




Social Media and Ethical Challenges for the Dermatologist

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Abstract

Purpose of Review The purpose of review is to provide guidance on the use of social media within the context of dermatology and discuss its ethical, professional, and legal implications in education, mentorship, networking, business, and clinical settings.

Recent Findings Despite its fundamental value as a means of communication and knowledge sharing, social media carries legal, ethical, and professional challenges. Healthcare providers have run into issues such as misinformation, conflicts of interest, and overstepping patient-physician boundaries when using social media. An interesting finding is that dermatologists commonly engage with an online audience through social media marketing or being an influencer to improve business and extend their reach to clients; however, this warrants formal training and the need to monitor their own online presence to prevent legal consequences.

Summary Social media has become integral in everyday life; billions of people now receive information and stay connected with each other through social platforms. Within medicine, social media has enhanced various aspects of healthcare, such as professional networking, patient care, and patient education. In dermatology, social media allows dermatologists to promote their businesses and services through patient testimonials, posting advice on blogs, and networking with a large audience of potential patients. However, having a social media presence must be exercised with care, purpose, and transparency to maximize benefits and minimize harmful consequences. This is especially important when inappropriate social media posts by physicians can be scrutinized for breaching patient confidentiality, violating privacy, financial conflicts of interest, and possibly disseminating incorrect information.

Keywords Social media · Dermatology · Medical ethics · Information · Legal implications

Introduction

The ethical code of medicine, also known as the Hippocratic oath, is the very essence of ethics in medicine. It advocates the ethical principles of beneficence, non-maleficence, respect for life, professional integrity, and patient confidentiality [1•]. Traditionally, this ethical code has applied to face-to-face interactions between patients and physicians; however, recent technological advances and its use in medicine have posed new ethical challenges. For instance, perhaps the first introduction to ethical dilemmas between technology in medicine came with the use of photography for the medical record. In the last several decades, digital photography has become a widely accepted facet of dermatology's standard-of-care, serving as visual documentation to record and follow-up

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with changes in clinical lesions over time [2]. The introduction of telehealth, and more specifically, teledermatology, has also vastly changed the way healthcare is delivered, especially in response to the coronavirus-2019 (COVID-19) pandemic where it was important to be able to see patients, while also protecting health care providers (HCPs) from unnecessary exposure [3•]. While modern technology including the use of teledermatology and photography has enhanced medical records, and in some cases even reduced unnecessary biopsies and promoted early identification and treatment of melanoma, it poses risks to patients' rights to autonomy and privacy, especially given the potential level of identifying information and ease of distribution associated with high-quality electronic images [4••, 5]. More recently, as people have gravitated towards sharing information on social media, this has posed a new set of moral and ethical challenges.

Social media comprises a variety of online forums that allow for communication through the use of audio, text, images, and videos. There are several platforms in which people use to engage in social media such as Facebook, Instagram, YouTube, Twitter, TikTok, LinkedIn, Pinterest, Snapchat, and Reddit. The use of social media has exponentially increased over the years, with 5% of the population using at least one platform in 2005 to now over 70% of Americans using at least one form of social media [6]. According to the Pew Research Center, in 2020, the most popular social media platform was YouTube (81%), followed by Facebook (69%), Instagram (40%), Pinterest (31%), LinkedIn (28%), Snapchat (25%), Twitter (23%), TikTok (21%), and Reddit (18%) [6]. Social media is quickly becoming the foremost tool for gathering and sharing information, social and professional networking, and communication regarding health topics [7].

Whether through advertising or networking with other colleagues, hospitals and healthcare workers are increasingly engaging with social media [8]. An anonymous survey of 366 healthcare workers determined that of the 97% of participants who reported owning electronic devices, 87.9% indicated that they use social media [9]. Additionally, healthcare workers under the age of 40 reported using more social media than their older counterparts ($p < 0.05$) [9]. The use of social media among physicians and nurses was noted to be equivalent (88% for each group), and both groups reported encouraging their patients to research medical conditions on social media [9]. Although a large proportion of healthcare workers indicated social media usage, 40% were unaware of their workplaces' social media policy, and only 31% of healthcare institutions codified such policies at all. In sum, these factors could risk breaches of patient confidentiality and private medical information [9]. The combined role of dermatologists in treating both medical and cosmetic conditions poses unique ethical considerations in balancing the

advertising potential of social networking with the duty to protect patient confidentiality [10].

Social Media and Education in Dermatology

The primary goal for medical research is to improve health care, which requires quick and effective knowledge dissemination to practitioners, patients, and the public. Traditional publishing can take months to years until information is widely available, and even then, the information may not be readily available to the general public [11••]. For over a decade, social media has rapidly altered how educational content is delivered and has become a powerful tool utilized by physicians to disseminate knowledge to one another, patients, and the public [12•]. According to the Pew Research Center, 74% of internet users engage in social media, and of that, 80% of users have looked online for health-related issues [13]. Instagram accounts such as @dermoscopy_, @jaadjournals, and @globaldermie use Instagram exclusively for dermatology education, providing images and case reports for users to test their knowledge and learn of rare diseases. Furthermore, results from a survey assessing the acceptability and use of the @globaldermie account as a model Instagram platform for dermatologic education suggests that Instagram accounts are a viable way of educating a large quantity of people, even worldwide, with over 65 countries responding to the survey [14•].

While social media allows for the rapid dissemination of information to a large audience, inaccurate information on social media may be more readily available than accurate information, as many third parties may distort or misrepresent facts. From the discourse on alternative therapies, to the skepticism about medical guidelines, misinformation on social media can have deleterious effects on public health and there is increasing evidence suggesting that fabrications and misrepresentations spread more rapidly and was able to reach more people than accurate truthful information online [15••]. Although the dangers of misinformation impact all specialties and aspects of medicine, it is of particular interest in dermatology, where a high percentage of the general public consults the internet for information pertaining to a specific disease, treatment, or medical procedure [16, 17]. An observational cross-sectional study by Iglesias-Puzas et al. determined that 44.7% of the dermatology content shared on social media was designated as imprecise, 20% as confusing, and only 35.3% as precise [18•]. Furthermore, content categorized as imprecise had a higher mean number of interactions ($P < 0.05$) [18•]. Furthermore, in a separate study by Mueller et al., of the psoriasis-related videos available on YouTube in 2017, only 20% of them were identified as containing evidence-based information, whereas 52% were designated as misleading and 11% as even dangerous [19••].

Mentorship and Networking in Dermatology

Mentorship has been lauded as one of the most crucial elements in order to successfully match into a dermatology residency; however, access to such interactions may be limited for several important groups [20, 21••]. For example, a survey of fourth-year medical students noted that students pursuing non-primary care specialties and women felt they did not receive adequate mentorship [22•]. Traditionally, mentorship has been carried out in face-to-face interactions and may be limited to a medical schools' geographic location, leaving those without a home dermatology program at a disadvantage [21••]. However, the eruption of physician engagement on social media has undoubtedly created unprecedented opportunities for physicians and HCPs to network with one another as well as provide and receive mentorship. As a result, there has been a substantial increase in the presence of dermatology residency programs on Instagram, jumping from only 9 programs in 2019 having active Instagram accounts to now 62 of the 136 programs [23•]. This trend is likely due to the impact of the COVID-19 pandemic which eliminated a great deal of face-to-face interactions. However, these virtual networking opportunities appear to have had some value, as many programs are continually utilizing social media as a tool to connect with applicants [23•].

Social Media and the Business of Dermatology

Social media can be an alluring marketing tool for dermatologists, but conflicts of interests (COI) can arise. The Federation of State Medical Boards and American Medical Association have published guidelines on how physicians can implement social media in an ethical way [6, 24]. These associations counsel physicians to clearly state and disclose any conflicts of interest when posting content online. Disclosure for physicians is important in order to manage biases that could come from financial or other industry relations. Additionally, being cognizant that simple actions such as a “like” can equal an endorsement for an idea, product, or service is crucial to online engagement [6, 25•]. Ensuring disclosure can be more difficult than normal print methods due to the transmissibility of messages on social media. With the ability to share, retweet, and repost, original disclosures can get lost in the noise. Disclosure practices are advised to be specific for each social media platform used and the frequency of content posting. For example, a less frequent user could list COI

on each post, whereas a blogger with a formal dermatology web page should have a disclosure form through a standardized format as written by the International committee of Medical Journal Editors [26, 27]. When consulting on various platforms such as twitter, a dermatologist should briefly mention any COI and avoid topics that could lead to conflicts. Besides COIs, maintaining professionalism in terms of respecting patient autonomy and upholding non-maleficence need to be addressed when engaging in social media as a medical professional. Respecting autonomy on social media is important for patient confidentiality. A study in 2006, suggests that medical blogs contained enough patient history that would allow 16.6% of patients to self-identify as the person being discussed [28]. Non-maleficence in social media dictates that patients are not coerced or wrongly influenced into various treatment options or actions that could adversely affect their health and trust in the patient-physician relationship [6]. A 2020 cross-sectional survey indicated that 35% of patients would be more likely to trust their physician if they read a polite patient story that was written by their physician. However, if their physician wrote a disrespectful patient story or used profanity online patients felt their physicians were less trustworthy, 84% and 55% respectively [29•].

With this trust comes another level of caution required when posting online about dermatology products. The industry relationship with dermatology and its implications with social media marketing is not well understood. A cohort study in 2017, discovered that moisturizers with the labeling “dermatologist recommended” had an increased median price per ounce compared to non-labeled products at \$0.79 and \$0.59 respectively [30]. Dermatologists obtaining industry payments were retrospectively studied in 2016 and indicated that 8333 dermatologists received payments from industry at more than \$34 million dollars in 2014 with a median payment per dermatologist of \$298 and the top 1% dermatologists receiving \$93,622. Of these payments, 81% was disbursed by pharmaceutical companies [31]. Here lies a slippery slope of providing valuable advice to patients regarding needed products and the possible profitability of endorsing products. The implications of payments from companies for endorsements online are immense with the ease of writing posts and listing a product name, picture or hyperlink in one's social media content. Another survey of 386 Instagram followers of esthetic dermatology clinics indicated that an influencer that is attractive and has an element of expertise, a dermatologist, increased followers purchase intent which is the probability of a consumer to purchase a product or service [32•]. This reveals that just having the expertise as a physician will increase the salability of any product or service and is derived from the level of trust physicians obtain from the general public. This

has a few implications, first, that this power can be easily misemployed for gain and that in an unintended way, less esthetically focused dermatologists may not feel comfortable providing information on these platforms. More research is required to determine this impact of industry promotion and the dermatologist relationship on social media.

There is an emerging craze of marketing dermatology clinics on social media with a google search yielding articles titled “Social media 101” and “11 tactical errors to avoid in your dermatology social media strategy” [33, 34]. Marketing a dermatology clinic and becoming an influencer have become apparent in recent times with television shows such as Dr. Pimple Popper [35]. In a qualitative questionnaire of 249 patients, 33% described searching online to gather information about new skin lesions, 33% of patients had seen posts about skin lesions on social media of which only 10% were created by physicians [36•].

In addition to serving as a method for finding information regarding health-related issues, social media may also serve as a tool for patients to find practitioners. For instance, a questionnaire study conducted during initial dermatology cosmetic visits determined that 150 patients reported finding a cosmetic dermatologist through social media or online references, 7% and 8% respectively [37]. A separate cross-sectional study by Albeshri et al. ($n = 365$), determined that 44.54% of participants preferred to know more about their dermatologist from Twitter, followed by Instagram (27.9%), SnapChat (24.6%), and Facebook (2.8%) [38•]. Although most participants from this study preferred to see a dermatologist based on their friends’ recommendations, it is evident that online influence can drive patient populations and provide educational value.

In addition to the more traditional social media platforms, online reviews on sites such as ZocDoc and Yelp can also influence patients’ views of a dermatology clinic as well. A quantitative analysis of 5439 patient reviews of 47 dermatology clinics from Yelp and ZocDoc showed that the clinics averaged a Yelp score of 3.46 and averaged a ZocDoc score of 4.72 out of 5 stars. The qualitative portion of the study indicated that positive reviews mentioned that physicians empathetically responded to the emotional cost of skin diseases and disclosed stories about their personal skin disease related struggles [39]. This mirrors that social media engagement with personal anecdotes may make physicians appear more relatable and thus improve the patient relationship. Although, these personal anecdotes need to be monitored to ensure no ethical concerns arise. An ethical analysis of dermatologist’s engagement on social media demonstrates the conflicting role of marketing a business to increase revenue while caring for patients with their best interests in mind. This analysis suggests that social media is a powerful tool to engage with a vast audience, but heeds caution about

fame and financial gains that can lead to conflicts of interests outlined above [40•].

Social Media and Clinical Dermatology

Due to the pervasiveness of social media, it is even more imperative that physicians safeguard patient’s health information. Concerns surrounding social media use within healthcare frequently center around breach of patient confidentiality [41]. Such violations can leave HCPs liable to legal ramifications under the Health Insurance Portability and Accountability Act (HIPAA) and state privacy laws [42]. HIPAA’s privacy laws govern the disclosure of patient health information that is collected by providers. Within social media, HIPAA privacy rules dictate that posted clinical vignettes must be de-identified of all personal information [43]. However, even with these established regulations and cognizant medical providers, there are still numerous violations of the HIPAA privacy rule within social media. In fact, one study examining content of medical blogs written by HCPs, showed that 17% of samples (271 in total) provided enough information for patients to identify themselves correctly [42]. Dermatologists must be even more vigilant to protect patient information as many social media posts created by dermatologists involve images of the skin, making it easier to identify patients. Dermatologists should take care to remove any identifiable tattoos, birthmarks, or lesions from shared images [10]. Patient consent is highly recommended when creating patient-related posts on social media. However, it is typically left to the post creator to decide whether or not to seek consent from the patient prior to posting de-identified details online [44].

Social media represents a great opportunity for dermatologists to engage with their patients; however, it also presents the concern of maintaining patient-HCP boundaries. One study showed that patients will often extend friend requests to their providers on Facebook, but very few HCPs will accept these requests. Organizational policies and professional societies often advise physicians to limit online personal communication with patients [43]. To this end, HCPs should become very familiar with privacy settings on their personal social media accounts to maintain professional interactions with their patients. Within dermatology specifically, many providers utilize social media to promote their medical practice or provide education to their community. One recent study showed that over 20% of patient participants knew their dermatologist from a social media platform [38•]. However, according to HCP guidelines, dermatologists should consider creating multiple separate social media accounts for their private and professional use [43].

Social media can give dermatologists access to provide education to the public, combat misinformation, and improve patient's understanding of dermatologic conditions. One study conducted within an outpatient dermatology clinic showed that patients depend on their physicians for information, but also 69% considered the internet a valuable source for medical information [45]. Patients often use social media as a method of seeking advice on their dermatologic condition related to treatments, triggers, skin care and various presentations [46]. Importantly, HCPs and dermatologists should take care to not provide definitive advice to patients through these websites and should consider social media as a point of entry to official dermatologic patient care.

Legal Implications and Liability in Social Media

Dermatologists who employ social media may face multiple legal dilemmas. Laws and regulations on social media use are important in establishing clear guidelines for physicians and legal protection for patients. For instance, photographs are an essential part of dermatology, but the use of photographs has legal implications that need to be considered. Manso et al. discuss two principles of legal protection for patients with regard to medical photography: protection of the right to self-image and protection of personal information [50••]. To ensure complete transparency, dermatologists should ask patients for clear and informed consent to collect images of their skin and explicitly state the purpose of photography being solely for “diagnosis or follow-up care,” especially since photographs taken are associated with medical documentation that can make a patient identifiable [50••]. Examples of dermatologists who were convicted for publishing photographs of patients were due to consent obtained for healthcare purposes but not for scientific publication [50••].

Ambiguous situations like this have prompted physicians in the USA to set clear standards to keep all physicians not only more accountable for their actions but also cognizant of their actions and their consequences. Within dermatology, the American Academy of Dermatology created a booklet of information on medical ethics that details principles that dermatologists need to practice and regulations that they need to follow [47]. It states that dermatologists should “respect the rights of their patients” and “safeguard patient privacy within the constraints of the law” [47]. These guidelines represent standardized specifications for dermatologists to follow and, if violated, may result in “disciplinary action pursuant to the procedures set forth in the Academy's Administrative Regulations”

[47]. Standardization is important because medical boards across different states can have different additional laws for patient privacy and data breach reporting and can discipline physicians for inappropriate uses of social media in ways such as “license restriction, suspension, or revocation” [48].

Dermatologists are also at risk of lawsuits when giving medical advice on public social media platforms. Especially with the rise of telehealth and online communication, dermatologists need to be careful not to overstep boundaries and share personalized responses online that may hint at a patient-HCP relationship [42]. Instead, dermatologists can legally respond to medical inquiries by informing the inquirer that they cannot answer questions online, providing the inquirer their professional contact information in order to schedule an appointment to discuss further, and sharing the contact for emergency services if the inquirer is unable to make an appointment [42]. Although some state laws, like in Hawaii, do not require a pre-existing patient-HCP relationship for email or electronic consultations, the American College of Physicians (ACP) and the Federation of State Medical Boards (FSMB) do not support this practice [48]. The HCP should also be transparent and provide a thorough explanation about the potential risks of online communication and the handling of emergencies [42]. Any information regarding these interactions should be documented in the patient's medical chart as evidence that medical advice was given in a lawful, professional manner [42].

Recommendations for Social Media Use in Dermatology

The American Medical Association (AMA) supports the use of social media as it helps physicians communicate with peers, patients, and disseminate information. However, they recognize the dangers that can be associated with the use of social media and have put forth a set of guidelines for physicians to utilize moving forward. The AMA recommends that physicians in general should be aware of the standards of patient privacy and confidentiality when using online platforms, utilize privacy settings to protect personal information, maintain appropriate boundaries of the patient-physician relationship, consider separating personal and professional content online, confront or report unprofessional colleagues, and lastly, physicians should recognize that an online presence may negatively impact their reputations among patients, and colleagues, and may have a negative impact on their career [49]. HCPs should be aware of these risks when deciding whether or not to have an online presence affiliated with their professional life, and should

Table 1 The American Medical Association's recommendations for social media use

- Physicians should be cognizant of patient confidentiality and refrain from posting any identifiable patient information online
- Use privacy settings to safeguard personal information on social networking sites
- Maintain appropriate boundaries of the patient-physician relationship in accordance with professional ethics guidance
- Consider separating personal and professional content online
- Recognize that content shared online may have negative impacts on reputation

consider the ramifications associated with this risk. Table 1 consolidates the American Medical Association's recommendations for social media use.

Conclusion

The increasing prevalence of social media use among physicians, HCP, and patients has made access to health-related issues abundantly easier. It has changed the way medical care is delivered and has enhanced various aspects of healthcare, such as professional networking, patient care, and patient education. It offers a platform where physicians, other healthcare professionals, and patients can share insights, disseminate new information, and connect with each other. However, despite its fundamental value as a means of communication and dissemination of information, social media carries with it legal, ethical, and professional risks. As outlined throughout this paper, social media may be beneficial in promoting businesses, rapidly disseminating information, and networking with colleagues; however, it is not without risk. As more and more HCPs are using social media platforms, hospitals and medical residencies should consider implementing formal training for their employees in order to reduce the risks associated with Internet misuse.

Compliance with Ethical Standards

Conflict of Interest The authors have no conflicts of interest to declare.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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