

## RESEARCH

# Student and Faculty Observations and Perceptions of Professionalism in Online Domain Scenarios

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**Objectives.** To relate common online scenarios to tenets of professionalism, assess frequency of observed scenarios in 4 online domains, and compare second-year (P2) pharmacy students, fourth-year (P4) pharmacy students', and faculty members' perceptions of professionalism.

**Methods.** A 63-item survey instrument consisting of scenarios of behavior in online domains was developed. Using a Likert scale, participants reported whether they had observed each scenario and whether each scenario was professional.

**Results.** Of the 296 participants who completed the survey instrument, 53% were P2 students, 49% were P4 students, and 68% were faculty members. Most of the observed scenario responses were for social networking sites. There were statistical differences among the 3 cohorts' perception over whether a scenario demonstrated professional behavior in 6 of the 10 most frequently observed scenarios, and 4 out of 6 of these scenarios were in the social networking domain.

**Conclusion.** Second-year pharmacy students and faculty members were more in alignment with their perception of professionalism than P4 students, suggesting that P4 students may be more complacent in their perception of professionalism.

**Keywords:** professionalism, e-professionalism, electronic media, faculty, pharmacy students

## INTRODUCTION

Developing appropriate student professional behavior is a common goal in academic health sciences programs such as medicine, pharmacy, and nursing. There has been significant discussion on e-professionalism, or online professionalism, which commonly refers to student behavior in online domains such as e-mail, media sharing sites, and social networking sites. There are abundant guidelines from various professions which provide examples of appropriate and inappropriate behavior in online domains.<sup>1-5</sup> There has also been a surge of literature examining student, resident, and faculty perceptions and behaviors in online domains. There have been studies examining undergraduate students' attitudes toward social networking profiles,<sup>6</sup> frequency and content of social networking among medical students and pharmacy students,<sup>7,8</sup> and pharmacy faculty perspectives on student and faculty online relationships.<sup>9</sup> Another study examined medical students' perspectives on online professionalism and, using focus groups, concluded that the

distinction between personal and professional lives may be blurred for medical students, and that they considered personal risk to their future rather than the impact of their online behavior to the medical profession as a whole.<sup>10</sup> Students' online behavior may also affect hiring decisions. Cain and colleagues examined residency program directors' use of social media in selecting candidates for residency programs, and found that over half of the respondents to their survey had identified what they determined to be e-professionalism issues on the part of resident candidates.<sup>11</sup>

Students in doctor of pharmacy programs similar to others, are embracing online domains, and there is significant discussion regarding professional behavior in these domains. While professionalism has been defined and discussed for decades, a common definition of e-professionalism and how it relates to basic tenets of professionalism is still needed. The tenets of altruism, accountability, excellence, duty, honor and integrity, and respect for others are the most widely used characterization of professionalism as it relates to pharmacy students. These tenets, which Hammer and Chisholm originally adapted from the American Board of Internal Medicine, were used by Chisholm and colleagues to develop and validate the 18-item Pharmacy Professionalism Instrument.<sup>12</sup> In our

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study, conducted at Midwestern University Chicago College of Pharmacy, we used the same 6 tenets as our working definition of professionalism.

The objectives of this study are to link common online behaviors to 6 tenets of professionalism, to assess frequency of observed behaviors of pharmacy students and faculty members in 4 online domains, and to compare P2 pharmacy students', P4 pharmacy students', and faculty members' perceptions of e-professional behaviors.

## METHODS

We used the framework developed by Chisholm and colleagues<sup>12</sup> to measure professionalism in pharmacy students to guide the development of this study. They developed and administered a 32-item instrument to pharmacy students and pharmacists, and then through factor analysis, reduced the data to 6 factors or tenets, listed above, which drove our understanding of e-professionalism.

We focused on 4 domains of online behavior: e-mail, social networking sites, media sharing sites, and blogs. We developed a 63-item survey instrument using the 2 frameworks described above. Each scenario (item) described a behavior or situation that could occur in the 4 identified online domains. The scenarios were developed from the observations and conversations we had with other students and faculty members. The survey instrument was pilot-tested using third-year pharmacy students from Midwestern University Chicago College of Pharmacy and faculty members from other institutions. Several changes, including grouping scenarios by category or rewording for clarity, were made to individual items based on the pilot test results.

After developing the items, we independently identified the professionalism tenet that best captured each scenario. Subsequently, we discussed each scenario and reached a consensus regarding categorizing each scenario under 1 of the 6 professionalism tenets. Most scenarios reflected the tenets of respect for others, excellence, and honor and integrity.

The survey instrument was administered to all P2 (N=217) and P4 (N=193) pharmacy students enrolled at Midwestern University Chicago College of Pharmacy

in the fall quarter of 2011. It was also administered to 68 faculty members who were from the 2 departments in the college of pharmacy and faculty members in the college of medicine who had responsibilities for teaching pharmacy students. The 2-part survey instrument was administered to students during live classroom sessions and via e-mail to faculty members. In the first section, participants were asked if they had observed the behavior presented in the individual scenarios in either pharmacy school or in pharmacy practice. The second section repeated each scenario and, using a Likert scale, participants were asked to rate whether or not they agreed or disagreed with the statement, "This is professional behavior." Most scenarios presented in the survey instrument would be perceived as unprofessional or negative behaviors; however, some behaviors seen as professional or positive were also included. All responses to the survey instrument were anonymously recorded. The project was reviewed by Midwestern University IRB and determined to be exempt.

SPSS, version 18.0.0, was used to analyze data. The chi-square test was used to analyze categorical data and the Kruskal-Wallis test was used to analyze ordinal data. Alpha was set *a priori* at 0.05. Post hoc analyses on significant differences among the 3 cohorts of those surveyed were not conducted; therefore, the authors knew when there were differences between groups overall but did not know if the differences were between the P2 and P4 students, P2 students and faculty members, or P4 students and faculty members individually.

## RESULTS

Two hundred ninety-six participants completed the survey instrument and were included in the data analysis. Fifty-three percent of respondents were P2 students, 49% were P4 students, and 68% were faculty members. The data analysis did not include blank responses. Across all 3 cohorts, most respondents were female. Median age for P2 and P4 students was from 20 to 25 years; whereas, median age for faculty member respondents was from 36 to 40 years (Table 1).

Participants read 30 scenarios and stated whether they had observed that type of behavior in pharmacy

Table 1. Demographics of Respondents

Position	Female, No.	Male, No.	Age Range, No. (%)				
			20-25	26-30	31-35	36-40	40+
P2 students (N= 116) <sup>a</sup>	70	46	76 (66.7)	28 (24.6)	6 (5.3)	2 (1.8)	2 (1.8)
P4 students (N = 94)	60	34	53 (57)	33 (35.5)	7 (7.5)	0	0
Faculty (N = 46)	34	12	1 (2.4)	9 (21.4)	9 (21.4)	3 (7.1)	20 (47.6)

Abbreviations: P2=second-year, P4=fourth-year.

<sup>a</sup> Some respondents did not report age.

school or pharmacy practice. Twenty of the scenarios were observed by fewer than 50% of all respondents (Table 2). Ten of the scenarios were observed by more than 50% of all respondents and respondents also listed their perceptions of whether the scenarios represented a professional behavior (Table 3). Seventeen of the 30 scenarios were classified under “respect,” 8 under “honor and integrity,” 4 under “excellence,” and 1 under “duty.”

Of the 5 e-mail-related scenarios, 2 were observed by more than 50% of all respondents. These included 1 negative scenario, which was faculty members using incorrect punctuation in e-mails, and 1 positive scenario, which was including name, affiliations, and contact information at the end of e-mails (Table 3). Significant differences in the frequency of observation were found among the 3 cohorts only for the item, “When e-mailing a student, the professor signs his name Robert,” (Table 2). Second-year students observed this scenario less frequently than the other 2 groups (30.6% of P2 students vs 48.6% of P4 students and 45.7% of faculty members).

Although students observed more behaviors regarding media sharing sites than faculty members, these were the least-observed scenarios of the 4 online domains (Table 2). Significant differences in the frequency of observation were found among the 3 cohorts only on the item, “A pharmacist posts a video on YouTube showing herself counseling a patient. The patient’s face and all identifying information are blurred,” with more P2 students reporting observations (27.8% of P2 students vs 13.2% of P4 students and 6.5% of faculty members). Fewer respondents reported observations of behaviors in the media sharing site online domain.

Of the 5 blog-related scenarios, only 1 was observed by more than 50% of all respondents. This scenario was, “A student writes on her public blog that she has the best rotation site ever and that she is learning a lot.” There was a significant difference in the percentage of respondents in each cohort who had observed the scenario (60.2% of P2 students, 77.6% of P4 students, and 28.3% of faculty) (Table 3). A significant difference was also found in the percentage of respondents in each cohort who had observed the scenario, “A student vents on her blog about how she just went to a professor’s office hours and how the professor was unhelpful and yelled at her making her feel like an idiot. The student’s blog is private so only her friends have access to it.” Only about a third of all respondents reported having observed this scenario.

Of the 17 social network scenarios, 7 were observed by more than 50% of all respondents (Table 3). Most of the observed scenarios included students posting a picture of themselves or their peers on Facebook or Google+. Significant differences in the frequency of

observation in some items were found (Table 2 and Table 3).

In addition to the percentage of respondents who observed the scenarios, Table 3 describes participants’ ratings of whether the 10 most frequently observed scenarios are professional (strongly agree/agree, neutral, or strongly disagree/disagree). These scenarios were classified as fitting under the professionalism tenets of excellence, honor and integrity, or respect. Most respondents disagreed or were neutral that scenarios regarding student posts on social networking sites demonstrated professional behavior. Significant differences in perceptions of whether scenarios demonstrated professional behavior were detected for 6 scenarios, 4 of which related to social networking. For 4 of the 6 different responses (scenarios 1, 7, 8 and 9), P2 students responded in a pattern that seemed more similar to that of faculty members than to that of P4 students. For these 4 scenarios, P2 students and faculty members were more likely to consider the scenario unprofessional, whereas P4 students were more neutral toward the scenario. In 2 of the 6 different responses (scenarios 3 and 5), P2 students responded in a pattern that seemed more similar to that of P4 students than to that of faculty members. For these 2 scenarios, faculty members were more likely to consider the scenario unprofessional, whereas P2 and P4 students were more neutral toward the scenario.

## **DISCUSSION**

Professionalism at the Midwestern University Chicago College of Pharmacy is taught and modeled through a variety of mechanisms. At orientation, first-year students (P1) are introduced to policies regarding professionalism, including appropriate use of university e-mail and Internet. During the fall quarter, P1 and P2 students are required to attend a presentation on professionalism developed and delivered by the pharmacy student council. After this presentation, students are asked to recite and sign the pledge of professionalism. Most faculty course directors review professionalism policies with students at the beginning of each quarter and include these policies in their course syllabi. The college has 10 curricular outcomes, 4 of which are categorized under the domain of professionalism. One of these outcomes states, “Act in a professionally responsible manner and promote such action in others.” All students are required to maintain an electronic reflective portfolio where they reflect on their progress in the 10 curricular outcomes and provide evidence to support their reflection. During advanced pharmacy practice experience (APPE) orientation in the spring quarter, outgoing P3 students are reminded of professionalism policies, especially how they relate to student

Table 2. Scenarios Observed by Less Than 50% of All Survey Respondents

Scenario	Online Domain	Professionalism Tenet	Students/Faculty Who Observed This Scenario, No. (%)
A student writes on his public blog that he hates school and can't wait to be working in the real world.	Blogs	Respect	140 (49.0)
When e-mailing a student, the professor signs his name Robert. <sup>a</sup>	E-mail	Excellence	114 (39.7)
A student finds out what chapter will be covered on the next examination after going to office hours with Dr. Pitt. The student posts this information on Facebook/Twitter/Google+. <sup>a</sup>	Social networks	Respect	112 (39.7)
A student sends friend requests to her current faculty members and/or preceptors on Facebook or Google+. <sup>a</sup>	Social networks	Respect	105 (37.2)
A student vents on her blog about how she just went to a professor's office hours and how the professor was unhelpful and yelled at her making her feel like an idiot. The student's blog is private so only her friends have access to it. <sup>a</sup>	Blogs	Respect	96 (33.7)
A student takes pictures of a prank he pulled on other students. He posts them on Facebook and announces that "he got them good."	Social networks	Respect	78 (27.8)
Dr. Sanchez posts anonymously on a public blog about his day and gave examples of the difficulties he had at work. He vents about how a patient came into the pharmacy and began yelling at him about her insurance.	Blogs	Respect	76 (26.8)
At the end of an e-mail, a professor signs her name Jane. When the student responds to the e-mail, he begins the e-mail with Dear Jane.	E-mail	Respect	74 (25.8)
During class a professor does a visual demonstration. A student video records the demonstration and posts it on Facebook or YouTube for students that missed class that day. <sup>a</sup>	Social networks	Respect	66 (23.4)
Pharmacy students post a video on YouTube of a formal dance they attended. In the video, it shows people dancing, drinking alcohol, laughing, and making faces at the camera.	Media sharing sites	Honor and Integrity	61 (21.3)
A pharmacist posts a video on YouTube showing herself counseling a patient. The patient's face and all identifying information are blurred. <sup>a</sup>	Media sharing sites	Respect	54 (18.9)
Dr. Smith writes anonymously on a public blog that today she is very proud of herself because she caught a patient who wrote a fake prescription for narcotics. This patient has been doing this for a couple of years now at various pharmacy locations.	Blogs	Respect	54 (19.1)
A faculty member sends friend requests to his students via Facebook or Google+.	Social networks	Respect	48 (17.1)
A preceptor makes an event on Facebook and invites his students and coworkers to a bowling event and a bar afterwards for drinks.	Social networks	Honor and Integrity	42 (14.8)

(Continued)

Table 2. (Continued)

Scenario	Online Domain	Professionalism Tenet	Students/Faculty Who Observed This Scenario, No. (%)
A faculty member “checks in” to a bar on Yelp or Facebook. <sup>a</sup>	Social networks	Honor and Integrity	36 (12.7)
A student posts pictures of himself giving immunization shots to his peers as he is getting trained on Facebook or Google+.	Social networks	Respect	35 (12.4)
A student posts a picture of a chest x-ray showing a ring in someone’s stomach. The caption reads “putting a ring in a woman’s drink is not the way to propose.”	Social networks	Honor and Integrity	20 (7.1)
A patient finds her pharmacist’s home e-mail address on Facebook and e-mails her pharmacist a question regarding drug interactions. The pharmacist responds.	E-mail	Duty	17 (5.9)
A faculty member posts a video on YouTube of a family Christmas party. This video shows his family members and everyone enjoying great food along with some alcoholic beverages.	Media sharing sites	Honor and Integrity	14 (4.9)
A pharmacist sends all his patients a friend request to allow him to get to know his patients better.	Social networks	Respect	14 (4.9)

Abbreviations: P2=second-year, P4=fourth-year.

<sup>a</sup> Significant difference in observation of scenario between P2 students, P4 students, and faculty members at  $p < 0.05$  per chi-square test.

behavior at APPE sites. All faculty members are evaluated by their department chairperson on their ability to interact professionally with students and other faculty and staff members in their annual performance evaluations. Collectively, our institution uses policy, multiple reminder systems, student reflection, and faculty modeling to promote professional behavior in students. These policies and practices have been in place for several years, and both student cohorts in this study experienced the same activities.

The survey scenarios were largely developed from our personal observations. We then classified them by the 6 tenets of professionalism. Although some scenarios could have been classified under more than 1 tenet of professionalism, we ultimately decided to choose the tenet we collectively believed best captured the driving tenet behind the scenario. Interestingly, the scenarios were classified into only 4 of the 6 tenets (excellence, respect, honor and integrity, and duty), with most scenarios classified as respect. None of the scenarios were classified under the 2 professionalism tenets of “altruism” and “accountability.” While the method for classifying scenarios may have lacked scientific rigor, the results suggest that what is largely driving e-professionalism is respect for others.

Participants reported observing the most scenarios in the online domains of e-mail and social networks

(Table 3). This is certainly not surprising given the frequency both domains are used for communication by individuals, organizations, and businesses.

Second-year students and faculty were more in alignment with their perceptions of what constitutes professional behavior in online domains than P4 students (Table 3). Fourth-year students had completed approximately three 6-week APPEs by the time the survey instrument was administered to them, and they appeared to be more casual in their approach to professionalism. This may have been a function of growing confidence and familiarity with faculty members.

Behavior that is typically considered “unprofessional” in online domains largely rests within the professionalism tenets of respect for others and excellence. By understanding this, faculty members and other educators can better define e-professionalism and assist students in developing as professionals.

Students appeared to believe that if their site was private there was more latitude with the posted content. Conversely, faculty members believed that any content, whether public or private, should be professional. This is reflective of the blur between public and private that has been discussed previously.

There may be a need for professional academic programs to develop specific guidelines for online behavior

Table 3. Scenarios Observed by Greater Than 50% of All Survey Respondents and Perception of Professionalism

Scenario	Online Domain	Professionalism Tenet	Observed Scenario, No. (%)	Student or Faculty	Level of Agreement With the Statement: "This is a professional behavior," No. (%)		
					SD/D	N	SA/A
1. A faculty member sends an e-mail to his class using incorrect punctuation. <sup>a</sup>	E-mail	Excellence	166 (58.0)	P2 P4 Faculty	107 (86.3) 60 (59.4) 34 (73.9)	12 (9.7) 28 (27.7) 12 (26.1)	5 (4) 13 (12.9) 0
2. At the end of an e-mail to your coworker, you include a signature with your name, affiliations, and contact information.	E-mail	Excellence	231 (81.1)	P2 P4 Faculty	9 (7.3) 1 (1) 0	11 (8.9) 14 (13.7) 10 (22.2)	104 (83.9) 87 (85.3) 35 (77.8)
3. A student writes on her public blog that she has the best practice experience site ever and that she is learning a lot. <sup>a,b</sup>	Blogs	Respect	176 (61.5)	P2 P4 Faculty	15 (12.4) 10 (9.8) 8 (17.4)	36 (29.8) 39 (38.2) 27 (58.7)	70 (57.9) 53 (52) 11 (23.9)
4. A pharmacist posts pictures of her family, pets, and coworkers on Facebook. <sup>b</sup>	Social networks	Respect	221 (77.8)	P2 P4 Faculty	11 (9.2) 7 (6.9) 6 (13)	38 (31.7) 45 (44.6) 16 (34.8)	71 (59.2) 40 (48.5) 24 (52.2)
5. After an extremely hard examination, a student posts on Facebook that Dr. Jolie is the worst professor ever and should not be allowed to teach. The student's Facebook is private so only his friends can see the post. <sup>a,b</sup>	Social networks	Respect	143 (50.7)	P2 P4 Faculty	98 (83.8) 75 (74.3) 41 (91.1)	15 (12.8) 18 (17.8) 3 (6.7)	4 (3.4) 8 (7.9) 1 (2.2)
6. A student's Facebook profile picture is of her in a Halloween costume. <sup>b</sup>	Social networks	Honor and Integrity	226 (80.4)	P2 P4 Faculty	34 (29.1) 24 (24) 14 (31.1)	61 (52.1) 45 (45) 24 (53.3)	22 (18.8) 31 (31) 7 (15.6)
7. A student is very tired from studying for examinations so during class he updates his Facebook status with "falling asleep in class" in hopes that keeping himself busy will keep him awake. <sup>a,b</sup>	Social networks	Honor and Integrity	190 (67.6)	P2 P4 Faculty	74 (63.8) 48 (48) 33 (73.3)	34 (29.3) 39 (39) 12 (26.7)	8 (6.9) 13 (13) 0
8. While a student is falling asleep in class, another student takes a picture. This picture is then posted on Facebook. <sup>a,b</sup>	Social networks	Respect	195 (69.6)	P2 P4 Faculty	75 (64.1) 48 (48) 38 (86.4)	34 (29.1) 41 (41) 6 (13.6)	8 (6.8) 11 (11) 0
9. A student posts a photo of herself on Facebook while intoxicated, but her site is private. <sup>a</sup>	Social networks	Honor and Integrity	171 (61.1)	P2 P4 Faculty	82 (70.1) 56 (56) 36 (80)	29 (24.8) 35 (35) 7 (15.6)	6 (5.1) 9 (9) 2 (4.4)
10. A student applies for a job and/or a residency and changes his profile picture on Facebook so that it looks more professional. <sup>b</sup>	Social networks	Excellence	192 (68.3)	P2 P4 Faculty	11 (9.4) 6 (6) 2 (4.4)	32 (27.4) 31 (31) 13 (28.9)	74 (63.2) 63 (63) 30 (66.7)

Abbreviations: P2=second-year, P4=fourth-year, SD/D=strongly disagree/disagree, N=neutral, SA/A=strongly agree/agree.  
<sup>a</sup> Significant difference in perception of professionalism between student and faculty cohorts at  $p < 0.05$  per Kruskal-Wallis test.  
<sup>b</sup> Significant difference in observation of scenario between student and faculty cohorts at  $p < 0.05$  per chi-square test.

and to educate students how online behavior is linked to the basic tenets of professionalism. This may be accomplished by first understanding faculty's perspectives of digital media and then educating students on the consequences of misuse.<sup>11</sup>

One of the frameworks of this study was Chisholm's definition of professionalism, which includes 6 tenets. A different methodology in developing and classifying scenarios by these 6 tenets may have strengthened the study. The sample only included students and faculty members from 1 college of pharmacy. Students and faculty members from other regions and institutions may have varying responses depending on their culture and environment. Also, some students may have felt that the survey instrument was lengthy, which may have contributed to a lower response rate. Because anecdotally it appears that many students and faculty members use social networking sites regularly, there were more questions on the survey instrument regarding social networking sites as compared to blogs, e-mails, or media sharing sites. This may have attributed to a higher response of observed scenarios within social networking sites. While we presented scenarios within all 4 online domains, some participants may not have had any direct experience with each of the individual domains, which may have affected their responses. Some of the faculty members felt that a few of the scenarios were neither professional nor unprofessional and could not be categorized. Therefore, allowing the choice of N/A may have more accurately measured their beliefs regarding certain scenarios.

## CONCLUSION

This study examined how frequently P2 students, P4 students, and faculty members observed specific scenarios in 4 online domains and their level of agreement regarding whether these scenarios were professional. Group differences were examined. Scenarios using e-mail and Facebook were the most frequently observed, and scenarios most likely considered unprofessional were classified under the tenets of respect for others and excellence. In scenarios in which there were statistical differences in the perception of professionalism between 3 cohorts, P2 students and faculty members appeared to have more aligned

perceptions; whereas, P4 students appeared less polar with their perceptions of professionalism. These data can provide a framework for defining and discussing e-professionalism, articulate faculty's expectations for students' behavior in online domains, and enhance students' levels of professionalism.

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