

## EXPERIENTIAL EDUCATION

# Pharmacy Preceptors' Views on the Value and Optimal Frequency of Quality Assurance Visits to Advanced Pharmacy Practice Experience Sites

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**Objective.** To determine volunteer preceptors' perceived value and desired frequency of quality assurance visits by experiential education faculty members.

**Methods.** An electronic survey instrument was sent to 235 volunteer preceptors.

**Results.** A 71.5% response rate was achieved. Nearly 90% of respondents indicated that onsite visits met their needs. Approximately 50% of respondents preferred monthly onsite visits, 17% preferred every other month, and 32% preferred once per year.

**Conclusions.** A quality assurance program for preceptors and experiential sites that includes onsite visits from experiential education faculty members meets multiple needs of the college and the preceptors. More research is needed to determine the impact of this method of quality assurance on experiential education.

**Keywords:** experiential education, experiential learning, quality assurance

## INTRODUCTION

Implementation of the 2007 Accreditation Council for Pharmacy Education Standards by colleges and schools of pharmacy presents opportunities and challenges in the area of experiential education. The increased number of experiential hours required for both introductory and advanced pharmacy practice experiences (IPPEs and APPEs) allows colleges and schools to foster growth in pharmacy students as they progress through the curriculum and ultimately prepares them to practice in a wide variety of healthcare settings after graduation. The present requirement for APPEs is the completion of at least 1,440 hours.<sup>1</sup> For students to achieve the prescribed required and elective practice experience hours, experiential education faculty members must typically interface with adjunct faculty members practicing in a wide variety of sites who serve as preceptors. In fact, approximately 60% of APPEs in US institutions are supported by adjunct faculty members.<sup>2</sup>

Locating and maintaining quality practice experience sites is a significant concern for directors of experiential education.<sup>2</sup> The availability of resources, including both practice sites and qualified preceptors, can be limited

by geographic location, specific practice experience types, and competition from other pharmacy colleges and schools in the area.<sup>2-5</sup> Continuous development of an adequate supply of preceptors and practice sites is crucial to fulfill ACPE requirements for experiential education. Establishing good communication and a strong rapport between experiential faculty members and preceptors may assist in the development of excellent practice sites.<sup>6</sup> To deliver quality experiential education, faculty members in experiential offices must work closely with volunteer preceptors to motivate and enhance preceptor development and ensure that optimal learning environments for students are maintained.

To be considered for appointment as an adjunct faculty member at our college, prospective preceptors must submit demographic and practice site information and details of their education, training, and professional organizational affiliations. The college also conducts an initial visit of the practice site. Upon review by a member of the office of experiential education and recommendation to the dean, adjunct faculty members are appointed and given the title of preceptor. After at least 12 months of providing experiential education, student evaluations of the preceptor and the preceptor's interactions with the office of experiential education are reviewed by the office of experiential education and recommendations are made for appointment of the adjunct faculty member as an adjunct instructor or other appropriate academic title.

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Securing new quality practice sites and volunteer preceptors for experiential education is essential; however, the need for ongoing quality assurance and improvements for existing sites is of equal importance. ACPE standards specify that colleges and schools of pharmacy are responsible for conducting such quality assurance, but they do not dictate how or what types of quality assurance programs are to be implemented.<sup>1</sup> Methods used to assess practice sites and provide quality assurance have included face-to-face communication with preceptors and students at experiential practice sites,<sup>7,8</sup> but neither the benefits of this method nor the optimal frequency or timing of communication has been well documented. How frequently experiential faculty members from colleges or schools of pharmacy conduct onsite visits for quality assurance purposes is unclear; however, only a third of preceptors responding to a 2007 survey by the American Association of Colleges of Pharmacy (AACCP) had received routine visits from a representative of their associated college or school's office of experiential education.<sup>9</sup> In a similar 2011 AACCP survey, the majority of preceptors (84.1%) agreed with a statement indicating they had ongoing contact with their associated experiential office; however, the frequency and nature of this contact was unclear.<sup>10</sup>

Though internally viewed as an essential component of our quality assurance program, formal evaluation of these time-intensive onsite visits and perceptions of our direct interactions with volunteer preceptors had not occurred. Therefore, the primary purpose of this study was to determine volunteer preceptors' perceived value and desired frequency of quality assurance visits by experiential education faculty members.

## METHODS

In addition to onsite visits for initial orientation/assessment of new preceptors and practice sites,<sup>8,11,12</sup> the quality assurance methods used at our institution include a monthly onsite visit to each APPE site that is supervised by a volunteer preceptor. Five college of pharmacy faculty members between 2 campuses have a portion of time allocated to support these onsite visits as a component of their administrative responsibilities. These visits have been viewed as a program-specific method for the experiential office to fulfill a number of important functions in the context of quality assurance and operational management (Figure 1). Onsite visits occur during each month that an APPE student is assigned to complete practice experience requirements while supervised by a preceptor. The majority of practice sites visited are within approximately 30 miles of either the Oklahoma City or Tulsa campus, though travel of 160 miles to a site is required during some months. Travel is divided among the 5 faculty members and typically arranged with consideration for site locations (ie, a cluster of sites is assigned to the same faculty member) to maximize efficiency. With an average class size of approximately 120 students, time to complete the visits ranges from 1 to 2.5 days per faculty member per month. For the limited number of out-of-state practice sites, phone contact is arranged in lieu of onsite visits. The faculty member makes contact with the preceptor after the start of the practice experience (beginning of each calendar month) and arranges a time to visit the site as early as the end of the first practice experience week or as late as the third week, with the most desirable time being around the midpoint of the APPE. Through the onsite visits, faculty members are able to interface

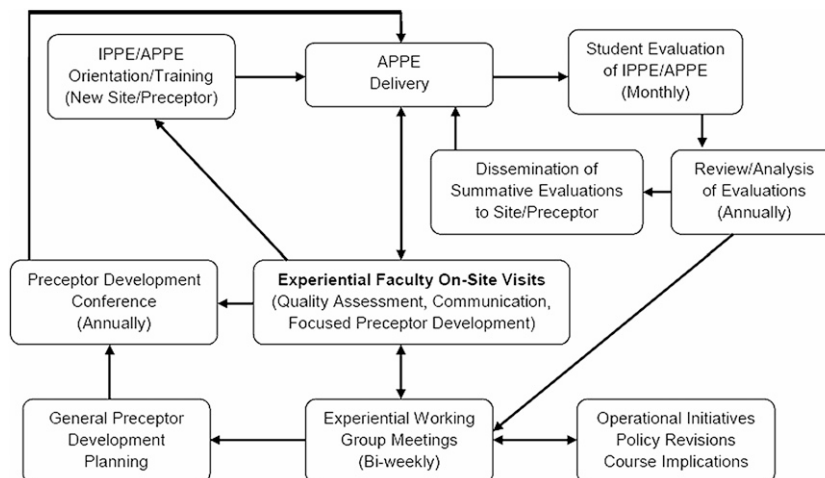


Figure 1. Framework for quality assurance, operations, and preceptor development through the University of Oklahoma College of Pharmacy Office of Experiential Education.

directly with preceptors and students during delivery of the APPE, use standard quality assessment criteria to review the structure and processes for the experience, and provide guidance as needed to enhance learning. Being present onsite also affords the opportunity to provide focused guidance for preceptor development, communicate college updates, and directly address any issues that are most appropriately managed in person. Separate discussions with the student and preceptor typically occur, though a joint meeting can be held as appropriate. Direct observation of student-provided patient care is usually limited due to patient confidentiality.

To address our study purposes, survey questions were developed and validated during fall semester 2009, and questions were formatted using ClassApps.com SelectSurveyASP Advanced, version 8.1.10. (Atomic Design, LLC, Overland, KS). The survey instrument consisted of 20 items, including 5 demographic questions, 12 questions related to onsite quality assurance visits, 2 questions related to preceptor development preferences, and 1 free-text item soliciting comments related to experiential education and suggestions for improvement of the experiential education process. The study received Institutional Review Board approval.

Inclusion criteria for study participants were that they were serving as the primary preceptor at an established practice site supporting APPEs for the college at the time of the study on a non-paid, volunteer basis. An e-mail containing a description of the study and a link to the electronic survey instrument was sent to 235 preceptors meeting the inclusion criteria. No personally identifiable information was collected from participants and participation was anonymous. Participation was voluntary and preceptors provided their consent to participate by completing the survey instrument, as described in the survey instrument directions.

Three reminder e-mails were sent to all of the preceptors at 10 days, 30 days, and 58 days. The survey instrument was closed after 2 months and data were organized using descriptive statistics.

## RESULTS

One hundred sixty-eight of the 235 preceptors responded to the survey for a response rate of 71.5%; however, total responses by question varied because some individuals did not answer all items. Aggregate site and preceptor demographics are included in Table 1. The majority of respondents were community pharmacy preceptors and the response rate by category of practice site showed representation at or above the response rate of 71.5% for all categories except acute care (20% within the category) and specialty/other (57.5% within the category).

Table 1. Demographics of Preceptors Responding to a Survey Regarding Onsite Visits From Experiential Education Faculty Members

Variable	No. (%)
Practice site (n = 166)	
Retail-Chain	59 (35.5)
Retail-Independent	37 (22.3)
Hospital	29 (17.5)
Ambulatory Care	17 (10.2)
Acute Care	1 (0.6)
Specialty/Other	23 (13.9)
Years of practice (n = 166)	
1-5	21 (12.6)
6-10	27 (16.3)
11-15	23 (13.9)
16-20	23 (13.9)
21-25	18 (10.8)
>25	54 (32.5)
Years precepting OU P4 students (n = 168)	
1-5	89 (53.0)
6-10	41 (24.4)
11-15	22 (13.0)
16-20	8 (4.8)
21-25	4 (2.4)
>25	4 (2.4)
Number of OU P4 students annually (n = 167)	
0	10 (6.0)
1-3	93 (55.7)
4-6	41 (24.5)
7-10	17 (10.2)
11-14	5 (3.0)
>14	1 (0.6)

Abbreviations: OU = University of Oklahoma; P4 = fourth year/senior pharmacy

The years of practice for respondents were fairly evenly distributed between pharmacists with 1 to 5 years in practice and pharmacists with greater than 25 years of experience. Approximately 77% of the respondents had been precepting students from the college for 10 years or less, and more than 80% reported assignment of 1 to 6 APPE students annually.

Table 2 displays preceptor responses to 8 of the primary questions related to the onsite visits by faculty members of the office of experiential education. Nearly 90% of preceptors indicated agreement that the onsite visits met their needs for initial and ongoing orientation to practice experience requirements, communicating college expectations of sites and preceptors, and addressing questions and issues regarding assigned students. Approximately 75% of preceptors agreed that onsite visits assist them in developing and refining the practice experience, add value to the students' educational experience, and are

Table 2. Preceptors' Responses Regarding the Value of Site Visits by Experiential Education Faculty Members (N = 161)

Statement	Preceptor Response, No. (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Visits meet preceptor needs for: initial/ongoing orientation to practice experience requirements	41 (25.5)	100 (62.1)	19 (11.8)	1 (0.6)	0
communicating college expectations of sites/preceptors	42 (26.1)	98 (60.9)	19 (11.8)	2 (1.2)	0
addressing questions/issues regarding assigned P4 students <sup>a</sup>	47 (29.4)	96 (60.0)	14 (8.8)	3 (1.9)	0
Visits assist me in developing and refining the practice experience I provide <sup>a</sup>	42 (26.3)	80 (50.0)	32 (20.0)	6 (3.8)	0
Visits are important to me as a preceptor	34 (21.1)	85 (52.8)	37 (23.0)	5 (3.1)	0
Visits add value to the students' educational experience	39 (24.2)	89 (55.3)	29 (18.0)	4 (2.5)	0
Visits improve communication between the preceptor and the college <sup>a</sup>	58 (36.3)	84 (52.5)	12 (7.5)	6 (3.7)	0
In-person visits should continue when P4 students are assigned to a practice experience <sup>a</sup>	45 (28.1)	77 (48.1)	38 (23.8)	0	0

Abbreviations: P4 = fourth year/senior pharmacy.

Response scale range: 1 = strongly agree to 5 = strongly disagree.

<sup>a</sup> n = 160

important to them; more neutral responses were seen for these questions and a small number of preceptors disagreed with these statements. Among the survey questions, the largest percentage of preceptors (36.3%) expressed strong agreement that onsite visits improve communication between the preceptor and the college, with approximately 50% also expressing agreement. Regarding whether in-person visits should continue when only fourth-year pharmacy students were assigned to a site, approximately 75% of respondents agreed that they should continue, while the remaining preceptors were neutral with none expressing disagreement. Slightly more than 50% of respondents indicated that the current practice of visiting every month in which a fourth-year student was assigned should continue (Table 3). Approximately 17% responded that a frequency of every other month in which a fourth-year student was assigned would be desired, and approximately 32% of preceptors selected a frequency of once yearly. Of those preferring only an annual visit, a minority indicated that the

visit should take place during the first month of the academic year in which a fourth-year student was assigned to the site.

Preceptors were also surveyed regarding how they preferred to be contacted regarding a mutually convenient date and time for each site visit. The respondents were fairly evenly divided between those who preferred pre-arranged visits (53%) and those without a preference (46%). Approximately 50% of respondents indicated online communication such as an e-mail was a preferred method of contact, while 28% were evenly divided between phone contact and in-person communication, and 27% had no preference.

When asked whether online preceptor development training would be desirable, the majority of respondents (86%) indicated they would be interested if the training were offered through the college. Written comments indicated an appreciation of the online preceptor training provided by the college through the "Pharmacist's Letter" and a desire for additional information on college and student expectations of preceptors.

## DISCUSSION

The survey results largely confirmed that regular onsite visits by experiential education faculty members to practice sites where APPE students are assigned meet important needs of preceptors and should remain a component of quality assurance for our program. Having experiential education faculty members present in the practice environment allows for dialogue with preceptors and students and observation of fundamental learning attributes such as student access to patients, data, and

Table 3. Pharmacy Preceptors' Preferred Frequency for Site Visits by an Experiential Education Faculty Member (N = 158)

Optimal Frequency of Site Visits	No. (%)
Every month in which a fourth-year student is assigned to the site	80 (50.6)
Every other month in which a fourth-year student is assigned to the site	27 (17.1)
First month of the practice experience year in which a fourth-year student is assigned to the site	17 (10.8)
Once during the practice experience year	34 (21.5)

learning resources, as well as student interactions with preceptors and other health care providers. Student progress toward completion of learning objectives also can be determined, as can the students' overall progress based on evaluation comments. The physical presence of experiential education faculty members at the experiential site is beneficial for preceptors as well because the faculty member can answer questions, clarify expectations, convey college updates, and express appreciation of the vital role served by the practice site and preceptors.<sup>2-6</sup>

Even with the existing evidence that current quality assurance methods are valued, colleges and schools of pharmacy must continue to examine pedagogical, environmental, and financial factors to maximize program quality, benefits, and sustainability. The number of students assigned to APPEs is a primary determinant of how many onsite visits are required during an academic year, and though our enrollment numbers are relatively fixed, this variable must be considered. Although our current approach is to visit APPE sites every month unless circumstances require alternate arrangements, approximately 50% of preceptors indicated that visiting their site less than monthly would still meet their needs. Criteria such as site and preceptor stability and other quality indicators such as student evaluation summaries from the previous academic cycle (when corroborated by experiential office evaluations) could be assessed and the findings used to create a tiered approach to how frequently a practice site should be visited by experiential education faculty members during APPEs. The survey results indicate preceptor acceptance of other forms of monthly communication including e-mail correspondence and these additional forms of contact could be used to maintain communication if the number of onsite visits were reduced.

The information gathered in site visits can help both the college/school and preceptors to improve the program. Knowledge of student capabilities can assist faculty members in designing learning activities<sup>13</sup> and monitoring for expected growth in conjunction with learners and preceptors.<sup>14</sup> Experiential education office faculty members interface with students in the transition from IPPEs to APPEs through lecture-based and laboratory skills teaching during the first 3 years. These longitudinal interactions with students provide experiential faculty members with insight when discussing with preceptors the development of students' capabilities and learning activities in support of desired outcomes, as well as assisting preceptors in discerning whether perceived student deficiencies are isolated or pervasive. Such observations, in addition to preceptor comments regarding trends in practice areas, can serve to inform faculty members of the potential need for curricular refinements or incorporation

of new outcomes. Similar functions could be accomplished through alternate methods including curriculum committee initiatives and/or employer survey instruments, though we have found that direct, onsite communication provides a rich opportunity to explore emerging trends in practice environments.

From a pedagogical and financial perspective, onsite visits should fulfill as many needs as feasible during the time allotted. Experiential faculty members' conversations with preceptors and site administrators could also focus on areas such as their professional development needs, forecasting upcoming/anticipated changes in college programs or accreditation standards, and the availability of teaching tools to further enhance the learning experience. Although the aggregated results from the survey provide some majority opinions, confirmation of individual site and preceptor needs is essential. Knowing the local experiential environment and preceptors is paramount, as the college or school's educational mission requires synergy with practice environments to support the training of future pharmacists. Decreasing the number of site visits and/or the amount of communication with preceptors could be mistakenly perceived as diminished appreciation for their role when the reason for the change may actually be to focus on other sites in need of development. Transparency and mutual respect between experiential faculty members and preceptors are important to achieve a quality assurance system that appreciates all views, focuses on individual needs, and keeps the needs of the students central in all matters.

The authors acknowledge limitations inherent to this study including the potential that the responses received do not fully represent the views of the entire sample because of less than a 100% response rate and also not all respondents answered all survey items. However, the percentage of responses received versus those surveyed within practice site categories was predominantly consistent at or above the aggregate response rate with the exceptions of acute care clinical and other/specialty categories. The acute care clinical category represented the smallest number of respondents (5 invited, 1 received) as full-time faculty members rather than volunteer preceptors usually provide student experiences within this category. Some respondents who were expected to characterize their practice site within the acute care clinical category may have responded to the hospital or specialty category instead, though we work closely with volunteer preceptors to understand the type of practice experience provided. Certainly the community, hospital, and ambulatory care categories of preceptors are core areas of practice and appear to be well represented. The survey response was also limited to the primary preceptor at each facility in order to

avoid multiple responses from the same practice site. However, we appreciate that students are often supervised and taught by more than one preceptor, depending on the practice site, and that those additional views are not represented in our survey results. We cannot ensure that the results of this study are representative of other pharmacy environments and colleges and schools of pharmacy, or that our philosophy is the same, though we believe the scope of functions served for quality assurance and related areas are likely to be similar to those of other institutions (Figure 1). To our knowledge, this is the first research conducted to gain insight into how communication with and onsite visits by experiential faculty members are viewed by volunteer preceptors, who are an essential component of delivering experiential education. For colleges and schools that use a similar approach to quality assurance, elements of our results could be considered applicable to such programs. Exploration of factors that can modify the frequency and/or nature of communication with volunteer preceptors and maintain the intended purposes, as well as methods to capitalize on additional purposes during the visits should be areas for continuing focus. More research is needed to determine the impact of various quality assurance methods on the costs and outcomes associated with experiential education.

## CONCLUSIONS

A quality assurance program for APPEs that includes routine onsite visits from the faculty members of the office of experiential education can meet multiple needs of volunteer preceptors. The current practice of visiting P4 students every month that they are assigned to a volunteer preceptor site is preferred by many volunteer preceptors, but flexibility may exist for less frequent visitation according to the needs of the site and experiential program.

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## REFERENCES

1. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree; January 23, 2011. <http://www.acpe-accredit.org/pdf/FinalS2007Guidelines2.0.pdf>. Accessed February 22, 2012.
2. Harralson AF. Financial, personnel, and curricular characteristics of advanced practice experience programs. *Am J Pharm Educ.* 2003;67(1):Article 17.
3. Plaza CM, Draugalis JR. Implications of advanced pharmacy practice experience placements: a 5-year update. *Am J Pharm Educ.* 2005;69(3):Article 45.
4. Skrabal MZ, Jones RM, Nemire RE, et al. National survey of volunteer pharmacy preceptors. *Am J Pharm Educ.* 2008;72(5): Article 112.
5. American Society of Health-System Pharmacists and American Association of Colleges of Pharmacy. Capacity of hospitals to partner with academia to meet experiential education requirements for pharmacy students. *Am J Health-Syst Pharm.* 2008;65(21): e53-e71.
6. Skrabal MZ, Kahaleh AA, Nemire RE, et al. Preceptors' perspectives on benefits of precepting student pharmacists to students, preceptors and the profession. *J Am Pharm Assoc.* 2006; 46(5):605-612.
7. Zarembski DG, Boyer G, Vlases PH. A survey of advanced community pharmacy practice experiences in the final year of the PharmD curriculum at US colleges and schools of pharmacy. *Am J Pharm Educ.* 2005;69(1):Article 5.
8. Haase KK, Smythe MA, Orlando PL, Resman-Targoff BH, Smith LS. Quality experiential education. *Pharmacotherapy.* 2008;28(12): 219e-27e.
9. American Association of Colleges of Pharmacy. Preceptor survey national summary report 2007. <http://www.aacp.org>. Accessed February 22, 2012.
10. American Association of Colleges of Pharmacy. Preceptor survey national summary report 2011. <http://www.aacp.org/resources/research/institutionalresearch/Pages/PreceptorSurveyInformationandSummaryReports.aspx>. Accessed February 22, 2012.
11. Boyle CJ, Morgan JA, Layson-Wolf C, Rodriguez de Bittner M. Developing and implementing an academy of preceptors. *Am J Pharm Educ.* 2009;73(2):Article 34.
12. Haase KK, Smythe MA, Orlando PL, Resman-Targoff BH, Smith LS. Ensuring quality experiential education. *Pharmacotherapy.* 2008;28(12):1548-1551.
13. Bowen JL, Stearns JA, Dohner C, Blackman J, Simpson D. Defining and evaluating quality for ambulatory care educational programs. *Acad Med.* 1997;72(6):506-510.
14. Armstrong EG, Mackey M, Spear SJ. Medical education as a process management problem. *Acad Med.* 2004;79(8):721-728.