

## FACULTY DEVELOPMENT

### Orientating Nonpharmacist Faculty Members to Pharmacy Practice

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**Objective.** To design, implement, and evaluate a faculty development program intended to orient non-pharmacist faculty members to pharmacy practice.

**Design.** A multifaceted program was implemented in 2012 that included 4 shadowing experiences in which faculty members visited acute care, ambulatory care, hospital, and community pharmacy settings under the guidance of licensed preceptors. Itineraries for each visit were based on objective lists of anticipated practice experiences that define the role of the pharmacist in each setting.

**Assessment.** The 4 shadowing experiences culminated with reflection and completion of a survey to assess the impact of the program. All of the faculty participants agreed that the experience improved their conceptual understanding of contemporary pharmacy practice and the role of the pharmacist in the healthcare setting. The experience also improved faculty comfort with creating practice-relevant classroom activities.

**Conclusions.** A shadowing experience is an effective way of orienting nonpharmacist faculty members to the practice of pharmacy. This program inspired the creation of an experience to introduce pharmacy practice faculty to pharmaceutical science faculty research initiatives.

**Keywords:** faculty development, pharmacy practice, pharmaceutical science, orientation

## INTRODUCTION

The importance of the interface between basic science and pharmacy practice was acknowledged by the report of the Study Commission on Pharmacy.<sup>1</sup> The need for clinical scientists in pharmacy education – namely faculty members with skills and training in both science and pharmacy practice – was proposed, citing “an inadequate link between the knowledge of pharmacy and the art of pharmacy practice.”<sup>1</sup> A subsequent study explored the relationship between pharmaceutical science and clinical pharmacy practice and concluded that pharmacy practice clinicians could benefit from pharmaceutical sciences education and pharmaceutical science faculty members could develop some clinical pharmacy practice skills.<sup>2</sup> Establishing closer proximity between pharmaceutical science and pharmacy practice faculty members, as well as using a team approach, would encourage pharmacy practice relevance in the teaching of pharmaceutical science content. Some of the solutions to accomplish this aim as proposed in the study included development of joint research programs, team teaching units, integrated coursework, and programs to develop clinical scientists, whereby basic scientists can participate in clinical

pharmacy activities and clinical faculty obtain training in research methodology.

Regis University School of Pharmacy (RUSOP) conducts the first 3 years of the doctor of pharmacy (PharmD) program using an integrated teaching model in which faculty members of the departments of pharmaceutical sciences and pharmacy practice work closely together to design and deliver course content. In order to appropriately align all educational objectives of the curriculum with the expectations of the pharmacy profession, nonpharmacist faculty members must become familiar with the role of the pharmacist in several distinct settings. In addition to the historic distributing and counseling functions of pharmacy practice, contemporary pharmacists provide comprehensive clinical services that include medication therapy management and disease prevention. The integrated nature of the curriculum is intended to enhance the application of basic science concepts to patient care, rather than focusing solely on content knowledge. Such an approach should be applied early in the curriculum with an increase in basic science courses that target practice-relevant topics.<sup>3</sup>

Students at the school are individually assigned to a faculty advisor whose responsibilities include providing guidance on professional goals and assessing experiential reflections and a philosophy of care statement. To adequately perform these duties, a faculty member must possess a conceptual knowledge of pharmacy practice in

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various settings and anticipate future trends in the pharmacy profession.

Development opportunities that encourage communication and collaboration between departments are expected to enhance collegiality in the form of interdisciplinary partnerships. Promoting a unified identity among faculty members from different educational backgrounds has been suggested as a way to vitalize a positive workplace in colleges and schools of pharmacy, presumably by breaking down barriers between the subdisciplines.<sup>4</sup>

The Accreditation Council for Pharmacy Education (ACPE) Standards and Guidelines for Doctor of Pharmacy education states in Standard 25: Faculty and Staff – Qualitative Factors, “Faculty, regardless of their discipline, must have or develop a conceptual understanding of current and proposed future pharmacy practice in a variety of settings.”<sup>5</sup> In this context, the RUSOP examined survey results from the American Association of Colleges of Pharmacy (AACP) to determine faculty outlook on the degree of pharmacy practice familiarity among nonpharmacists at the school. The existence of orientation events such as individual meetings with the chair and sponsored attendance at the AACP Annual Meeting in the faculty member’s first year may account for the affirmative response of 44% of the school’s faculty. However, the opinion that programs to orient faculty members to pharmacy practice were lacking was expressed by 56% of the faculty. This response was more than twice the national average (25% of pharmacy faculty members in the United States disagreed on the availability of programs in 2011), indicating a need to enhance the orientation program at RUSOP.<sup>6</sup>

To our knowledge, few examples of formal development programs for orienting nonpharmacist faculty members to the role of the pharmacist in practice have been reported.<sup>7</sup> The current article describes the genesis of such a program, including the creation of checklists that inventory anticipated practice experiences specific to acute care, ambulatory care, hospital, and community pharmacy settings. An original survey instrument to assess the impact of the program is described and the initial results of program implementation are reported.

## DESIGN

A multifaceted faculty development program designed to orient nonpharmacist faculty members to pharmacy practice was implemented in 2012. This program was anchored by 4 shadowing experiences in which faculty members visited acute care, ambulatory care, hospital, and community pharmacy settings under the guidance of licensed preceptors. These pharmacy settings were chosen to mirror the ACPE-required advanced pharmacy practice experiences as described in Guideline 14.6.<sup>5</sup>

In order to be sensitive to the impact on faculty and pharmacy practitioner workload, experiences were limited to 1 day for each pharmacy setting. A list of suggested observation activities was provided to both the faculty member and the pharmacy practitioner for guidance and to clarify expectations for the visit (Appendix 1). These lists were created under the leadership of the RUSOP Faculty Affairs Committee with input from faculty members from the pharmacy practice department who had significant experience in each respective pharmacy setting. The purpose of the committee, which is comprised of faculty members and the chairs of the pharmacy practice and pharmaceutical science departments, is to promote faculty development and facilitating communication between professors and administrators to support the welfare and advancement of faculty members.

After the program was approved by the faculty, non-pharmacist faculty members were invited to participate. The RUSOP Office of Experiential Education was consulted to identify pharmacy practitioners who would be a good fit for this program in each of the pharmacy settings. Volunteer practitioners included both nonfaculty preceptors (eg, an owner of an independent community pharmacy) and pharmacy practice faculty members with acute care or ambulatory care practice sites. Faculty practitioners provided the nonpharmacist faculty members with exposure to pharmacy practice in the context of experiential education activities with APPE students on site. Site visits with nonfaculty practitioners did not include students, allowing program participants to observe pharmacy practice in a non-academic setting. The research protocol and the survey instrument were reviewed and approved as exempt by the institutional review board of Regis University.

## EVALUATION AND ASSESSMENT

In the first year of the program (2012-2013), 4 of the school’s 7 nonpharmacist faculty members (57%) voluntarily participated in at least 1 shadowing experience. All 4 participants were from the pharmaceutical sciences department, and 2 completed 2 shadowing experiences each. Shadowing experiences were completed in acute care (n=2), ambulatory care (n=1), and community (n=3) pharmacy practice settings.

A survey instrument to facilitate reflection on the experience and evaluate the program was created by the faculty affairs committee with input solicited from the school’s assessment committee. Item prompts were written to directly address ACPE standards on developing conceptual understanding of pharmacy practice among all faculty members, regardless of discipline, and developing the ability to integrate and apply learning to the advancement of the profession.<sup>5</sup> The survey instrument included 5 Likert-scale

items and an open-ended item asking faculty members to suggest improvements to the experience. Upon completion of each pharmacy setting experience, the participant was asked to complete the survey instrument. The 2 participants who finished 2 experiences completed the survey instrument twice, once for each practice setting.

All of the participants agreed that the experience improved their understanding of the role of the pharmacist in the given setting (Table 1). Additionally, all of the participants agreed that they developed a better conceptual understanding of contemporary pharmacy practice through the program. Examples taken from written reflection and personal communication with faculty participants illustrate some of the program’s qualitative outcomes. One participant gained a “deeper appreciation for translating classroom content to clinical care,” inspiring her to change the way she integrates cardiac pathophysiology into teaching about antiarrhythmic drugs. Another participant was able to draw upon his shadowing experience while advising a student on differences in the approach to a patient with diabetes mellitus in acute care and ambulatory care settings.

**DISCUSSION**

Faculty survey results following implementation of a nonpharmacist faculty orientation program indicated that participants, all of whom were pharmaceutical sciences faculty members, gained an understanding of contemporary pharmacy practice and the role of the pharmacist (Table 1). AACP Faculty Survey data demonstrated the majority opinion at RUSOP in 2011 that programs to orient nonpharmacist faculty members to the pharmacy profession were lacking (Table 2).<sup>6</sup> In a subsequent AACP survey in 2013, 27 of 28 faculty respondents (96%) indicated that they were aware of the nonpharmacist faculty orientation program by agreeing or strongly agreeing that such programming was

available. This represents an improvement over previous orientation events that were not specifically targeted to non-pharmacist faculty members.

The orientation program succeeded in improving faculty comfort level with advising students and preparing teaching materials that are relevant to pharmacy practice (Table 2). The percentage of faculty members who strongly agreed with the availability of programs in the school to improve teaching and facilitate student learning more than doubled (19% to 46%) during the first year in which this program was implemented (Table 1). It is not clear, however, whether the nonpharmacist faculty orientation program was a direct contributing factor to this increase.

Although it is too early to directly observe changes in student advising among faculty participants of the program, the exit survey given to graduates captured evidence that interactions with faculty advisors benefitted the students professionally. Students from the class of 2013 agreed (31 of 49; 63%) that communicating with faculty advisors met their professional needs. Results from future exit surveys may be informative and will be monitored in subsequent years; however, it is unlikely that an association between the faculty orientation program and student responses on exit surveys can be supported under the burden of the many uncontrolled variables.

Hiring, satisfaction, and retention among pharmacy faculty members can be challenging given the increasing number of pharmacy colleges and schools in the United States. Faculty development programs have been proposed as one way to improve satisfaction and retention among pharmacy faculty members.<sup>8,9</sup> Effective faculty development programs include some standardized activities as well as individualized activities to meet faculty and institutional needs. Institutional resource support, faculty commitment,

Table 1. Responses to a Survey of Nonpharmacist Faculty Members Who Participated in a Pharmacy Practice Orientation Program (n=6)

Survey Item	Responses / (%)			
	Strongly Agree	Agree	Disagree	Strongly Disagree
After this experience, I have a better understanding of the role of the pharmacist in the selected setting.	5 (83)	1 (17)	0	0
I have a better understanding of future trends in pharmacy practice in this setting.	2 (33)	4 (67)	0	0
I have a better conceptual understanding of contemporary pharmacy practice in this setting.	5 (83)	1 (17)	0	0
I feel more comfortable advising students about the nature of contemporary pharmacy practice in this setting.	5 (83)	1 (17)	0	0
I feel better able to create relevant classroom activities after this experience.	3 (50)	3 (50)	0	0

Table 2. AACP Faculty Survey Data\*

Indicate the degree to which you agree or disagree with these statements.	Survey Year	Responses, No. (%)				
		Strongly Agree	Agree	Disagree	Strongly Disagree	Unable to Comment
Programs are available for non-practice faculty to orient them to the pharmacy profession and professional education.	2011 (n=16)	1 (6)	6 (38)	9 (56)	0	0
	2013 (n=28)	11 (39)	16 (57)	0	0	1 (4)
Programs are available to me to improve my teaching and to facilitate student learning.	2011	3 (19)	13 (81)	0	0	0
	2013	13 (46)	15 (54)	0	0	0

\* Data were taken from the American Association of Colleges of Pharmacy Assessment and Accreditation Management System, Faculty Survey. <https://www.aamspharm.org/programs/117/benchmarks>. Accessed February 18, 2014.

support for faculty participation, and defined goals and objectives are important characteristics for faculty development programs.<sup>10-12</sup> The program described here has met many of these criteria, and its impact on faculty satisfaction and retention will continue to be monitored in the future.

The orientation program for nonpharmacist faculty members at the school may serve as a template for faculty development initiatives at other colleges and schools of pharmacy. The observation activities checklists (Appendix 1) may be adapted to meet the particular needs of pharmaceutical science faculty members or to reflect on the expectations of pharmacy preceptors. Potential obstacles to implementing such a program include workload strain and limits to site accessibility. Perceived workload issues were minimized through the voluntary nature of the orientation program and the brevity of the 1-day experience. Accessibility was handled on an individual case basis and was dependent on institutional policies regarding visitation and patient confidentiality. Another potential obstacle may be the willingness of faculty members to volunteer for the program, but educating faculty members on the positive outcomes of the experience may encourage participation.

The program continues to operate with current and newly hired non-pharmacist faculty member participation. As a direct result of the success of this program, the faculty affairs committee hosted an afternoon gathering to orient pharmacy practice faculty members to the laboratory facilities, equipment, and current research being conducted by pharmaceutical sciences faculty members. Although no data were collected to assess the impact of the event, anecdotal feedback from faculty members was sufficient to justify exploring the feasibility of establishing a formal program for orienting pharmacy practice faculty members to pharmaceutical science research. Independent of establishing formal criteria, the pharmaceutical science laboratory event will be repeated on an annual basis.

## CONCLUSION

This orientation program for nonpharmacist faculty members fulfilled the need to associate the objectives of pharmaceutical sciences education with the expectations of contemporary pharmacy practice. Faculty participants better understood pharmacy practice and felt better equipped to convey this knowledge to students. The program also precipitated additional faculty development opportunities that bring together department members from different disciplines.

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## Appendix 1.

Community Pharmacy Practice Experience Activity List for Non-Pharmacist Faculty Suggested Observation Activities that *May* Occur During the One-Day Experience

- 1) Verifying prescriptions to minimize potential forgeries
- 2) Assessing and managing drug allergies
- 3) Triaging drug-drug interaction software alerts (including evaluating the clinical significance of such alerts)
- 4) Responding to or resolving potential drug-related problems (including dosage, drug interactions, adverse events, etc.)
- 5) Processing insurance claims (including prior authorization, reviewing copays and deductibles, and communicating third party rejections and therapeutic alternatives)
- 6) Processing and filling a prescription (including obtaining written and verbal (live and voicemail) prescriptions, entering the prescription into the computer, selecting the correct medication, and requirements for written, electronic, facsimile, verbal, transfers)
- 7) Demonstrating automated dispensing technology use
- 8) Selecting auxiliary labels for prescription medications
- 9) Patient counseling on prescription medications (including techniques to increase patient adherence; cultural and socio-economic situation of patients as pertinent to health literacy)
- 10) Patient counseling on OTC medications (including patient referrals to another healthcare professional)
- 11) Preparing compounded prescription medications
- 12) Answering patients' questions regarding differences in generic and brand drug pricing
- 13) Processing and storage of controlled substances (including DEA 222 forms, perpetual inventories, destruction/returns, and national database of controlled substance use)
- 14) Managing the inventory (including ordering, receiving, and returning medications)
- 15) Pharmacist technician and intern ratios
- 16) Roles and responsibilities of pharmacy technicians and interns
- 17) Risk Evaluation Mitigation Strategies (REMS)
  - a) Required patient education medication guides (eg, NSAIDs, Actos)
  - b) Mandatory safety monitoring (eg, clozapine, Accutane)
- 18) Providing and documenting immunizations
- 19) Providing and documenting Medication Therapy Management (MTM) services
- 20) Interacting with pharmaceutical representatives
- 21) State board inspection (including documented prescription requirements and common information audited)
- 22) Developing relationships with patients
- 23) Calculations commonly used in practice
- 24) Storage and expiration of products
- 25) Evaluate point-of-care monitoring parameters (eg, blood glucose, peak flow meters, physical assessments)
- 26) Communicating with other healthcare providers (including clarification on prescriptions)
- 27) Evaluating medication safety in pregnancy and lactation
- 28) Pediatric dosing
- 29) Processing and documenting pseudoephedrine sales