

RESEARCH ARTICLES

Use of Social Media by Pharmacy Preceptors

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Objective. To define current use patterns of Facebook and Twitter among pharmacy preceptors and assess perceptions regarding use of social media within professional practice.

Methods. An electronic survey instrument was sent to 315 pharmacists registered as advanced pharmacy practice experience (APPE) preceptors for Purdue University College of Pharmacy.

Results. Approximately 60% of the 155 respondents used a Facebook account and 9% used a Twitter account. Respondents were willing to complete continuing education (CE) credit (46%) using social media, and were interested in following professional organizations (39%) on social media; however, the majority were not interested in obtaining drug or disease-state information, identifying employment opportunities, or participating in clinical discussion forums via social media.

Conclusion. Despite the growing popularity of social media across multiple disciplines, the majority of pharmacy preceptors surveyed were not willing to use these venues in professional practice.

Keywords: social networking, Facebook, Twitter, technology, advanced pharmacy practice experience

INTRODUCTION

Social networking through online media has greatly increased among a variety of disciplines. Online networking sites such as Facebook, Twitter, and LinkedIn continue to add over 100,000 users daily.¹ Facebook boasts over 500 million active users, in which the fastest growing demographic is individuals over the age of 35 years. Globally, more than 11.7 billion hours per month are spent on Facebook and more than 200 million active users access Facebook via a mobile device.²

Use of social networking media is increasing among health care providers as well.^{3,4} Fifty percent of physicians who responded to a survey used social media for personal reasons, and 7% used it for professional activities.³ Use of social media by major hospital organizations and pharmaceutical companies also has expanded. Approximately 1,100 hospitals nationwide have established their presence on Facebook, Twitter, YouTube LinkedIn, or blogs.⁵ Information conveyed across these sites from hospitals range from breaking health news to ongoing organizational events. Pharmaceutical companies have launched numerous social networking media sites that offer a wide variety of information from non-branded,

disease-state support pages to specific product information. Bailey and colleagues described the increasing use of online sites like Facebook, MySpace, and Bebo as a forum for scientists to network and join drug discovery, drug development, and medicinal chemistry groups. Scientists use these sites to share information regarding career opportunities and resources and to answer technical questions.⁶ Pharmacy organizations such as the American Association of Colleges of Pharmacy (AACP), the American Society of Health-System Pharmacists (ASHP), and the American Pharmacists Association have created pages on Facebook and also have a presence on Twitter to keep pharmacists updated on events such as the ASHP Midyear Clinical Meeting and American Pharmacists Month.⁷⁻⁹ Facebook also is used in the academic setting as a platform for active learning by pharmacy students. For example, pharmacy students who used Facebook in a geriatric pharmacotherapy elective found it to be a valuable asset to the class because it provided a platform to discuss topics in depth, empowered students to participate in class discussion, and improved relationships among students.¹⁰

Given its growing popularity and increased applications in a variety of disciplines, use of social networking may begin to obscure the line between social and professional relationships. As such, social media has prompted pharmacy faculty members to emphasize the importance of e-professionalism to their students.^{1,11-14} Regardless of the potential risks, social networking may provide an

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excellent opportunity for pharmacists to increase communication regarding professional practice issues. There are limited published data regarding the application of social networking media within professional pharmacy practice. Given the increased use of social media by students and its potential to improve communication among practicing pharmacists, the objective of this project was to define current use patterns of Facebook and Twitter by practicing pharmacists and assess their perceptions regarding use of social media within professional practice.

METHODS

Survey items were constructed by the investigators to assess pharmacists' use patterns and opinions regarding social media. After pretesting each question with a group of drug information pharmacists, a 27-item survey instrument was developed. The survey instrument contained questions designed to assess the frequency and nature of pharmacists' use of Facebook and Twitter, as well as their willingness to use social networking sites to obtain information related to their careers as pharmacists (eg, pharmacy or medical news briefings, drug and disease state information, clinical discussion forums, continuing education, employment opportunities, etc) Demographic data also were collected, which included age, sex, education and training, years in practice, and primary practice site.

A convenience sample of 327 pharmacists was identified. The sample included all pharmacists registered as APPE preceptors with Purdue University College of Pharmacy. This sample was considered appropriate to assess social media use because pharmacy preceptors are educators at the forefront of practice. On March 12, 2010, an electronic invitation was sent to each preceptor. The invitation described the project purpose and provided a link to the electronic survey instrument. To ensure an adequate response rate, 4 reminder e-mails were sent at weekly intervals. The survey was closed on April 30, 2010. Qualtrics (Qualtrics Labs, Provo, Utah) online survey software was used to design and distribute the survey instrument in an electronic format, as well as maintain the confidentiality of all responses. The project was approved by the institution's investigational review board with exempt status from regulations for the protection of human research subjects.

RESULTS

Of the 326 preceptors initially included in the convenience sample, 11 with invalid e-mail addresses and 1 who was a family-practice physician were eliminated. Of the remaining 315 potential respondents, 155 submitted a survey instrument with at least 1 item completed, for

a final response rate of 49.2%. Approximately two-thirds of the respondents were women, and the average age was 42 years (range 26 to 67 years). The majority of respondents held a doctor of pharmacy (PharmD) degree, and approximately 40% reported completion of some type of postgraduate training (eg, residency, fellowship). Fifty-three percent of the respondents worked in a hospital setting and 24% identified themselves as retail pharmacists. The remaining respondents were from academia, industry, or an outpatient setting such as an ambulatory care clinic, or long-term or managed care facility. Detailed demographics are shown in Table 1.

Sixty percent (91/152) of respondents reported that they had a personal Facebook account and 9% (13/152) reported that they had a Twitter account. Of the respondents who had Facebook accounts, 69% (61/89) accessed their accounts either daily or at least 2 to 3 times a week (Table 2). Respondents who had Twitter accounts did not access their accounts frequently. Of the 13 respondents who had Twitter accounts, only 2 accessed their accounts on a daily basis, whereas the remaining respondents accessed their accounts once a month, less than once a month, or never. The majority of respondents accessed their Facebook accounts using their personal computer (96%, 85/89). Access via a smartphone application also

Table 1. Baseline Characteristics of Pharmacy Preceptors Who Responded to a Survey on Social Media Use (N = 155^a)

Baseline Characteristics	Number
Age in years, average (range)	42 (26-67)
Female (N = 153), No. (%)	86 (56)
Years in practice, average (range)	18 (1-44)
Degree (N = 154), No. (%)	
PharmD	98 (64)
BS Pharmacy	8 (56)
Masters	12 (8)
PhD	3 (2)
Other	9 (6)
Postgraduate training (N = 143), No. (%)	
PGY1 residency	27 (19)
PGY2 residency	16 (11)
Fellowship	3 (2)
Primary practice site (N = 152), No. (%)	
Hospital	81 (53)
Retail	36 (24)
Industry	5 (3)
Academia	14 (9)
Other	16 (11)

Abbreviations: PharmD = doctor of pharmacy; BS = bachelor of science; PhD = doctor of philosophy; PGY1 = postgraduate year 1; PGY2 = postgraduate year 2.

^a Some items were not answered by all respondents.

Table 2. Facebook Use by Pharmacy Preceptors Who Responded to a Survey on Social Media Use (N = 89)

Reported Access Frequency	Respondents, No. (%)
Daily	38 (43)
2-3 times a week	23 (26)
Once a week	5 (6)
2-3 times a month	6 (7)
Once a month	7 (8)
Less than once a month	7 (8)
Never	3 (3)

was common among respondents (42%, 37/89). Only 12% (11/89) of respondents accessed Facebook using a work computer.

Over 90% of respondents (81/89) indicated they used Facebook primarily for social purposes, with only 16% (14/89) reporting that they were a member/fan of a professional network. When asked what professional activities they would be willing to pursue on Facebook or Twitter, almost half of the respondents were willing to receive notifications for continuing education (CE) (48%, 42/87) or to complete assignments for CE credit (46%, 40/87), and 39% (34/87) of respondents were interested in becoming “fans” of professional organizations such as American Society of Hospital Pharmacists (ASHP) (Table 3). Approximately one-third (29%, 25/87) of respondents indicated they were not interested in using Facebook or Twitter for any professional activity. When asked specifically if they would like to receive pharmacy or medical news briefings via newsfeeds or tweets, only 25% (22/88) indicated “yes” and 34% (30/88) indicated

Table 3. Activities That Pharmacy Preceptors Were Interested in Pursuing via Facebook or Twitter (N = 87)

Facebook or Twitter Activity	Respondents Indicating Interest, No. (%)
Becoming a fan or member of a particular therapeutic area	21 (24)
Following events occurring at professional meetings via newsfeeds or tweets	21 (24)
Registering for professional meetings	24 (28)
Becoming a fan or member of a professional organization	34 (39)
Completing continuing education opportunities	40 (46)
Receiving notifications for continuing education (CE) opportunities	42 (48)
Not interested in any of these opportunities	25 (29)

“maybe” (Table 4). Of the participants who were interested in receiving news updates, the majority preferred the news briefs to come from sources such as regulatory agencies like the Food and Drug Administration (FDA) or professional organizations such as ASHP. With regard to pursuing employment opportunities using social media, only 17% (15/87) of respondents reported that they were either likely or very likely to use these sites for this purpose. Similarly, only 22% (19/87) were likely to use Facebook or Twitter as a forum for clinical discussions, and only 23% (20/88) reported that they were likely to obtain specific drug or disease state information through these venues. Forty-four percent (38/87) of respondents indicated that they were not interested in accessing information from pharmaceutical companies through sites such as Facebook or Twitter.

DISCUSSION

Over 90% of the pharmacists who reported having a Facebook account indicated that they primarily used it for social purposes, whereas only 2% of individuals used Facebook for professional purposes. Although approximately 40% of pharmacists were willing to follow professional organizations through social media channels, the majority did not want to actively use these sites for activities such as researching drug information, clinical discussion forums, or pursuing career opportunities. We chose APPE preceptors to represent practicing pharmacists as these professionals are the educators at the forefront of practice. Teaching pharmacy students to understand current practice trends is a vital component of contemporary pharmacy education.

Table 4. Pharmaceutical Industry Information of Interest to Pharmacy Preceptors via Facebook or Twitter (N = 87)

Type of Information	Respondents Indicating Interest, No. (%)
Business portfolio	2 (2)
Career opportunities	13 (15)
Methods of adverse drug event reporting	15 (17)
Medication access programs	18 (21)
Disease state information	19 (22)
Pipeline information	24 (28)
Safety information	25 (29)
Product information	26 (30)
I am not interested in using Facebook or Twitter sites for pharmaceutical industry information	38 (44)

To our knowledge, there has been only one other report in the literature describing pharmacists' use of and opinions regarding social media.¹⁵ Alkhateeb and colleagues surveyed 50 practicing pharmacists in West Virginia and found that most used social media, including Facebook, for personal rather than professional or educational purposes. A potential reason behind the hesitation to use social media for professional purposes may be concerns regarding e-professionalism. Sites like Facebook and Twitter are used to connect with friends, share demographic data, conduct online conversations, and share experiences and interests.¹⁴ If these sites also are used for professional purposes, the line between professional and personal life may become unclear. Any questionable content on a profile may be deemed unprofessional and may even negatively impact a pharmacist's career (eg, lack of consideration by new employer or even potential loss of position in current employment).¹¹⁻¹³ Additionally, many practice sites have blocked employee access to social networking sites in an effort to prevent lost productivity.

Despite many pharmacists' unwillingness to incorporate social media in their professional life, pharmacy organizations have created organizational Facebook and Twitter sites to reach out to pharmacy professionals. For example, the American Association of Colleges of Pharmacy (AACCP) uses Facebook as a mechanism to communicate policy and advocacy issues.⁹ ASHP uses Facebook to provide access to drug information resources, drug shortage information, and career opportunities through the provision of hyperlinks on their site. ASHP also uses Facebook and Twitter to inform members of key highlights during ASHP-sanctioned events, and to provide details regarding upcoming events. Regardless of the wealth of information these sites provide, the number of pharmacists and/or pharmacy students that follow these organizations is relatively small compared to the number of members who are enrolled in these organizations. For example, ASHP has approximately 35,000 members, yet only 5,737 fans follow the ASHP Facebook page.¹⁶ Government agencies such as the Food and Drug Administration (FDA) and National Institutes of Health (NIH) also have launched various initiatives using social media. The FDA has created a Facebook page that provides a forum for professionals to discuss various policies and the ability to request information from the FDA.¹⁷ The FDA also is working to create a guidance for the pharmaceutical industry regarding its regulatory scope over the use of social media and the provision of information on these sites. With the expanding presence of healthcare institutions, professional organizations, industries, and governmental agencies using social networking sites as a mechanism for communication, future pharmacists

may use these sites during their professional practice. Although the target demographic for social media networking sites is generally a younger audience (21 to 28 years), social media networking appears to be growing among other age groups as well. The average age of respondents in this study was 42 years and the frequency of use was high, with more than two-thirds of respondents reporting that they accessed Facebook either daily or at least 2 to 3 times a week. The frequency of use of social media for social purposes among our respondents was similar to that reported by pharmacy students.¹¹ The results from both studies indicate social media networks hold great potential in terms of creating both social and professional relationships, given the high frequency of use among pharmacy students and pharmacists. The popularity and ease of use of social media sites such as Facebook and Twitter have given users the ability to broaden communication and organizational opportunities.

The sample used in our study may not be representative of the general population of pharmacy preceptors or practicing pharmacists. The majority of respondents were from the hospital setting, with most of the rest from the retail setting. Pharmacists working in a pharmaceutical industry setting represented only 3% of the study population, and pharmacists in academia represented only 9%. To preserve a sense of professionalism, pharmacists in academia may have more stringent views toward the use of social media sites such as Facebook for professional purposes. Given the relationship of pharmacy preceptors to academia, these individuals also may have different opinions regarding the use of social media compared to those of the general population of pharmacists. In the study, representation of pharmacy preceptors practicing in retail settings was low. Although a response rate approaching 50% is acceptable in these types of surveys¹⁸ several survey items were not answered by all respondents, resulting in variation in the number of respondents for each item. This could potentially confound the results due to inherent differences between participants who elected to answer certain survey items and those who did not.

CONCLUSION

Over half of the pharmacy APPE preceptors surveyed in this study reported having a Facebook account that they used primarily for social purposes. However, the majority of respondents were not willing to use social media for professional uses such as obtaining specific drug or disease state information, participating in clinical discussion forums, or seeking employment opportunities. Pharmacists who were willing to expand the use of social media for professional development most preferred to

obtain information regarding continuing education opportunities through these sites. The use of social networking tools for professional development will likely continue to evolve.

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