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## **Social Media and the Patient-Physician Relationship**

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In 2014, a mysterious disease was responsible for a plight of deaths. Silently spreading on the borders of West Africa, the virus, later identified as Ebola, created panic all over the world. Between September 16th and October 6th, the word "Ebola" was tweeted 10.5 million times [24]. Physicians worked to alleviate the communal frenzy by directing the Twitter community towards information published by the Center for Disease Control and Prevention (CDC) and sharing informative web links. U.S physicians tweeted about Ebola an average of 9.37 times, while the average user was found to tweet only 2.98 times. Interestingly, the social media trends of Ebola did not mimic virus outcomes. As the death toll rose, Ebola-related Twitter traffic declined. However, physicians maintained their social media presence well after public interest waned. In an effort to curb misinformation, the dialogue continued to highlight the medical community's ability to manage this disease [2] [23].

This recent trend of events exemplifies the evolving role of physicians in the digital age. Widespread use of social media grants physicians with real-time access to community perceptions of disease. With this in hand, they are endowed with the responsibility of educating the masses, combating misinformation, and facilitating appropriate health behavior changes. Although the exact way this should be accomplished remains ambiguous, the differences in Twitter usage during the recent Ebola outbreak between the general community and physicians suggests a promising start. Spreading credible information, debunking myths, and alleviating fear are not novel goals. However, social media is reinventing the way

this is achieved. By interacting on an open platform, we are placing physicians on equal ground with the community and fostering a more amiable patient-physician relationship. In doing so, we are creating a fundamental shift in the way patients and physicians are interacting at large.

For decades, the traditional patient-physician model has followed a hierarchy. Rooted in a power differential defined by status and knowledge, healthcare delivery has followed a dominant physician, passive patient model. But even before the advent of social media, patients fared better when physicians promoted a more equitable partnership [17]. Patient activation, defined as the skills, knowledge and confidence that equips patients to become actively engaged in their health, is related to better health outcomes [16]. Patient activation is higher when patients feel they are engaging in a high quality interpersonal conversation and believe they are being treated fairly during the treatment process. Patient activation is also improved when physicians provide more support and contact outside of the office visit [1].

Social media has the potential to amplify these effects in a more efficient manner. With open access to information, patients can now become empowered even before the doctor's visit. An informed patient can facilitate a higher quality exchange of information as it allows the physician to focus their time on discussing treatment options, answering questions, and filling in gaps of knowledge. This is especially beneficial for patients with chronic illness or diseases that are more difficult to manage. By preemptively educating themselves, these patients experience a priming effect and are likely to have a better behavioral response to more complex or invasive procedures [13]. Today, many patients prefer a shared and participatory medical decision making process [6]; and physicians largely agree. Seventy-five percent of U.S physicians preferred a shared decision making process and did not feel that an informed patient was obtrusive [22]. Additionally, in about 50% of prescriptions written, patient input was considered. However, the ultimate prescribing behaviors of physicians did not change based on whether the patient was informed or not, suggesting that quality of care is not being compromised with patient input [21].

Although the informed patient can improve the patient-physician interaction, a misinformed patient could have a more profound negative effect. Peer-to-peer healthcare is a growing source for patient support and information. In a 2011 survey, 23% of adults with a chronic illness and 15% of people without chronic illness reported going online to connect with someone with the same ailment [12]. This is not particularly new behavior, as conversations beginning with "my neighbor also experienced XYZ symptoms..." have always occurred during an office visit. Similarly, people with no medical training have often solicited medical advice to friends [25]. However, anecdotal advice now has the potential to spread faster and to a wider net of people. With the innumerable amount of blogs, forums, and websites, physicians often lag behind in these conversations

[21]. When a patient approaches a physician expecting them to interpret this material, extra time must be invested to fully educate the patient. Additionally, the patient-physician relationship may be strained when a physician refuses a request for an inappropriate treatment. Physicians may feel that their authority is being questioned, while patients may feel they are being treated unfairly. These opinions in turn get promoted on forums where physician bashing is often the norm [25], creating a vicious cycle of ill suggestions.

Perhaps the biggest challenge, however, is honoring what is arguably the crux of the patient-physician relationship: patient confidentiality. A study found that four-fifths of physicians and medical students were concerned about maintaining patient privacy on social networks, and were in wide disagreement about what is appropriate to post [8]. When asked if they thought social media could improve the patient-physician relationship, about 50% of respondents thought it could improve communication while the other 50% thought otherwise [4]. With no favorability in either direction, the social media pendulum could still swing either way. There is also wide disagreement on the etiquette of Facebook use with patients. Physicians practicing in primary care fields, such as family medicine, pediatrics, psychiatry and OBGYN, receive more friend requests from patients than physicians of other specialties. A majority of physicians did not think it was ethically appropriate to accept friend requests with a top concern being maintaining confidentiality. However, primary care physicians are also more likely to look up patients on Facebook [4] [14]. One case study describes how Facebook was used to contact a family member of a severely delirious patient [3]. While this yielded a positive outcome, it is still unclear whether this is ethically acceptable.

Social media platforms are blurring professional and personal boundaries. But at this point in time, it is difficult to definitively delineate whether it is enhancing or hindering the patient-physician relationship. In the late 90s and early 2000s, the medical community had a similar discussion about email. While the convenience appealed to many, the volume of emails, and concerns of patient confidentiality clouded the true value of its utility [20]. By the mid-2000s, however, email etiquette became solidified and firewalls to protect patient privacy were established in hospitals everywhere. Now, email is widely accepted to be enhancing patient-physician communication [19]. In a similar vein, several recent studies support the use of texting between provider and patient to improve a variety of health outcomes [15] [11]. However, because standard text messages are not HIPAA compliant, secure messaging solutions, such as the Doc Halo app [10], are emerging. Social media is next on our agenda. Guidelines for social media use are already emerging in the literature [5] [9] [18], suggesting that we will be making similar progress. Although few concrete solutions currently exist, the general professional consensus acknowledges that social media use will only increase, and physicians must get involved in order to bend the curve towards benefiting their patients.

At its core, social media is a people-oriented platform, and so is medicine. Social media has the potential to demolish barriers and connect physicians with a wider demographic of patients. As a worldwide community, we have already exemplified several positive trends of social media use. From the optimization of email in the workplace to the responsible use of Twitter during the Ebola epidemic, we have already shown evidence of being able to use technology productively. Based on these advances, we can anticipate the utility of social media platforms to become increasingly clear, and ultimately enhance the patient-physician relationship.

(1,321 words)

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