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Social Media in Diabetes Education: A Viable Option?

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Abstract: *As Extension educators are encouraged to implement more cost-effective and efficient means of programming, the use of Web-based social media has become a popular option. Penn State Extension implemented a social media awareness survey among participants in its community-based diabetes education program to determine familiarity with this medium, along with rates of current and future use. Results indicated a level of comfort with email and Facebook options, while many preferred more traditional methods of communication. Future research is needed to determine if this online mode of learning may be more effective in targeting a younger Dining with Diabetes population.*

Introduction

Affordable, accessible educational opportunities play an important role in informing the public of the risks associated with diabetes. The Dining with Diabetes program, offered by Penn State Extension, not only educates people with type 2 diabetes, but it identifies at-risk adults through the inclusion of family members. Certified Diabetes Educators help these participants reduce their level of risk by encouraging them to make improvements to their diet and physical activity levels. Educators also urge them to seek attention from their health care providers. In this face-to-face statewide program, positive behavioral changes are confirmed through surveys and biomarker testing and represent significant implications for healthcare savings in the state of Pennsylvania.

Few challenges have been identified in this program that cannot be addressed by the use of today's cost-effective social media opportunities (Kinsey, 2010). Whether using YouTube videos that serve as make-up classes for absent participants, advertising the program on Google or Facebook to increase outreach, or promoting support groups through a social networking site, the Internet offers opportunities for recruitment, education delivery, and peer support. Social media may sound like the ideal solution to problems facing any community-based education program. However, privacy and security remain a concern, as do the lack of inter-personal communication and hands-on interaction, two key components that Dining with Diabetes participants value most, as identified in program evaluations.

A study conducted among older adults with chronic disease concluded that social media might be increasingly attractive to those seeking online support through blogging and participation in online health discussions (Fox & Purcell, 2010). As social networking among Internet users age 50 and older continues to increase, this provides a new method for the delivery of continued education and support.

While online videos and advertising are viable options to increase program exposure and outreach, one must first assess the potential audience and its needs. Diabetes is a disease that affects populations disparately. For example, those in older age brackets are affected by diabetes more so than their younger counterparts. On the contrary, social media users tend to be particularly young; only 25% of online adults ages 65 and older utilize social networking sites, compared to 86% of online adults ages 18-29 (Madden, 2010). To discover if an older population would accept social networking as a method of communication, a survey was conducted among the Dining with Diabetes participants in hopes of uncovering the potential value of online intervention.

Survey Instrument Design

A brief self-administered survey instrument was designed by members of the program's evaluation committee. The instrument was shared with Diabetes Educators for content validation; no pilot testing was conducted. Questions were structured to obtain information regarding participants' awareness of pre-selected networking tools and social media sites, including Facebook, Twitter, YouTube, Flickr, MySpace, blogs, and email. The frequency with which participants accessed these tools was also measured. Participants provided insight as to which tools they would consider using for supplemental diabetes education. If none were chosen, they were given an opportunity to explain why. These paper and pencil surveys were conducted during class and were sent to Penn State's University Park campus for data entry and analyses.

Survey Participants

In this particular survey, the average age of a participant was 64, with the oldest being 89 years of age. Nearly all were Caucasian (96%), and 73% were female. The sample was moderately educated; 42% completed a high school education, while 28% completed four or more years of college. Fifty-nine percent of participants had an annual household income of \leq \$50,000. In terms of diabetes characteristics, 64% had been diagnosed with type 2 diabetes. Twenty percent of those who were undiagnosed were at high risk for developing the disease, having a hemoglobin A1c level \geq 6.0%.

Results

With a response rate of 74%, 185 participants completed the social media awareness survey. Respondents represented 14 counties across Pennsylvania, covering rural and suburban populations. Two-thirds (67%) of the participants were familiar with email, while only one in four (24%) were familiar with Facebook.

Forty-one percent of survey participants accessed email on a daily basis. Among the more frequently-accessed social media sites were Facebook, Twitter, and YouTube. Fifteen percent of participants visited Facebook at least once a week. Among those interested in the use of social media or Web-based tools for supplemental diabetes education, 97% preferred email as an information source, while 13% favored communication in the form of Facebook updates.

More than one-third (36%) of those not interested in supplemental education through social media did not own a computer. Other reasons for opting out of online

communication included a lack of comfort or knowledge with computers or social media (8%), a lack of high-speed Internet access (8%), or a lack of time (6%).

Discussion

"While social media use has grown dramatically across all age groups, older users have been especially enthusiastic over the past year in terms of embracing new networking tools. Social networking among Internet users ages 50 and older nearly doubled—from 22% in April 2009 to 42% in May 2010" (Madden, 2010).

Young adults, ages 18-29, continue to be the heaviest users of social networking sites (Madden, 2010). Social media may not be the ideal method of outreach for older populations suffering from diabetes, although it could be the answer for children and young adults, the newest age groups to be diagnosed with this disease. "Type 2 diabetes has been described as a new epidemic in the American pediatric population that has been coincident with the overall 33% increase in diabetes incidence and prevalence seen during the past decade" (Kaufman, 2002, p. 217). Early intervention through social media could help to slow the progression of diabetes by reminding young adults of the importance of physical activity, a healthy diet, and regular visits to their healthcare providers. Frequent status updates and positive encouragement along with the opportunity to interact with peers facing similar circumstances could create a supportive communication stream that is "increasingly understood as a critical way in which the chronically ill can successfully engage in self-management" (Hawn, 2009, p. 364-365).

As a result of the value of social networking among young adults as well as the older population, a closed social networking platform has been selected as the foundation on which a customized interactive website will be constructed strictly for Dining with Diabetes participants and their educators in Pennsylvania. This network will be used to host diabetes-related conversations, blog entries, photographs, and videos. Participation is voluntary, but site hosts hope to fill the social void some participants fear after their final Dining with Diabetes class. Participants who request additional educational classes and social functions in hopes of extending the friendships they established during the face-to-face program will ideally find fulfillment in the continued education opportunities through this personalized social networking site.

As the incidence of diabetes increases among all age groups and as more people turn to the Internet for health-related information and communication, the use of social media for diabetes self-management education may be a viable option in the future. In that they have significant advantages such as cost effectiveness, broader

scope of reach, and convenience, Extension programs could benefit greatly from this opportunity. Although more research is needed to determine the effectiveness of this method for supplemental education, familiarity with social media is certain to increase as younger generations of Dining with Diabetes participants emerge.

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