INSTRUCTIONAL DESIGN AND ASSESSMENT

Using Facebook to Facilitate Course-Related Discussion Between Students and Faculty Members

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Objectives. To use Facebook to facilitate online discussion of the content of a Comprehensive Disease Management course and to evaluate student use and perceptions of this exercise.

Design. A Facebook page was created and coordinators encouraged students to “like” the page and to post and view study tips, links, or questions. At the end of the course, students’ use and perceptions were evaluated using an anonymous survey tool.

Assessment. At the end of week 1, there were 81 followers, 5 wall posts, and 474 visits to the course Facebook page. At peak use, the page had 117 followers, 18 wall posts, and 1,326 visits. One hundred nineteen students (97% of the class) completed the survey tool. Twenty-six percent of students contributed posts compared to 11% who posted on the course discussion board on Blackboard. Students were more likely to post and be exposed to posts on Facebook than on Blackboard. Students found Facebook helpful and 57% said they would miss Facebook if use was not continued in subsequent courses.

Conclusions. Students in a Comprehensive Disease Management course found the addition of a Facebook page a valuable study tool and thought most posts added to their learning.

Keywords: Facebook, social media, student engagement

INTRODUCTION

Online social media Web sites such as Facebook (Facebook, Inc, Palo Alto, CA) have transformed personal communication, social interaction, and even language, as users “friend” other users and “like” other Facebook pages to establish relationships. Facebook is among the most popular social networking sites with over 500 million users and a large proportion of overall Internet traffic.¹ The service can be used in many ways, including for personal and professional networking, social interaction, and business. It is also used for advertising and to disseminate news and information to users. Within Facebook, individual or group users can post status updates, links, or media content on a profile page or “wall.” The application then compiles these posts and updates in real time for display in a “news feed.” Each user’s news feed is different and lists updates only from that user’s Facebook friends or from group pages that the user has “liked.” If a group or individual’s page is “open,” all Facebook users may visit the page (similar to a public

Internet page) to read and contribute posts and updates. “Closed” or private pages require users to establish a relationship or gain permission in order to contribute to page content.

Facebook is widely used by students and faculty members in institutions of higher education, including colleges and schools of pharmacy and other health professions.²⁻⁵ There are several aspects of the Facebook platform that could make it an effective educational tool. It could facilitate active learning (as Facebook users engage with each other to participate in discussions or share and view posts) and easy sharing or posting of current events, and could serve as an accessible, real-time, dynamic platform to allow course-related discussion. However, several papers acknowledge the risks of combining social media and health professions education, specifically citing issues about maintaining a professional image, the pitfalls of online interactions between faculty members and students, and the disclosure of protected information or other inappropriate or unethical acts.^{2,4-7} While there are no standard guidelines for health professions faculty members that detail whether or how best to interact with students on social media Web sites, some institutions have developed or are considering implementation of policies about social media use.⁸ Others have raised concerns that use of Facebook within a course

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could increase student and faculty workload as Facebook does not replace other course management software (eg, Blackboard Learning System and WebCT, Blackboard Inc, Washington, DC).⁹⁻¹¹

Several published studies have described specific courses or educational strategies using the Facebook platform; however, we found only 2 that involved pharmacy students.⁹⁻¹² One paper describes how students in a geriatric pharmacotherapy course used a closed (or private) group Facebook page to participate in weekly discussions.⁹ Students thought the application was easy to use and the assignment added value to the course. A letter published in the *Journal* describes an adult ambulatory care pharmacy elective course¹¹ that was to include moderated discussion via Facebook, but the course was cancelled because a large proportion of students who initially registered for it subsequently withdrew. In a survey of students who had dropped the course, 91% cited the Facebook assignment as one of the aspects they liked least about the course.

Our objective for this study was to establish a Facebook page for the Comprehensive Disease Management course to encourage pharmacy students to participate in online discussions of course material and related current events. This course teaches pathophysiology, pharmacotherapeutics, and pharmacy practice skills, and we thought a Facebook page might be a useful study aid. After creating the page, we evaluated how students used the page, how often they used it, and what their opinions were about the page. We hypothesized that students would post more often on the Facebook platform than on the existing Blackboard discussion board.

DESIGN

The Northeastern University School of Pharmacy offers a 6-year first professional degree PharmD program. A majority of students enter the program immediately after high school graduation and complete the P1 to P4 years in their early 20s. Informal survey tools in the classroom revealed that a majority of the students use Facebook, with only a few using Twitter (Twitter, Inc, San Francisco, CA) for social interaction. All Northeastern University courses have the option to use Blackboard course management software to facilitate course administration and online student interaction. The Blackboard system has a discussion board feature that allows users to post and respond to comments and questions, and can be used by students and faculty members to ask and answer questions outside of class.

The Comprehensive Disease Management courses are a team-taught, integrated series that combines pathophysiology, self-care therapeutics, and disease state management in 7 courses taught over 4 semesters to P2 and

P3 students. The Comprehensive Disease Management 4 course is focused on infectious diseases and is taught to P3 students in the fall semester. All of the disease management courses use Blackboard for course administration, grade notification, and posting of questions outside of class. All course instructors have individual forums set up on the discussion boards where they can interact with students by posting additional information as necessary and answering student questions. Routine viewing of the Blackboard discussion board is strongly encouraged by instructors and in the syllabus. The discussion board has a “subscribe” function that allows users to choose to have alerts sent via e-mail when a new post is added to the discussion board. Users can choose to receive only an alert or can choose to have the text of the post sent in the alert. Users can subscribe to all or some of the Blackboard discussion forums.

At the start of the Comprehensive Disease Management 4 course in fall 2010, an open Facebook page was created (<http://www.Facebook.com/pages/Comprehensive-Disease-Management-Course/134330039944869>) and students were invited to find the page on Facebook and “like” it to be able to see all of the posts in the news feed and to be able to post on the wall and comment on posts by others. Students were told that “following” the page was voluntary and that the page would not be used as the sole method for communicating important course announcements. As with Comprehensive Disease Management 1, 2, and 3 courses, Blackboard was also used to administer the course, so all important announcements were posted on both Blackboard and Facebook. Students in the course were automatically enrolled in Blackboard by the University and standard policies about Blackboard were included in the syllabus and mentioned during the first day of class. The course coordinator alerted faculty members about the use of the Facebook course page in addition to Blackboard. Faculty members were encouraged to “like” the Facebook page and were granted page administrative privileges if they desired. Administrative users could post under the course name (as opposed to under their own name) and received weekly statistics about page use from Facebook.

The course coordinator and 2 fourth-year students completing an elective advanced pharmacy practice experience (APPE) periodically reminded students throughout the first week to “like” the Facebook page and to share study tips and links, post questions, respond, and comment.

EVALUATION AND ASSESSMENT

One hundred twenty-three students were enrolled in the course. Facebook Insights and Blackboard Activity in

Forums reports were used to evaluate access and utilization data.

At the end of week 1, there were 81 followers of the course Facebook page, 5 wall posts, 5 post feedbacks (comments and likes), and 474 Facebook page visits. At peak use, the page had 117 followers, 18 wall posts, 118 post feedbacks, and 1,326 page visits over the course of 1 week. Examination weeks were associated with higher use (Table 1). Three faculty members (25%) interacted with the students on the Facebook course page. Over the duration of the course, there were 53 wall posts and 284 comments and “likes.” In comparison, 38 posts were made on the Blackboard discussion board by 13 students (11%) and 6 faculty members (50%). Facebook use was higher than Blackboard discussion board use for all weeks.

At the end of the course, students were surveyed anonymously in class using an audience response system (clickers) about their use and opinions of the course Facebook page. Questions were constructed to evaluate the frequency of Facebook use for social and course-related purposes, patterns of Facebook course page use compared to Blackboard discussion board use, and perceptions about type of posts that were most useful.

One hundred nineteen (97%) students participated in the in-class survey. Only 3% of students stated that they did not have a Facebook account prior to the start of the course, while 48% reported daily use of Facebook, and 26% described themselves as “very frequent” Facebook users, accessing Facebook 2 or more times per day. When asked about their first impression when they learned about the Facebook course page, only 11% were excited about it, 38% were not sure how it was going to work, and 42% were somewhat unhappy about viewing course-related posts during a social activity. When asked how their frequency of logging into Facebook changed over the

course, 62% reported no change, 33% of students reported an increase, and 4% reported a decrease in use.

The majority of the students (82%) viewed Facebook posts either in their news feed or by visiting the course page; however, only 26% of students contributed posts or comments by interacting on the Facebook course page (Table 2). An additional 24% interacted by “liking” posts but did not engage in discussions in other ways. We also asked students about Blackboard use and whether they were aware of the “subscribe” function to receive e-mail alerts about Blackboard posts. Only 28% of the class was aware of the “subscribe” function and only 10% used it. Furthermore, 39% of students reported never looking at the Blackboard discussion board for the course. Overall, 61% of students strongly agreed or agreed that they were more likely to post on Facebook than Blackboard and 77% strongly agreed or agreed that they were more likely to see and read posts on Facebook than on Blackboard. Facebook and Blackboard usage statistics confirmed that Facebook was used more often than Blackboard (Table 1).

When asked about what type of posts students found most helpful, 66% identified study tips and suggestions. Students also agreed that posts that asked questions (and the related discussion that followed) were beneficial to their learning (Table 3). Eighty-six percent of students found Facebook use in the course beneficial (Table 3) and 57% indicated that they would miss Facebook if it was not used in their remaining 3 Comprehensive Disease Management courses.

DISCUSSION

The goal of incorporating Facebook into the Comprehensive Disease Management course was to encourage students to participate more frequently in discussion of course-related content outside of the classroom. We

Table 1. Activity on a Facebook Page and Blackboard Discussion Board for a Comprehensive Disease Management Course^a

Week	Weekly Active Users ^a	Lifetime Followers ^b	Wall Posts	Feedback ^c	Page Views	Page Views per Active User	Blackboard Posts ^d
1	96	81	5	5	474	4.9	0
2	70	85	4	11	404	5.8	3
3	108	97	11	47	741	6.9	3
4 (midterm)	102	103	9	37	733	7.2	6
5	115	110	5	63	491	4.3	0
6	66	112	1	3	218	3.3	12
7 (final)	124	117	18	118	1326	10.7	14

Abbreviations: Blackboard = Blackboard discussion board.

^a Active users are people who viewed the page in the specified time period (course page was open to public).

^b Followers are people who “liked” the page and were able to see posts in their “news feed.”

^c Feedback is the number of likes and comments made to stories posted on the page.

^d Blackboard discussion board posts by students and faculty members.

Table 2. Pharmacy Students' Responses to a Survey Regarding Facebook and Blackboard Discussion Board Usage Patterns (N = 119)

Survey Items	Response, %
Facebook page utilization pattern	
"I try to check posts by going to CDM page"	45.7
"I only read CDM posts if they show up in my news feed"	36.2
"I rarely look/ read CDM posts"	16.4
"I don't have Facebook account"	1.7
Facebook page participation	
"I am just a passive observer"	46.5
"I have posted and/or answered questions and/or made comments"	26.3
"I have "liked" a few posts but have not posted questions/ comments"	24.6
"I don't have a Facebook account"	2.6
Blackboard discussion board utilization pattern	
"I actively review all posts routinely"	8.5
"I actively review all posts prior to exams"	46.6
"I have posted questions and looked for responses but don't review posts by others"	5.9
"I do not generally look at blackboard discussion board"	39.0
Subscription to blackboard discussion board forums ^a	
"I subscribe to all forums"	2.6
"I subscribe to some forums"	7.8
"I am aware of subscribe function but never use it"	17.4
"I am not aware of subscribe function"	72.2

Abbreviations: CDM=comprehensive disease management.

^a Subscription to discussion board forums sets a system of notifications via e-mail to alert users of new posts.

hypothesized that integrating the course-related online interaction with the social network most used by our students would enhance visibility and improve participation as assessed by numbers of posts contributed by students. Our findings confirmed that students were more likely to be exposed to content posted on Facebook than to that posted on Blackboard. While at the beginning of the course, many students (42%) were skeptical about viewing course-related posts in a forum they primarily use for social interactions, by the end of the course, 86% found the Facebook page beneficial overall and 57% said they would actually miss the posts when the course ended. A majority of the students in the class used the Facebook page, with most page traffic occurring around examination times. However, many users were passive observers and further strategies will need to be used to encourage

students to be more interactive. For example, an active-learning technique called "the muddiest point" could be used with the students within the Facebook platform. Students could be asked to bring a device (eg, laptop, smartphone, tablet computer) to access Facebook in class and a few minutes could be allowed for students to post their "muddiest points." The instructor could address these points, speaking to the students in class if time allowed, or if not, then on Facebook outside of class to promote further discussion. Three subsequent Comprehensive Disease Management course coordinators continued to encourage the use of the Facebook page, however, the instructors in these courses were infrequent Facebook users and page use decreased substantially. This suggests that students and instructors need to be reminded, incentivized, or otherwise encouraged to post comments

Table 3. Pharmacy Students' Perceptions Regarding the Benefits of Facebook (N = 119)

	Strongly Agree, %	Agree, %	Disagree, %	Strongly Disagree, %	Unable to Comment, %
I find study tips posted on Facebook helpful in my learning	65.5	12.1	9.5	1.7	11.2
I find questions/answers posted on Facebook beneficial in learning material	29.8	50.9	1.8	1.8	15.8
I find Facebook use in the course overall beneficial	36.4	50.0	2.7	2.7	8.2

and questions on online forums such as Facebook or Blackboard. Our students were naïve to Facebook use as part of coursework, which could have explained their more passive behavior. Interestingly, use increased slightly as this cohort of students began their APPEs. We saw a few students use the course Facebook page to post links to news such as Food and Drug Administration alerts, new publications of interest, updates in clinical practice guidelines, and other useful professional resources.

Setting up a course page was a simple process and because we used an open page that anyone could “like,” there was no additional workload associated with approval of participants. However, we had several followers who were not associated with the class, which could have presented problems with inappropriate posts, comments, or liability issues associated with the discussion that occurred on the Facebook page. While we did not encounter any problems, a closed group page would have provided more control and security. Another concern of faculty and student users is loss of privacy through connecting via the course page. However, only public user profiles are visible to page “followers” and addressing these concerns upfront ensured high class participation. Going forward, we plan to use closed groups for our courses. Additionally, we plan to invite several fourth-year students and outside experts to participate and share experience and expertise on topics covered in the course.

During the period of the study, the course syllabus did not address the use of Facebook and no school or university policy existed about appropriate Facebook or other social media communication etiquette. While, in theory, student professionalism issues could have arisen, our students are consistently engaged in discussions about appropriate electronic etiquette and professionalism throughout the entire curriculum and we did not encounter any problems. Following the pilot semester, the syllabi for all Comprehensive Disease Management courses were modified to include a section on Facebook use and communication policies to ensure all students adhere to course policies.

We shared our experience internally with the school of pharmacy faculty. These discussions led us to believe that many of those who were already Facebook users were open to the idea of offering this tool to students in their courses, while those who did not have Facebook accounts saw creating Facebook course pages as an increase in their workload and/or had concerns about the professional consequences of Facebook use. Prior to the creation of a course-related Facebook page, we recommend

that faculty members have an open discussion of the benefits, workload implications, and possible risks for students and course instructors.

CONCLUSION

Use of Facebook as a voluntary adjunct to a Comprehensive Disease Management course was well received by students and substantially increased their self-perceived likelihood of being exposed to course announcements, online discussions, and external links. Examination weeks were associated with the highest use of the course Facebook page. Use of Facebook could help to bridge the span between the classroom and pharmacy practice as users continue to interact with the page after they have completed the course and moved into APPEs. Pharmacy educators should further assess use of Facebook as a method to increase student participation in online discussion of course content and evaluate the advantages and disadvantages of integrating coursework with social networking.

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