

# The Potential Role of Social Media and Interactive Technologies in Diabetes Education

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**Received date:** 18 Feb 2016; **Accepted date:** 19 Feb 2016; **Published date:** 23 Feb 2016.

**Citation:** da Silva E, Campos LF (2016) The Potential Role of Social Media and Interactive Technologies in Diabetes Education. *J Dia Res Ther* 2(2): doi <http://dx.doi.org/10.16966/2380-5544.e103>

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## Editorial

Over time, technological innovations emerge and, with them, new and creative ways for patients to connect, and these new ways of connecting are inevitably becoming part of the health care environment [1,2]. The internet and information technology offer new opportunities for diabetes education and care, and this technology is becoming increasingly important in the everyday lives of patients and health professionals. Using the internet sources (social networking, websites, and message boards), people with diabetes can connect with one another to address the challenges they face with the Diabetes Self-Management Education and Support [2-4]. Other affordable tools are available to those with mobile devices (e.g., mobile phones and tablets), which include podcasts, mobile-optimized websites and mobile apps [5], Skype [6], digital games [7] and video games designed to improve and support players' diabetes self-management [8]. Glucometer and insulin pump software are also one of the frequently used technologies among diabetes patients. On the internet people can talk and learn about appropriate and safe use of these new technologies [4,9,10]. However, sites vary considerably in their quality and the authenticity of their content, which can be very dangerous for both diabetes patients and careless students of health courses. Additionally, patients can be confused by the amount of information and number of technologies available for diabetes education, which may lead to disappointment and the discontinuation of any diabetes self-management actions.

Diabetes education is a cornerstone in the management and care of diabetes and should be an integral part of health planning, which should involve the patient's family, diabetes care team, community and decision makers in the education process [11]. Diabetes self-management is complex and demanding, and isolation and burnout are common experiences [3]. In this context, the internet provides opportunities to strengthen communication and support among individuals with diabetes, their families, health care providers, the health care industry, policy makers and the general public [3].

Social media websites (SMWs) are interactive media that include social networking sites (SNSs) such as Facebook, LinkedIn, Twitter [12], YouTube, MySpace, Habbo [13] and SoundCloud. SNSs, which have become a global phenomenon [14], can be defined as web-based platforms that allow individuals to create their own personal profile and build a network of connections with other users [15]. At present, several different types of SNSs are available, some that have a more targeted audience and others that aim to achieve a more general appeal [12]. Usually, popular SMWs are platforms that can be used to reach out to large numbers of people to deliver health education and support [13].

With the advent of the internet, for individuals with diabetes, the term "Diabetes Online Community" is now widely used. This community includes all of the people who engage in various online activities related to living with diabetes, and it spans a collection of web-based platforms, such as community forums, blogs, video sites, podcasts, and SMWs [3]. However, common benefits and risks are involved with participating in the Diabetes Online Community. Potential benefits include peer support, advocacy, self-expression, the seeking and sharing of diabetes information, improved approaches to diabetes data management and humor. But potential risks are present as well, and health care providers and people with diabetes should be aware of them, though limited data are available regarding any negative outcomes that result from such activities [3]. Additionally, SNSs like Facebook provide a forum for people living with diabetes to report personal experiences, ask questions and receive direct feedback. Promotional activity and personal data collection are also common, with no accountability or checks for authenticity [1,16]. Such risks should be severely combated by all of us, whether patients or diabetes educators. Only then can we appreciate the many benefits of SMWs.

Currently, several diabetes organizations are operating around the world (e.g., International Diabetes Federation, American Diabetes Association, European Association for the Study of Diabetes and Brazilian Diabetes Society), and these types of organizations often use their own websites and SMWs as tools to promote online diabetes education [9,10,17-19]. This content is designed to educate both patients and health professionals. Different materials and virtual tools are available to users, including forums, e-books, videos, texts, images, courses, podcasts, scientific papers, summaries of innovative research about the management and treatment of diabetes and other interesting kinds of common and scientific information. These types of educational content are produced by professional experts in the field of diabetes care and can be downloaded or shared on social networks with a total sense of security regarding the authenticity of the information.

On the other hand, concerns over online health-information-seeking behavior point to the potential harm that may be caused when people are exposed to incorrect, incomplete or biased information. However, systematic reviews of health information have found few examples of documented harm that can be directly attributed to poor quality information found online [20]. In this sense, most of the SMWs profiles are created by people diagnosed with diabetes, their parents or their friends. Unfortunately, the lack of scientific knowledge and academic training in health and diabetes leads to disclosure in mass, via SMWs, of misinterpreted information or false promises of treatments for and cures of diabetes.

Overall, diabetes self-management education requires urgent improvement, especially in the areas of dietary and lifestyle behaviors and diabetes complications [21]. Evidence is lacking in regard to how people can use popular online social media and networking sites as a milieu for delivering chronic illness education and support [13]. Social media websites and new technology, however, do possess a great deal of potential to be used as tools to strengthen patient-provider relationships and ultimately health care delivery and outcomes. Social media websites can help people with diabetes become informed and empowered, and these sites can improve diabetes education by providing a forum for patients and health professionals to report personal experiences, ask questions, and receive direct feedback about diabetes on a global scale. Thus, further studies, which involve interactivity, peer support via social media and other means, can explore how to stimulate the interest of participants using new information technology online.

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