

# Providing Health Information on Social Media: What is the Limit for Medical Students?

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Social media plays several important roles in medicine.<sup>1</sup> Doctors use Instagram®, Twitter®, TikTok®, and more to share successful stories and new treatments, and hospitals use social media to provide health information to patients. Medical students are important and influential participants in the digital world because they are young, they dominate social network resources, and they have high engagement power. How do medical students use their digital media abilities and knowledge to disseminate health information to patients and the general public, and what are the limits and best practices for them to share health information on these platforms?

There is an abundance of videos shared on social media of medical students at home or in a hospital setting. Some of these videos depict medical students presenting the most probable diagnosis for a given symptom, trying to diagnose skin conditions that others have shared with them, and reacting to people treating their conditions at home with non-evidence-based methods. In other videos, students list possible causes for relatively straightforward conditions such as constipation, acne, and nail abnormalities, and teach users how to treat them. These are some of the innumerable examples available from medical students and physicians.<sup>2-5</sup>

A potential issue related to posting health-related content is that medical students may be providing inaccurate information without a medical license or the legal right to practice medicine. Importantly, many of these videos do not include a recommendation to consult a physician, a warning against self-medication, or recommendations for additional research about a condition through official sources like health institutions and government websites.<sup>2-5</sup> Moreover, these disclosures and other recommendations are required to meet basic ethical and legal standards that are part of several social media guidelines for healthcare professionals,<sup>1,6-7</sup> including themes such as maintaining patient confidentiality, giving medical advice via a proper doctor-patient relationship, and more. The importance of these recommendations for sharing health information on social media have become particularly evident during the COVID-19 pandemic because some social media platforms detect posts about COVID-19 and recommend that users who view these posts visit healthcare authorities' websites for accurate information.<sup>8</sup> Failure to recommend official resources to users of social media may lead people to a delayed understanding of the condition and seeking medical assistance. For certain diagnoses, such delays can make a significant difference in prognosis.

Many social media posts and videos are intended to be entertaining, particularly in the new application, TikTok®.<sup>2</sup> Entertaining soundtracks and figures broaden the audience and present information in a straightforward manner; however, the light tone may lead patients to perceive symptoms and diseases as less serious than they are. For

instance, constipation could be due to a relatively simple etiology such as a low-fiber diet, but it could also be the result of a severe and complex condition such as a gastrointestinal neoplasia.<sup>9</sup> Similarly, nail abnormalities could be caused by a micronutrient deficiency, but they could also be caused by chronic renal disease.<sup>10</sup> Such distinctions are most appropriately evaluated by professionals in a healthcare service environment rather than by patients or medical students on social media. Establishing a diagnostic hypothesis and resulting treatment is an intricate process best made in person by a professional. Therefore, social media users looking for information about a condition should be instructed to seek medical assistance rather than to self-medicate.

A factor that contributes to a deficiency in health information from social media is the brief nature of social media, including posts, one-minute videos, and "stories." Longer options exist but are less attractive to users because of the large quantity of information to scroll through. Similarly, social media users generally do not watch videos or read posts multiple times to make sure they have absorbed all the content. The brief attention span of social media users shapes the way in which content is structured and determines what information gets shared, including medical information. Notably, deciding what information to share is a problem that is not exclusive to social networks. For example, researchers who write an article about a study must carefully select what information to include, to respect the word count provided by the journal and preserve the content, which is not an easy task. The same challenge, but often to a greater degree, is encountered when creating online content because some ideas and cases cannot be expressed or discussed accurately in a brief time, hence some information always gets lost in translation to a public audience.

Medical students should carefully consider what information to share on social media and how to share it. Rigorous criteria must be applied, and students must take responsibility for the content provided as any healthcare professional would. One of the many benefits of social media is the ability to share information about a disease or condition with the general population in an accessible way. Social media can be used to raise awareness, combat misinformation, provide patient support, answer common questions, engage with patients, and more. However, no treatment, conduct, or medication should be recommended collectively or individually by medical students on social media other than instruction to consult a physician and not to self-medicate. In addition to this limit, it is essential for medical students to provide reliable sources of information for public reference. Students can provide internet sources in which the information has been filtered and simplified by experts in the field, such as WebMD®, Mayo Clinic®, or the Health Information portal of the National Institutes of Health (NIH).

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In conclusion, social networks are a significant source of medical information and will continue to be relevant in the future. They should not be disregarded as a source of medical information; however, the information shared and the ways in which information is shared must be regulated to ensure patient safety and protection. This regulation already exists to some extent, given that there are several guidelines on using social media for doctors and students available; however, these guidelines are not strongly implemented across institutions and

most schools do not include them as mandatory in their curricula, leaving the door open for potential misuse and spread of misinformation. For example, schools could offer classes or information about how their students should conduct themselves if they are creating online content.

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