CHARTING ACCREDITATION'S FUTURE

Recommendations for the Next Generation of Accreditation Standards for Doctor of Pharmacy Education

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INTRODUCTION

After each of the two series of plenary sessions at the September 2012 ACPE Conference on Advancing Quality in Pharmacy Education,[1] attendees divided into five work groups (19 or 20 persons per group) for the purpose of drafting conference recommendations. The conference planning team selected five conferees as discussion facilitators and five ACPE staff members as recorders; these individuals were briefed on the purpose and process of the work groups.

Conference planners chose topics for work-group discussion based on the conference objectives and the results of preconference surveys.[2] Participants were asked to draw on background readings, the results of preconference surveys, and conference presentations to formulate conclusions or "findings"—observations, opinions, views, and perspectives—related to the specific issues assigned to a group. For example, one group was asked to identify "the top pharmacist competencies for *current practice* that you believe require additional attention in PharmD education," and another group was asked a parallel question about "competencies for *future practice*." Work groups convened twice—first for competency issues and then for assessment issues.

Based on their findings, the groups drafted recommendations for consideration at the final plenary session. The conference planning team edited these drafts, striving for clarity and minimal redundancy, and prepared the final set of recommendations for scoring by all conferees.

KEY FINDINGS

Major findings related to the first objective of the conference (which dealt with alignment of standards with required pharmacist competencies) are given in Appendix 1. Findings for the second conference objective

(which dealt with alignment of standards with assessment of student learning and quality of educational programs) are covered in Appendix 2. No attempt was made to gauge overall conference consensus on these findings, which were based on work group discussions. The findings, which will be considered by ACPE leaders when they study the results of the conference, portray the nature of work-group discussions that served as the foundation for conference recommendations.

CONFERENCE RECOMMENDATIONS

For the purposes of this conference, a recommendation was defined as a statement of an action (related to a topic assigned to a work group) that should be taken by specific parties such as educational institutions collectively or ACPE. Forty-four recommendations were formulated for rating at the final plenary session. Twenty-four recommendations related to pharmacist competencies; 20 related to assessing student learning and the quality of educational programs.

Each recommendation was rated on the following scale:

    A. Low Impact/Low Feasibility
    B. Low Impact/High Feasibility
    C. High Impact/Low Feasibility
    D. High Impact/High Feasibility
    E. No Opinion

Impact was defined, for the first set of recommendations, as the effect that a recommendation would have, if implemented, on aligning accreditation with current and future competency requirements of pharmacists. For the second set of recommendations, impact was defined as the effect that a recommendation would have, if implemented, on methods of assessing student learning and the quality of PharmD programs. For all recommendations, feasibility was defined as the ease of implementing a recommendation, considering time and resources.

The rating scheme was designed to give ACPE leaders a sense of priority as they consider how to imple-

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ment the recommendations. For example, a recommendation rated predominately "Low Impact/Low Feasibility" might well get little or no consideration whereas one rated "High Impact/High Feasibility" would likely get serious attention in ACPE's follow up to the conference.

Consistent with the intent of the conference (i.e., to seek input from non-ACPE stakeholders) members of the ACPE Board of Directors and staff did not participate in the polling. Of the 63 conferees who voted, 30 were from academia, 16 from pharmacy practice, 11 from association management (primarily practitioner associations), and 6 "other."

RECOMMENDATIONS RELATED TO PHARMACIST COMPETENCIES

Among the 24 recommendations related to competencies, 15 were rated by 51% or more of conferees as "High Impact/High Feasibility" (Table 1). Notably, six of these top-rated recommendations deal with educational preparation for the pharmacist's role in patient care, including teamwork and interprofessional collaborative practice (items in the table ranked 2, 4, 6, 8, 10, and 12b). Three items relate to "behavioral competencies" (4, 5, and 13), two items relate to experiential education (3 and 12a), and two focus on teaching methods (7 and 9).

Table 1. Recommendations Related to Pharmacist Competency That Were Rated "High Impact/High Feasibility" by 51% or More of Respondents

Rank Order	Recommendation[a]	% Respondents[b]
1	ACPE standards should not require a research project but rather should place greater emphasis on development of skills related to the evaluation of the literature, research methods and design, and interpretation of data. (23)	90
2	ACPE should strengthen standards addressing communication skills in an effort to produce graduates who are practice ready and team ready. (1)	89
3	ACPE should evaluate whether the current continuum of experiential requirements needs to be revised based on current and future competency requirements. (2)	84
4	ACPE should encourage AACP to identify the behavioral attributes that the future pharmacist must possess (such as collaboration with interprofessional teams, clinical reasoning, ethical and professional behavior, communication skills, critical thinking skills, leadership, consulting, motivating, negotiation skills, and/or business reasoning). (9)	75
5	ACPE should undertake a thorough review of the Standards and Guidelines, including Appendices B, C, and D, to identify an appropriate balance between acquisition of knowledge and the application of behavioral skills for practice. (8)	73
6	ACPE in collaboration with the profession's practice partners should define direct patient care at the level of the entry-level practitioner. (10)	71
7	ACPE should strengthen curricular standards to employ more active learning and collaborative learning methods. (3)	69
8	ACPE should enable flexibility in curricular process and design to achieve the knowledge and skills needed for entry-level direct patient care. (12)	68
9	ACPE standards should foster innovative methods of curricular development and delivery. (15)	64
10	ACPE should revise Appendix B (content required in a curriculum) to reflect the breadth of contemporary and emerging practice. (11)	62
11	ACPE should work with pharmacist employer groups to refine competencies and skill sets needed in the workplace. (6)	61
12a	ACPE should strengthen the requirements for high quality preceptor development. (4)	60
12b	ACPE standards should expect PharmD programs to prepare all graduates for interprofessional collaborative practice. (13)	60
13	ACPE should assure that the college or school admission process is aligned well with the desired graduate competencies, including their behavioral attributes. (7)	58
14	ACPE standards should define the outcomes and competencies of the core curriculum rather than curricular content (Appendix B). (19)	55

[a] The number in parentheses after a recommendation refers to the item's position in the sequence of recommendations rated at the conference. For example, the highest rated recommendation in the table was the 23rd recommendation rated at the conference.
[b] The percentages were calculated based on the actual number of participants who rated an item; this number ranged from 57 to 62.

Lower-rated recommendations are shown in Table 2. Because items ranked 15a-18 barely missed the 51% threshold, ACPE might wish to consider them of equal status to those in Table 1.

The results were inspected for noteworthy differences among the four categories of conferees (academia, pharmacy practice, association management, and other). Among the recommendations that were rated predominately "High Impact/High Feasibility," four items had a difference of more than 25 percentage points among respondent types (Table 3).

Table 3 suggests the type of assessment of variability among respondent types that ACPE might wish to undertake. For example, consider the recommendation, "ACPE standards should expect PharmD programs to prepare all graduates for interprofessional collaborative practice": Table 3 shows that both academics and practitioners (89% and 80%, respectively) thought this was a "high-impact" idea, but substantially more academics than practitioners (53% versus 33%) rated the item as "low feasibility." Perhaps those from academia had a better understanding of the barriers to the recommendation or they were not eager to have an accreditation requirement in this area.

RECOMMENDATIONS RELATED TO ASSESSMENT

Of the 20 recommendations related to assessment, 11 were rated by more than half of the conferees as "High Impact/High Feasibility" (Table 4). Overall, these recommendations reflect a perceived need for better methods of assessing student learning of core competencies, including readiness for advanced pharmacy practice experiences and readiness for entry into practice. Five recommendations (items in the table ranked 2, 5, 7b, 7c, and 7d) allude to the development of standardized assessments; two recommendations (4 and 6) advocate for ACPE flexibility in evaluating how PharmD programs pursue student assessment.

Lower rated recommendations are listed in Table 5. The first item (ranked 8) barely missed the 51% threshold, and ACPE might wish to consider it of equal status to the recommendations in Table 4.

The "High Impact/High Feasibility" ratings among *academics* and *practitioners* were fairly congruent for assessment recommendations. On the other hand, the "High Impact/High Feasibility" ratings of *association management respondents* had a 25-point margin compared with academics or practitioners for five items: those ranked 2, 4, 5, 7c, and 8.

CONCLUSION

The conference met its objective of generating high-value recommendations for changes in the accreditation standards and process for entry-level pharmacy education. The 32 top-rated proposals—supported by thought leaders in pharmacy education, pharmacy practice, and pharmacy association management—present ACPE with thoughtful advice on how to ensure that the accreditation of doctor of pharmacy programs in the United States is well aligned with the needs of the profession of pharmacy and the needs of society.

Table 2. Recommendations Related to Pharmacist Competency That Were Rated "High Impact/High Feasibility" by 50% or Fewer of Respondents

Rank Order	Recommendation[a]	% Respondents[b]
15a	ACPE standards should support education and training enhancements to enable the profession to expand its provision of patient care. (14)	50
15b	ACPE standards should place greater emphasis on the development of students as life-long learners. (16)	50
16	ACPE should strengthen the standardization of prepharmacy requirements to allow more time in the PharmD curriculum to develop professional competencies. (5)	49
17	ACPE standards should encourage faculty development to support the education of students for interprofessional teamwork. (17)	48
18	ACPE standards should focus on the core curriculum, while allowing the academy to define and develop curricular tracks, certificate programs and related structured elective opportunities. (18)	47
19	ACPE standards should encourage schools to offer research oriented electives. (24)	29
20	ACPE standards should provide better guidance on the quality assurance of electives. (20)	23
21	ACPE and AACP should develop metrics to evaluate the effect of dual degree programs on the achievement of the core PharmD competencies. (21)	18
22	ACPE should evaluate the impact of dual degree programs on student wellbeing. (22)	2

[a] The number in parentheses after a recommendation refers to the item's position in the sequence of recommendations rated at the conference. For example, the lowest rated recommendation in the table was the 22nd recommendation rated at the conference.
[b] The percentages were calculated based on the actual number of participants who rated an item; this number ranged from 57 to 62.

Table 3. Examples of Substantial Rating Variability[a] among Respondent Types

Recommendation/Rank/Respondent Type	% Response[b]			
	L/L	L/H	H/L	H/H
ACPE should work with pharmacist employer groups to refine competencies and skill sets needed in the workplace. Rank: 11				
Academia (n=29)	7	10	31	52
Pharmacy Practice (n=16)	0	0	19	81
Association Management (n=10)	40	0	20	40
Other (n=6)	17	0	0	83
Overall (n=61)	12	5	23	61
ACPE standards should expect PharmD programs to prepare all graduates for interprofessional collaborative practice. Rank: 12b				
Academia (n=28)	7	4	46	43
Pharmacy Practice (n=15)	20	0	13	67
Association Management (n=11)	0	0	27	73
Other (n=6)	0	0	0	100
Overall (n=60)	8	2	30	60
ACPE standards should define the outcomes and competencies of the core curriculum rather than curricular content (Appendix B). Rank: 14				
Academia (n=30)	10	7	33	50
Pharmacy Practice (n=14)	0	14	7	79
Association Management (n=11)	9	18	27	46
Other (n=5)	0	20	20	40
Overall (n=60)	7	12	25	55
ACPE should strengthen the standardization of prepharmacy requirements to allow more time in the PharmD curriculum to develop professional competencies. Rank: 6				
Academia (n=30)	13	3	43	40
Pharmacy Practice (n=14)	14	14	14	57
Association Management (n=11)	9	0	18	73
Other (n=6)	17	0	50	33
Overall (n=61)	13	5	33	49

[a] These recommendations were selected because they showed more than a 25-percentage-point difference in the High Impact/High Feasibility ratings among some respondent types.
[b] L/L =Low Impact/Low Feasibility; L/H= Low Impact/High Feasibility; H/L=High Impact/Low Feasibility; H/H=High Impact/High Feasibility

Table 4. Recommendations Related to Assessment of Student Learning and Quality of Educational Program That Were Rated "High Impact/High Feasibility" by 51% or More of Respondents

Rank Order	Recommendation[a]	% Respondents[b]
1	ACPE should ensure that assessment data be used for programmatic improvement. (28)	78
2	ACPE should require some standard assessment questions for all APPEs (i.e., Would you hire this student? Are the student's communications skills at a level ready to enter practice?). (29)	71
3	ACPE should revise the expected curricular outcomes to reflect the increased focus on the behavioral competencies of graduates. (35)	67
4	ACPE should allow schools flexibility to choose methods of assessment appropriate for their mission and culture during the curricular period prior to pre-APPE assessment. (27)	64
5	After ACPE collaborates with other stakeholders to define "entry-level direct patient care", ACPE standards should require assessments of the associated core competencies. (42)	64
6	ACPE should encourage the academy to continue development of assessment resources but should not mandate use of a specific tool in assessment of interprofessional education. (31)	59
7a	ACPE should devise a standard for assessing whether students are ready to enter APPEs, also as a means of protecting the public. (25)	53
7b	ACPE should collaborate with AACP and other appropriate groups to develop methods for assessing applicants on behavioral attributes (affective domain) prior to admission. (32)	53
7c	ACPE should work with AACP to develop an employer survey to assess the achievement of the competencies desired in graduates ("ready to practice," "breadth vs. depth"). (39)	53
7d	ACPE should encourage the collaborative development of measures and rubrics (related to core competencies) to encourage peer benchmarking across programs. (44)	53
8	ACPE should expect colleges/schools to use rubric-driven, longitudinal assessment measures to support needed competency development in experiential education. (38)	52

[a] The number in parentheses after a recommendation refers to the item's position in the sequence of recommendations rated at the conference. For example, the highest rated recommendation in the table was the 28th recommendation rated at the conference.
[b] The percentages were calculated based on the actual number of participants who rated an item; this number ranged from 57 to 62.

Table 5. Recommendations Related to Assessment of Student Learning and Quality of Educational Program That Were Rated "High Impact/High Feasibility" by 50% or Fewer of Respondents

Rank Order	Recommendation[a]	% Respondents[b]
9	ACPE should encourage consideration of an experiential curricular structure based on outcomes rather than settings to allow for flexibility and innovation. (30)	49
10a	ACPE should encourage assessment of self-directed and life-long learning skills of students. (33)	44
10b	ACPE should strengthen expectations regarding resources to support experiential education. (40)	44
11	ACPE should reconsider how a "continuum" of experiential education might be delivered to effectively support the achievement of a standardized set of competencies and outcome expectations (e.g., classification of IPPE vs. APPE, longitudinal/block organization of rotations, flexibility/innovation, etc.). (41)	43
12	ACPE should support the development of a standardized national student assessment on the readiness of students to enter APPE (this would require working with employer feedback) and make progression dependent upon this readiness. (26)	35
13	ACPE should incorporate assessment of IPE skills in progression standards. (34)	30
14	ACPE should collaborate with AACP to evaluate the validity of using "placement rate" as a measure of curricular quality. (43)	22
15	ACPE standards should be specific that the assessment plan should include the students' effectiveness in the workplace post-graduation. (36)	20
16	ACPE standards should include that professional degree programs have similar expectation/outcomes for adjunct faculty as with full-time faculty. (37)	19

[a] The number in parentheses after a recommendation refers to the item's position in the sequence of recommendations rated at the conference. For example, the lowest rated recommendation in the table was the 37th recommendation rated at the conference.
[b] The percentages were calculated based on the actual number of participants who rated an item; this number ranged from 57 to 62.

REFERENCES

1. Zellmer WA, Vlasses PH, Beardsley RS. Summary of the ACPE consensus conference on advancing quality in pharmacy education. *Am J Pharm Educ.* 2013;77(3):Article 45.

2. Beardsley RS, Zorek JA, Zellmer WA, Vlasses PH. Results of the preconference survey: ACPE invitational conference on advancing quality in pharmacy education. *Am J Pharm Educ.* 2013;77(3):Article 47.

Appendix 1. Major findings of work groups related to pharmacist competencies.

Pharmacist Competencies for Current Practice That Require More Attention in PharmD Education

1. Communication skills: ability to communicate effectively with patients and with health professionals.
2. Health care systems: understanding how health care systems (including payment systems) work.
3. Managerial skills: greater exposure to fiscal issues and personnel management; how to generate revenue streams; principles of change management.
4. Professionalism; advocacy; accountability for patient care.
5. Research/research design: understanding the basics of research design; evaluating the evidence related to treatment options.
6. Health promotion/prevention/self-care: ability to engage patients in developing healthful lifestyles.
7. Substance abuse: recognizing and addressing problems related to drug abuse and addiction of both patients and health care professionals.

Pharmacist Competencies for Future Practice That Require More Attention in PharmD Education

1. Patient assessment skills.
2. Health informatics knowledge and skills.
3. Clinical reasoning skills.
4. Patient safety and quality of care knowledge and skills.
5. Leadership skills; ability to lead teams.
6. Patient-centeredness (encompassing the patient as a member of the health care team).
7. Professionalism/interprofessional skills—self-confidence, communication skills, self-assessment skills, disposition for life-long learning.
8. Application of personalized medicine.
9. The pharmacist as a public health educator; the pharmacy as a wellness center.
10. Skill in comprehensive care management.

Facets of Teaching That Require More Attention

1. Provide structured experiential education of high quality and sufficient length.
2. Provide adequate development opportunities and resources for adjunct faculty/preceptors.
3. More emphasis on active learning in didactic instruction through course redesign, faculty development, and appropriate use of technology.
4. Recruit students who have the experiences and maturity to excel.
5. Four years is the right length of the pharmacy curriculum if coursework is focused on pharmacy (consider expanded pre-requisites).
6. Promote student professional involvement and leadership.
7. Shift to a learner-centered model and retool curricular models and teaching methods.
8. Future ACPE standards should foster fundamental change in the educational model.

Competency for Patient Care

1. There is a continuum of training from entry-level education to residency training to on-the-job training to continuing professional development that yields different areas and depth of expertise, proficiency, and competence.
2. Clear definitions of patient care, direct patient care, and advanced primary care are needed in pharmacy, along with consistent use of this terminology.
3. The profession needs a clear definition of direct patient care at the entry level.
4. PharmD graduates should be able to provide some level of direct patient care, which might require change in the experiential or other components of the curriculum.

5. Changes in PharmD education (including accreditation standards) could influence the evolution of pharmacist patient care roles.
6. The addition of PharmD curricular content to support development of the behavioral competencies needed in patient care will require that some current curricular elements be moved into pre-pharmacy education or removed entirely.
7. Support for active learning and faculty development to teach the behavioral competencies needed in patient care will be required.
8. Modeling of "best practice behaviors" will be key to supporting development of the behavioral competencies needed in patient care.

Competency for Primary Care and Interprofessional Patient Care
1. Graduates from professional degree programs must be competent to contribute to interprofessional collaborative patient care teams.
2. Some pharmacists are currently engaged in advanced primary care (the extent of such involvement varies widely among practitioners); there are pockets of excellence in this regard, which seems to be related to the characteristics of the practice site.
3. The pace of evolution of advanced primary care and interprofessional patient care roles for pharmacists depends on a variety of factors (need, demand, payment, models of care delivery, legislation), some of which are outside of pharmacy's control; while the need is high, current demand is low or moderate.
4. A reasonable estimate is that 20% or more of pharmacists will have advanced primary care and interprofessional patient care roles as a substantial component of their practice within the next 10 years.
5. The overall pace of evolution of advanced primary care and interprofessional patient care roles for pharmacists will likely be more moderate than rapid; some practice settings/environments and practice models will evolve more rapidly than others.
6. If PharmD programs had more pre-pharmacy requirements focused on the behavioral competencies needed in patient care, the evolution of advanced practice would be fostered.

Curricular Tracks and Non-Patient-Care Career Tracks
1. Pharmacy education does not use consistent terminology related to curricular tracks, career tracks, and curricular core.
2. Some PharmD programs are still challenged to get the core curriculum right.
3. Curricular tracks require specific faculty expertise, which is difficult to address in accreditation standards.
4. Competencies for a specific skill (e.g., immunization) may require additional education and training, such as certificate programs.
5. Electives help to differentiate students and build on existing student skills and strengths.
6. There is a risk that "interchangeable" electives are not truly interchangeable.
7. A special sub-set of students goes into dual-degree programs.
8. The impact of dual-degree programs on the PharmD curriculum is not adequately known; the integrity of core PharmD competencies must be protected.
9. There does not appear to have been a strategic approach to planning, implementing, and evaluating the impact of dual-degree programs.
10. There is a lack of metrics to monitor and evaluate outcomes and impact of dual-degree programs.

Research Skills
1. It is important for PharmD programs to develop skills related to research methods and design, critical thinking, evaluation of literature, use of data, etc.
2. It is not realistic in terms of faculty resources to require all students to complete a research project; a research project should be optional, not required.

Appendix 2. Major findings of work groups related to assessment.

Current Methods of Assessing Student Learning and Curricular Effectiveness

1. Most current assessment methods (including objective structured clinical examination [OSCE]) are difficult to use, time consuming, expensive, and not performance based. (The connection of OSCE with assessment is that the trained actor can directly assess the student.)
2. Most PharmD programs do not have a culture of assessment; often just one or two faculty members do it for all the others.
3. A lot of data are often collected but not used for improvement.
4. In contrast to medical education, pharmacy education does not ensure that students have foundational soundness before they progress in the curriculum.
5. Pharmacy education tends to use quantitative measurements but little qualitative assessment.

Facets of Assessment That Require More Attention

1. PharmD programs should be encouraged to thoroughly embrace a culture of assessment; dedicated resources should be devoted to assessment; programs should be held accountable for having a rigorous program of assessment.
2. Performance-based assessment of student learning should include both quantitative and qualitative components.
3. Assessment of learning before advanced pharmacy practice experiences (APPEs) should be a priority in PharmD education.
4. A case can be made for standardized pre-APPE assessment in terms of protecting the public.
5. It is reasonable for an APPE preceptor to expect to receive evidence of a student's learning so that the practice experience can be tailored to the student's needs.
6. In the interest of covering the continuum of care, experiential education should allow opportunities in nontraditional practice settings and in settings that do not have a pharmacy presence.
7. APPE preceptors frequently observe wide variation in the abilities of students, both within a PharmD program and among PharmD programs.
8. Employers of PharmD graduates frequently observe wide variation in the abilities of graduates, both within a PharmD program and among PharmD programs.
9. There would be merit in ongoing, periodic assessment of student learning (repeated measures) throughout the curriculum.
10. There is a need in PharmD education for validated, standardized assessment tools, including for experiential education.
11. The results of student assessments during experiential education should be used for programmatic improvement.

Assessing Student Ability To Contribute to Interprofessional Teams

1. The PharmD curriculum should expose students early and consistently to team-based care while balancing development of a profession-specific identity with identity as a team member.
2. PharmD programs should have a plan for integrating interprofessional education into the curriculum and for measuring student performance in this facet of the curriculum.
3. Accreditation standards should allow flexibility and innovation in pursuing opportunities for interprofessional education.
4. It might be difficult for institutions to pursue interprofessional education if they are not in an academic health science center or are geographically isolated.
5. PharmD programs should develop pharmacist ability to lead teams, not just participate on teams.
6. Student self-assessment and self-reflection on interprofessional experiences should be encouraged.

Assessing Behavioral Competencies Related to Providing Patient Care

1. The human resources field should be studied to learn if it has any lessons for pharmacy with respect to developing behavioral competencies.
2. Consideration should be given to the extent to which behavioral competences could be built through pre-pharmacy requirements.
3. PharmD programs should be able to justify the methods they use for assessing behavioral competencies.
4. Many behavioral competencies are developed through multiple components of the curriculum; it may not be feasible to assess their development through metrics; a portfolio might be needed to document attainment of these competencies.
5. Methods of assessing behavioral competencies should be simple, flexible, and integrated into an overall assessment plan, measured on a continuum from admission to graduation.
6. ACPE should require that student effectiveness in the workplace be included in assessing behavioral competencies.
7. The performance of graduates in the workplace should be considered in assessment of a PharmD program's effectiveness in developing behavioral competencies.

8. Preceptors should be given tools to assess student behavioral competencies that the PharmD program is seeking to develop.
9. Tools for assessing behavioral competencies, specific to a type of practice, should be consistent across PharmD programs.

Assessing Experiential Education

1. Experiential education brings value to students, PharmD programs, and practice sites.
2. Preceptors need a formal training process that is supported over a period of time to ensure appropriate development as practitioner-educators.
3. The overall goal of experiential education should be to produce graduates who are ready for entry-level practice.
4. Part of preceptor training and development should build the preceptor's ability to effectively evaluate student performance and the achievement of desired competencies.
5. A need exists to determine how to facilitate student assessment by all members of an interprofessional team.
6. Employers and preceptors, particularly those dealing with students from multiple programs, prefer standardization across programs as being important (core rotation elements, length of rotations, start and stop dates, evaluation instruments, etc.).
7. Core elements of what a preceptor must do (e.g., knowledge, behaviors, professionalism, etc.) to model behavior for providing basic primary care should be defined.
8. Core characteristics (e.g., patients, systems) needed by a practice to model basic primary care should be defined.
9. Quantitative (e.g., number of rotations, number of patient encounters, etc.) and qualitative (e.g., portfolios, OSCEs, 360-degree evaluations) measures are needed to effectively assess the outcomes of experiential education.
10. The resources (e.g., practice sites, financial support, experiential education staff) needed to support experiential education should be outlined; there is unevenness among PharmD programs in this regard.
11. ACPE should review existing standards and guidelines on what is expected to be achieved and ultimately assessed as the outcomes of experiential education to ensure alignment, lack of redundancy, and programmatic feasibility.

Assessing Overall Curricular Performance

1. It would be helpful to have a compilation of the methods used to assess curricular performance in pharmacy education, in the educational programs of other professions, and in higher education in general.
2. The types of data used now (NAPLEX scores; AACP surveys of graduates, alumni, preceptors, faculty) for assessing overall curricular performance were not developed specifically for this purpose.