Research Article

IMPACT OF SOCIAL MEDIA IN HEALTHCARE: THE GOOD, BAD AND THE UGLY

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ABSTRACT

Social media has deeply infiltrated into our day to day lives. Healthcare being an essential facet of human society is no more untouched by it. Social media has offered a new dimension not only to our lives but also to the health system affecting both the healthcare providers and patients. Presently there is lack of awareness regarding authenticity, advantage and drawbacks of social media in healthcare among patients, the general public and healthcare providers. Social media offers the potential for the hospital and patients to assess the quality of healthcare with specific inherent risks and hazards.

INTRODUCTION

Various social media sites are freely accessible to healthcare professionals (HCPs) and the patients. These include social networking sites, blogs, microblogs, Wikipedia, media-sharing platforms, virtual reality sites and gaming environments. 1-8 These tools offer an opportunity to enhance professional network, professional and patient education and to promote patient care and public health programs. 3,5-10

However, they also possess inherent potential risks for both the HCPs and the patients regarding the availability of unauthentic information, breach of patient privacy, damage to professional image, breach of personal-professional boundaries, violation of patient rights. 2-4,8,10-17

Many hospitals, associations and professional organizations in foreign countries have formulated guidelines to deter such incidences. However, in India, such guidelines and rules are still lacking to prevent untoward incidences. 3,4,7,10,17,18

What is social media?

Going back to 1994, Darell Berry, a writer/ photographer/ researcher/ hacker is considered to be the first person who coined the term "Social media." The definition is broad and still evolving.

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In general, it refers to the multiple internet-based platforms through which individuals and groups can share information, personal content, images, videos. Social media tools are available for healthcare providers, administrators, the patients and their relatives. The term "social media" is many times used interchangeably with "social networking."

Social media includes a variety of sites and internet-based platforms which offer varied content and features serving multiple purposes for the users. These include social networking sites, blogs, microblogs, Wikipedia, media-sharing platforms, virtual reality sites and gaming environments. These can be broadly grouped based on the type of feature and utility offered.

- Social networking sites (Facebook, Instagram, Google Plus, My space, Twitter)
- Professional social networking sites (emedinexus, Rxpg.com, Sermo, Doximity, daily rounds, QuantiaMD, Among Doctors, Figure1, Incision Academy, Student Doctors Network, Mom MD, Practo, Lybrate)
- Media content sharing sites (Youtube, DailyMotion, Flickr)
- Blogs (Tumblr, Blogger.com) and microblogs (Twitter)
- Online encyclopedia (Wikipedia, radiopedia)
- Online virtual world and game environments (Second Life)

The indulgence of general public and HCPs in social media has increased sharply over the last decade. There are over 3

billion social media users worldwide; comprising about 40 % of human population. 18-22 People of all ages and professions around the world use social media. In 2017 the number of Facebook users increased to 2.2 billion from 1.0 billion in 2012 22. Each day 100 million active Twitter users send more the 65 million tweets. More than 3 billion videos are viewed on YouTube every day.(23)

Social Media for Healthcare Professionals

Social media is a platform for sharing information, discuss practice issues, debate government policies, promote health patterns, to interact and educate the patients, their relatives, students and junior doctors. Besides professional activities, HCPs can utilize social media to increase personal awareness, obtain customised news and to get involved with the changes in the society in general.

Physicians mostly join communities where they can get the latest news, read articles, listen to expert professionals, consult peers and opine about healthcare issues and government policies.

A survey conducted by QuantiaMD involving more than 4000 doctors revealed that 90% of the physicians were using social media for personal activities, whereas only 65% were using social media sites for professional purpose. Nearly 1/3rd of the physicians are using social media.

More than 462 million peoples are using the internet in India, of which 66% are active social media users. As in 2016 Dec, 26% of the population used internet through mobile, and the figure is likely to increase to 37% by 2021. India is second largest online market after China.

According to a survey conducted by Infographics in India, 100% of the doctors were aware of the social media sites, and about 94% of them were active on social media. 23 Younger doctors were more involved with social media as compared to senior doctors. Facebook and WhatsApp are the most commonly used sites in the survey, followed by Youtube, Twitter, and Linkedin. In this survey, the top reasons for usage of social media were to connect with family and friends and to connect with colleagues and industry professionals. Other significant causes were entertainment and to stay updated. 42 % of doctors had used social media to post personal content. About 36% used social media for providing tips and relief of symptoms.

Only about 10% of the doctors were involved in blogging, of which most had posted only one or less blog per month.

71 % of the doctors felt the presence of misguiding content on social media. About 86% doctors came across patients who had conducted background checks on social media for the doctors.

Social Media for Patients

There are various sites which offer online consultation and treatment to the doctors like Doctorify, Curofy.com, Docplexus, etc. which has created "e-Doctors" and "e-patients." Such "e-doctors" are available online at the comfort of the home zone and computer desk proving treatment to the "e-patients."

Patients and people like to discuss treating physicians, medication, the treatment, the patient care provided in hospitals. Patients are openly discussing that stuff, and this will be very much useful for co-patients. A new patient who is in search of a doctor or new types of treatment, or surgery. One such example is PatientsLikeMe.

On this website, there are thousands of patients and their relatives discussing their own experience at a particular hospital or a doctor. All sorts of opportunities for deciding a good hospital/ doctor. Also, there is a social presence of hospitals on this website.

Social Media Usage by Hospitals

Many hospitals are getting into social media for making Personal Relations (PR) with the patient for advertisements, for promoting the availability of new equipment and treatments. Also, they are creating a sort of trust in the patients, by saying, "WE CARE ABOUT YOU." Such hospitals are also running forums or blogs regarding some particular diseases, so the patient with that particular disease is educated and participate in discussions.

In short, doctors and hospitals want to get in touch with the patients, and they want to make them feel that they don't only communicate, and they are in a hospital, but any time, they can connect with the patient.

Uses for Social Media in Healthcare

The "GOOD" of social media

Professional Networking

The choice of preferred social media site for physician depends on the ability to connect and interact with peers. Physicians like to participate in online discussions, listen to experts and communicate with peer- group regarding health care policies, treatment guidelines, interesting cases and treatment challenges.

Professional Education

The social media offers a platform to improve professional education which involves usage by both the doctors and student doctors due to the easy and quick availability of professional content. Social media sites such as Facebook have pages dedicated towards professional education. In India, Rxpg is an upcoming website providing professional content relevant to exam preparation. Many websites are offering online podcasts to express their commitment towards medical education like Youtube, Radiopedia, Refindia.net, BMJ Podcast, learnoutloud.com, pod bay.fm, racgp.org.au and American Academy of Family Physicians (AAFP)

Organizational Promotion

Organizations, including hospitals, Non-Government Organisation (NGOs) professional societies, pharmaceutical companies and pharmacy companies, use social media for organizational promotion.

Patient Care

Initially, there was a reluctance in HCPs for using social media for direct patient care. However, there is the growing practice among doctors for using social media. For example, an online platform called Webview has been provided by Georgia Health Sciences University which allows patients to interact with their doctors for answers or to request prescription refills.

Patient Education

Social media has dramatically affected the knowledge and attitude of patients towards the disease. Nowadays before even physically visiting a doctor, patients search for their symptoms online or seek online consultation. Easy availability and penetration of internet have created "Dr. Google" as the first health advisor to the patients and their relatives.

About 62% of internet users seek health information online, and most of these use social media. Patients have the opportunity to join virtual communities, participate in the online forum, receive financial and moral support and provide feedback to a doctor or hospital.

However as discussed earlier, unauthentic information available on the social media for the patients is of significant concern which can even lead to health hazards and worsening of the disease.

Public Health Programs

Social media has led to the creation of vast global networks which can quickly spread information and facilitate a large number of people for public health goals. Social media offers a powerful tool for health education and advocacy regarding promotion of public health programmes. Some governments, public health departments, and NGOs use Facebook, Twitter and other social media for promoting health and health programmes. Social media offers opportunities for governments, health departments in Epidemic control for the avoidance of rumours and fear.

For example, CDC website has tried to create a scenario like a zombie apocalypse. It teaches about how we should prepare ourselves for this event. And at the end they say OK, these are the things you need when you get like floods when you get an earthquake.

Another effective use is by challenge.gov in the USA, where government calls for new ideas from the people, researchers, and students. Handsome rewards offered to winners for their thoughts and contribution towards the solution.

Digital epidemiology is a new term used for surveillance of the dynamics of health and disease in human populations. This all possible due to the impact of social media.

The "BAD" of social media

Unauthentic information

There are a lot of things which people can read, see or watch online; but there no authentication. Distinguish between good and bad is difficult. Everyone goes to the internet or social media and finds about diseases. People don't even need to go to doctors to ask about diseases or treatment modalities. Everyone find the things online through "Dr. Google."

Whenever any information about the disease is required, people go online, and type on Google search, and get lots of information. The same thing goes for the YouTube and Twitter. There are lots of things we can watch on YouTube. There is no need to read about these diseases. Type the disease and one can listen to people explaining the condition, talking about symptoms and talking about treatment, etc.

There is a severe issue regarding misleading health information promoted through video-based social media such as YouTube. An example is how to promote "anorexia" on YouTube

Anorexia is being promoted as a lifestyle, quoting that it's not a disease. There are group of people who promote "anorexia is a beauty. Anorexia is something to maintain, rather than a disease". Anorexia as a disease has a significant impact on health and quality of life of patients and their relatives, especially females. Anorexia can lead to malnutrition. It gets worsened during pregnancy. There are studies which have proven anorexia to add to the morbidity and mortality of the patients. 13% of female teenagers have been reported using pro-anorexia websites in Belgium.

A tool to filter online misinformation from the videos available on the social platform is warranted. There is a need for more research focusing on how to educate teenagers and make them aware they should not believe whatever's available online.

Risk to professional image

There is a significant risk associated with posting unprofessional content on social media which reflect unfavourably on the HCP, student or the hospital. Profile on social media conveys an impression of the person`s personality, priorities, and credibility. The first impression thus generated on social media can be lasting.

Posting of unprofessional content on social media such as breach of patient privacy, use of profanity, use of discriminatory terms, the content of sexual suggestiveness, lewd comments about the patients, policies, employer or government.

Incidences of such missteps have been documented by HCPs such as posting digital photographs of surgery, posing with alcohol or weapon. The airing of frustrations online or on social media is not recommended.

A survey by Microsoft in the USA found that 79% of the employers view social media profile of the prospective employee, whereas only 7% of the candidates were aware of such possibility. 2,12

Legal Issues

Vast use of social media by HCPs has created new legal complexities. Human rights can be applied to the use of social like the right to privacy and freedom of speech. However, these rights can be potentially challenged for unprofessional conduct.

There have been instances in the past such as the expulsion of a nursing student form a college in the USA for making obscene comments on race, gender, and religion of the patient under her care. The student`s claim for her right to freedom of speech were discarded by the US district court in 2009.

Another similar ruling was made where a student posted her pictures as a drunk pirate on MySpace.

Also, legal cases should not be discussed through social media as this information is "discoverable." Even if such information is posted as anonymous, various cybercrime detection tools can be utilized to trace the specific person.

Facebook policy states that" we may access, preserve and share your information in response to a legal request."

Doctors can also involve themselves in lawsuits when they professional advice on social media and thus affecting treatment and patient outcome. It is advisable, not to enter into a "doctor-patient relationship" with anonymous/ unknown patients. In circumstances where a "doctor-patient relationship" already exists before the online consultation, informed consent preferably is to be obtained beforehand. As online consultation is based purely on the facts provided by the patients during the online discussion and lacks physical clinical examination and complete understanding of the clinical background. Lack of complete understanding of the patient's actual clinical condition is often seen during purely online interactions, thus affecting the treatment advice. Informed consent and the online discussions need to be endorsed in the patient`s treatment chart. Similarly radiological opinions expressed based on the images posted by patients or their relatives on Whatsapp or Facebook are subject to fallacies. Interpretation of such images may be fallacious as the background illumination and view provided may not be optimal for correct interpretation. Once a opinion is provided by the radiologist for such images the " doctor patient relationship" is established and hence the patient is justified in claiming any damages arising out of such misinterpretation. Similar is the case with any HCP entering "doctor-patient relationship" with anonymous patients.

Recommendations and Professional Guidelines for the Use of Social Media

Many government departments, healthcare institutes in the west issue employee guidelines regarding the use of social media. However such guidelines are still lacking in India.

Various considerations that need an address in social media policy of the healthcare institutes are issues like racial, caste and gender discrimination, harassment, leaking of confidential information, damage to the reputation of the organization needs inclusion in the policy. An organization may also consider restricting the use of cellphones, tablets or internet during working hours. Consequences of policy violations also need to be clearly mentioned and be followed in words and spirit.

The "UGLY" of social media

One "successful" movement: Anti-vaccination
Vaccination, the most cost-effective health intervention across the globe that has saved over 1.5 million deaths among under five years of age which constitutes 17% of child mortality globally, as per WHO report in 2008. Many online videos are promoting anti-vaccination contents are helping to fuel the anti-vaccination movement.

Anti-vaccination campaign is becoming a serious problem. Such content needs to be filtered by the websites before making it available online. Interventions need to done by WHO to block such videos. The impediment to vaccinate children is one of the critical threats to public health, resulting in millions of children either entirely or partially un-immunized. Refusal and hesitancy towards vaccination have become a significant challenge to the success of immunization programs.

CONCLUSION

Social media is bringing a new facet to health care by offering as a medium for the public, patients, and HCPs to communicate and interact about health matters with the potential of improving desirable outcomes. It is a powerful tool and has created "e-patient," "Dr. Google" and "e- doctors" which offers communication between its users. Policy guidelines need to be formulated by governments, professional bodies and institutes to enhance desirable outcome. HCP`s should refrain from entering into avoidable "Doctor- patient relationship" with anonymous patients. Knowledge, attitude and social media practices needs to be modified by doctors so that the new technology yields worthy results without undesirable events.

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