RESEARCH

National Trends in IPPE Programs at US Schools of Pharmacy from 2008-2013

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Objective. To determine trends and challenges in introductory pharmacy practice experience (IPPE) programs from 2008-2013.

Methods. In 2013, a web-based survey was sent to IPPE program administrators at 107 fully accredited colleges and schools of pharmacy. The survey addressed administrative personnel, program structure, and quality assurance issues.

Results. Sixty-nine IPPE administrators responded to the survey (64.5% response rate). Within the past 5 years, 4 significant trends occurred in the area of administrative personnel, 7 trends in program structure, and 6 in quality assurance.

Conclusion. Clarifications of ACPE Standards through new guidelines and policy statements likely influence many of the 17 trends. Understaffed programs, competition for institutional sites, difficulty conducting site visits, preceptor training, program assessment, documentation maintenance, and individual site requirements are all challenges. The results of this study can be used as a stimulus to address ongoing issues and to enhance the quality of IPPE programs.

Keywords: Introductory pharmacy practice experience, pharmacy experiential education, experiential learning surveys, quality assurance, Accreditation Council for Pharmacy Education

INTRODUCTION

The Accreditation Council for Pharmacy Education (ACPE) sets standards and provides guidance for professional pharmacy programs, including experiential education. Specifically, ACPE Standard 14 (2007) established the requirement that professional pharmacy programs provide a continuum of introductory pharmacy practice experiences (IPPEs) throughout the curriculum to support achievement of professional competencies.¹ In response to this standard, the American Pharmacists Association urged collaboration on a blueprint that would evaluate, streamline, and consolidate student pharmacists' experiential education.² This call to action was an impetus for the authors to conduct a national survey of IPPE programs, which was published in 2008.³ The study results provided an overview of US IPPE programs. Subsequently, a variety of organizations and stakeholders, including the American Association of Colleges of Pharmacy (AACCP), American College of Clinical Pharmacy,

and the American Society of Health-System Pharmacists requested clarifications and provided input on the 2007 ACPE Standards, particularly within the area of IPPEs.⁴⁻⁷ ACPE responded through adoption of Guidelines Version 2.0⁸ and most recently, a new draft of the Standards and Guidance for 2016.⁹

ACPE Guidelines 2.0 helped clarify many areas of ambiguity for IPPE directors, coordinators, and administrators (hereafter referred to collectively as IPPE administrators). These included issues involving remuneration for experiences, the number of student hours required for IPPE programs, the balance of hours between community and institutional experience, whether simulation of actual experiences should count as IPPEs, and the importance of competencies, outcomes, assessment, and evaluation. Challenges linger and new concerns have arisen, such as questions involving best practice teaching/learning methodologies, IPPE integration in the didactic curriculum, IPPE and advanced pharmacy practice experience (APPE) program outcomes coordination, the shortage of and resulting competition for experiential sites, preceptor training programs and compliance, site visits, assessment tools, documentation methods, and adequate program resources.

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An extensive search for published literature using keywords such as introductory pharmacy practice experience, pharmacy experiential education, experiential learning surveys, quality assurance, and Accreditation Council for Pharmacy Education yielded many articles. Some articles detailed emerging areas of interest,¹⁰⁻¹⁴ and only Darbishire and colleagues' 2008 study provided a national overview and trends.³ A few additional articles identified program challenges and clarifications needed within Standards 2007, including the accelerating expansion of pharmacy schools, difficulty in locating institutional sites, and assessment.¹⁵⁻¹⁷

The researchers' primary aim was to identify trends over the 5-year period in the primary areas of administrative personnel, program structure, and quality assurance. A secondary objective was to identify current program challenges.

METHODS

The 2013 survey was a revision of a previously published survey and covered areas including school demographics, administrative roles, program structure, and quality assurance.³ The authors thoroughly reexamined the 2008 survey questions and participant responses to determine if the questions appropriately asked what the researchers desired to know. Questions were refined or removed and additional areas explored. The authors also reviewed ACPE Guidelines Version 2.0, research articles, and discussion papers published by experiential program administrators in the past 5 years, stakeholder policy statements, such as the 2010 ACPE Policy Statement on Simulations for IPPEs, list-serv questions of the AACP Pediatric Pharmacy Special Interest Group, AACP annual meeting roundtable topics and presentations, and the 2013 Center for the Advancement of Pharmaceutical Education (CAPE) Outcomes.^{2,4-8,10-19} The new survey questions were reviewed and pilot-tested by three experiential program directors and a doctor of pharmacy (PharmD) candidate prior to dissemination. The Institutional Review Board at Butler University approved the method and the web-based survey.

One hundred twenty-nine professional pharmacy programs were identified from the ACPE Accreditation Statistics website.²⁰ Schools outside of the United States, as well as the 15 candidate status and 5 precandidate status schools were excluded from the survey. The AACP Roster of Faculty and Professional Staff and pharmacy schools' websites were used to identify and obtain e-mail addresses for IPPE administrators or the individual with primary responsibility for IPPEs at 107 US-based pharmacy schools with full accreditation status.²¹ An e-mail with the survey link was sent to the IPPE administrators and

reminders were sent three times. Data collection was conducted through the web-based tool, SurveyMonkey (SurveyMonkey, Palo Alto, CA). Responses were anonymous, and participants could omit responses and were not required to complete the questionnaire.

Descriptive statistics were utilized to characterize respondent demographics. Groups were compared using independent sample *t* tests or chi-square analyses, Fisher exact test, and Mann-Whitney tests for nonparametric data. Trends with *p* values of less than 0.1 represented significant changes in the data between 2008 and 2013. An a priori alpha value of 0.1 was used as the researchers wanted to identify trends and did not want to omit useful information based on a stringent significance level.

Statistical analyses were conducted using SPSS v19.0 (SPSS, Inc., Chicago, IL). Additional areas explored in 2013 are reported as percentages, rather than trends, since statistical comparisons could not be made.

RESULTS

Sixty-nine of 107 IPPE administrators contacted responded to the 2013 survey (64.5% response rate) compared to 46 of 91 schools responding in 2008 (50.5% response rate). All primary geographic regions were represented in the 2013 survey: 27.3% of respondents reported their schools were located in the Midwest, 12.1% from the Northeast, 39.4% from the South, and 21.2% from the West. Likewise, in the 2008 survey, the 46 schools characterized a broad geographic distribution from 33 states: 30.4% from the Midwest, 15.2% from the Northeast, 32.6% from the South, and 21.8% from the West. Over the 5-year period, the average pharmacy school class size increased. Survey respondents indicated that their pharmacy schools' graduating class sizes ranged from 48 to 300 (mean=115, SD=48) in 2008 compared to 62 to 300 (mean=125, SD=47) in 2013.

Four trends were noted in the area of administrative personnel. First, there was a trend for schools to move program oversight from one primary experiential education administrator to separate IPPE and APPE administrators. In 2008, 47.6% of schools had independent administrators vs 65.2% in 2013 (*p*=0.087). Secondly, in 2008, 92.9% of IPPE administrators held faculty appointments, whereas in 2013 only 76.8% were faculty members (*p*=0.037). Of the faculty program administrators, 85.2% held nontenured faculty appointments in 2013.

Another trend among IPPE administrators was that they held a bachelor of science in pharmacy, a degree within another discipline, or no college degree (2.3% in 2008 vs 13.1% in 2013, *p*=0.077), as opposed to having a PharmD degree. Although not significant, 41.3% of

2013 respondents said they devoted more than half of their time to IPPE administration (26.2% in 2008, $p=0.11$). Additional areas studied but not yielding significant results were the number of schools that used experiential education committees to assist with decisions (from 55.8% in 2008 to 63.5% in 2013, $p=0.43$) and the number of IPPE administrators who sat on the school's executive committee (from 26.2% in 2008 to 25.4% in 2013, $p=0.98$). In 2013, participants were asked to delineate their responsibilities, and the largest time commitments were seen in the following areas: serving on college committees (93.2%), teaching in the classroom (89.8%), advising students (81.4%), working on scholarship (78%), serving on university committees (59.3%), and precepting students (40.7%).

Table 1 depicts the number of faculty members, professional staff, and clerical staff running IPPE programs in 2008 and 2013. The data in Table 1 are based on an average class size of 115 students in 2008 and 125 in 2013. In 2013, IPPE programs used more professional ($p=0.036$) and clerical staff ($p=0.006$), but there was no significant change in faculty full-time equivalents (FTEs). In 2008, participants were asked how many additional FTEs were needed to effectively manage their IPPE programs, and responses ranged from 0-3, with an average response of 1.3; in 2013, responses ranged from 0-4, with an average response of 1.86 FTEs ($p=0.19$).

Seven significant trends were noted in the areas of program structure and student requirements. There was a significant increase in the average number of community and institutional hours required in IPPE programs over the 5-year period. In 2013, the average hourly requirement for community experience was 143 (min=50, max=600), compared to 115 (min=0, max=600) in 2008 ($p=0.014$). In 2013, the average hourly requirement for institutional experience was 119 (min=20, max=600), compared to 103 (min=0, max=600) in 2008 ($p=0.044$). In 2013, the average number of hours required of students in IPPE programs was 313 (min=188 and max=1200), exceeding the ACPE requirement of 300

hours.⁸ This information was not requested in the 2008 survey. Sixty-five percent of programs required experiences in addition to community and institutional, compared to 51.2% in 2008 ($p=0.098$). Between 2008 and 2013, a significant trend of structuring IPPEs as credit-bearing, stand-alone courses occurred ($p=0.001$), often within structured rotation blocks ($p=0.15$). Information on grade assignments is in Table 2. Although Appendix C of ACPE Standards 2007 specifically allowed student exemptions from IPPEs based on prior experience, in 2008 only 2 schools surveyed allowed exemptions for prior experience. In 2013, none of the responding schools permitted exemptions for IPPEs.

In 2013, 59.3% of schools had students rank site preferences from a list, in comparison to 12.5% in 2008 ($p<0.001$). Additionally, 74.6% assigned sites to students, compared to only 50.0% in 2008 ($p=0.02$). Some schools used more than one placement method, depending on the type of IPPE or year within the IPPE program it occurred. Additionally, by 2013, most schools had begun using commercially available computer software to assist with student placements (50% in 2008, 84.2% in 2013, $p<0.001$). By 2013, 75% of schools were using e-portfolios for IPPEs.

There was an increase in some programs' requirements prior to an IPPE. These included criminal background checks ($p=0.038$), cardiopulmonary resuscitation training ($p<0.001$), and drug screens ($p<0.001$) (Table 3). Although relatively unchanged over the 5-year period, all but one school reported requiring The Health Insurance Portability and Accountability Act training, 81.0% required some immunizations, and 60.3% required students to carry malpractice insurance. In 2013, 98.3% of the programs specifically required a tuberculosis skin test, 87.9% required titers, and 31% required physical examinations.

Four types of IPPE experiences were used more frequently in 2013 than in 2008: simulations ($p<0.001$), immunization training/experience ($p=0.001$), medication therapy management services ($p=0.021$), and written assignments associated with IPPEs ($p<0.001$) (Table 4).

Table 1. Full-time Equivalent (FTE) Positions for Administration of Introductory Pharmacy Practice Experience Programs

	2008 ^a (n=43) Mean (Min, Max) ^c	2013 ^b (n=65) Mean (Min, Max) ^c	% change over 5 years	<i>p</i> value
Faculty FTEs	1.63 (0, 8)	1.54 (0, 4)	- 0.09	0.68
Professional staff FTEs	0.60 (0, 3)	0.92 (0, 4)	+ 0.32	0.036
Clerical staff FTEs	0.65 (0, 4)	0.94 (0, 2)	+ 0.29	0.006
Total FTEs	2.88 (0, 8)	3.4 (0, 4)	+ 0.52	0.22

^a Based on reported average class size of 115

^b Based on reported average class size of 125

^c Data is not normally distributed, therefore means are reported with minimums and maximums

Table 2. Introductory Pharmacy Practice Experience (IPPE) Program Structure

IPPE Structure	2008 n=39, No. (%)	2013 n=56, No. (%)	% change over 5 years	p value
Part of another course	9 (23.1)	12 (21.4)	-1.7	0.85
Stand-alone graduation requirement	8 (20.5)	6 (10.7)	-9.8	0.19
Separate course	22 (56.4)	49 (87.5)	+31.1	0.001
Structured rotation blocks	19 (45.2)	33 (55.9)	+10.7	0.15
Assigned credit hours	29 (74.4)	57 (96.6)	+22.2	0.001
Letter grades	12 (30.8)	20 (41.7)	+10.9	0.29
Pass/No Pass	23 (59.0)	41 (73.2)	+14.2	0.15
No grade assigned	4 (10.3)	2 (3.6)	-6.7	0.19

Interprofessional experience was not an area of study in the 2008 survey, but was included in the 2013 survey. Half of the survey respondents indicated they had begun including interprofessional opportunities in their IPPE curricula.

Six significant trends were noted in the area of quality assurance. Between 2008 and 2013, the number of schools providing structured preceptor training programs increase significantly (76.9% to 92.9%, $p=0.027$). By 2013, training encompassed live and online formats (65.5% each), printed materials (34.6%), and webinars (30.9%). There was a decrease in frequency of site visits over the 5-year period. At least annually, 84.6% of schools conducted site visits in 2008 compared to only 26.4% in 2013 ($p<0.001$). In 2013, 82% percent of IPPE administrators personally conducted site visits. They were assisted by site coordinators (43.6% of the time), professional staff (32.7%), and/or clerical staff (5.5%). In the 2013 survey, participants were asked what avenues constituted a site visit at their schools. All respondents considered onsite visits and phone calls, as site visits, whereas only 8.3% considered e-mail contact a site visit, and 6.3% considered webinar contact as one. In 2013, participants were asked if their program paid IPPE sites to provide student experiences, and if so, which sites were paid. Seventy-five percent of IPPE administrators reported that their schools did not pay IPPE sites, while a quarter of schools paid some sites. For those that paid,

institutional sites were paid more often than community sites (31.7% vs 9.8%, respectively). Two of 56 respondents paid all sites. In 2013, participants were asked to respond to a series of questions about program assessments. In general, students completed more evaluations in 2013 than in 2008 (Table 5). Over the 5-year period, the requirement that students evaluate their preceptors significantly increase ($p=0.015$). Three areas of program assessment had significant decreases: (1) in 2008, 35.9% of schools asked preceptors to evaluate IPPE program content, a number that decreased to 21.1% in 2013 ($p=0.091$). (2) program administrators evaluating sites occurred 76.3% of the time in 2008, but only 52.6% of the time in 2013 ($p=0.02$); (3) IPPE administrators formally evaluated their preceptors 65.8% of the time in 2008, but only 36.4% of the time in 2013 ($p=0.005$). The frequency with which preceptors evaluated assigned students was very high (97.4% in 2008 and 93.0% in 2013, $p=0.65$). IPPE administrators directly evaluated their students only 28.9% of the time in 2008 and 26.3% in 2013 ($p=0.78$). Rarely did schools ask preceptors to evaluate IPPE administrators (8.8% in 2013 vs 7.9% in 2008, $p=1$).

Regarding compliance with ACPE standards and guidelines pertaining to IPPEs, 49 of 56 respondents (87.5%) believed their program was in full compliance, compared to only 50% in 2008 ($p<0.001$). In 2013, IPPE administrators were asked to specify which aspect(s)

Table 3. Pre-experience Requirements for Introductory Pharmacy Practice Experiences (IPPEs)

IPPE Requirement	2008 n=41 No. (%)	2013 n=58 No. (%)	% change over 5 years	p value
HIPAA ^a training	38 (92.7)	57 (98.3)	+5.6	0.16
Background check	27 (65.9)	51 (87.9)	+22	0.038
Malpractice insurance	24 (58.5)	35 (60.3)	+1.8	0.78
Cardiopulmonary resuscitation training	6 (14.6)	49 (84.5)	+69.9	<0.001
Immunizations ^b	35 (85.4)	47 (81.0)	-4.4	0.57
Drug screen	5 (12.2)	26 (44.8)	+32.6	<0.001

^a Health Insurance Portability and Accountability Act

^b 2013 included influenza vaccine

Table 4. Types of Activities Included in Introductory Pharmacy Practice Experiences (IPPEs)

	2008		2013		% change over 5 years	<i>p</i> value
	<i>n</i>	Included No. (%)	<i>n</i>	Included No. (%)		
Simulations	42	7 (16.7)	52	36 (69.2)	+52.5	<0.001
Immunizations	33	7 (21.2)	49	29 (59.2)	+38	0.001
Medication therapy management	33	12 (36.4)	48	30 (62.5)	+26.1	0.021
Written assignments	39	13 (33.3)	48	34 (70.8)	+37.5	<0.001
Service learning	33	25 (75.8)	54	37 (68.5)	-7.3	0.47
Health care shadowing	33	14 (42.4)	45	26 (57.8)	+15.4	0.18
Patient interviews; medication histories	33	27 (81.8)	50	38 (76.0)	-5.8	0.59
Community health fairs	34	20 (58.8)	48	30 (62.5)	+3.7	0.74
Community presentations	33	15 (45.5)	43	22 (51.2)	+5.7	0.62
Professional meetings and/or organizations	33	11 (33.3)	41	16 (39.0)	+5.7	0.61
APPE ^a mentoring/shadowing	33	17 (51.5)	41	19 (46.3)	-5.2	0.66
International	40	5 (12.5)	41	7 (17.1)	+4.6	0.76

^a Advanced Pharmacy Practice Experience

posed difficulty with compliance. Responses included conducting site visits (56.6%), assessing program constituents (53.4%), obtaining adequate numbers of administrative personnel (48.6%), developing and providing preceptor training (41.2%), obtaining/retaining institutional sites (32.1%), and managing documentation of individual site requirements (13.2%).

DISCUSSION

Through this research, the authors identified many new trends within IPPE programs over the last 5 years, for example hiring nonfaculty IPPE administrators and filling those appointments with personnel who have obtained less than a PharmD degree. The trend to hire more professional and clerical staff, as well as nonfaculty administrators with less education, offers opportunities to cut program costs. Using nonfaculty personnel to manage experiential programs also allows program administrators to focus solely on administration. Faculty members may also be less interested in holding faculty and administrative positions simultaneously, because of scholarship, teaching, and engagement expectations. As noted above, the majority of IPPE administrators who hold faculty appointments devote more than half their time to faculty expectations. An increase in the number of pharmacy

schools and the resulting need for more IPPE administrators may have also contributed to this trend.^{11,15-16} Reducing program costs is important, but this hiring trend may prove challenging for program administrators without a PharmD degree or for those without a pharmacy background. Such administrators must have the clinical knowledge to integrate pharmacy curricula with experiences in order to achieve program outcomes and meet national accreditation standards. Additionally, those in charge of IPPE programs must promote discovery and disseminate knowledge on best practices. Some preceptors and pharmacy faculty members may be unwilling to collaborate with an experiential administrator who does not understand pharmacy and/or faculty-related issues. Further studies are warranted to confirm this trend and assess the associated consequences to program quality.

Over the 5-year period, the average number of students increased each year in IPPE programs.¹⁵ The trend to move program oversight from one primary experiential director to two separate IPPE and APPE positions seems logical knowing that administrators were managing more students, sites, preceptors, and tracking more pre-experience requirements in 2013 than in 2008. The use of professional and clerical staff also increased, likely because of their ability to manage critical administrative elements

Table 5. Student Evaluation and Feedback in Introductory Pharmacy Practice Experiences (IPPEs)

	2008 <i>n</i> =38 No. (%)	2013 <i>n</i> =56 No. (%)	% change over 5 years	<i>p</i> value
Students evaluate:				
Preceptors	32 (84.2)	56 (98.2)	+14	0.015
Sites	32 (82.2)	50 (87.7)	+3.5	0.63
Themselves	7 (18.4)	16 (28.6)	+10.2	0.26
Director	9 (23.7)	18 (31.6)	+7.9	0.4
Program	16 (42.1)	31 (54.4)	+12.3	0.24

such as students' pre-experience requirements, site contracts, and computerized student placement software.

The number of IPPE administrators conducting site visits over the 5-year period decreased substantially. Again, this was likely a consequence of increased administrative load. By 2013, schools were requiring more assessments from students, but IPPE administrators were conducting fewer assessments themselves. This decrease was seen in the frequency of evaluation of preceptors, sites, and students. The majority of administrators leave student performance assessment, as well as the students' final grade, to preceptors. An area for future research might involve developing criteria for the students' final experiential grade. Additional research and subsequent clarification by ACPE are needed to define the parameters and appropriate methods to ensure quality program assessment.²²

In the time between the two surveys, most schools had developed a structured preceptor training program, but almost half the respondents in 2013 listed this as an area of continuing difficulty. Developing up-to-date materials, maintaining websites, conducting state-wide training sessions, determining the most efficient methods for distribution of materials, and evaluating and tracking completion of preceptor training are all ongoing issues for IPPE administrators.²³ Many schools used preceptor training methods that did not require personal contact, such as print and online written materials and webinars. The ACPE outlines several important components of a quality preceptor training program,⁸ but our survey did not ask administrators if they were able to incorporate these components or which posed the most difficulty. This is an area for exploration.

Another area of interest that arose from the survey results involved IPPE representation on school committees. Appendix C in the ACPE 2007 Standards stated that experiential program directors should serve on or be ex-officio members of key committees, but the data showed that only a quarter of IPPE administrators sat on executive committees of schools, with no significant change in the past 5 years. Because experiential programs are no less than one third of the curriculum, it would be beneficial to know how often APPE directors hold executive committee membership and whether IPPE and APPE directors generally have representation on other key working groups, such as curriculum or assessment committees.

Realigning IPPEs as credit-bearing, stand-alone courses within structured rotation blocks was another significant trend. Most IPPE programs were initially an addendum to an existing curriculum. This required program administrators to compete for sites not only with other schools, but also within their own school. Most APPE

programs were already using the best and closest practice sites. This situation placed many IPPE administrators in the position of having students locate their own sites in areas distant from their schools, making preceptor training and site visits more difficult and time consuming. Over the past 5 years, IPPE administrators found innovative ways to integrate IPPEs into existing curricula. In some cases, schools revised existing curricula to help IPPE program administrators meet accreditation standards. Even though changes of this magnitude take time, creative minds found ways to make this work, as evidenced by the trend of increased structure within IPPE programs.

In 2008, some schools reported no required hours in community and/or institutional pharmacies. In 2013, all schools required both, but not all schools met the ACPE minimum requirement of 75 hours for each type. Guidelines 2.0 also emphasized the need to balance community and institutional hours but not all schools met this requirement. When reviewing both 2008 and 2013 survey data, it was apparent that schools continued to struggle with the provision of institutional IPPEs. Although remuneration to sites was not addressed in the 2008 survey, in 2013 approximately one quarter of schools paid sites for student placements, and these sites were predominately institutional settings. The struggle in finding institutional sites may also be one reason that by 2013, 65% of programs required other types of experiences in addition to community and institutional.

Substantial increases occurred in the use of simulations, immunization experience, medication therapy management services (MTMS), and written assignments as IPPEs. Some of these increases can be explained by clarifications and new focuses from ACPE over the 5-year time period between surveys. For example, simulations were officially sanctioned in an ACPE policy statement as acceptable IPPEs.^{13,24,25} Similarly, interprofessional experiences and MTMS were encouraged in ACPE Guidelines 2.0. The increase of immunization experiences as IPPEs was likely the result of states expanding laws that allowed pharmacists to administer immunizations; by 2011, all 50 states allowed pharmacists to provide some form of immunization service.¹⁴ Some changes remain controversial and require additional study, such as whether reducing the amount of real-world experience through the use simulations will compromise student readiness for APPEs. The ACPE Guideline 14.4 (2011) stated that "the introductory pharmacy practice experiences should begin early in the curriculum, interface with the didactic course work that provides an introduction to the profession, and continue in a progressive manner leading into entry into the advanced pharmacy practice experiences.

The didactic course work itself should not be counted toward the curricular requirement of introductory pharmacy practice experiences.” The increase in use of written assignments may have been an attempt by program administrators to interface IPPEs with didactic course work as required by ACPE.⁸ Guidance may be warranted regarding how and when schools allow written assignments to count toward IPPE hours.

Lastly, there was a significant change in IPPE administrators’ perceptions of their ability to comply with ACPE Standards. Only 53.8% claimed compliance in 2008, opposed to 87.5% in 2013. This increase may be reflective of guidance and clarifications by ACPE, as well as research and dissemination of best practices by IPPE administrators. Another reason may be related to the timing of the survey in relationship to a program’s accreditation schedule. In 2008, many programs had not yet had an accreditation visit (revised standards became effective in July 2007), and thus, IPPE program quality was not yet a priority. During the next 5 years, IPPE program content became a priority, since most schools had by then undergone accreditation.

There are many areas that require a more in-depth look than our survey was able to accomplish. For instance, competition for sites is increasing, and this issue will likely gain momentum. Areas for future research could include how the type of site (eg, institutional, community), type of school (eg, private, public), geographic location, competition, and school size affect the need to pay sites and/or preceptors for student experiences. The criteria for pay, the amount paid, and to whom stipends go are all aspects for exploration. Our study did not include the variety of new experiential roles and their nomenclature, including regional faculty coordinators and assistant/associate deans for experiential learning programs. Other limitations include the potential for various interpretations of questions and limited response options. Although 64.5% of fully accredited schools of pharmacy were represented in the results, nonresponse error is also a limitation of this study.²⁶

CONCLUSION

Our results identified trends and challenges in IPPE programs in the last 5 years. Clarifications of ACPE Standards through new guidelines and policy statements likely influenced many of these trends. Understaffed programs, competition for institutional sites, difficulty in conducting site visits, preceptor training, program assessment, and keeping up with documentation and individual site requirements were all challenges. The rapid increase in the number of pharmacy schools, as well as increasing student enrollments, likely contributed to these challenges.¹⁵

Continued research will help define best practices and promote sharing of innovations.

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