

## BACKGROUND

- Self-assessment (e.g., Toohey, 2002) and peer evaluations (e.g., Asch et al., 1998; Toohey, 2002) have been used in the context of medical education to examine student personal development according to attitudes of professionalism.
- In pharmacy education, the Behavioral Professionalism Assessment (BPA; Hammer et al. 2000) has been used frequently to examine pharmacy-education-specific behaviors related to professionalism; it consists of 26 items on a five-point Likert Scale. The scale has been tested and validated, and has been used at UMSOP for over 10 years.
- Students in their first and second professional years conduct a self-assessment and an anonymous peer assessment of 12-13 peers via Qualtrics.
- Two additional statements were added to the 2018 iteration (28 items total) in response to previous feedback: appropriate use of social media and use of technology in the classroom.
  - "I think that an aspect that address **appropriate use of social media should be considered**. Overall, I believe this to be a valuable tool, and I sincerely hope that my peers do as well." - P2, 2017.
- Majority of research on social media was conducted 2008-2010; focus was Facebook (e.g. Metzger et al. 2010; Cain et al. 2009) and "friending."

## METHODS

- The BPA was administered to students in their first and second professional years, in randomized within-cohort groups of 12-13 students. Each student evaluated 12-13 peers in another group.
- Evaluating students were anonymous to each evaluated individual, promoting sincerity in responses.
- Data for this analysis were derived from Spring 2018 evaluations.
- The surveys were delivered online via Qualtrics, with the surveys left open for 14 days.
- Faculty mentors review peer and self-evaluations of professionalism in an individual meeting with each student pharmacist, within a co-curricular program labeled Professional Development Advising Teams (PDAT).
- Two ordinary least squares (OLS) regressions were run using Stata 12.1: the dependent variables are the calculated mean responses of the statements designed to measure peer perceptions of social media usage (item 27) or peer perceptions of technology usage in the classroom (item 28):
  - "Student's **photos and comments on social media** (Facebook, Instagram, Snapchat, etc.) accurately reflect a professional image for a student pharmacist."
  - "Student's **technology use during class** (laptop, smartphone, etc.) reflects professional attention to the UMSOP Code of Conduct (which considers as a professional conduct violation "inappropriate use of computer during class, including sending/checking e-mail, playing games, surfing the Internet, etc.").

## RESULTS

- 66.24% of respondents are female; 33.76% are male.
- Male student pharmacists are statistically ( $p < 0.05$ ) more likely to provide higher evaluative scores (more positive) on their peers' behavior and photos on social media.
- Male student pharmacists are statistically ( $p < 0.05$ ) more likely to provide higher evaluative scores (more positive) on their peers' usage of technology in the classroom.
- Professional class year (P1 or P2) has no statistical effect on peer evaluative scores.

Table 1

	Social Media	Technology in Classroom
Male	0.204* (0.0785)	0.200* (0.0921)
P1	0.0342 (0.0745)	0.0126 (0.0876)
R-square	0.030	0.021
N	227	228

(Standard errors in parentheses)  
+p< 0.10 \*p< 0.05 \*\*p< 0.01 \*\*\*p< 0.001



## DISCUSSION AND IMPLICATIONS

- The statistical significance of gender provides a further line of inquiry:
  - Different perceptions or standards of what constitutes "professional" or "acceptable" behavior between female and male students?
  - Cain et al. (2009, 5) found female student pharmacists are statistically more likely to support online professionalism accountability on social media to authority figures compared to their male counterparts.
- Using peers to provide anonymous feedback on the professional behaviors of other students has the advantage of local and more persistent observation than faculty or administrative access might allow.
- Professionalism may be difficult to measure as an abstract concept, but it may be demonstrated via visible signaling, such as visible technology usage or attire:
  - "In general, **most people adhere well to the dress code**. However, there are **certain individuals** who continuously and blatantly disregard the professional dress code. I think it is unfair these few people get to take advantage of the lax enforcement while everyone else dresses appropriately." - P1, 2018.
  - "I think **a space for added comments** within the questionnaire could be helpful. **I would like to explain why I scored someone low or very high on a few specifics. I would also like to express my disdain for how lax the dress code is...**" - P1, 2018.
- No comments regarding social media or technology usage were provided by students in this iteration.
  - This could be because there are now items asking about this; however, there is an item for "professional attire," and comments on student attire have been provided on the current and past iterations. Do students view social media presence and technology usage in a different manner than faculty?
- We are currently attempting to reduce the number of items while still maintaining the validity of the BPA. Reduction of items would be based on factor analysis (pca) loading strength as well as student feedback on item performance and validity. Social media and technology items will remain.
- Student feedback suggests that response burden time needs to be reduced, as do some questions that only a roommate or close friend would know.
  - "**I feel like some of the questions are repetitive**, it might be beneficial to review the questions for content to avoid this." - P2, 2018.

## REFERENCES

- Cain J et al. (2009). "Pharmacy students' Facebook activity and opinions regarding accountability and e-professionalism." *Am J Pharm Educ.* 73: 1-6.
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- Metzger AH et al. (2010). "Pharmacy faculty members' perspectives on the student/faculty relationship in online social networks." *Am J Pharm Educ.* 74: 1-5.
- Toohey S. (2002) "Assessment of students' personal development as part of preparation for professional work—is it desirable and is it feasible?" *Assessment & Evaluation in Higher Education*, 27(6): 529-538.