

# The role of social media in medical education: A novel approach to advancing medical education

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## ABSTRACT

Social media (SM) is a form of communication through electronic platforms that allows users to share information, opinions, and messages. With around 3.06 billion individuals using at least one SM platform in 2020, researchers have found significant benefits for secondary and higher education. SM plays various roles, including facilitating communication, addressing subjects of concern, sharing common interests, and providing the freedom to express emotions and opinions, especially in education. Medical education is undergoing a major transformation, with competency-based education emphasizing the attainment of clearly defined knowledge and skills. Social media has become a valuable tool for disseminating medical education and adapting to dynamic environments. However, integrating social media with traditional educational approaches presents challenges, such as protecting student privacy, aligning learner-driven goals with instructor-led objectives, developing a holistic identity framework, addressing cyberbullying, managing workload and time constraints, and maintaining confidentiality. Excessive use of social media has been linked to reduced face-to-face communication skills and an increased risk of mental health problems, particularly among young users. To promote the growth of education with the help of social networks, universities and institutions must take this subject seriously and allocate appropriate resources.

**Keywords:** Social media, Medical education, Medical students, E-learning

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In the era of technology, communication is essential for everyone in the medical field to enhance satisfaction and enrich knowledge. Social networking plays a key role in this, with social media (SM) serving as a valuable tool<sup>(1)</sup>. Social media is defined as a form of communication via electronic platforms that aims to create online communities, allowing users to share information, opinions, messages, and other content. In 2020, about 3.06 billion individuals used at least one SM platform<sup>(2)</sup>. Researchers have extensively studied the benefits of social media for secondary and higher education over several years, yielding significant results in various fields<sup>(3)</sup>. In addition, social media plays a variety of roles, including facilitating communication, addressing subjects of concern, sharing common interests, and providing the freedom to express emotions and opinions<sup>(4)</sup>. The most popular platforms, including WhatsApp, WeChat, Facebook, Instagram, Pinterest, LinkedIn, Snap Chat, Twitter, Telegram, Baidu, Google+, SlideShare, Weibo, and Tumblr, have become widely used across different sectors,

including education<sup>(2)</sup>.

Medical education is an ongoing journey that starts with undergraduate training, progresses through residency, and extends throughout a practitioner's career. The field of medical education is undergoing significant transformation due to recent trends and the emergence of new ideas. These changes include the adoption of competency-based medical education, which focuses on achieving clearly defined knowledge and skills. Simultaneously, various medical institutions have embraced technology, integrating it into their operations in multiple ways. At the time of curriculum planning, it is essential to consider the learning needs of today's students and their diverse backgrounds<sup>(5)</sup>.

Social media has become one of the most widespread tools, with significant potential for disseminating medical education and adapting to dynamic, changing environments. Its most valuable aspect is its global reach and wide accessibility, allowing medical students to connect and share various learning resources. Interac-

tive discussions enhance comprehension of the complexities of medicine and serve as valuable tools for continuing medical education (CME). Moreover, feedback and input from peers or mentors not only enhance learning but also create a sense of belonging. This encourages students to share experiences, draw inspiration, and celebrate their achievements, ultimately reinforcing their sense of community. (1, 5). In addition, the Social Networking Sites for Medical Education questionnaire is one of the other advantages of social media in medical education. These sites are correlated with self-regulated learning (SRL) skills, which have an essential role in education, especially during pandemics (6). Overall, SLR skills of students increase with the use of social media, which can be a known way to advance the students' competencies.

However, combining social media with traditional educational methods presents several challenges. Halverson highlights three main obstacles: safeguarding student privacy, aligning learner-driven goals with instructor-led objectives, and creating a comprehensive identity framework. These obstacles balance students' identities with institutional expectations. In addition, other concerns include cyberbullying, which can negatively impact student behavior, and the challenges of managing workload, time constraints, and maintaining confidentiality. Additionally, students face numerous issues, such as limited peer feedback, inadequate training, and the difficulty of balancing social media activities with academic performance. Excessive use of social media has been linked to reduced face-to-face communication skills and increased risk of mental health problems, such as anxiety and depression, particularly among younger users (3).

Previous research has indicated that using social media platforms extensively can increase the chance of health problems among young individuals. In the case of using social media, mental well-being may suffer due to prolonged screen time leading to increased anxiety and depressive symptoms. Additionally, students may experience a decline in their academic performance when they lack interest in peer feedback and fail to manage their social media activities related to academics. Multitasking and appropriate training can have contrasting effects. Students who spend too much time on social media often struggle with face-to-face communication (7). Previous research has shown that extensive and prolonged use of social media platforms seems to elevate the risk of various mental health and well-being issues, particularly among young individuals. This could be partly attributed to the well-established negative effects of screen time on mental health, which exacerbate anxiety and depressive symptoms (8).

In conclusion, there is a need for further exploration of future applications for integrating social media into the curriculum. Expanding the use of social media could enhance medical education as an innovative approach. By employing such techniques and combining them with suitable educational programs, the standard of education in this field can be significantly improved. Universities and institutions must take this matter seriously, allocate the necessary resources, and develop new applications to advance medical education. This approach could also foster entrepreneurship within the field, positioning universities as leaders in "entrepreneurship in medical education."

## CONFLICT OF INTERESTS

The authors declare that they have no competing interests.

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## ABBREVIATIONS

SM; Social Media, CME; Continuing Medical Education, SRL; Self-Regulated Learning

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