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Anne Bennett
George Washington University

Ali Pourmand
George Washington University

Robert Shesser
George Washington University

Jesus Sanchez
George Washington University

Joseph Joyce
George Washington University

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Case Report
Impacts of Social Networking Sites on Patient Care in the Emergency Department

Anne Bennett, MD, Ali Pourmand, MD, MPH, RDMS,
Hamid Shokoohi, MD, MPH, RDMS, Robert Shesser, MD, MPH,
Jesus Sanchez, MD, and Joseph Joyce, BA

Department of Emergency Medicine, George Washington
University, Washington, D.C.

Abstract
The use of Facebook is ubiquitous among both patients and physicians. Often Facebook intrudes into medical practice, thereby highlighting its potential to be either a positive or negative factor in a patient's medical care. Despite being a "hot topic" in the medical literature, very few real world examples exist of physicians actually using information obtained from Facebook to reach a diagnosis or otherwise affect patient care. We present a case involving a 13-year-old girl who posted photographs and captions on Facebook demonstrating suicidal ideation. The patient's parents were alerted to the girl's statements in her Facebook profile and brought her to the emergency department. The girl's statements and photographs, as reported by her parents, were used by an emergency physician to make a diagnosis of suicidal risk and to disposition of the patient to an inpatient psychiatric ward. We discuss the potential diagnostic utility of information posted on Facebook and briefly discuss the ethical questions surrounding this situation.

Key words: *social media, emergency medicine, suicide risk*

Introduction

Participation in social networking sites, such as Facebook, has become ubiquitous among patients and physicians alike and thus, naturally, is a factor in the doctor–patient relationship. Like all social networking sites, Facebook provides a medium whereby users can communicate their ideas and feelings to an online community.[1] Although there is no universal tool to assess online health information,[2] PricewaterhouseCoopers' Health Research Institute reports that one-third of 1,060 people surveyed were interested in discussing their health status over a social network.[3] This interest, combined with the sheer volume of Facebook users, demonstrates Facebook's potential as a tool, which could be utilized by a physician when providing medical care to a patient.

The role of Facebook might have in the doctor–patient relationship has been actively reviewed in the literature,[4–6] with a primary focus on Facebook's role as a tool to improve patients' follow-up and treatment compliance,[4] disseminate public health messages,[5] and facilitate research enrollment.[6] There are very few examples of physicians using a patient's Facebook content as a diagnostic tool to aid in the medical decision-making process.[7] In fact, we have found no published cases of Facebook being used by an emergency medicine physician as a means of reaching a psychiatric diagnosis. The case presented here is an example of an emergency physician using Facebook to evaluate a patient's expressed suicidal ideation as communicated through pictures and words on Facebook and then using those postings as the primary source of evidence to recommend inpatient psychiatric hospitalization.

Case Report

A 13-year-old girl with past medical history of attention deficit hyperactivity disorder and oppositional defiant disorder was brought to the emergency department (ED) by her parents for evaluation of depression and possible suicidal ideation. The patient's mother presented the emergency physician with screen shots of the patient's Facebook page using Instagram photographs on her iPhone® (Apple®, Cupertino, CA), on which photographs were posted of the patient cutting herself. The patient had posted the following captions to her photographs: "I want you to know my secret," "I'm fat and ugly," "I want to kill myself," and "The Monster is me." A teenage friend became alarmed after seeing the posts and alerted the patient's parents, who then brought her to the ED. The patient's mother discovered a box of razors in the girl's bag. The parents reported no prior evidence or suspicion of such behavior or thoughts. The patient did not deny the postings or their sincerity on her Facebook page. She said that she was uncertain about what she hoped would happen by posting the photographs and words to Facebook.

On presentation, the patient was tearful but cooperative and interactive and denied any current suicidal or homicidal ideation. She said that the last time she cut herself was over a week ago on her hip. She underwent a screening physical exam, which was normal other than some old scars from cutting to her right hip. She had basic laboratory work for a medical clearance, including a urine toxicology screen, all of which were within normal limits. The patient was diagnosed with suicidal risk and was transferred to a nearby children's hospital for inpatient psychiatric care. She remained on the psychiatric ward for 2 days, where she was started on bupropion HCl (Wellbutrin®; GlaxoSmithKline, London, United Kingdom). She was discharged with a final diagnosis of mood disorder, and it was arranged for her to have a follow-up with a psychiatrist.

Discussion

There are more than 500 million active Facebook users.[8] Emergency providers must be cognizant of social media's potential as both

a resource and an obstacle when it comes to collecting a patient's history. In the case being discussed, it was the patient's friends, members of the patient's virtual community, who realized the patient might be considering self-harm. This case is unusual as Facebook was the primary source of historical information regarding our patient's suicidal thoughts, given that her parents had no other evidence of words or actions to substantiate concern regarding their daughter's emotional state. Furthermore, the patient was cooperative and denied both suicidal ideation and homicidal ideation on presentation. An emergency medicine physician using only the information initially available would have been unable to make the proper disposition had the Facebook posts been unavailable.

This case raises some pressing ethical questions about appropriate boundaries in the physician–patient relationship. For example, should the contents on Facebook be considered private, and if so, who should have the authority to set privacy limits? Facebook Inc. collects information from its users to sell to various marketing companies, but the company does have self-imposed internal limitations on what it will collect.[9] On the other hand, a Facebook page is protected under a user password, which only the user can set up, thereby controlling who has access to the page. One could argue that Facebook passwords are the natural outgrowth of the diary with a lock on it. If a parent brought in a diary filled with carefully dated suicidal thoughts, would this be more robust evidence for a physician assessing suicidal risk? And if so, how much more compelling is Facebook, given that all Facebook postings are time stamped and therefore could provide exceptionally clear patterns of thoughts or behaviors? Although most seem to agree that the activity of posting on Facebook should remain private, a far more complicated question would involve the privacy of viewing or accessing things already posted.

In the case presented here, the physician never accessed the patient's Facebook page directly, but rather was shown the postings by the parents. Would it have been ethical for the physician to access the patient's Facebook page directly to obtain the same information? One could argue that because a user has the ability to configure his or her personal privacy settings, anything that is accessible through a basic search on Facebook should be considered in the public domain and thus admissible to a physician's investigation. This argument, however, could become a slippery slope if insurance companies or potential employers incorporate Facebook searches into their coverage and hiring decisions.[10,11] The counterargument is that viewing a patient's profile should be considered an invasion of privacy, such as snooping around a patient's house for clues to a diagnosis, which would be helpful but certainly not appropriate. Furthermore, a physician must also be wary of obtaining false or misleading information when interacting with a patient's social media. Posts may be unreliable or taken out of context, and hinging a diagnosis on such questionable information rather than a face-to-face history would be imprudent and irresponsible.[12] The question of what information if private and what is public will be ongoing as technology and the ways people share information change, and a physician must be attuned to the ethical, legal, and safety concerns of accessing and utilizing information obtained from social networking sites.

Medicine is not the only industry grappling with the ethical boundaries of information placed on social networking sites. As previously alluded to, the legal sphere is currently managing the controversy brought on by the practice of employers asking employees to divulge social networking passwords so they can monitor their employees' postings. Some states, including California, Illinois, and Michigan, have banned this practice, but most businesses have created their own policies on social networking use,[13] partially in response to high-profile scandals linked to a person's unprofessional Facebook postings. In one such example, New York State Assemblyman Doy Hikind endured extensive embarrassing media coverage after his son posted a photo to Facebook of him dressed in an offensive costume.[14] These examples in other areas of society demonstrate a growing social acceptance of the idea that information shared on Facebook is not entirely private. In medicine, the Health Insurance Portability and Accountability Act (HIPPA) provides a safeguard against inappropriate sharing of information, but HIPPA does not specifically cover information found or obtained from Facebook, demonstrating a need for additional guidance for clinicians.

In this case, the fact of the patient being a minor and her parents' willingness to show the physician her Facebook posts lead us to conclude that no ethical boundaries were violated. If the patient had been an adult and refused permission for the physician to view his or her Facebook postings, the information that led to the diagnosis would have been unavailable. Furthermore, the girl corroborated her statements on Facebook with the details she provided in her physician interview.

This case demonstrates that Facebook can provide valuable clues to a diagnosis, especially a psychiatric diagnosis in which a patient's emotional state may be in flux. The patient felt compelled to disclose on Facebook facts that she failed to disclose in her nonvirtual life. Facebook thus provided the patient with medium to express her true feelings and a source of evidence for her parents and physician. Her disclosure on Facebook then allowed her parents and subsequently her physicians to provide the proper level of medical care. We are optimistic that Facebook may provide this missing link for others who need similar care. We are, however, aware of the practical and ethical limitations of obtaining and incorporating statements or photographs from Facebook in the process of medical decision-making. Facebook will undoubtedly prove to be both a help and a hindrance depending on the circumstances. We encourage professional organizing bodies of physician groups to collaborate with legal, media, and ethics experts to codify the boundaries of Facebook use and define what uses are appropriate for a physician, much as how HIPPA and the Health Information Technology for Economic and Clinical Health Act have delineated what is appropriate when sharing health information.

Conclusions

Patients' social media postings can provide physicians with potentially life-saving information that is not easily obtained elsewhere. No guidelines currently exist on the propriety or necessity of obtaining this information for medical uses. We recommend that regulatory and professional organizations develop guidelines for the

use of social media postings to enhance medical care and provide appropriate protections to both patients and providers.

Disclosure Statement

No competing financial interests exist.

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Address correspondence to:
Ali Pourmand, MD, MPH, RDMS
Department of Emergency Medicine
George Washington University
2120 L Street NW, Suite 450
Washington, DC 20037

E-mail: Pourmand@gwu.edu