

INSTRUCTIONAL DESIGN AND ASSESSMENT

Guest Speakers in a Professional Development Seminar Series

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Objective. To evaluate the impact guest speakers have on student development in a professional development seminar series.

Design. Over a 5-semester period, presentations were given by 18 guest speakers as part of a professional development seminar series.

Assessment. A 28-item survey instrument was constructed and administered to 68 students to assess the impact of the guest speakers on the students' professional development. Forty-six (68%) students completed the survey instrument, and the results demonstrated the value of the guest speakers, most notably in the areas of career development and professional responsibility.

Conclusion. Exposing pharmacy students to guest speakers from varied pharmacy career paths positively impacted students' knowledge of career options and professional development.

Keywords: guest speakers, professional development, career counseling, advising, mentoring

INTRODUCTION

Guideline 16.1 from the Accreditation Council for Pharmacy Education's (ACPE's) Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree (Standards 2007) directs colleges and schools of pharmacy to "provide academic advising and career-pathway counseling," "coordinate the availability of personal counseling," and "plan and participate in activities that support the development of students as professionals."¹ Reinforcing the importance of these requirements, ACPE also suggests in Guideline 26.6 that the faculty evaluation process should recognize and value the important roles faculty members play as academic advisors and career pathway counselors. Unfortunately, pressures and time constraints related to teaching, research, and scholarship obligations often become barriers for faculty members to provide requisite student services. This identified curricular deficit prompted 2 faculty advisors at the University of Illinois at Chicago College of Pharmacy (UIC COP) to develop and implement a professional development seminar series for student advisees. Additional inspiration for the series was drawn from (1) the observed discrepancy between the plethora of opportunities that exist for doctor of pharmacy (PharmD) graduates and the advisees' limited knowledge of these opportunities, and (2)

the observed failure of many pharmacy graduates to meet expectations related to professional development.

The educational environment and rationale for the development of the professional development seminar series has been described previously, as have several investigations into its impact on various aspects of professional education.²⁻⁴ Starting with the second semester of the first year (P1) and continuing throughout the on-campus portion of the curriculum, the seminar is offered each semester as a 1 credit-hour elective for the advisees of the 2 faculty members at the UIC COP. The initial evaluation of the seminar series successfully demonstrated student development of various performance-based skills.² Subsequent research demonstrated significant improvement in the development of self-efficacy among seminar participants, as well as the value of a microteaching exercise to help students develop their communication, critical-thinking, and problem-solving skills.^{3,4} This study was intended to explore the use and effectiveness of adding guest speakers within the seminar series, the inclusion of which was backed by ACPE Guideline 23.4, directing colleges and schools of pharmacy to "implement strategies and programs to broaden the professional horizons of students," suggesting, as one example, the use of guest lecturers.

The term professionalism appears extensively throughout ACPE's Standards 2007 and was identified as 1 of the 12 areas emphasized during the most recent standards revision process. Standards 2007 also emphasized various components of professionalism, including

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communication, critical thinking, and interpersonal skills, as well as professional responsibility. Over the course of this decade, the academy, in conjunction with professional organizations, has continued to innovate, evaluate, and promote these important aspects of pharmaceutical education.⁵⁻¹² In recent years, researchers have begun to lay the foundation for the systematic evaluation of professionalism as an integral part of the curriculum.^{13,14} Building on this foundation, the objective of this study was to evaluate the impact that systematically exposing PharmD students to guest speakers had on various aspects of student development, with an emphasis on career planning and student professionalism.

DESIGN

Created as a forum to provide academic advising and career pathway counseling in an efficient manner to many advisees simultaneously, the introduction of guest speakers, primarily from varied pharmacy career paths, was originally envisioned as a means to achieve the following 3 educational outcomes for enrolled advisees:

- Compare and contrast the objectives of a pharmacy residency versus a pharmacy fellowship
- List career paths open to the pharmacy graduate
- Create a plan for the selection of advanced pharmacy practice experiences (APPEs)

Guest speakers were selected based on a combination of students' requests and a desire of the faculty directors to ensure representation from a broad range of career options. Individuals working in the pharmaceutical industry, independent pharmacy practice, professional associations, long-term and managed care, and state board of pharmacy, among others, were invited to address the students. The majority of guest speakers were pharmacists. The speakers chosen/invited differed from class to class, depending on the students' suggestions/requests.

To minimize the speakers' preparation time, reflective questions were created based on the specific career path of the invited speaker and provided beforehand (Appendix 1). The intent was to provide a framework for the presenter and allow the presentation to be more interactive, which is important for the millennial generation.¹⁵ Speakers were informed about their allotted time and requested to reserve the last 10 minutes of the session for questions and answers. They also were provided with information about the class itself, eg, number of students and their year of professional study. Speakers were advised not to deliver PowerPoint presentations but to create an informal "give and take" environment.

Guest speakers were asked to provide a curriculum vita or resume, which was used to introduce the speaker at the beginning of the session. After each presentation,

students had 1 week to submit a reflection of unspecified length, demonstrating what they learned from and/or how they were influenced by the speaker. Subsequently, the faculty members collated the students' reflections, deleted their names, and forwarded their comments electronically to individual guest speakers as a means of providing feedback and illustrating how the speakers influenced the students.

EVALUATION AND ASSESSMENT

A survey instrument consisting of 24 Likert-type scale items with 4 open-ended questions was created to assess student development when exposed to guest speakers. The 24 Likert-type scale items were divided into 3 categories: instructional method, written reflection assignment, and broadening student outlook/personal and social growth. While the survey instrument was intended to assess student development globally, a key aim was to evaluate the impact of guest speakers on student professionalism. As a result, over one-third of survey items were devoted to student professionalism (Table 1: Items 6-12, 15-17). The 4 open-ended questions asked respondents to comment on the number of speakers used throughout the series, list key "take away" messages, suggest additional areas of pharmacy practice from which to recruit future guest speakers, and provide additional thoughts and/or reflections not captured by the other survey items. A short demographic form at the end of the survey instrument asked the respondent's gender, class year, age range, and whether a previous college degree(s) had been earned.

A review of the survey items and open-ended questions was conducted by 7 external pharmacy academicians with instructional design experience in the PharmD curriculum. The content validity panel was asked to evaluate each item on a 5-point scale ranging from a highly pertinent/valid item to a highly invalid item. For item acceptance, a 70% decision rule was instituted, eg, 5 experts had to indicate the item was either highly pertinent/valid or valid. In addition, a request for exemption was approved by the UIC Institutional Review Board of the Office for the Protection of Research Subjects.

Every advisee from the graduating classes of 2008, 2009, and 2010 who participated in the professional development seminar series was contacted via e-mail and asked to complete the survey instrument (N = 68): 23 from the class of 2008, 24 from the class of 2009, and 21 from the class of 2010. One follow-up e-mail was forwarded to all advisees 1 month after the original e-mail as a reminder. As students from the graduating class of 2010 were currently enrolled in the PharmD program, they were informed their participation in the survey was

Table 1. Survey to Determine the Impact of Guest Speakers on Pharmacy Students Enrolled in a Professional Development Seminar Series (%)

	SA ^a	A ^a	N ^a	D ^a	SD ^a
Instructional Methods: In the professional development seminar series:					
1. Guest speakers enhanced my learning	54.4	43.5	2.2	0	0
2. An appropriate number of guest speakers was used	60.9	39.1	0	0	0
3. In general, the guest speakers communicated effectively	54.4	41.3	4.4	0	0
4. The guest speakers exposed me to a variety of careers in the pharmacy profession	87.0	10.9	2.2	0	0
5. Sufficient time was allowed for students to ask questions of the guest speakers	52.2	41.3	4.4	2.2	0
6. Asking questions helped me improve my oral communication skills	28.3	34.8	32.6	4.4	0
7. Having guest speakers helped improve my self-confidence to ask questions	17.4	37.0	41.3	4.4	0
The Written Reflection Assignments: Writing about guest speakers' presentations:					
8. Broadened my thinking about my societal role as a pharmacist	54.4	39.1	6.5	0	0
9. Broadened my definition of what it means to be a pharmacist	54.4	39.1	4.4	2.2	0
10. Improved my written communication skills	23.9	52.2	21.8	2.2	0
11. Improved my writing skills in other courses	8.7	39.1	45.7	6.5	0
12. Helped me to think critically	28.3	47.8	23.9	0	0
13. Fostered a trusting relationship with my advisor	65.2	34.8	0	0	0
14. Receiving feedback from my advisor was valuable to me	80.4	17.4	2.2	0	0
Broadening Student Outlook/Personal and Social Growth: The guest speakers:					
15. Made me become more empathetic toward patients who live with chronic or life-threatening illnesses	47.8	34.8	15.2	2.2	0
16. Increased my awareness that, as a future pharmacist, it is my professional responsibility to use my knowledge for the benefit of others	60.9	30.4	6.5	2.2	0
17. Increased my awareness that, as a future pharmacist, I must work now to improve my communication and interpersonal skills so that others may benefit from those improvements in the future	63.1	23.9	10.9	2.2	0
18. Exposed me to pharmacy career opportunities I did not know about beforehand	76.1	23.9	0	0	0
19. Helped me focus on my career goals	43.5	41.3	15.2	0	0
20. Helped me begin to formulate my career goals	43.5	47.8	8.7	0	0
21. Contributed to my rethinking and possibly changing my pharmacy career goals	41.3	39.1	15.2	4.4	0
22. Helped me decide, in part, which advanced pharmacy practice experiences to select for my fourth professional year	41.3	43.5	8.7	6.5	0
23. Made me more aware of my career interests	43.5	41.3	15.2	0	0
24. Increased my awareness of personal talents I could use in my pharmacy career	23.9	47.8	26.1	2.2	0

^a SA = strongly agree, A = agree, N = neutral, D = disagree, SD = strongly disagree

voluntary and that declining to participate would not affect their grades or class standing. Student responses were considered confidential, and students were informed that data would be reported only in aggregate for purposes of statistical analysis and research publication.

Sixty-eight percent (46) of advisees responded to the survey instrument: 10 from the class of 2008, 16 from the class of 2009, and 20 from the class of 2010. Twenty-four percent of survey respondents were male, which was a deviation from the 34% male population of the general student body. Seventy-three percent of survey respondents were between the ages of 23 and 26 years, while only 59% of students in the general student body fell in this age range. Additionally, 36% of survey respondents reported having earned a baccalaureate degree or higher, compared to 67% from the general student body.

The majority of respondents from the surveyed classes perceived the benefits of guest speakers (Table 1), providing evidence to support the objective that this educational activity positively impacted students in terms of professional development and career-pathway counseling. Related to career-pathway counseling, over 80% of students strongly agreed or agreed the guest speaker's exercise:

- exposed them to pharmacy career opportunities they did not know about beforehand (100%)
- exposed them to a variety of careers in the pharmacy profession (97%)
- helped them begin to formulate their career goals (91%)
- helped them decide, in part, which APPEs to select for their fourth year (P4) (84%)

- made them more aware of their career interests (84%)
- contributed to their rethinking and possibly changing their pharmacy career goals (80%)

Regarding professional development, over 80% of students strongly agreed or agreed that the guest speakers:

- broadened their thinking about their societal role as a pharmacist (93%)
- broadened their definition of what it means to be a pharmacist (93%)
- increased awareness that, as future pharmacists, it is their professional responsibility to use their knowledge for the benefit of others (91%)
- increased awareness that, as future pharmacists, they must work now to improve their communication and interpersonal skills so that others may benefit from those improvements in the future (86%)
- made them more empathetic toward patients who live with chronic or life-threatening illnesses (82%)

Ninety-seven percent of respondents reported that guest speakers enhanced their learning. The students felt they were exposed to an appropriate number of guest speakers (100%), and were provided sufficient time to ask questions following the presentations (95%). Respondents also found the guest speakers to be effective communicators (95%).

Sixty-three percent of advisees found that asking questions following the presentations improved their oral communication skills. Seventy-six percent of advisees reported improvement in their written communication skills attributable to the written reflection assignment, and 47% determined this improvement in writing skills transferred to other courses. Data also demonstrated that the exercise helped students think critically (76%), while reported improvement in self-confidence to ask questions of presenters was more modest (54%). Differences were reported among graduating classes regarding the need to improve communication and interpersonal skills to benefit society in the future (2008, 100%; 2009, 81%; 2010, 85%). There were notable differences in the development of empathy among graduating classes: 70% of advisees from the class of 2008, 93% from the class of 2009, and 80% from the class of 2010 reported that exposure to guest speakers made them more empathetic toward patients. These differences may be due to guest speakers' encouragement that students make the patient their first priority. In addition, the class of 2010 advisees had the benefit of 1 guest pharmacist who shared his personal experience as a cancer patient undergoing chemotherapy and the need for pharmacists to be empathetic toward their patients.

Several themes emerged from the open-ended section of the survey instrument. Most notably, when asked to list what they would take away from the exercise, the value of networking and maintaining an open mind, as well as the knowledge that pharmacy is a "small world" emerged as themes. Specifically, 9 respondents stated that the series taught them the value of networking, 6 cited they learned not to "burn bridges," and 6 cited the value of maintaining an open mind to new ideas and opportunities. Three students also commented the series taught them the importance of participating in professional organizations.

DISCUSSION

The professional development seminar series exceeded the curricular requirements outlined in ACPE Guidelines 13.3, 16.1, 23.4 and 26.6. The notion of systematically linking students with pharmacy professionals from a variety of career paths during the classroom-based portion of the PharmD curriculum as a mechanism to address various ACPE guidelines is progressive. It also taps into the tremendous potential of the "hidden curriculum," while offering a mechanism to control and avoid pitfalls associated with negative role modeling.^{10,16} Specifically, by inviting speakers who the faculty members knew would demonstrate professionalism, they could ensure positive role modeling would take place.

The series was a unique educational environment that allowed time-constrained faculty members to provide academic advising and career-pathway counseling efficiently and effectively to many advisees simultaneously. An additional noteworthy educational outcome was the consistent improvement in student professionalism reported by seminar participants, indicated by their responses to the survey items devoted to this area of development.

Brown and Ferrill stressed the need to redefine professionalism as a critical step in improving student professionalism, building on the Hammer and colleagues suggestion that pharmacy educators stress, among other attributes, empathy, communication, and personal values over the more traditional behaviors focusing on dressing professionally, maintaining good grooming habits, and being punctual.^{9,11} The authors incorporated this suggestion into this study, defining student professionalism relating to communication, critical-thinking and interpersonal skills, as well as the development of empathy and professional responsibility. In terms of this definition, systematically exposing pharmacy students to guest speakers from varied pharmacy career paths successfully improved student professionalism.

A concerted effort to improve student professional development is required to ensure PharmD graduates

are prepared to provide medication therapy management and pharmaceutical care services, which CAPE and ACPE have identified as the future of the profession.^{1,17} This is crucial because of the growing recognition of the value of pharmacists as members of the health care team.¹⁸ PharmD graduates must demonstrate professionalism and add value to patient care initiatives while overcoming mischaracterizations and stereotypes of pharmacy and pharmacy education.^{19,20}

With an evolving shift away from a product orientation to one of a service-directed patient-care orientation, implementation of similar seminar series across the country could, as demonstrated by this study, help develop in PharmD students the professionalism required to create and uphold the covenantal relationship between patients and pharmacists described by Roth and Zlatic as key to the profession's evolution.¹¹ Improving student professionalism is critical to putting to rest lingering questions raised about our profession by Abraham Flexner's statements close to a century ago; ie, that pharmacy is an activity (not a profession) of secondary importance because pharmacists lack "original," "primary," or "final" responsibility for their decisions.^{21,22}

This study has limitations. Comparing the demographic information of survey respondents to that of the general student body revealed several noteworthy differences, including a higher percentage of female students and students aged 23-26 years, as well as a lower percentage of students having earned a baccalaureate degree. As demonstrated by the percentages, students entering the PharmD program with a baccalaureate degree or higher would be older and demonstrate a conceivable difference in maturity, eg, perhaps they already knew their career plans/path whereas the younger students desired a perspective on career choices. Despite these differences, it does not appear there were marked disparities from the norm that would influence the survey results.

The research involved PharmD advisees of 2 faculty members from 3 distinct classes. These students selected the investigators to be their academic advisors rather than being randomly assigned or chosen by them. The outcomes of this project might not apply to a situation where students do not voluntarily enroll in a professional development seminar series sequence. Also, enrollment was restricted to 15 students per faculty advisor. Students learned of this elective professional course and its value in providing opportunities otherwise not available within the curriculum by word of mouth. Thus, we believe that the students' selection of the investigators as advisors was predicated on the opportunities afforded within the series, including exposure to guest speakers and numerous pharmacy career pathways.

Another possible limitation to this study was that 1 of the participating classes already had graduated and entered practice and another had begun their APPEs. It is not possible to determine whether these additional professional development experiences impacted the students' responses to the survey. However, the students were instructed in the cover memorandum included with the survey instrument that this study was to determine the impact guest speakers had upon them and their development while enrolled in the professional development seminar series.

Finally, no control group was surveyed in any of the classes to rule out confounding factors within the curriculum, such as advisees' exposure to guest speakers outside the seminar series. For example, guest speakers periodically were invited to address the student body for specific events during the academic year, eg, the annual UIC *Rho Chi* lecture.

SUMMARY

Using guest speakers in a professional development seminar series demonstrated a positive impact on multiple aspects of student development, including student professionalism, a crucial curricular outcome in the evolution of the profession from product- to patient-focused. The systematic exposure to guest speakers from varied pharmacy career paths also positively impacted advisees' knowledge of career options and helped them begin to formulate their career plans and decide which P4 APPEs to select.

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Appendix 1. Sample Preparatory Questions Provided to Guest Speakers for a Pharmacy Professional Development Seminar Series

Sample Preparatory Questions Provided to Guest Speakers

- Describe your career journey and past positions/responsibilities.
- What is your professional philosophy and how did it guide your work ethic?
- What abilities were needed in your professional career and how did your education prepare you for your position?
- What abilities did you have to develop/culture in yourself to fulfill your professional career? How did you accomplish this?
- What was the most satisfying accomplishment in your professional career?
- What was the least satisfying aspect of your professional career?
- What changes did you observe in the practice of pharmacy during your professional career?
- What changes in pharmacy practice do you envision in the future?
- What advice would you provide to the professional year doctor of pharmacy students in attendance?
- How do you balance a family life with your professional life?