Social Media and its Use in Health Promotion

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Abstract:

Social media holds considerable potential for health promotion and other health intervention activities, as it addresses some of the limitations in traditional health communication by increasing accessibility, interaction, engagement, empowerment and customization. The use of social media increases the potential for easy access to preventive medicine, interaction with health care providers, interprofessional communication in emergency management, and public health. However, more research is needed to determine its long term effectiveness and to maximize the strategic presence of health organizations on social networking websites. This paper provides encouraging information about the possibilities of using social media to improve access to health information and health care providers, as well as to promote positive health behaviour change. It is essential for health promotion organizations to capitalize on the opportunities provided by social media, in order to modernize strategies to reach all age groups and to tailor programs to current communication trends, all of which are offered at a relatively low cost.

Keywords:

Social media, social networking, health promotion, health communication, online health information, emergency management, interprofessional communication

Introduction

Facebook, Twitter, Google, Bing, and Buzz are new terms but they are used every day by millions of people across the world. The impressive growth in social media has been fascinating to watch, but intriguing as well, when you consider the multitude of applications these tools have unleashed, and their potential to influence population health.

Interest in the internet as a health promotion tool has grown immensely in the past decade (Korp, 2006). The internet has become a powerful global communication method for health interventions, providing public access to a wide range of health promotion programs, and opportunities for people to communicate with others, and with health professionals (Cassell et al., 1998). According to Pew Research Center Publications (2009), 61% of American adults now look online for health information. Because people have actively adopted the internet for health communication, and many people believe it improves their health (Neuhauser & Kreps, 2003; Fox et al., 2000), the internet is regarded by health promotion specialists as an efficient strategy for promoting positive health behaviour change (Mangunkusumo et al., 2007; Fotheringham et al., 2000).

High risk, preventable health behaviours, such as smoking, alcohol abuse, insufficient exercise and unhealthy diets still contribute to a substantial number of deaths in North America (Canadian Institute for Health Information, 2006; Danaei et al., 2009). This underscores the necessity of ensuring access to accurate health information and effective health interventions. Canada's Advisory Council on Health Infostructure emphasized that health information "is an essential public good which should be readily available and accessible to all Canadians" (Health Canada, 2005; Health Canada, 2001; Advisory Council on Health Infostructure, 1999).

Health promotion specialists continually search for new and efficient methods of reaching people of various ages. The use of new technology, more precisely social media, could be a key strategy in helping to solve some of the challenges faced by those in the health promotion field. Interventions incorporating social media channels hold considerable potential for health promotion and address some of the limitations observed by traditional health communication strategies by increasing the potential for interaction, engagement, customization and participation.

The Evolution of Communication

Communication is a method for offering social support – which is directly linked to positive health behaviours (Abroms & Maibach, 2008). Research on health communication interventions has shown that a number of conditions are required for communication to be effective, including the message reaching people on emotional and rational levels (Neuhauser & Kreps, 2003; Rubin & Rubin, 2001). Tailored messages are more effective than generic messages since they are customized to the needs of the recipients, interactive communication is more effective than linear (ie. one-way) communication, and gain-framed messages appear to be more effective than loss-framed messages in terms of the persuasiveness of a message (Latimer et al., 2007; Rothman et al., in press). Finally, a combination of interpersonal and mass media communication is essential for creating more of an impact on health behaviour (Neuhauser & Kreps, 2003). Social media has the potential to address each of these elements for effective communication in health promotion.

Social media, or social networking, is a configuration of people connected to each other through interactive links that form online communities (Coyle & Vaughn, 2008). It is a way for people to interact, communicate and share information. The users, a term used to describe the people that use these sites, create a profile page where they can upload messages, videos and blogs and link their pages to their friends' pages, creating a social network. Users may also form groups based on common interests and ask their friends to join these groups. This process creates a haven for viral marketing (Freeman & Chapman, 2008), which can be leveraged to spread positive health behaviour messages. Although published research is limited due to its modernity, there is positive evidence that social media is effective in health behaviour change (Hartoonian, 2008).

The Advantages of Social Media

The evidence regarding the accessibility of social networking shows that it is ideal for reaching the general population. People can feel connected and experience a sense of support without the need for face to face interaction. The information is available 24 hours per day, 7 days per week, making it extremely accessible. It is an ideal way to communicate because busy people are able to trade information rapidly (Farhi, 2009). According to Kreps & Neuhauser (2010), the internet's vast scope and accessibility is

perfect for providing people with motivational information concerning healthy behaviours.

In today's technology-dependent world, most people have either heard of, visited, or even have an account of their own on a social networking site. As of January 2008, participation in social media had risen to the 'early majority phase' when an innovation is diffusing through a population. This means it has been accepted among the adopting culture as a viable method of communication (Deloitte, 2009; Livingston, 2008). Over 54% of Americans use social networking sites and 45% have their own profile (Internet World Stats, 2009). Facebook currently has more than 300 million active users, 50% of whom login on any given day. Participation rates continue to rise, with an average of 250 000 people registering daily (Facebook, 2009). MySpace and Twitter are also popular networks with 110 million and 50 million active users, respectively (Ostrow, 2009). Innovators and early adopters are currently taking advantage of this phenomenon: The Canadian Cancer Society, the American Medical Association and Weight Watchers are all examples of health organizations using these sites to disseminate information ("Facebook", 2009).

Social media's role in promoting positive health behaviours is also related to the origin of the information. Instead of receiving health promoting messages from experts, which might be inadvertently disempowering for some people, the messages come from within social networks, which include friends, family members, co-workers, or other social contacts (Kreps & Neuhauser, 2010; Neuhauser & Kreps, 2003; Smedley & Syme, 2000). Messages from close contacts may seem more positive, and thus be more effective.

According to Kreps & Neuhauser (2010), health behaviour change requires changing shared social practices. People's attitudes, values, and beliefs about health are a direct product of social interaction (Kreps & Neuhauser, 2010; Bunton et al., 1991). Social networking provides users the opportunity to connect to one another, which could thus prove favourable for positive health behaviour change. Social modeling and social influence also play a key role, since an individual's actions are affected by observing the behaviours of others. For example, curiosity may spark after observing a friend's post about a new training program which they enjoy. After trying the new program, this person might write about it on their own profile, thus enabling viral communication (VC) to their network connections. VC, also known as 'word of mouth marketing', is the passing of information from person to person. Because of the personal nature of the communication between users, the credibility of the subject is perceived to be superior to more formal forms of promotion methods (Grewal et al., 2003). Research also suggests that VC is more influential than traditional media channels (Cheema & Kaikati, 2010; Godes & Mayzlin, 2004; Herr et al., 1991). Marketing companies are taking advantage of these findings; for example, in hopes of creating buzz about the 2010 release of their new Fiesta model, Ford Motors gave away 100 of the cars to 100 bloggers for six months. In exchange for the cars, the bloggers posted monthly updates and videos about the cars on their social networking pages and on YouTube. So far, the 'Fiesta Movement' has proved to be favourable for Ford: there are a few hundred videos, pictures, blogs and tweets about the new car, and all but few are positive (Barry, 2009).

Social media offers an alternative to traditional methods of mass communication. A study by Coyle & Vaughn (2008) found that the average college student visits their social networking account three times per day, while it is estimated that most of the students had never visited a health organization's website. Health promotion agencies can increase the likelihood of reaching students by posting on a social networking site, rather than on a traditional government-run website.

The early adopters of social media innovations were predominantly teenagers; however, social networking sites have strategically targeted other age cohorts, as this innovation has diffused through the population. According to Facebook (2009), the fastest growing demographic of new users are people aged 35 and over. People aged 35-49 were also the largest single group of "tweeters" (people using Twitter) last year, making up approximately 42 percent of total users in February 2009 (Farhi, 2009).

Social networking websites actively try to attract and retain users; continually customizing according to the tendencies and preferences of their priority populations. For example, Facebook recently launched an application called "social ads" to provide advertisements based on the activities and preferences of the user and their friends. If the user were to write "baseball" as an interest on their profile page, then advertising related to sports equipment, merchandise, tickets, etc. would appear on their profile and their friends' profiles. These same strategies can be used in health promotion or other health interventions.

Social Media and Healthcare

Health promotion specialists are not the only professionals adopting social media as a means to reach the public. Social websites have been adopted by some doctors to disseminate simple information to their patients, eliminating waiting time and a trip to the clinic for many patients. As cited by Cohen (2009), Dr. J. James Rohack, president of the American Medical Association, was reported to have said that communication with existing patients online can add value to the patient-physician relationship. According to Korp (2006), health promotion mediated by the internet has enhanced opportunities for patients to be more actively engaged in their care, because patients who use this form of communication are more involved in coping with their problems and in communicating with their doctor, compared to those who did not use the internet as a communication mediator.

In a study by Manhattan Research (2009), it was reported that, as of January 2009, about 60% of physicians were already using or were interested in using physician online communities, a type of social networking used only for medical purposes. As a result, health care providers are able to update patients on relevant health news by directly delivering personalized messages, reminders and alerts. Of course, vigilance must be used, because some information exchange should not be managed online. Although it would be beneficial for activities such as prescription refills and answering simple health questions, social media would be inappropriate and not feasible for more demanding requests such as diagnostics and treatments, where face-to-face contact is required.

Applications for Public Health and Emergency Management

In public health promotion, social media sites allow individuals to benefit from easy access to preventive medicine information. The U.S. Preventive Medicine, for example, has social networking accounts on Facebook, Twitter and MySpace (U.S. Preventive Medicine, 2008). The Ottawa Health Decision Centre, in partnership with the Ottawa Health Research Institute, also recently launched a page on Facebook entitled “iShould” in hopes of providing decision aids to a vast population (Ottawa Health Decision Centre, 2009). Decision aids are tools that prepare patients for shared decision making with their healthcare professionals. They include the latest medical information, feedback from other patient’s decisions, and guidance in decision making. According to their research, patients who use decision aids are more informed, are more active in their treatment, know more about available alternatives, and chose treatments with features they value the most (Ottawa Health Decision Centre, 2009).

Another important application of social media is its ability to enable individuals and organizations to cooperate in all phases of emergency management: mitigation, preparedness, response and recovery (White et al., 2009). Social media provides a unique opportunity for the public to engage in critical public health issues, such as the H1N1 pandemic, where sharing of information, collaboration and interactivity are encouraged (U.S. Department of Health & Human Services, 2010). Emergency notification systems can utilize social media to distribute information because of the opportunities they hold: fast distribution, mass communication for large groups, low cost and ease of use, and international diversity (White et al., 2009). For example, Health Canada and the Public Health Agency of Canada both have their own pages on social media websites and use them to broadcast information on anything from preventable diseases and immunization to nutrition and product recalls (Health Canada, 2010; Public Health Agency of Canada, 2009). The American Center for Disease Control and Prevention (CDC) regularly updates its Facebook page to disseminate messages, videos, links, pictures and graphs to over 50 000 people (facebook.com, 2009). Social networking sites should therefore be considered as a viable tool in emergency management sectors.

Expected Benefits

Expected benefits of pairing social media and health promotion include widespread dissemination of information, customized and accessible information available to diverse audiences, easy connections to others for social support, and more intense and personal engagement and participation of the user because of the interactivity involved with social networking (Eng & Gustafson, 1999; Neuhauser & Kreps, 2003). The most influential advantage remains its cost-benefit feature; social media has the ability to reach an increasing number of people without the high cost of traditional marketing (Frick, 2006; Neuhauser & Kreps, 2003; Institute of Medicine, 2001a; National Research Council, 2000; Science Panel on Interactive Communication and Health (SPICH), 1999). Instead of spending significant funding to develop new websites or other tradi-

tional methods of communication, health promoters should exploit and take advantage of social media websites (Freeman & Chapman, 2008).

Health promotion mediated by social media, paired with other methods of communication, would be most beneficial: numerous studies have shown that multidimensional interventions and participant interactivity are most successful at reaching diverse audiences (Thomas, 2006). It is best to reach people multiple times, in multiple settings and from multiple sources (Neuhauser & Kreps, 2003). Social media has the potential to empower the user by putting more control in their hands, as compared to traditional methods of communication (Korp, 2006; Walch, 1999). Akesson *et al.* (2007) found that patients who used interactive health communication had enhanced knowledge, confidence, and health, and that their relationship with health professionals was reinforced due to the superior feeling of empowerment they felt.

Challenges and Limitations

One important challenge in using social marketing for health promotion is that unlike traditional marketing, where money is exchanged for a tangible item and the related benefits appear almost immediately, the benefits of positive health behaviour change are often not noticeable for a long time (McKenzie et al. 2009). For example, weight loss and a reduced risk of heart disease and diabetes are all expected benefits of improved knowledge in a nutritional content value. However, these benefits are not apparent right away and could therefore lead to short-term support.

Another limitation of social media pertains to the digital divide in the population. Socially disadvantaged groups often do not have access to new media and social networking due to language, literacy disability or other barriers (Korp, 2006). Also, when the server is down or when the internet connection is not available, participants are disconnected from the program and do not have access to the information available on these websites.

Another limiting factor relates to the authenticity of the information posted on social media sites. Readers need to be wary of the health information they encounter, because the users are in control, there is no filter to screen what information is posted. Several studies have shown moderate legitimacy of information on general health topics, even on websites identified as being 'credible' (Neuhauser & Kreps, 2003; Kunst et al., 2002). To ensure accuracy, quality and credibility of information, better evaluation methods need to be developed. The Government of Canada has created a Chief Information Officer Branch (CIOB) to provide "strategic direction and leadership for the government-wide pursuit of excellence in information management and information technology" (Treasury Board of Canada Secretariat, 2007). Amongst the many roles of the CIOB, they provide leadership in the application of social networking technologies by developing standards, guidelines and other tools to enable credibility and privacy protection of online media (Treasury Board of Canada Secretariat, 2007). The CIOB should therefore play a leading role in the evaluation process.

Furthermore, health professionals need to be strategic about their presence on social media sites. Because these sites offer tremendous opportunities to post information or create groups, health professionals must compete for user's attention. In September 2009 on Facebook, for example, only one credible sponsored group appears in the first 50 of 500+ results of the subject "quit smoking". A sponsored group is when an organization or company pays to have their group featured on the website (Freeman & Chapman, 2008). Health organizations can develop sponsored and free groups and pages to better attract viewers.

Because social media is a relatively recent phenomenon, evaluation methods are in the early stages of development. Additionally, it is still too early to tell if these sites will continue to flourish, since they depend on how vigilant users are about them (Landro, 2006). According to research by several marketing organizations, the explosive growth in social networking is expected to plateau by 2012 (Marketing Charts, 2009; Datamonitor, 2007). Rubel (2009) also suggests that Twitter's disorganization and superficiality are likely to make it short-lived and replaceable by the next new media craze. Research in the field of social media and health promotion should be increased, especially to determine its long-term effectiveness and potential influence on health improvement.

Concluding Comments

There is evidently encouraging information about the possibilities of using social media to improve access to health information and health care providers, as well as to promote positive health behaviour

change. New communication technologies offer opportunities to increase the availability of information, broaden the base of support groups, and actively engage people with relatively minimal cost (Abroms & Lefebvre, 2009). By increasing interaction and engagement, social media may complement traditional health promotion by raising awareness, spreading influence, and contributing to health behaviour change. It is essential that health organizations incorporate social media in their tailored communication strategies, to modernize their approaches and increase the likelihood of reaching different age groups.

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