

# Social Media: A Double Edged Sword for Accessing Health Care Information

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## ABSTRACT

Technology has improved speed and ease of communication using various platforms. Recent improvements in technology using Social Media (SM) has dramatically changed the way communication happens. Success stories of Facebook, Twitter, LinkedIn, WhatsApp, blog sites are some examples of how different media are used by people to communicate using digital technology and social media. Access to information, including healthcare, using SM is on the rise owing to its ease and accessibility. Since people have the provision to share their views, experiences, voice opinions and share knowledge on different aspects of healthcare using social media, patients, caregivers and health professionals have started accessing health related information more frequently using SM. SM has inherent limitation to be misinterpreted, misinformed, mis-represented when not used properly. Patients are increasingly turning to internet and online sources for accessing health information. Poor quality of information, damage to professional image, breaches of patient privacy, violation of patient-healthcare professional boundaries, licensing issues and legal issues are identified as challenges to the use of SM for health information by various researchers. Due to advances in technology it has become easy to access information using SM, which could be a double edged sword. This narrative review tries to highlight advantages and loopholes in using SM for accessing healthcare information. The objective of the current study is to understand use of SM for accessing healthcare based on empirical evidence drawn from studies carried out in both developed and developing countries. Studies show that correct, timely and authentic information related to various aspects of healthcare should to be shared through SM whereas incorrect and misleading health information on SM could be harmful, if not catastrophic. Governments and apex bodies involved in healthcare regulation shall have regulations as well as SM presence.

**Key words:** Social media, Healthcare, Regulation.

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## INTRODUCTION

Communication has improved significantly in recent times. Technology has not only improved speed of communication but also has provided many platforms through which communication happens. Recent improvements in technology has given us social media, which has dramatically changed the way communication happens today. With the advent of social media, various new modes of communication emerged and were adopted by people due to its flexibility of usage and ease of access. The success stories of Facebook, Twitter, LinkedIn,

WhatsApp, blog sites are an example of how different modes and platforms are used by people today to communicate using digital technology and social media. This was unthinkable a few decades back. As numerous avenues are available for expressing ideas, opinion, incidences, sharing personal experiences with a click of a button, many people prefer to access primary information using online resources and social media. Access to information, including healthcare, using social media is on the rise due to its ease and accessibility. In this narrative



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review, we have tried to highlight advantages and loopholes in using SM for healthcare information. The objective of the current study is to understand use of SM for healthcare based on empirical evidence drawn from studies carried out in both developed and developing countries.

According to a survey conducted by Pew research center in 2016, eight in ten online Americans use Facebook, which is about 79% and has more share than the ones who use Twitter (24%).<sup>1</sup> As shown in Figure 1, the most popular SM platform in the US is Facebook followed by WhatsApp and YouTube. It is believed that about 2 billion internet users are using social network.<sup>2</sup> Based on survey results of Edison Research and Triton digital.<sup>3</sup> 67% of population use Facebook followed by Instagram (34%) and Pinterest (30%). Ernst and Young Study titled “Social Media Marketing India Trends Study 2016”, in India according to Telecom Regulatory Authority of India (TRAI) about 1 million users had 4G connectivity by July 2015. The study found that Facebook is the most popular social media platform followed by YouTube, Google+ and Instagram.<sup>4</sup>

Social media has even been used in education including pharmacy. It was found that about 38% of pharmacy faculty members in the US were using Facebook for

teaching. It was also found that social media is used in pharmacy undergraduate curricula in the US.<sup>5</sup>

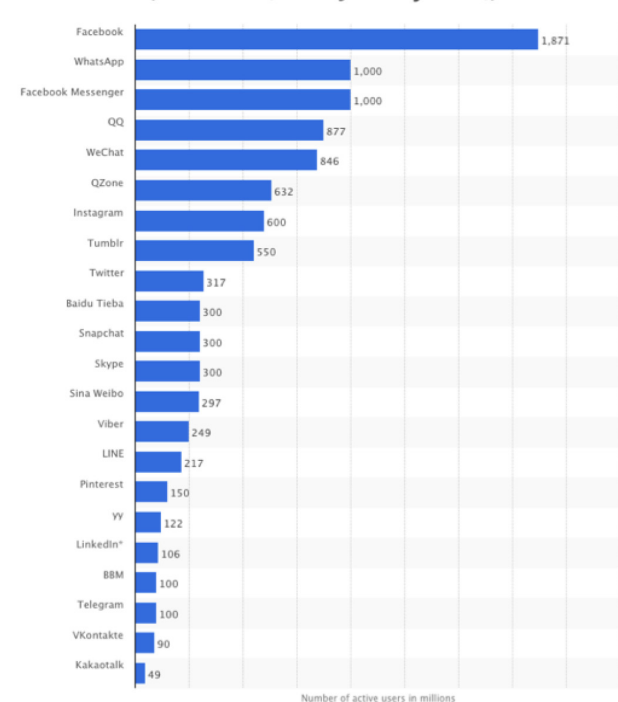
It is a fact that health related information, which is spread and communicated in this technologically sophisticated era is not under the control of healthcare professionals. The fact is that irrespective of the lack of medical knowledge and expertise a can influence the outcome on health information. Communication scientists show that public assessing information on health and specific topics of threat have direct impact on their behavior influencing health outcomes.<sup>6</sup> Irrespective of age and digital literacy healthcare professionals and public venture into communication through digital media hinting towards the fast lifestyle and advancement in information technology. In 2016, the UK Royal Pharmaceutical Society encouraged pharmacists to “use social media and social networking responsibly and with the same high standards that they would apply in real world interactions.<sup>7</sup> Health professional like community pharmacist have made use of YouTube to promote screening of bowel cancer in Australia and even pharmacists and pharmacy students from Virginia promoted pharmacist influenza vaccine clinic through face book.<sup>5</sup>

### Social Media in Healthcare

Research regarding use of social media for health information has limited information and shows up contradicting information.<sup>8</sup> Since people have the provision to share their views, experiences, voice opinions and share knowledge on different aspects of healthcare using social media, patients, caregivers and health professionals have started accessing health related information more frequently using SM. SM is more popular though among patients and caregivers compared to healthcare team. Hand *et al.*<sup>9</sup> found that health professionals use SM to access information but are skeptical of its value while communicating with patients. In another study by Jenssen *et al.*<sup>10</sup> it was found that participants prefer not to use social media while communicating with their physicians. Further, SM has inherent limitation to be misinterpreted, misinformed, mis-represented when not used properly.

Among various stakeholders using SM in healthcare, pharma industry is not behind. Pharmaceutical industry has successfully engaged with patients using SM. However, regulations governing use of SM by pharma industry make them tread cautiously while engaging with patients on SM as information provided shall be accurate, unbiased and informative. Pharma companies use SM for product promotion, disease/health awareness or for corporate purposes despite lack of clarity and guidance by the regulatory agencies.<sup>11</sup>

**Social network sites worldwide ranked by number of active users (in millions, as of January 2017,)**



**Figure 1: Most famous social network sites ranked by number of active users as of April 2017 Source: <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>**

It is suggested that pharmaceutical firms can effectively use SM for educating, marketing, listening to and connect with customers, patients and physicians in compliance with industry regulations.<sup>12</sup> Disease awareness theme was the common theme used by pharmaceutical companies using SM to communicate to the patients. It is also noteworthy that the major pharmaceutical companies in the US were better engaged with fewer posts in 2016 compared to 2015.<sup>13</sup> Though pharma has a presence on SM, it lags behind other industries in terms of using SM as its advertising on digital platforms is less than other sectors. Further, the number of installs of pharma apps is significantly lower compared to healthcare and consumer apps in the google play store.<sup>14</sup> The lack of prominent presence on SM by pharma industry could be attributed due to risk of changing regulations and lack of clarity regarding engagement with patient population on SM. Since initial investment required to establish a channel to engage with health professional, patient and other communities is huge, changing regulations may hurt the balance sheets of the company and hence, pharmaceutical companies could be wary of investing heavily in SM. The top 10 multinational pharmaceutical companies present on SM include UCB, AstraZeneca, Merck and Co., Bayer, Novartis, Boehringer Ingelheim, Pfizer, Novo Nordisk, GlaxoSmithKline, Johnson and Johnson.<sup>15</sup>

### Patients and Healthcare Professionals engagement on SM

In a study by Antheunis *et al.*<sup>16</sup> it was found that patients use Twitter for increasing knowledge and exchanging advice while use Facebook for social support and advice whereas professionals use LinkedIn and Twitter for communicating with colleagues and marketing. In a national survey of how doctors use social media by Brown *et al.*<sup>17</sup> in Australia, doctors believed that it is inappropriate to engage with patients through social media but had discussed with their patients about online resources. Further, about 20% of physicians had received a friend request on Facebook sent by their patients but only a small percentage of physicians had accepted the request while majority (~35%) declined the request.<sup>17</sup> Lack of usage of social media by doctor's stems from ethical, moral and legal dilemma. Notwithstanding these shortcomings healthcare professionals like physicians, nurses, pharmacists, and patient support communities are actively using SM in disseminating relevant healthcare related information through online sources. Rus *et al.*<sup>18</sup> carried out a study to predict user engagement on Diabetes related Facebook pages based on message feature. The study found imagery (use of images) as the

strongest predictor of liking and sharing the information with others.

In another study, Gage-Bouchard *et al.*<sup>19</sup> studied Cancer Caregivers (parents of children with acute lymphoblastic leukemia) use of Facebook for communication related to Cancer. The study showed different patterns on use of Facebook by Cancer Caregivers; share their Cancer related experiences, promote advocacy and awareness, and garner support.<sup>19</sup>

Bishop *et al.*<sup>20</sup> in their study found that in case of conditions like multiple sclerosis, younger patients obtained information about their disease from internet sources while older patients get information primarily through neurologists.

A study by Frohlich<sup>21</sup> noted that patients with inflammatory bowel disease (IBD) turn to online communities when lacking face to face support. These online communities are presumably the place of support and education for these patients. In a study by Sciaoli *et al.*<sup>22</sup> in Italy, they studied sociodemographic and geographic differences in pregnant women who search for information on web. A huge majority (86%) of respondents agreed to accessing information on net which included topic such as fetal development, healthy lifestyle during pregnancy, physiology of pregnancy, generic and specific tips/advice during pregnancy, and lactation.

### Social Media and access to healthcare related information in India

Social Media Channels in India are primarily used for disseminating information with a lacunae of effective response mechanisms to address customer queries and grievances.<sup>23</sup> Healthcare professionals in India are using SM to discuss beauty and wellness and the prominent medium is Twitter.<sup>24</sup> Our earlier study<sup>25</sup> identified that younger population accesses health information through SM and the most popular platform was found to be Facebook which is due to high number of active Facebook users in India. Further, it was also found that respondents access information predominantly for diseases and related information followed by information on drugs or for both.<sup>25</sup> Some of the well-known hospitals and hospital chains have their presence on social media.<sup>26</sup> Not to be left behind, even Indian pharmaceutical industry is spending on digital platforms and it is estimated that the marketing spend of pharmaceutical companies is going to shoot up by 50% in coming years.<sup>27</sup> Some of these companies who have been present on SM include Sun Pharma, GSK and Abbott Healthcare.<sup>27</sup> A study of 40 pharmaceutical companies in India across 10 key digital parameters such as websites, apps and SM platforms found that

LinkedIn is the most popular media platform with 95% of the companies present but only 14 being active and only 8 companies have India specific Facebook page.<sup>28</sup>

### Challenges in the use of Social Media for healthcare

There are several challenges in the use of SM for healthcare, which include ethical, legal and technical. It is well known that information on SM is not always trustworthy as it is easily accessible and can be modified. The control measures to ensure genuine information regarding health issues and lack of security features on SM is still a challenge despite advances in technology. Some of the dangers identified by Ventola.<sup>29</sup> in using social media for health include poor quality of information, damage to professional image, breaches of patient privacy, violation of patient-healthcare professional boundaries, licensing issues and legal issues. Abadi and Sheikhtaheri has identified inaccurate medical advices, adverse health consequences, negative health behaviors and information overload as potential dangers of social media for health information.<sup>30</sup> Kortum *et al.*<sup>31</sup> suggests that the approach to the use of internet by students to gain knowledge on medical topics should be with care as the chances of incorrect information being picked up by students cannot be ruled out. In India, it is reported that fake health messages or tips are circulated on social media. The state committee of the Indian Medical Association in Kerala had to file a police complaint against perpetrators who mislead diabetic and hypertensive patients against the use of their medicines and therapy.<sup>32</sup> Much of the problem stems from lack of or lax regulations governing use of SM for sharing healthcare information. All SM platforms may not have full control of what is being shared on a daily basis and hence cannot scrutinize all communications related to health. However, efforts should be made by the apex bodies governing healthcare to ensure that they provide accurate, appropriate and factual information to the people and the community. One of the ways this could be done is by being present on various SM platform by these regulatory agencies to provide latest and accurate information and prevent spread of misinformation. The Centers for Disease Control and Prevention (CDC) in the United States has published its own toolkit titled “The Health Communicator’s Social Media Toolkit.”<sup>33</sup> giving guidance on properly using SM platforms. In India, apparently there are no guidelines or regulations governing use of SM for healthcare and with youth having easy access to SM the chances of false information being spread increases manifold.

With the advent of technology and its advances it has become easy to access information using SM, which could be a double edged sword. Correct, timely and authentic information related to various aspects of healthcare should to be shared through SM whereas incorrect and misleading health information on SM could be harmful, if not catastrophic. Even governments and apex bodies involved in healthcare regulation of a country need to have regulations as well as SM presence to alleviate fear of wrong information being spread in the community.

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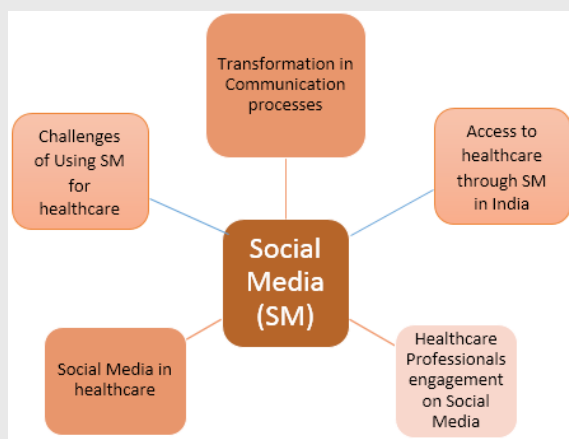
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### PICTORIAL ABSTRACT



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### SUMMARY

- Use of Social Media for accessing healthcare information needs careful evaluation regarding source of information and its veracity.
- SM for healthcare could be a double edged sword – Careful use is beneficial whereas misleading information could be dangerous.

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