Ethical Considerations of Social Media Use for Surgeons

SAGES Ethics Committee White Paper

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1. Introduction/ Background

Social media has become a source of viable and valuable information for patients and clinicians that can no longer be ignored. Certain professional societies have guidelines for using social media, but a comprehensive overview is required to explore the medical and public health ethics of using social media. This white paper examines what constitutes professional and ethical behavior when it comes to surgeons using social media and surveys the ethical considerations around surgeons' choices regarding social media. For the purpose of this paper, social media is separate and distinct from the general information that can be found on the Internet, and is defined as the use of various online platforms through which users create communities to share information, ideas, personal messages, and other content[1].

Multiple papers have addressed the use of social media for the dissemination of information during the COVID-19 pandemic. People were in lockdown and unable to obtain health information in person from their healthcare providers. This 'infodemic' changed the optics of using social media for health information. Before 2019, it was unclear whether medical professionals should be using social media platforms at all. Now, with multiple platforms that have channels dedicated to health information ("MedTwitter", "DokTok"), professionals must address the proper, ethical use of these channels. Avoiding social media interaction entirely is no longer an option. Some societies even encourage program directors to be better acquainted with social media to model appropriate behavior for their residents. However, misuse of social media can lead to severe consequences such as breaches of patient confidentiality. 'Approved' uses of social media include networking with colleagues and follow-up discussions during and after scientific conferences. Where the line becomes blurry is when providers: a) use social media as a means of self-promotion, b) use social media to educate the public, and c) use social media to communicate directly with patients.

2. Ethical Principles Addressed

Within this paper, the ethics of social media use within medicine will be addressed on multiple levels. Many of the considerations noted here, along with outlined recommendations, should align with the four major bioethical principles of autonomy, non-maleficence, beneficence, and justice[2]. Patient and provider consent, in some capacity, is essential to the sharing of information, and the privacy of both providers and patients must be protected. Any posted content must do no harm to

patients or providers, and although this may not be the first goal, it cannot be missed. Content that is posted or shared should be beneficial and even educational for both patients and providers. Finally, all people should have equal access to the information shared on social media. Lack of a computer, smartphone, or digital health literacy should not act as a barrier to a patient's ability to access vital health information or clinical trials. Providers should consider patients' access when choosing to disseminate information online.

3. Physician Use of Social Media

Physician use of social media for self-promotion or marketing is not inherently unethical, but should be carefully considered and conflicts of interest disclosed.

Overall, physician use of social media has been beneficial for networking and education from both a professional and patient standpoint; however, there have been concerns about confidentiality and the increasingly less distinct boundary between the personal and professional on blended social media profiles[3]. This increased social media use by physicians has also resulted in a noted increase in the number of citations for those authors who have a marketable social media presence (X and Facebook): an over 2.5-fold increase on Google and Scopus within three years after publication[4].

Physicians should include a visible disclosure that their views do not necessarily represent the institution, organization, or society, unless otherwise stated by the institution, organization, or society.

The rate of physician use of social media has been increasing over the last ten years, with one survey of over 4,000 physicians showing that more than 90% use social media personally, and about 65% use social media for professional purposes. While the trend has been to separate personal and professional accounts, the line has become increasingly blurred as social media platforms evolve. For example, platforms such as LinkedIn, Sermo, and Doximity are conceived for professional use only, with Sermo and Doximity only accessible by registered physicians. However, physicians may post whatever they want without censorship, and topics unrelated to their professional work, such as politics, might be addressed. When these posts appear related to the physician's place of work, there may be a conflict of interest. Studies have shown that institutional social media use and 'branding' increase the likelihood that patients will seek out that institution for their care[5]. This may be extrapolated to include physicians using social media for self-promotion, though no study exists yet to verify whether this is, in fact, effective. Social media may also be damaging to a physician's professional image.

When used for self-promotion, the interests of the affiliated institution and the patient must be considered. In general, while a physician may claim, and rightfully

acknowledge, appropriate association with a professional society, organization, or institution, the physician shouldn't leverage such an association for their personal gain. Physicians using personal accounts should have disclaimers in their profiles stating that their views do not necessarily represent the society/organization/institution, and no harm to any individual patient may be caused.

In addition, surgeons promoting services or procedures that deviate from societal guidelines' standards of care, or goods and products that may not be evidence-based, should do so with the disclaimers that their opinions are their own and may not be based on available evidence.

In thinking about the ethical principle of justice when considering physicians' use of social media for self-promotion, it should be stressed that the diversity of physicians could be misrepresented, limited by access to social media resources, as well as having the time to create content when not performing their clinical duties. In addition, those who are represented on social media may or may not have clinical acumen as portrayed by their social media presence, a concept that patients seeking providers may not understand. In these situations, caveat emptor, or "buyer beware" applies.

Physician use of social media for education and public dissemination should be subject to self-verification of accurate information that protects patient and provider confidentiality.

Various media platforms now exist for educational content to enhance medical education, as well as forums for practitioners to share knowledge regarding practices, updates, and for personal career development. Regarding social media accounts, multiple professional societies have pages/groups with moderators regulating, updating, and overseeing discussions. This, in turn,can serve as a verified, reliable source of information to millions of people[6]. Initially instituted during the COVID-19 pandemic, many medical conferences turned towards virtual platforms with regular use of video conferencing, and even though many have returned to in-person meetings, the virtual component often persists[7,8]. By offsetting the travel and opportunity costs mitigated by the possibility for virtual attendance, attendance levels have overall increased. On the other hand, this benefit must be weighed against the in-person networking opportunities through multi-center collaborations, congregation opportunities for industry partners, and hands-on workshops. Outside of conferences, standardized webinars and specialty-specific podcasts can disseminate information with a broader and more diverse reach than previously possible[8]. On an even wider scale, public health organizations can not only spread initiatives but also rebut misinformation on social media in a timely and widespread manner[9].

Social media used for educational purposes should be done with institutional oversight. Institutions and major surgical societies should dedicate staffing for monitoring and approval of tagged social media statements.

Social media is increasingly used for the recruitment of residency applicants. One program noted that prospective applicants ranked Twitter and Instagram within the top three most commonly used resources to determine the culture of a residency program[10].

Per the American College of Surgeons Qualifications of the Responsible Surgeon, "a surgeon's release of material to communications media or nonprofessional publications should be designated only for education and public information [and] such releases must be accurate"[11]. A commonly used educational tool in social media is the sharing of interesting cases, mystery diagnoses, or thought-provoking imaging. Discussion forums utilizing videos and images allow for a space to share knowledge and consult with other professionals[6]. Though these cases can certainly be of value, practitioners must consider institutional and societal guidelines and remove all identifying information. Of note, physicians report confidentiality to be the greatest barrier to professional social media use among non-users[12]. It should be noted that an interesting case, in and of itself, could be identified, especially by a patient or their family with access to social media. As such, a reasonable time gap and permission from the patient should be considered before posting.

On a provider level, there is varying utilization of social media. One study of physicians from top US academic hospitals finds 90% of both surgical and medical physicians posted 0 times per month while younger and female physicians were more likely to have a social media account. Surgeons and older physicians tended to have more followers[13].

The verification of information is largely dependent on the end user; however, institutional verification methods should exist for communications that represent and reflect on the institution. Having a green or blue 'check mark' next to the user profile may be helpful for patients to identify reliable sources of information, but this should be continually monitored and maintained to prevent the dissemination of misinformation.

Physicians might consider having separate social media accounts for personal and professional purposes, and employed physicians may be subject to their institution's social media policies. Physicians should consider social media as an extension of their identity and therefore conduct themselves in an appropriate manner.

Surgeons - and all healthcare providers - are people, entitled to a personal life outside of the hospital, and for many people this includes social media activity. 60-90%

of physicians have some sort of social media presence, with non-academic surgeons reporting the highest use: 71.9%, compared with 29.5% of academic surgeons[13]. However, social media and the internet should be seen as an extension of real life and not a separate entity. As such, the same expectation of professionalism that pertains to a surgeon's conduct within *and outside* of the hospital extends to social media.

Those using social media should consult their institution for specific rules regarding their online behavior. The following includes some suggestions that could support professional and ethical behavior online:

- Consider the use of separate personal and professional accounts online
- Refrain from using professional titles for personal-only accounts
- Consider the use of privacy features for accounts, and especially for personal accounts
- Consider the ability of patients and colleagues to find and study a social media profile, and how this may impact patient care, job opportunities, and interpersonal relationships in the workplace
- Consider the unique nature of the provider-patient relationship, and maintain the same separation of professional versus personal relationship with a patient online as one would in person, consider not 'friending' or 'following' patients
- Consider providing the primary link for data shared through social media, and encourage others to seek primary data in their quest for medical or scientific information
- Remember that anything posted on social media remains on the Internet forever
- Social media conduct should be subject to the same professionalism as in "real life".
- For the physician's privacy and safety, consider a non-identifiable name for a separate personal social media account

4. Patient Use of Social Media

Social media is an important tool in health information dissemination, but should not be the patient's only form of health information.

As of 2024, it is estimated that 62.3% of the world's population are social media users[14], with as many as 80% of internet users searching for health-related information [15]. Articles are noting the uptrend in social media use for dissemination of medical information with support for continued future use as a tool beyond the pandemic[7,8]. Increasingly, patients have been utilizing "virtual communities" both as a resource and a

support system with the potential for significant benefits, as peer influence and community support have the most impact on healthcare decisions[15]. However, the detrimental effects of disseminating inaccurate health information require further oversight and adjustments to account for all levels of medical literacy. As technological adeptness (often seen more in younger, more educated individuals), can be significantly limited by access, it can still result in a barrier to entry compared to a traditional in-person consultation. In addition to overall access, the privacy allotted by using social media for health information can be used for stigmatizing conditions such as STDs and mental health issues which would otherwise have remained under-addressed[15.] Social media user groups for individual health conditions related to ICD-10 non-communicable diseases number more than 757 on Facebook when reviewed in 2009[16]. However, there is often no official verification or credentialing needed to post educational content, in a study of 21 plastic surgery-related hashtags, only 17.8% of posts were from ABPS and RCPSC board-certified plastic surgeons with the remainder of posts composed by a variety of other surgical and medical specialties, dentists, spas, and hair salons[17].

Rather than using social media as a replacement for healthcare professionals, it more often appears complementary to the expert opinion, with patients using it to seek additional first-person experiences, as well as social comparison, and to fulfill emotional needs[18]. When used to find peers with similar chronic conditions to identify commonalities, patients overall felt more engaged with their healthcare provider, using in-person consultations to validate information, while feeling more empowered to participate in their care[19]. However, it is important to recognize confirmation bias as a risk for filtered content selected for patients through social media platforms[15]. Patients could utilize images and videos outlining the results to either convey a realistic sense of what's to come or, if not properly reviewed, come away with unrealistic expectations of heavily edited images[20]. Platforms such as YouTube that allow for videos for first-hand accounts were found to be more effective for communicating emotional responses and coping mechanisms, prompting more behavioral changes[21]. With the use of social media and targeted feeds, careful attention to maintaining the privacy of patients is pivotal as it can remain a safe place to maintain "normalcy" without fear of disclosing personal information such as chronic illnesses to acquaintances who may follow them online[22].

Social media can also rapidly disseminate updates on an interactive platform in public health campaigns with evidence-based findings to combat the spread of misinformation. Careful attention must be paid to avoid losing those who lack access to social media. Social media should be used as an enhancement to traditional methods of public communication. Increasingly, it is being used both as a way of branding and marketing an institution for the new recruitment of patients that may be inaccessible by traditional

methods by providing verified health information[6]. Social media is increasingly being utilized as a method by which patients select practitioners in fields such as aesthetic surgery, where the Google ranking of searches correlates with the number of social media followers rather than other factors such as training institution or years of experience[23].

In a study of discussion boards from the 15 largest Facebook groups dedicated to diabetes with members ranging from 1,107 to 61,957, 65.7% of posts were coded as providing information and personal experiences, followed by 28.8% that provided peer support, and 26.7% composed of advertisements. Despite that lack of fact-checkers combined with the relative anonymity of contributors, there were overall more positive patient-focused outcomes from forums dedicated to diabetes management, with rare inaccurate recommendations in only 3% of posts[24]. There is a balance where the positive effects of patient social media utilization with improved well-being and control must be recognized while minimizing the risks of privacy invasion, promotional targeting, negative effects on well-being, and social media addiction[18]. Care must be taken, as anything posted becomes a permanent part of the digital record, with further regulatory practices and education needed for clinicians to maintain patient privacy if these modalities are increasingly incorporated in clinical care[25]. Overall, the evidence suggests that patients with active social media use endorse an increased understanding of their health which contributes to proactive management, although there is a continued need for verified trustworthy sources to avoid misinformation and for patients to understand the overall "usefulness" of the information provided by social media[26].

Patients' privacy should be respected, and their social media accounts should not be used as additional information for healthcare providers caring for them.

Healthcare practitioners should provide the same level of respect and privacy towards a patient's online identity as they would like to receive. In general, providers should refrain from searching for patient information online. In a sense, personal information shared on social media could be considered as a form of identifiable protected health information. Per the US Department of Health and Human Services Health Insurance Portability and Accountability Act of 1996 (HIPAA), a basic and enduring principle is that circumstances in which an individual's protected health information may be used or disclosed should be limited[27]. However, there are limited circumstances in which a patient's online identity could be impactful to their care and well-being. For example, if an incapacitated patient arrives in the emergency room without contact information available for next of kin, a search online could provide contact information for this special emergency situation. That being said, if social media

is going to be used to glean information about a patient, this must be disclosed to the patient as soon as possible, and should follow institutional guidelines as applicable.

Explicit consent from both sides must be obtained prior to any picture or video taking for use in social media.

As mentioned, social media is used by a huge proportion of the modern population. Patients, as people, have the right to share their information. However, patients should not share protected information of other patients, and should not share recorded media of healthcare practitioners without their consent. Unfortunately, covert recording of healthcare practitioners, especially if shared without full context, can be damaging to individual providers, hospitals, and the institution of healthcare overall. Healthcare practitioners should have the right to consent or not to the streaming, recording, or sharing of their care delivery by patients and visitors, pending individual institutional guidelines. All healthcare providers have a right to refuse audio or video recording of their patient care interactions. There must be verbal or written consent from both sides when any photography or video is done in the physician-patient setting. When patients take pictures or videos, there must be consent from both sides, even if the photos are for educational use, such as interesting case discussions. Any such images must still be de-identified to protect patient and physician privacy. There are no states that have a statute of limitations on when a video or photo can be posted; instead, these waiting periods are guided by HIPAA, state medical boards, and institutions.

5. **Societal Impact of Social Media**

Use of social media for trial recruitment and crowdsourcing information should be guided by the principles of patient autonomy (privacy), non-maleficence and justice (access).

Crowdsourcing, a term meaning to gain the collective resources of a group,has become a way for physicians to obtain information in healthcare, with platforms like Sermo and Medscape often surveying physicians about their best practices based on case studies. While crowdsourcing is an excellent way of obtaining information, its validity remains undetermined, and the collective experience of a group may not necessarily be the right answer, even though it could be the best one, given that medicine is rarely black and white.

Another utilization of crowdsourcing is in clinical trial enrollment, where social media is used as a method of advertising. The concept of coercion arises when influencers are used to convince healthy participants to enroll when they might not have done so otherwise. However, social media provides a large amount of population data for

researchers to mine. Everything from a person's birth date to their Spotify playlist can be analyzed. The ethical principle of justice should be observed such that participants have other ways to find out about, and enroll in, clinical trials that are advertised on social media, i.e., phone, email, printed mail, for those without access to computers or lack technological literacy.

Social media should not be used for patient-provider communication. Only secure, trackable EMR platforms should be used.

In the future, various forms of social media will increasingly be used for interactions between patients and providers as younger providers become more comfortable with navigating the medium. As early as 2011-2012, medical students were polled, with 92% owning a Facebook account and 97% logging on multiple times a day, with the majority, 72% reporting that they used one profile, thus combining their personal and professional lives. Of those students queried, 60% endorsed that if they were directly asked for medical advice by a patient via Facebook they would explain to the patient in person that the forum is an inappropriate means to communicate concerns, though there was some cognitive dissonance as 44% reported that they would carry this out; this suggests the need to develop further policy guidelines and incorporation of content to help providers proactively navigate the ethical quandaries presented with social media platforms[28].

On one end, health care organizations may implement cookies to track user behavior or even allow for logins via a patient's social media profile, thus resulting in an organization being given further access to user data. Privacy-enhancing technologies can also be used to help protect a user's privacy with data anonymization and communication encryption with technology that can alert users of privacy threats and enact measures to prevent the disclosure of personal information. Beyond single provider-patient interactions, user-generated data, that is appropriately de-identified, could also be used to identify outbreaks and hotspots for surveillance and target areas for public service campaigns. These large datasets would be a valuable resource for population health studies, although more work would be needed to interrogate the accuracy of AI-generated healthcare data derived from social media via a standardized system[29]. Used as a marketing and educational tool, these platforms can also be utilized for two-way communication. Careful consideration is required from both parties regarding the permanence of the digital record and awareness of privacy settings. In the future, more research and further developments in artificial intelligence (AI) and machine learning (ML) could assist providers in efficiently utilizing the massive amounts of user-generated data to focus on the most effective measures to protect patients, both in promoting early diagnosis and identifying public health trends.

Excessive use of social media may impact patient and provider mental health and wellness.

Many note concerns that social media is detrimental to mental health, including increased depressive symptoms, loneliness, and addictive behavior towards screen-time[30,31]. Further, screen time among medical students, whether for leisure or study/work, is associated with delayed bedtime, shorter sleep duration[32] and poorer sleep quality[33]. Beyond mental health, increased screen time has been associated with poor health effects: high blood pressure, obesity, poor stress regulation, and insulin resistance[31]. Though many of these cross-sectional study populations may not be entirely generalizable to practicing physicians, healthcare providers should still take note of some of the detrimental effects of social media and the risks of continued screen exposure masquerading as important for professional work, especially when this extends beyond normal working hours.

On the other hand, other cross-sectional studies have found that self-esteem can be boosted by an online presence[34]. Further, social media can provide a sense of support and community amongst providers, whether through collaboration or a forum for advocacy and mentorship[3]. As with most things in life, when used in moderation, social media can enhance a provider's career, and, as such, should not be outright avoided or banned.

Social media may have a role in advocacy and promotion of societal health.

Though the classic non-clinical roles of a healthcare practitioner include researcher and educator, advocacy is an important responsibility for our profession as a whole. Physicians should promote health and well-being, and this can extend beyond clinical practice. This is not a new construct. Although most physicians recognize Rudolf Virchow for his eponymous thrombotic triad, he was also an epidemiologist and once said, "Medicine is a social science, and politics, nothing but medicine at a larger scale." Physicians and healthcare practitioners as a whole hold a powerful voice in modern society, and this can, and *should*, be used to promote overall societal health. The American College of Surgeons notes that surgeons should "advocate for strategies to improve individual and public health through communication with government, health care organizations, and industry" [11]. Social media provides a platform that can be used for this advocacy, though its use should fall within institutional guidelines and reflect that the views pertain to the individual provider, rather than their institution as a whole.

AI may change the role of social media, and the evolution should be monitored.

With the continued and growing use of social media, there is a potential for artificial intelligence and machine learning to sift through the vast volume of data for more effective remote patient monitoring. Chatbots are being utilized to simulate human

interactions to assist with long-term patient monitoring and freeing up time for staff by managing simple tasks such as responding to a panel of frequently asked questions and scheduling appointments 24/7. User-generated data in conjunction with AI could be implemented to filter out unqualified or unverified sources and decrease the spread of misinformation, while ML could assist in tailoring content into personalized patient feeds (similar to YouTube and Facebook) to improve user engagement. Companies have also been utilizing sentiment analysis for consumer-generated feedback; application of this in the healthcare realm could analyze patient posts to highlight concerning language and alert a provider to provide more immediate attention. AI can also be used for user education and training in protecting personal information online and serving as personalized tutors, where it is already being utilized in other fields for simulations allowing for practice in a safe, structured environment, tracking progress, and allowing for additional courses for identified weak spots[29].

Summary Statements:

1. Physician use of social media for self-promotion or marketing is not inherently unethical, but should be carefully considered and conflicts of interest disclosed.
2. Physicians should include a visible disclosure that their views do not necessarily represent the institution, organization, or society, unless otherwise stated by the institution, organization, or society.
3. Social media used for educational purposes should be done with institutional oversight. Institutions and major surgical societies should dedicate staffing for policy-making monitoring, and approval of tagged social media statements.
4. Physicians' use of social media for education and public dissemination should be guided by HIPAA to protect patient and provider confidentiality. Post should be subject to the same level of accuracy and evidence-based practice as would be expected of a medical professional offline.
5. Physicians should consider having separate social media accounts for personal and professional purposes, and employed physicians may be subject to their institution's social media policies. Physicians should consider social media as an extension of their identity and therefore appropriately conduct themselves.
6. Social media is an important tool in health information dissemination, but should not be the patient's only form of health information.
7. Patients' privacy should be respected, and their social media accounts should not be used as additional information for healthcare providers caring for them.
8. Explicit consent from both sides must be obtained prior to any picture or video taking for use in social media.
9. Use of social media for trial recruitment and crowdsourcing information should be guided by the principles of patient autonomy (privacy), non-maleficence, and justice (access).

10. Social media should not be used for patient-provider communication. Only secure, trackable EMR platforms should be used.
11. Excessive use of social media may impact patient and provider mental health and wellness.
12. Social media may have a role in advocacy and promotion of societal health.
13. AI may change the role of social media, and the evolution should be monitored.

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