

SOCIAL MEDIA AND EFFECTIVE HEALTH COMMUNICATION

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ABSTRACT:

Social media is coming up as a fast growing tool to reach out to people. The Social Networking sites (SNS) provide cost-effective platforms to communicate with large population. However with issues related to media literacy, institutional support and available mechanisms it becomes pertinent to review the potential uses social media can be put into especially in context of the developing countries for an effective health communication. This paper reviews the disparity that exists in accessibility and usage of social media and its interrelated applications and the multiple benefits these applications can be put to use and points out to the inherent challenges in the way of effective communication.

KEY WORDS: Communication, Digital Divide, Health, Social Media.

Background:

In our society that relies on effective and efficient communication, media plays an important role in informing multiple aspects of individuals' lives, including their access to health information. Traditionally, public health organizations have used print and radio media and social marketing frameworks to disseminate important health messages to the public. In the past few decades, electronic media have stepped to the forefront of communication, and public health communication has evolved to reflect this. In the wake of the "Web 2.0" phenomenon, public health communication strategies are also changing to match the increasingly influential and rapidly evolving social media revolution. There is an abundance of literature summarizing the effectiveness of using traditional media for public health interventions and communications. In general, reviews have found that mass media campaigns in public health can be effective (1-5). Only few research reviews have found that mass media campaigns, in contrast to printed pamphlets, could not cause significant behaviour change in subjects (7). The same reviews had indicated that campaigns were able to increase awareness and recall of public health messages, and that campaigns delivered over web pages, e-mail and other Web 1.0 applications can change behaviour in motivated volunteers (7). Many studies have claimed that media campaigns are more effective when supplemented by some form of environmental or community support (5, 7). The majority of recent evidence emphasizes common challenges in the use of mass media campaigns. Given the diversity of the campaigns, settings, media outlets, and health topics,

evaluation of communication campaigns have become extremely difficult (2-4). Furthermore, the reach and frequency of media exposure are predictive factors of campaigns' success, and as such, getting the message out can be a challenge (3, 4). Hornik and colleagues (2007) fault many media campaigns for a lack of focus on the broader social system. Individual-based campaigns are not able to reach enough people to account for improvements in changing individual behaviours (3). Thus, it is this emphasis placed on reach that has caused enthusiasm in the public health community in discussing the potential of internet based campaigns, which have proved promising (1, 7). In case of website based interventions the challenge remains in recruiting and retaining enough participant engagement to realize the potential impacts internet can have in bringing sustainable changes in behavior (7).

However the large-scale use of technology has had a significant impact on the global healthcare sector. The birth and development of social media has fundamentally changed how individuals interact in our society, engaging record numbers of people both online and otherwise. New media generally comprises of computerized, interactive, networked information and communication. Social media, however, is new media with a social focus, where information is shared with the purpose of networking. Social Networking Sites like Facebook, MySpace, LinkedIn, Twitter and others allow individuals to instantly communicate with large networks of friends, acquaintances and colleagues, while supporting multimedia content linked to other social media applications such as YouTube (3).

Health information gathering is no exception to this phenomenon: social media provides an outlet for the publication of health information to consumers, while allowing consumers to respond and contribute to advice that was traditionally only issued by providers (8). There has been an ongoing increase in the use of social media globally (9), including in health care contexts (2-9). When focusing on social media for health communication, it is useful to first outline the general characteristics of social media. Kaplan and Haenlein (10) defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" (11).

They suggested that social media can be classified as two components: media-related and social dimension. The media-related component involves how close the synchronization is as compared to face-to-face communication, focusing on how different types of social media can be used and how well they can help reduce the ambiguity and uncertainty. And the social dimension has been based on Goffman's (11) notion of self-presentation, whereby individuals' interactions have the purpose of trying to control others' impressions of them.

Social media provides opportunities for users to generate, share, receive, and comment on social content among multi users through multisensory communication (1, 2, 10, 13). Thereby social media can be defined to be functioning as a communication channel that delivers a message, which involves asking for something. Social networking is thus two-way and implies direct communication that includes sharing of information between several parties (2-9). In the United States, 61% of adults search online and 39% use social media such as facebook for health information (7). Social media adoption rates vary in Europe; for example, the percentage of German hospitals using social networks is in "single figures", whereas approximately 45% of Norwegian and Swedish hospitals are using LinkedIn, and 22% of Norwegian hospitals use Facebook for health communication. Recent UK statistics reported Facebook as the fourth most popular source of health information (9). There have been many applications of social media within health contexts, ranging from the World Health Organization using Twitter during the

influenza A (H1N1) pandemic, with more than 11,700 followers (4), to medical practices(3) and health professionals obtaining information to inform their clinical practice (5,6).

In Asia-Pacific region too, the Internet population has been estimated at 58% where more than 50% of internet users are using social media platforms. There are more people using the Internet to search for health information now than they were before. With the prevalence of social media people are now learning by sharing health information on various health issues. To explore the diversity in form and function of different social media platforms, Keitzmann and colleagues (12) presented the “social media ecology”, a honeycomb framework of seven building blocks that are configured by different social media platforms and have different implications for organizations such as health care providers. In developing their model, they have drawn on Butterfield (18), Morville, Webb and Smith. The building blocks are (1) *identity*: the extent to which users reveal themselves, (2) *conversations*: the extent to which users communicate with each other, (3) *sharing*: the extent to which users exchange, distribute, and receive content, (4) *presence*: the extent to which users know if others are available, (5) *relationships*: the extent to which users relate to each other, (6) *reputation*: the extent to which users know the social standing of others and content, and (7) *groups*: the extent to which users are ordered or form communities. Mangold and Faulds have also highlighted the change social media is bringing in the relationship between producers and consumers of a message and further suggests a certain degree of control over health communication that the health care providers may need to maintain validity and reliability. In this review paper, social media has been analyzed in terms of its potential for health communication specifically targeting general public, patients, and health professionals in developing countries in assisting to communicate health issues. Currently, there is a lack of information about the uses, benefits, and limitations of social media for health communication among the general public, patients, and health professionals from primary research.

The Global Digital Divide:

Though there has been tremendous political, social, economic and technological advancements taking place across the globe yet inequity exists in the distributions of these advancements and its corresponding benefits that can be reaped by a specific population. The inequality exists in the use of internet and reach of its interrelated applications. Internet has revolutionized the way most people in the Western world live. It has become an integral part of our economic, political, and social lives, altering the way we purchase goods, the way we bank, and the way we communicate with one another. The number of Internet users grew from ten million in 1993, to approximately forty million in 1995, to more than 670 million in 2002. Today, the Internet has an estimated 1.97 billion users. In 2007 alone, approximately 67% of people living in what were then the 27 high-income OECD member states — the world’s most developed, post-industrial nations — had access to the Internet. In comparison, only 24.5, 15.9, and 3.8% of the populations in Latin America, the Middle East, and Sub-Saharan Africa, respectively, had access to the Internet. In total, Sub-Saharan Africa housed only 2% of all Internet users even though it accounted for 12% of the world’s population. Meanwhile, 96% of the secure Internet servers in the world were located in high-income OECD countries, even though those countries comprised less than 15% of the world’s population. These disparities have led commentators to conclude that a large segment of the world population misses out on the tremendous political, social, economic, educational, and career opportunities created by the digital revolution.

Profiling Internet Users with special focus to SNS users

Various studies done across the globe provide varying insights into the characteristics of the users accessing social media for health communication. In a study published in the Journal of Medical Internet Research (Volume 15, No 4) (2013) by Moorhead et. al, it was found that the age of the social media users in developed countries ranged from school children to older adults aged 65 years and up, but the majority of the reported ages were 11-34 years (29). Some studies reported that there were more female than male users of social network sites. However report by the International Telecommunications Union in 2012 found a “huge divide” between broadband penetration rates in developed and developing countries. With fast broadband connections reaching around 26% of the population in developed countries (and with Finland being the first of several countries to declare high speed Internet access a fundamental right), it drops down to as low as 4.8% in the developing world indicating large discrepancies. In vastly populated countries such as Brazil, India, and China, fixed broadband coverage is often costly, patchy, and unreliable. As a result, many users rely on mobile devices to connect to the Net. There are huge groups of Internet users in general and social media users in particular who don't use static connections at all.

Benefit of Using Social Media:

While efficacy and efficiency of traditional media campaigns are well documented in the literature, social media use such as Twitter or Facebook use in health messaging remains an enigmatic topic with a small evidence base. Traditional media campaigns are used widely in public health for a wide variety of objectives and have shown positive outcomes in terms of reach, public awareness, and to a certain extent, behaviour change. As more consumers turn to the internet for health related information, health organizations have begun to turn to social media as a tool for connecting with the public. An emerging topic which very few studies have analyzed is the efficacy of social media in this context. Preliminary reports have demonstrated considerable reach associated with social media applications and have potential for engaging specific target audiences. However, given the rapid and exponential growth of social media use, development of best practices by public health organizations are crucial for adapting social media to every day public health practice. Also the context and the socio-political factors influencing the use of social media particularly by the target population i.e. the end users needs considerable attention (23, 29).

Reports suggest that social media is a very feasible option that is relatively easy to adopt, but requires adequate and appropriate human resources to maintain. Six overarching benefits of social media were identified for the general public, patients and health professionals. Social media users have the potential to increase the number of interactions and thus are provided with more available, shared, and tailored information. Social media can generate more available health information as users create and share medical information online. Blog sites create a space where individuals can access tailored resources to deal with health issues (26). Social media can widen access to those who may not easily access health information via traditional methods, such as younger people, ethnic minorities, and lower socioeconomic groups important aspect of using social media for health communication is that it can provide valuable peer, social, and emotional support for the general public and patients. For example, social media can aid health behavior change such as smoking cessation, and Patients Like Me enables patients to communicate with other patients and share information about health issues (24). Colineau and Paris (24) reported that people used health-related social networking sites to discuss sensitive issues and complex information with health professionals.

A report commissioned by the Region of Peel Public Health department reviewed the current and potential uses of social media on the Public Health stage (9). The review had emphasized the shift towards participatory methods for health consumers from the “traditional gatekeepers” of health information (9). Given the variable quality of health information available through social media, public health organizations cite the ability to provide credible information to consumers how and when they want it as their main motivation for reaching out via these channels (9). The potential to reach target audiences is also a factor (9), given that Facebook boasts the potential to reach over 500 million members of the exact audience you are targeting (14).

Public health is also taking advantage of the reach of social media by enlisting it for “Infoveillance” (9). Organizations can use social media for syndrome surveillance, by monitoring the frequency of searches related to a particular illness, enlisting the public to report infections or symptoms, and mapping outbreaks with new tools and data mined from existing social networking sites (9). Furthermore, surveying the public’s beliefs regarding a public health topic can provide critical information informing the types of messages that will be most effective (9). In public health surveillance, social media can provide communication in real time and at relatively low cost (13, 24). Social media can monitor public response to health issues, track and monitor disease outbreak (11), identify misinformation of health information, identify target areas for intervention efforts and disseminate pertinent health information to targeted communities (27). Health professionals can aggregate data about patient experiences from blogs and monitor public reaction to health issues. Social media may have particular potential for risk communications as they can be used to disseminate personalized messages immediately thus making outreach more effective. There is the potential that information on social media may contribute to health care policy making, as medical blogs are frequently viewed by mainstream media. The main uses of social media focus on increasing interactions with others, and facilitating, sharing, and obtaining health messages (24). The general public mainly use social media for themselves, family members, and/or friends to obtain and share information on a wide range of health issues. Patients can share their experiences through discussion forums, chat rooms and instant messaging, or online consultation with a qualified clinician (26). Some health professionals were reported to use social media to collect data on patients (26) and to communicate with patients using online consultations; however, this latest use is limited.

A major benefit of social media for health communication is the accessibility and widening access of health information to various population groups, regardless of age, education, race or ethnicity, and locality, compared to traditional communication methods. Social media allows users to generate peer-to-peer discussion in a way not enabled by traditional websites.

Keitzmann et al (12) have suggested that organizations need to recognize and understand the social media landscape, and where the conversations about them are already being held (cognize), develop strategies that are suitable, work out how often and when they should enter into conversations, and be aware of what others are doing and act accordingly.

Different studies have highlighted different benefits for health communication but there are not enough studies indicating its long-term effects. As there is an expected increase in the use of social media there is a dearth of research supporting the effectiveness of social media applications in the field of health communication. Most studies conducted were observational in nature and analyzed the current health related “conversations” taking place over social media and there is a deficit of peer-reviewed research on its utility, especially in the form of experimental or quasi-experimental evidence (9).

Challenges in adapting social media :

Public health is taking advantage of the reach of social media by enlisting it for “Infoveillance” (9). Organizations can use social media for syndrome surveillance, by monitoring the frequency of searches related to a particular illness, enlisting the public to report infections or symptoms, and mapping outbreaks with new tools and data mined from existing social networking sites (9). Furthermore, surveying the public’s beliefs regarding a public health topic can provide critical information informing the types of messages that will be most effective (9).

However some of the major challenges lie in adapting social media technologies like logistical issues, perceived resistance of government organizations to change, as well as the procedures, policies and manpower needed to launch and effectively maintain a social media presence(9). Additionally, though literature supports the feasibility of public health campaigns being delivered online and through social media, more data is needed to determine the real costs of implementing such a program (15). The lack of evidence guiding public health enterprises is also a major challenge, but in part results from the difficulty that exists in evaluating such complex campaigns that often use different and multiple aspects of social media for a number of objectives. There are no studies that directly compared social media initiatives to other types of media, making it difficult to draw conclusions on the relative efficacy of both types of media. In terms of utility, social media certainly shows promise in its ability to reach and engage health consumers, especially given its rapidly growing popularity. It is also difficult to compare the cost effectiveness of traditional and social media campaigns, as very few studies have tried measuring this dimension and none compared between media types except Cugelman and colleagues (2011) who concluded that internet based interventions were generally more cost-effective than other types of media. Research by Schein and colleagues (2010) also suggests that social media initiatives are reasonably feasible in public health settings and are not costly to implement. Evidences from different studies have pointed out human resources as an important determinant of success. (9).

Way forward

Since it’s difficult to compare the cost effectiveness of traditional and social media campaigns, as very few studies have measured this dimension and none commented on the media types except Cugelman and colleagues (2011) who concluded that internet based interventions were generally more cost-effective than other types of media (4). Research by Schein and colleagues (2010) also suggested that social media initiatives can be reasonably feasible in public health settings and are not costly to implement. Thus it becomes pertinent to design social media in accordance to the needs and interests of the intended target users. Further for any social media to be effective the interface where the users interact and satisfy their information and other affective needs need to be designed in a manner which is easy to use, act and interact.

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