into a school of medicine: Perspectives from the dean. Acad Med 2007;82:1094-7.
4. Hammer DP, Berger BA, Beardsley RS, Easton MR. Student professionalism. Am J Pharm Educ 2003;67:96.
5. Cohen JJ. Professionalism in medical education, an American perspective: From evidence to accountability. Med Educ 2006;40:607-17.
6. Petrosyan A. Global Digital Population 2022; 2023. Available from: https://www.statista.com/statistics/617136/digital-population-worldwide/. [Last accessed on 2023 May 22].
7. Baran P. On Distributed Communications Networks, in IEEE Transactions on Communications Systems 1964;121-9.
8. Edosomwan S, Prakasan SK, Kouame D, Watson J, Seymour T. The history of social media and its impact on business. J Appl Manage Entrep 2011;16:3.
9. Greysen SR, Kind T, Chretien KC. Online professionalism and the mirror of social media. J Gen Intern Med 2010;25:1227-9.
10. Chretien KC, Tuck MG. Online professionalism: A synthetic review. Int Rev Psychiatry 2015;27:106-17.
11. Gholami-Kordkheili F, Wild V, Strech D. The impact of social media on medical professionalism: A systematic qualitative review of challenges and opportunities. J Med Internet Res 2013;15:e184.
12. Chowdhury A, Odame HH. Social media for enhancing innovation in agri-food and rural development: Current dynamics in Ontario, Canada. Journal of rural and community development 2013;8.
13. Vukušić Rukavina T, Viskić J, Machala Poplašen L, Relić D, Marelić M, Jokic D, *et al.* Dangers and benefits of social media on e-professionalism of health care professionals: Scoping review. J Med Internet Res 2021;23:e25770.
14. The University of Edinburgh; 2021. Available from: https://www.ed.ac.uk/institute-academic-development/about-us/projects/digital-footprint/eprofessionalism. [Last accessed on 2023 May 22].
15. Transitions. American Pharmacists Association. Available from: https://pharmacist.com/Publications/Transitions/achieving-and-maintaining-e-professionalism. [Last accessed on 2023 May 31].
16. Eprofessionalism; 2020. Available from: https://web.library.uq.edu.au/research-tools-techniques/digital-essentials/eprofessionalism. [Last accessed on 2023 May 31].
17. Guraya SS, Guraya SY, Yusoff MS. Preserving professional identities, behaviors, and values in digital professionalism using social networking sites; a systematic review. BMC Med Educ 2021;21:381.
18. Cain J. Online social networking issues within academia and pharmacy education. Am J Pharm Educ 2008;72:10.
19. Ellison NB, Steinfeld C, Lampe C. The benefits of Facebook "friends": Social capital and college students' use of online social networking sites. J Comput Mediat Commun 2007;12:1143-68.
20. Kevan L. 2015. Available from: https://blog.bufferapp.com/social-media-strategy-personalbranding-tips. [Last accessed on 2022 Sep 20].
21. Appelbaum PS, Kopelman A. Social media's challenges for psychiatry. World Psychiatry 2014;13:21-3.
22. Terrasse M, Gorin M, Sisti D. Social media, e-health, and medical ethics. Hastings Cent Rep 2019;49:24-33.
23. Nguyen BM, Lu E, Bhuyan N, Lin K, Sevilla M. Social media for doctors: Taking professional and patient engagement to the next level. Fam Pract Manag 2020;27:19-14.
24. Social Media Guidance for Physicians Taps Timeless Principles. American Medical Association. Available from: https://www.ama-assn.org/delivering-care/ethics/social-media-guidance-physicians-taps-timeless-principles. [Last accessed on 2023 May 31].
25. Lagu T, Kaufman EJ, Asch DA, Armstrong K. Content of weblogs written by health professionals. J Gen Intern Med 2008;23:1642-6.
26. Chbme AA. Your Patient Data Privacy Policy: Why It Matters (+ What to Include). Available from: https://education.ncgmedical.com/blog/patient-data-privacy-policy. [Last accessed on 2023 May 31].
27. Seritan AL, Heiry M, Iosif AM, Dodge M, Ostrem JL. Telepsychiatry for patients with movement disorders: A feasibility and patient satisfaction study. J Clin Mov Disord 2019;6:1.
28. Hale K. Benefits and challenges of social media in health care. Crit Care Nurs Q 2021;44:309-15.

29. Kemp S. Digital, Global Overview Report; 2022. Available from: https://datareportal.com/reports/digital-2022-global-overview-report. [Last accessed on 2022 Sep 20].
30. Kaczmarczyk JM, Chuang A, Dugoff L, Abbott JF, Cullimore AJ, Dalrymple J, *et al.* e-Professionalism: A new frontier in medical education. Teach Learn Med 2013;25:165-70.
31. Kandiko Howson C, Kingsbury M. Curriculum change as transformational learning. Teach High Educ 2021. p. 1-20.
32. The Elements: Transforming Teaching through Curriculum-Based Professional Learning | Professional Learning for Educators. Carnegie Corporation of New York. Available from: https://www.carnegie.org/our-work/article/elements-transforming-teaching-through-curriculum-based-professional-learning/. [Last accessed on 2023 May 22].