Social Media in Healthcare: Uses, Risks, and Barriers

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ABSTRACT

Establishing a social media presence has never been more important for the healthcare industry. With patients going online to discuss their health and research their conditions, it is essential for healthcare professionals and organizations to maintain a social web presence and have a voice in these conversations. Though there are many potential benefits for social media in healthcare, there are also risks to be taken into consideration when planning to engage in these relatively new forms of media. Privacy and security are top consumer concerns on sharing health information. Social media is about dialogue, interactivity, spontaneity, people, and technology. One of the goals of social media is to help patients become better informed, equipped to participate in their care, and be able to partner with their healthcare providers to develop plans of care that meet their individual needs. This review will present important social media elements and discuss their barriers and risks.

Key words: Health care, internet, social media

ملخص البحث :

مع التصاعد المستمر لاستخدام الإنترنت في الحياة اليومية واتجاه المرضى إلى الإنترنت لمناقشة حالتهم الصحية. أصبح من الضروري أن يكون لاختصاصي الرعاية الصحية حضور في شبكات التواصل الاجتماعي. ورغم أن هناك العديد من المنافع لوسائل التواصل الاجتماعي في مجال الرعاية الصحية ولكن هناك أيضا مخاطر يجب أن تؤخذ في الاعتبار، كخصوصية المريض وهي من أولويات ما يشغل المستفيدين وزوار المواقع. أحد أهم أهداف وسائل التواصل الاجتماعي مساعدة المرضى على اكتساب المزيد من المعرفة والمشاركة في رعاية أنفسهم، ليكونوا أكثر قدرة على المساهمة مع مقدمي الرعاية الصحية في وضع الخطط لرعايتهم. تطرح هذه المراجعة بعض العناصر المهمة لوسائل التواصل الاجتماعي، وتناقش العوائق والمخاطر فيها.

INTRODUCTION

Healthcare culture is rapidly changing and patients are beginning to be part of the healthcare system rather than the object of it. Patient-empowering technology, like social media, has started to change the way we practice medicine and will continue to do so.

Internet and mobile social media are the process in which people use online applications and platforms to share content, links, and information through dialogue. The rapid emergence of social media in the past 10 years has been accompanied by a flood of individuals and businesses in every industry seeking to use new tools to communicate with peers, family, friends, colleagues, and potential customers. To say that social media is transforming the way people communicate hardly overstates the situation.[1] Although health activity on social media lags behind non-health related activity, it is expected to reach its full potential, and to catch up in the near future.[2]

Social media is defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user-generated content".[3]

Social media has many unique features:
- Allow a variety of content formats (text, photos, multimedia).

- Enable high-speed and large-scale reach for information sharing and distribution.
- Provide different levels of communications: One-to-one, one-to-many, and many-to-many.
- Allow synchronous real-time and asynchronous communication.
- Easy to access with computers, tablets, and mobile devices, and does not require special IT skills.
- Almost free of charges.
- Results can be tabulated and measured.[4]

These features provide social media with the ability to facilitate communication and information sharing among healthcare providers themselves and their consumers. Social media can, therefore, accelerate innovation via clinical trial recruitment and research collaboration. It can also play a significant role in health outcome by monitoring both patients and populations, in addition to managing care and wellness.

Though they came into this arena late, healthcare organizations, physicians, and other care providers are using this powerful set of tools at different levels with varying perspectives. There is enough evidence to support the view that the use of social media in health care is growing. For example, the number of articles indexed on PubMed has nearly doubled every year for the last 4 years.[5]

This review is going to discuss the possible uses of social media in healthcare, as well as the associated risks and barriers.

Background

Social media is now a regular part of daily life. In the US, it has grown from being used by 5% of all adults in 2005, to half of all adults (50%) in 2011.[6]

Social media covers a very broad field. New technologies and tools come and go every day, so any attempt at a comprehensive list of social media tools is unlikely to succeed. However, certain broad categories may be used to describe the myriad of social media tools.

Examples of social media sites
Facebook
A social networking website that allows users to create a personal profile, connect with others, exchange messages, and join common-interest user sites. It is one of the most popular sites on the Internet, with more than 1 billion active users.[7]

YouTube
A media sharing platform that allows users to view and share videos with a global audience. It can provide quick bursts of information or entertainment (or both). YouTube has more than 1 billion unique users who visit each month, and 100 h of videos are uploaded every minute.[8]

Twitter
A micro-blogging site that allows users to communicate with each other and share information through short 140-character messages or "tweets." It is one of the fastest growing sites, with 255 million monthly active users and 500 million tweets sent per day.[9]

LinkedIn
A dynamic business-oriented platform where people share credentials and professional accomplishments and discover potential colleagues. It grows by more than two new accounts every second.[10]

Wikipedia
A free online encyclopedia that anyone can edit. While it is one of the most comprehensive sources of online knowledge, it can also be a frequent source of misinformation.

WhatsApp Messenger
A cross-platform mobile messaging application which allows users to exchange messages. Because it uses the internet data plan used for E-mail and web browsing, it carries no cost. Besides basic messaging, the users of this application can create groups, send each other unlimited images, video, and audio media messages. WhatsApp users now send 1 billion messages each day.[11]

Weblogs/Blogs
Blogger and other sites allow users to generate their own content, whether it is image-based, video-based, or written word, which they can then share with anyone they want.

Blogs, short for "weblogs," are websites where an author or group of authors can post articles that encourage reader feedback. Although they are popularly associated with opinion-based writing, blogs can be built around many kinds of writing, including research and non-opinion content. The defining characteristic of blogs is not the type, style or content of writing; rather, it is web-based functionality that allows open-ended interaction between the authors and readers in the form of comments and replies.

USE OF SOCIAL MEDIA IN HEALTHCARE

The many uses of social media applications in health include: Access to educational resources by health

providers and patients,[12-14] generation of content rich reference resources like Wikipedia,[15] evaluation and reporting of real-time infectious trends,[16] catalyzing outreach during public health campaigns,[17-19] and recruitment of patients to online studies and in clinical trials.[20-23] In addition, there is the use of data mining techniques to determine the nature of communities from physical activity-related social media content.[24]

The use of social media by hospitals

People appreciate businesses that speak in a human voice. Nevertheless, many healthcare organizations have been slow to adopt the social media, mainly because executives have not yet realized the benefits of these platforms. Studies have shown that teaching hospitals and those with high bed capacities adapt more rapidly to the social media.[25]

Another interesting observation regarding the adoption of social media by an organization is that it often begins at the bottom when engagement needs to commence from the top. It is much easier to obtain executive support if you can show that your efforts will be in line with your facility's core business objectives.

Organizations need to understand the differences between social media and traditional marketing communication. The latter includes advertising and are typically one-way channels that impart carefully curated information to others. Social media is a conversation. The expectation is that others will talk back, and you will listen.

Social media can help hospitals in different ways. It can increase patient volume, reach a new audience, introduce new services, create awareness, improve outcomes, provide excellent customer service and maintain the reputation of the organization.

Hospitals are increasing their use of blogs as a tool to obtain customer rating and feedback. Some organizations also allow users to blog about their experiences on the company blog or link the blogger's personal blog to their company website. Prospective customers always see more value in peer reviews as compared to company-generated content such as advertisements/brochures.

Similarly, the social media can play an important role in employee recruitment. Because the health industry requires specialized skills, organizations have moved beyond placing advertisements in the conventional media to more targeted social media channels, such as focused websites (e.g., medical schools), blogs (written by industry professionals and students), and various professional networking sites like LinkedIn (dedicated pages, profiles, job postings, announcements).

An example of using social media platforms is Facebook, which is technically a free advertising resource that may be utilized for local, national, and global exposure of practice/healthcare organizations. It can offer paid advertisement placement, which is different from search engine pay per click adverts since Facebook has the ability to better target advertisements in its users news stream, based on having information about their users and users' preference.[26]

The use of social media by consumers

Consumers find answers to their wants, needs, and preferences on this platform. According to a survey by PricewaterhouseCoopers' Health Research Institute (HRI), 42% of consumers have used the social media to access health-related consumer reviews of treatments or physicians. Nearly, 30% have supported a health cause, 25% have posted their health experience, and 20% have joined a health forum or community.[27]

The social media empower patients to take an active role in their health by providing a venue for them to learn from each other and share experiences. More and more consumers, known as e-patients, are going online and visiting social media sites to look for information about health, wellness, and specific illnesses. Globally, social media usage is especially popular among teenagers and younger adults, but there are some signs that older adults are beginning to catch on. Moreover, it offers great tools to create groups from individuals and transform groups into communities in which activities can be more effectively directed and organized.

Physician social media use

Like most people, physicians and healthcare professionals use mainstream social media networks to connect with friends and family. However, almost one-third of these professionals also join social networks exclusively for healthcare.

Healthcare professionals are increasingly turning to specialized online communities to seek advice, advance their careers, or look for new jobs. According to AMN Healthcare's 2013 Survey of Social Media and Mobile Usage by Healthcare Professionals in 2011, 31% used social media to look for jobs, up from 21% the year before. The report also revealed that 48% used these sites for professional networking in 2011, compared with 37% in 2010.[28]

Practitioners use the social media in their professional lives to stay abreast with recent clinical and health policy information. This allows healthcare professionals to share ideas, experiences and articles in medical journals. A number of journals, such as the New England Journal of Medicine and Journal of the American Medical Association regularly update their Twitter feeds with recent articles focused on clinical practice and biomedical science. The social media broaden physicians' horizons by expanding their understanding of healthcare from the perspectives of patients and other health providers.

The social media can also be a marketing tool for those who know how to use it effectively. Howard J. Luks reported that about 10% of new patients enter his practice because of his presence in the media. He also noticed that these patients tended to arrive far better prepared and informed, which made time with them more productive and efficient.[29]

Health insurance company use

Consumer surveys from respondents that completed the HRI survey said they are more likely to trust information posted via social media from providers (doctors, hospitals) and more likely to share information with providers via social media than with health insurance or drug companies.[27] Nevertheless, some health insurance companies have started using social media applications with the goal of spreading wellness to their customers. For example, health insurers frequently offer "healthy lifestyle" tips to consumers on issues such as cessation of smoking, healthy dieting, and preventive medicine.

Pharmaceutical company use

Though consumers do not trust drug companies, many of these companies use the social media as a marketing tool. They also employ social media platforms to monitor the comments of physicians and patients about their products.

Online chatter on drugs and devices sometimes includes references to uses that lie outside official US Food and Drug Administration (FDA) sanctions. Whether on a blog or a medical site, there are plenty of places to read personal opinions about how a given drug or device has helped with a particular medical ailment, even if it was used off-label. While doctors do prescribe approved drugs for uses other than their intended original purpose, no drug company can promote off-label uses. The risk of someone using a drug or device for an off-label purpose discovered online is potentially dangerous and has caught the attention of the FDA. The manufacturer now has a set of directions on how to handle requests by people on the off-label use of a given drug or device, appropriately.[30]

Social media risks

Here are some dangers in using these relatively new platforms in healthcare:

- Message control
  The speed at which messages can spread through the social media allows for a little time to think, react, and control situations as could be done in traditional media. Therefore, it is important to think carefully before posting any information. If unsure about the content of your post, ask someone who can provide guidance. For example, the communication department may be of help.
- Privacy and security breaches
  Privacy and security are top consumer concerns when sharing their health information through social media.[27]
  Healthcare providers should do the following when using social media:[31]
  - Use privacy settings to protect personal information and content as far as possible.
  - Monitor their internet presence to ensure that personal and professional information published on their sites and content posted about them by others is accurate and appropriate. Online actions and content can negatively affect the reputation with possible far-reaching consequences on their medical career.
  - Keep professional and appropriate boundaries when interacting with patients online and ensure that patient privacy and confidentiality are maintained.[32]
  - Separate personal and professional content.[1]
  - Posts will remain for all time; assume that whatever is posted online can be found if someone looks hard enough.[33]
- Ethical issues
  - Be aware that you represent your profession and help others realize that they do, too. When someone views your social media posts, they likely see them through the lens of your profession.[33]
  - Medicine should not be practiced via social media. Do not provide individual medical care or advice via social media. Links to online resources should be provided for people to review and help them make their own decisions with regard to any health-related problems. Any interaction with individual patients in social media should be done as in a public setting.[1]

- Healthcare provider must not disparage patients, even if they are not identified. He/ She must promptly report any identified breach of confidentiality or privacy. No disparaging remarks may be made about employers or coworkers.[1]
- Promote the humanitarian values in accord with medical professionalism. Be honest, forthright, helpful, and compassionate. Offer help, answer questions, and suggest resources when you are able to do so. Be open to contact from others and participate in discussions when time allows it.[31]
- How to deal with negative comments?
  People are free to share their views and experience in social media whether you are there or not. Ask yourself whether you want to be actively involved in the discussion, and try to do so with propriety if you do, or if you would rather be completely absent from those dialogs.
  Though they are few, there is always a risk of receiving a negative comment in your Facebook feed, YouTube channel, or in response to a tweet you post. We should deal with these posts carefully and try to understand the underlying reason for the response. Much can be learnt from such comments, as they reflect the customers' perspectives, their needs, wants, and expectations. Negative comments from customers may present pointers to where you can provide better service, offer the opportunity to make improvements, clarify misconceptions, convert complainers into brand loyalists and help to maintain confidence. The bottom line is that the benefits of using social media far outweigh the risks of negative posts.[24]

Social media barriers

Though social media appears to be a very promising tool, there are several challenges:

- Return on investment barriers
  - The social media should be treated like any other form of marketing, and success starts with the identification of service lines with excess capacity and the development of a strategy to fill them.
    An advantage of using social media tools is that it is mostly free, though it can take significant staff time to engage. There are associated costs such as time spent by staff away from work on other projects. However, well-planned social media projects can attract new and loyal patients. A report by the research organization YouGov indicated that 57% of consumers said that a social media connection with a hospital was

likely to have a strong impact on their decision to seek treatment at that hospital.[34]
- Time barrier
  - Time is valuable, especially for physicians and other healthcare providers. Trying to keep up with every Twitter or Facebook update is time-consuming and almost impossible. It is better to organize incoming information and create lists that allow you to focus on certain themes rather than read every update. For example, organize by specialty or level of importance.[29]
    Do not try to do everything; address those societal needs that you think are most important, or that motivate you. The use of social media during your free time undoubtedly brings added responsibility, so using it to focus on issues that are relevant to you makes it easier to sustain the effort.
- Legal and regulatory barriers
  - Physicians and other healthcare providers should not discuss patients' illnesses, medical conditions, or personal information online without the patients' permission. The permission when obtained, should be clearly stated in the post.[33]
    Use a disclaimer to state that the posted opinions represent your own views, not those of your employer.[1]
    Where there is any uncertainty about the information being made public, the employee should consult the Communications Department for approval. Health organizations should have policies on business and personal use of social media. For example, data should be classified so that employees understand what sensitive information is, how it can be used, and who is authorized to access and share corporate content.

General recommendation for social media use

- Study social media tools until you become personally familiar with them and are comfortable with the communities they build.
- Start slow, cast a wide net, and listen carefully to the comments made by people about your industry, your facility, and your employees. Do not begin the process if you do not have an added value content; otherwise, nobody will recognize your account.
- Set business priorities and goals. Healthcare has hundreds of topics and/or areas, so it is important to choose the right social media tool to achieve your objectives. There are a number of social networks available, and even within "the big four" of

Facebook, Twitter, YouTube, and LinkedIn, there are demographic hot spots you may want to understand and monitor to ensure that you are using resources efficiently. For example, Twitter may not be the right place if you are targeting seniors, whereas YouTube offers visual aids to that particular group.

- When your organization is planning to join social media, help by making an engagement plan and prepare your organization for change. Educate and encourage peer and management participation.
- Be honest and engage and build a network of trusted colleagues beyond your organization. Share ideas, answer questions, and do not be afraid to ask for advice.
- Acknowledge other points of view.
- Always measure what you are doing to determine if you are achieving the objectives set before engaging in a given activity. What did you or your organization gain after actively participating in social media for a specific time?
- Share the success and learn from failures.
- Be consistent: Continue discussing topics you tend to cover. Commitment is crucial: It is impossible to reach your goals if enough time and effort are not committed, despite having a good strategy.
- Finally, have fun. Health is a serious matter, but there is room to enjoy what you are doing and to make friends while dealing with significant issues.

FURTHER RESEARCH

The use of the social media in health care matters is relatively new. It has been realized that the social media can play an important role in marketing, education, and active communication among care providers themselves and care providers and consumers. The impact of this role is yet to be measured along with its associated risks. The attitude and utilization of physicians and other care providers as well as the patients need to be studied and further understood.

CONCLUSION

The reluctance of healthcare providers to adopt the social media has largely been driven by concerns about the many risks it poses to organizations. Accompanying those risks, however, are significant potential benefits, most importantly, improved patient and community outreach and communication.

Social media is about dialog, interactivity, spontaneity, people, and technology. One of the goals of the social media is to help patients become better informed, more able to participate in their care, and equipped to be in partnership with their healthcare providers to develop plans of care that meet their individual needs. Patients need to feel a part of the healthcare system, not simply the object of it.

It is important for organizations and healthcare providers to bear in mind when they engage in any social media activity that they should be helpful, respectful, and careful when dealing with personal information, and should listen carefully before and after posting.

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