

RESEARCH ARTICLES

A Survey of Advanced Community Pharmacy Practice Experiences in the Final Year of the PharmD Curriculum at US Colleges and Schools of Pharmacy

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Objective. To assess the current state of advanced pharmacy practice experiences (APPE) in the community setting in US PharmD programs accredited under *Standards 2000*.

Methods. Two surveys were conducted to assess the current state of core advanced pharmacy practice experiences in the community setting in US PharmD programs accredited under *Standards 2000*.

Results. Two surveys were conducted of 45 experiential program directors and 227 preceptors of community pharmacy experiences. A variety of quality assurance mechanisms were used to review sites and preceptors, including student evaluations, preceptor interviews, and the use of review councils. The majority of programs had a 1:1 preceptor-to-student ratio. The criteria used to identify preceptors and sites for the core community APPE were diverse. Required orientation/training sessions for preceptors were reported by 50% of experiential directors. Twenty percent of experiential directors indicated that interactions with preceptors focused on unprofessional student conduct some of the time.

Conclusions. Experiential directors have done well to identify preceptors and practice sites that offer students the ability to engage in activities consistent with achieving the competencies outlined in the standards, but continued quality improvement is needed.

Keywords: community pharmacy, advanced pharmacy practice experiences, curriculum, assessment

INTRODUCTION

Effective July 1, 2000, colleges and schools of pharmacy in the United States were held to new accreditation standards for the doctorate of pharmacy (PharmD) degree program. The new standards, entitled, *Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree* (commonly referred to as *Standards 2000* because of the implementation date), were developed through a profession-wide consensus process to address how best to prepare pharmacy students to provide pharmaceutical care, both now and in the future (available at www.acpe-accredit.org).¹ The specific competencies that should be achieved through the curriculum are listed in Standard No. 10, Professional Competencies and Outcome Expectations.

The new accreditation standards, particularly, Standard No. 11, Areas and Content of Curricular Core, describe the requirement that both “introductory” and “advanced” (ie, occurring in the final academic year of

the curriculum) practice experiences be provided throughout the curriculum in a progressive manner. As such, introductory practice experiences should be offered during the early sequencing of the curriculum and are intended to involve initial development of practice skills. Practice experiences should progress throughout the curriculum, building on the initial practice experiences, and lead to the advanced pharmacy practice experiences (APPEs).

As described in Guideline 11.6, APPEs should provide active participation and the in-depth experiences necessary to develop practice skills and judgment needed for independent practice, and are expected to address professional competencies noted in the standards as further described in the guideline:

“a spectrum of practice experiences should be deployed wherein the biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and pharmacy practice are integrated, professional knowledge and skills are applied, and professional attitudes, ethics, and behaviors are developed so as to enable students to provide pharmaceutical care. APPEs should enhance communication and collaborative skills with patients and with other professionals, including the ability to work and communicate effec-

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tively with diverse colleagues and patients. The APPEs should also provide experience in prescription processing, compounding and preparation of dosage forms, including parenteral products, drug distribution systems, documentation of services, the taking of drug histories, participating in drug therapy decisions, monitoring, educating and counseling patients, solving problems, and systematically evaluating drug use.”

Furthermore, as outlined in Guideline 11.7:

“the organization of the advanced practice experiences should provide a balanced series of core and selective experiences that cumulatively provide sustained experiences of adequate intensity, breadth, and duration to enable achievement of stated competencies as demonstrated by assessment of outcome expectations. Core experiences should develop pharmaceutical care capabilities in inpatient and ambulatory care settings, especially community pharmacies.”

In addition, Guideline 11.8 states, “the core experiences should provide substantial experience in community pharmacy practice.”

As the nature and extent of practice experiences are evolving, the Accreditation Council for Pharmacy Education (ACPE) developed 2 surveys to assess the current state of core APPEs in community pharmacy settings in US colleges and schools of pharmacy that had graduated PharmD students under *Standards 2000* as of June 2002. The community pharmacy setting was chosen as the area of focus for the surveys because it was perceived that, in general, the practice of pharmaceutical care has evolved in this setting to a lesser extent than in the institutional, health system, and managed care settings. By establishing an understanding of the current state of community practice experiences, further quality improvement efforts at colleges and schools of pharmacy, as well as at ACPE, can be initiated.

METHODS

The objectives of the surveys were to:

- Characterize the criteria used by US colleges and schools of pharmacy to identify sites and preceptors used to provide core APPEs in the community setting;
- Describe the duration, preceptor-to-student ratio, and other characteristics of core community APPEs;
- Characterize the nature and extent of pharmaceutical care services to which students are exposed in community practice settings in relation to those called for in *Standards 2000*;

- Assess preceptors’ interfaces with the professional degree program, including training received, and their perceptions of barriers to the provision of pharmaceutical care services.

To achieve the objectives, 2 surveys were created, 1 for directors of experiential education and the other for preceptors of core community APPEs. The surveys were developed based on the professional competencies and outcomes expectations noted in *Standards 2000*. Preceptors were requested to indicate the frequency with which students were involved in performing a variety of activities based on the competencies and practice experience expectations outlined in *Standards 2000*.

Whereas, the competencies listed in Standard No. 10 are generic to all healthcare settings, the general intent of the competencies were revised to reflect the community practice setting of the survey. In addition, some competencies were further broken down to elicit more specific responses. For example, the competency, “to monitor and counsel patients regarding the purposes, uses, and effects of their medications and related therapy,” was broken down to obtain input regarding 3 different categories: prescription medications, nonprescription medications, and self-monitoring devices and alternative therapies (homeopathic, herbal, etc). The competency “to manage and administer a pharmacy and pharmacy practice” was addressed by requesting preceptors to indicate the frequency with which they discussed the financial and human resources aspects of running a pharmacy, while the competency “to communicate with . . . patients regarding . . . wellness, and health promotion” was addressed by requesting the preceptors to indicate activities routinely offered at their pharmacy for a number of common conditions (eg, asthma, cancer, diabetes, etc). As a component of the Director of Experiential Education survey, directors were requested to identify, from a list of potential criteria, those used to identify core community APPE preceptors and sites.

The surveys were developed by ACPE staff involved in the Professional Degree Accreditation Program and reviewed internally by the Director of the Professional Degree Accreditation Program to ensure the surveys were reflective of *Standards 2000*. Following review by members of the ACPE Board of Directors with community pharmacy expertise, input regarding the appropriateness of the content of the surveys was obtained from staff members at the National Association of Chain Drug Stores, the National Community Pharmacists Association, and the Institute for the Advancement of Community Pharmacy, respectively, to ensure the content was reflective of the current scope of community pharmacy practice

Table 1. Criteria Used by Directors of Experiential Education to Identify Community APPE Preceptors From Checklist Provided*

Criteria	Required, %	Preferred, %	Either, %
Free of misconduct bearing on professional conduct	78	6	84
Minimum duration as a pharmacist	65	10	75
Degree earned	47	16	63
Availability of reference library	33	45	78
Willingness to attend professional development	22	55	77
Membership in professional organization	10	57	67
Post-graduate training completed	0	43	43
Additional credentials	0	41	41
Provide immunizations	2	35	37
Collaborative practice with physician	0	35	35

*Additional criteria written in: willingness to precept students; recommended by others; documented contributions to practice; positive attitude toward course/program; positive role model, patient-oriented; documentation of interventions; competency in pharmaceutical care plans; uniqueness of practice or specialty practice; efficiently trained support personnel.

from their perspectives. In addition, input was obtained from the then Chair of the American Association of Colleges of Pharmacy's (AACP's) Professional Experiential Program Special Interest Group.

Investigational Review Board approval to conduct the survey was obtained from Midwestern University in Downers Grove, Illinois. To assure the confidentiality of the respondent and their respective college or school, a third party (Consulting Dynamics, Inc., Chicago, Ill) was employed to manage the distribution of and data collection for both surveys. Prior to distribution of the survey instrument, a pilot test was conducted with 3 directors of experiential education and 6 preceptors of core community APPEs, and suggested revisions were incorporated. The pilot participants received the final survey instrument and were offered the opportunity to participate. Survey participants completed the survey instrument online or faxed it to Consulting Dynamics. The survey instrument was distributed first to the directors of experiential education programs via an e-mail from Consulting Dynamics containing instructions on how to access the survey web site. As a component of the e-mail, the directors were requested to forward the contact information for the community pharmacy preceptors who provided the "core advanced pharmacy practice experiences to Doctor of Pharmacy candidates during the academic year 2002-2003." Given the Web-based nature of the survey, e-mail addresses were requested; however, mailing addresses were accepted for preceptors if an e-mail address was unavailable. Directors were often re-contacted by the consultant to ensure that the list provided included only preceptors who provided core community APPEs. The contact information obtained from the directors was then used to distribute survey instruments to the preceptors. The surveys were distributed in February and March of 2003 and data were collected through early June 2003.

RESULTS

Director of Experiential Education Survey

The survey instrument was distributed to 80 directors of experiential education at colleges or schools of pharmacy who had graduated PharmD students under *Standards 2000* as of June 2002. Responses were obtained from 45 (56%) individuals. The response rate per question varied slightly as not all participants completed every question.

The size of the graduating class anticipated for academic year 2002-2003 ranged from less than 50 students to greater than 225 students. Similarly, while the number of community pharmacy preceptors used by a college or school of pharmacy to provide the core community APPEs ranged from less than 10 to greater than 40, 95% of the directors of experiential education reported a 1:1 preceptor-to-student ratio for the core community APPEs, while 5% reported a 1:2 ratio. The majority of experiential rotations were between 4 and 6 weeks in length (4 weeks = 46%, 5 weeks = 22%, 6 weeks = 29%, greater than 6 weeks = 2%). Fifty percent of the directors of experiential education who completed the survey instrument indicated that preceptors were required to complete an orientation/training session prior to precepting students.

Based on a checklist of possible characteristics, the criteria most commonly used to identify core community APPE preceptors included: free of misconduct, minimum duration as a pharmacist and degree earned (Table 1). Criteria preferred to identify core community APPE preceptors, but which were not commonly required included postgraduate training completed, acquisition of additional credentials, the provision of immunizations, and collaborative practice with a physician.

In addition to information regarding the criteria used to identify preceptors, directors of experiential education

Table 2. Criteria Used to Identify Community APPE Sites From Checklist Provided*

Criteria	Required, %	Preferred, %	Either, %
Routinely screens for common conditions	16	65	81
Physical assessment techniques offered	10	67	77
Offers unique patient services	8	69	77
Private counseling area	6	73	79
Routinely provides educational workshops	4	69	73
Operates a disease management program	4	69	73
Offers a residency in community pharmacy	0	31	31

*Additional criteria written in: quality of activities; adequate technician coverage; provide a safe physical plant for students; frequent patient contact; interaction with other health care professionals; access to complete medical records; access to internet; patient-focused site

were requested to identify, from a checklist, the criteria used to identify sites for the core community APPEs. Based on the checklist of possible characteristics, the criteria most commonly used to identify core community APPE sites included the site routinely screens for common conditions, the site offers physical assessment techniques and the site offers unique patient services (Table 2).

The types of quality assurance mechanisms reported based on a list provided included student evaluations (100%), interviews or site visits with preceptors (89%), and use of a review council or experiential committee (58%). Additional quality assurance mechanisms solicited via written comments included the use of a campus meeting with preceptors for annual input, student focus groups, practical competency examinations, and exit interviews with graduates. Seventy-five percent of respondents reported that previous work experience was factored into the assignment of experiential rotations. While 100% of experiential directors completing the survey instrument indicated that students were not required to find their own sites, 32% reported that students were permitted to do so. An interview or site visit was the most common process used to assess the quality of sites identified by the students, (52% of respondents) followed by use of a questionnaire (30%).

Directors of experiential education were requested to provide information regarding the frequency with which their interactions with preceptors had to focus on unprofessional conduct of students. Based on a 6-point scale ranging from never to very frequently, 20% of respondents indicated that such interactions occurred some of the time, while 29% stated that such interactions occurred infrequently, and 49% replied that such interactions occurred very infrequently.

Community APPE Preceptor Survey

Thirteen hundred twenty-two survey instruments were distributed to preceptors and 227 (20.5%) preceptors representing 44 different colleges and schools of pharmacy responded. As with the survey of directors of

experiential education, the number of responses per question varied. A mean of 5 preceptors responded per college or school (range: 1 to 30). The mean age of respondents was 41.4 years, median age was 44 years (range 26-72). Fifty-nine percent of respondents were male. The median year of initial licensing was 1984 (range: 1954-2003). Eighty-two percent of respondents had attained a bachelor's degree, while 21% held a doctor of pharmacy degree. Postgraduate training included completion of one or more of the following: community pharmacy residency (5%), residency in pharmacy practice (4%), specialty residency (2%), and fellowship (1%). Thirty percent of respondents had completed an accredited continuing education certificate program, while 4.5% had received certification from the National Institute for Standards in Pharmacist Credentialing, and 1% from the Board of Pharmaceutical Specialties. Fifty-two percent were members of a local pharmacy organization and 50% were members of a national pharmacy organization. Of these, 19% served on committees for such organizations and 18% were active in providing leadership.

Survey respondents most commonly worked at independent pharmacies (independent, 39%; traditional chain, 28%; supermarket, 20%; mass merchant, 6%; and other, 7%). The average weekly prescription volume at the sites varied, but was most commonly below 1000 prescriptions per week (range: <1000 to >3000). The average number of FTE pharmacists at the site was 2.3 (range: 1 to 7), while on average 1.4 FTE pharmacists were preceptors at the site (range: 1 to 6). The average number of FTE pharmacy technicians per site was 2.8 (range: 0 to 10), while an average of 1.6 FTE pharmacy technicians were certified by the Pharmacy Technician Certification Board. The time per week respondents spent interacting with students regarding their achievement of the rotation objectives or competencies varied from less than 10 hours per week to 40 hours per week (less than 10 hours, 24%; 10-20 hours per week, 44%; 20-30 hours per week, 21%; 30-40 hours per week, 11%).

Table 3. Activities in Which Students Are Engaged During Typical Core Community APPE, %

Activity	Not		Very		Very	
	Applicable/ Never	Infrequently	Infrequently	Some	Frequently	Frequently
Interact with technicians in delivery of services	10	1	3	10	35	41
Provide patient education on prescription medications including adverse drug reactions and drug interactions	6	0	2	16	44	30
Process new/refill prescriptions	9	4	2	22	31	31
Respond to drug information inquiries from patients.	7	0	4	24	42	22
Provide patient education regarding non-prescription medications	7	3	4	30	40	16
Create patient profile (with demographics, medication history)	9	2	8	29	37	15
Recommend/select OTC product for a patient	11	3	4	28	39	15
Conduct an initial interview with patient/caregiver	14	10	8	38	24	7
Respond to drug information inquiries from health care professionals	8	2	8	37	31	15
Assess patient compliance and implement programs to improve compliance as needed	11	6	15	37	24	6
Advise physician on product selection	11	12	18	37	17	3
Provide patient education on self-monitoring devices	8	5	17	36	24	9
Communicate with health care professionals on specific patient	5	3	10	35	35	11
Use secondary sources (patient's family, health care provider) to supplement information	10	15	22	35	14	4
Participate in managerial activities (inventory control, employee supervision)	17	9	14	32	19	9
Compound medications	15	7	17	30	20	11
Document additional information in patient profile (ie, monitoring recommendations)	11	9	23	28	19	10

Based on a list of potential activities, preceptors were requested to indicate the frequency with which students at the site were engaged with each activity during a typical rotation (based on a 6-point scale from never to very frequently). Activities with which students were most frequently engaged tended to be those activities involved primarily with dispensing medications (Table 3). However, students devoted at least some time to other activities expected to foster the development of the professional care competencies called for in *Standards 2000*. Preceptors reported that students were less frequently involved with certain activities called for in *Standards*

2000, such as designing and implementing drug therapy plans for a specific patient (Table 4).

Information related to the frequency with which students were exposed to management-related activities and activities designed to promote the health of the general public was also requested. The majority of preceptors indicated that at least some time was devoted to activities related to pharmacy management (Table 5). Students on community APPEs were also often exposed to activities related to promoting the health of the general public (Table 6).

Barriers to the provision of pharmaceutical care were identified. Time spent on third-party billing was the

Table 4. Activities in Which Students Are Less Frequently Engaged During Typical Core Community APPE, %

Activity	Not Applicable/ Never	Very Infrequently	Infrequently	Some	Frequently	Very Frequently
Provide patient education on alternative therapies (homeopathic, herbal, etc)	12	17	26	32	9	4
Design and implement an outcomes-oriented drug therapy plan for a patient	23	13	24	21	13	6
Refer patients to other health care providers	22	18	20	27	10	3
Develop or assist in the development of a marketing plan for specific pharmacy service	29	18	20	24	7	2
Use physical assessment techniques (blood pressure monitoring, etc) to acquire patient specific objective information	25	22	15	21	12	5
Conduct education programs for other health care professionals	31	16	13	27	8	5
Provide consultation to long-term care facilities and nursing homes	64	10	9	9	5	3
Administer immunizations under the supervision of a pharmacist	86	4	4	3	2	1

Table 5. Activities Related to Management in Which Students Are Engaged During Typical Core Community APPE, %

Activity	Not Applicable/ Never	Very Infrequently	Infrequently	Some	Frequently	Very Frequently
Discuss financial aspects of running pharmacy	11	5	6	32	35	12
Discuss human resources aspects of running a pharmacy	9	4	7	35	32	14
Work with students to improve their leadership	5	3	2	33	42	15

Table 6. Activities to Promote the Health of General Public in Which Students May Be Engaged During Typical Core Community APPE, %

Condition	Screen Patients for the Condition/Risk Factor	Provide Educational Workshops for Patients/Consumers Regarding Condition/Risk Factor	Provide Formal Disease Management Program for Patients With Condition/Risk Factor
Hypertension	47	24	17
Diabetes	37	30	21
Hyperlipidemia	30	22	17
Osteoporosis	24	16	10
Asthma	23	18	21

most commonly identified barrier (45%). Additional barriers to the provision of pharmaceutical care included a lack of reimbursement for services (42%), high prescription volume (34%), insufficient staffing (32%), inability to access patient information (30%), insufficient technician staffing (28%), lack of private counseling areas

(29%), lack of adequate computer software (22%), patients not interested (17%), limited marketing skills/abilities (10%), and language barriers (8%).

A comparison of the survey responses for preceptors at independent pharmacies versus preceptors from other types of sites revealed no obvious quantitative differ-

ences. However, lower frequencies were reported regarding students' interactions in activities expected to foster the development of the professional competencies called for in *Standards 2000* when a subgroup analysis was conducted using responses from preceptors at higher volume stores (average weekly prescription volume of 2001 or greater) versus those at lower volume stores (average weekly prescription volume less than 2000).

DISCUSSION

During typical core community APPEs, PharmD students are exposed at least some of the time to many activities believed to foster the development of professional competencies outlined in *Standards 2000*, but room for improvement exists. For instance, only 74% of preceptors indicated that during community APPEs students would frequently or very frequently provide patient education regarding prescription medications, while only 56% indicated the same activities for nonprescription medications. Even fewer preceptors (52%) indicated that students would frequently or very frequently create a patient profile, while only 31% of students would be engaged in conducting an initial interview with a patient or caregiver. Furthermore, preceptors reported that students were less frequently involved in other activities called for in *Standards 2000*, such as designing and implementing drug therapy plans for a specific patient.

The expectation is that students will be frequently or very frequently exposed to all the activities, though the experiences may vary in breadth and depth. As described in the study limitations, the reported rates of student engagement in activities may be of even greater concern if only the most engaged preceptors and sites responded and the results were biased. Even if the responses accurately reflect the current status of pharmacy student APPE activities, and colleges and schools of pharmacy appear to be identifying at least some core community APPEs that are consistent with achieving the competencies outlined in *Standards 2000*, room for improvement still exists.

One area for consideration is that characteristics consistent with the delivery of pharmaceutical care (ie, private counseling area, health/physical assessment techniques such as blood pressure monitoring, blood glucose monitoring etc), while preferred, were not typically required in order to serve as a community APPE preceptor or site. Additional support from individual colleges and schools of pharmacy, including professional development pertaining to the delivery of pharmaceutical care, may further increase the frequency with which students are engaged in some of the activities. However, the

preceptors indicated that the primary barrier to the provision of pharmaceutical care was not a lack of education or training but rather time spent on third-party billing; lack of reimbursement for services was identified as the second-highest barrier. These findings are similar to those of Scott et al who reported that time and lack of reimbursement were most problematic to implementing pharmaceutical care by community pharmacists.² The profession needs to identify methods for overcoming these barriers if exposure of students to activities consistent with pharmaceutical care and *Standards 2000* is to be achieved. The AACP's 2003-2004 Professional Affairs Committee made several recommendations that may assist in this regard once acted upon, including the recommendations that the AACP advocate for payment for medication therapy management services provided by pharmacists and that the AACP partner with national organizations in the development of exemplary practice sites and preceptors.³

A variety of quality assurance mechanisms used to review the sites and preceptors were reported by the colleges and schools including the use of student evaluations, a review council or experiential committee, and individual interviews with preceptors. Colleges and schools are encouraged to utilize continually data obtained through these mechanisms to assess the quality of the sites and preceptors. In addition, preceptors and sites that are infrequently or never engaged in activities consistent with students achieving/attaining the competencies outlined in *Standards 2000*, or who are unwilling to be trained in this regard, are not appropriate for community APPEs and, should they continue to be used, may be cited in future accreditation reports as an area of noncompliance.

Half of the directors of experiential education who completed the survey indicated that preceptors were required to complete an orientation/training session. The type and rigor of training offered varied in nature and information was not requested regarding the specific format (eg, online, 1- hour session, extensive training program). While some professional degree programs provide extensive preceptor training programs intended to enhance both patient care and precepting skills, such as that outlined by Cerulli et al or by Scott et al, others do not.^{2,4} In addition, colleges and schools of pharmacy should ensure that all preceptors receive orientation/training regarding the professional competencies that students should achieve through the curriculum, as well as the individual program's policies and procedures prior to receiving students at their site. Furthermore, ongoing development of preceptors as educators is encouraged. In this regard, discussion of the findings of these surveys

may be used as an example of a self-assessment mechanism that community APPE preceptors can use to compare the activities in which they typically engage students with those reported.

To date, based on the information obtained from the surveys as well as ACPE's experiences in evaluating professional degree programs since the adoption of *Standards 2000*, an exemplary model for professional practice experiences would include the following: use of a review council or advisory committee as a quality assurance mechanism; practitioner involvement in competency assessment, including involvement in assessment of student portfolios of achievement; close communication between preceptors and the director of experiential education; computerized site/rotation management; collaborative funding relationships for preceptors; collaborative research; preceptor training programs including development regarding how to be a "good" educator and evaluator; preceptor involvement in professional organizations; commitment to quality assurance prior to graduation; preceptor commitment to the provision of pharmaceutical care; mechanisms to foster continuity of care across rotations; and interdisciplinary education. Initiatives to develop and implement outcomes-based goals and objectives for the APPEs, which can also be linked to specific activities with which students are engaged within the practice experience, as outlined by Cerulli and Malone, are encouraged.⁵ More recently, the AACP Professional Affairs Committee provided several recommendations regarding the characteristics of exemplary practice sites, which also should be reviewed.³

Based on responses from the survey of experiential directors, the frequency with which their interactions with preceptors had to focus on the unprofessional conduct of students was higher than is expected. Individual colleges and schools and the profession in general need to pay particular attention to the issue of professionalization in curricular content and experiential training. Review by faculty and community preceptors of the AACP white paper entitled, *Student Professionalism*, is encouraged.⁶ In addition, preceptors should be encouraged to be members of and involved in professional organizations to serve as good role models for students.

It is hoped that data obtained from these surveys, including the listing of activities in which students are commonly engaged and the criteria used to identify preceptors and sites, will be useful in the quality assurance and improvement initiatives of individual colleges and schools of pharmacy and in the next revision of the ACPE Accreditation Standards and Guidelines and the ACPE's accreditation procedures. In addition, exposure

to activities consistent with *Standards 2000* hopefully will increase as community practice naturally evolves.

Limitations

The overall response rates for directors of experiential education and community APPE preceptors were lower than desired. The response rate for directors of experiential education could have been affected by a reported high employee turnover in such positions (approximately 30) during academic year 2002-2003. The preceptor response rate may have been affected by difficulties encountered in contacting preceptors, given the lack of e-mail addresses for preceptors available to many of the directors of experiential education.

Respondents of the surveys may represent a biased sample if primarily the most engaged directors, preceptors, and sites responded. As with all surveys, despite pilot testing, the statements are subject to interpretation and responses may have varied among individual directors of experiential education and preceptors. Differences regarding the rigor with which directors of experiential education pursued criteria used to identify core community APPE preceptors and implement quality assurance mechanisms may have existed between programs.

The preceptor survey does not address the variations in experiences that students attending one site might experience, particularly with the experiences reported as infrequent or very infrequent. Preceptors were requested to respond to the survey based on the frequency with which students at their site engaged in a particular activity during a typical rotation. As such, the results provide information regarding the frequency with which students may be engaged in such activities, but do not reflect the actual proportion of students engaged in each particular activity. Finally, the accuracy of the survey results relies on the accuracy of respondents' self-reporting.

CONCLUSIONS

ACPE is cognizant that the transition to *Standards 2000* has not been easy for the profession. Based on data obtained from the surveys, students were engaged in activities that would foster the development of professional competencies called for in *Standards 2000* at least some of the time in the core community APPEs. Additional growth in this area is needed to ensure that all students are provided professional pharmacy experiences of adequate intensity to enable achievement of the competencies. Partnerships between colleges and schools of pharmacy and community practice sites and preceptors are essential to achieve the mutual benefits that can result.

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