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Pharmacy practice faculty and preceptor development

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Abstract

Faculty development is a priority for colleges and schools of pharmacy for both corporate and individual success. Recommendations in the 2008 American College of Clinical Pharmacy (ACCP) position statement and white paper on faculty development remain relevant today. However, changes in educational standards, delivery of pharmacy education, and faculty and learners have prompted an update of the 2008 documents. This 2020 white paper focuses on three components: preceptor development, updates in pharmacy practice faculty development, and program formation and implementation. The paper provides evidence and recommendations for preceptor development and summarizes the literature updates related to pharmacy practice faculty development in several areas, including teaching, practice, and research. This update explores additional topics not emphasized in the previous paper, including faculty well-being, holistic career-long development, and challenges with implementing and assessing development programs.

KEYWORDS

faculty development, pharmacy education, preceptor development

1 | INTRODUCTION

Faculty development within colleges and schools of pharmacy is vital to the collective academic mission as well as to the career progression of individual faculty members. In 2008, the American College of Clinical Pharmacy (ACCP) Educational Affairs Committee published recommendations for development programs for pharmacy practice faculty.[1,2] The committee advocated a comprehensive approach that

emphasized mentorship programs and development strategies related to teaching, scholarship, practice, professional leadership, and service. These recommendations remain contemporary more than a decade later.

However, pharmacy education has changed considerably over the past 10 years. The number of faculty in U.S. colleges and schools of pharmacy has increased by more than 20%, with non-tenure-track faculty accounting for most of this growth.[3,4] The nature and delivery of education have changed in response to the evolving needs and preferences of learners. Adoption of contemporary techniques for instruction and assessment has implications for faculty development. Simultaneously, changes in the marketplace have led to fiscal and resource constraints for many schools, which may limit the implementation of comprehensive development programs.

The 2016 Accreditation Council for Pharmacy Education (ACPE) accreditation standards (2016 Standards) outline general requirements for faculty development.[5] Key changes in the current standards include delineation of responsibilities of colleges and schools of pharmacy related to preceptor development, increased focus on continued professional and leadership development with individualized goal-setting and evaluation, and greater emphasis on faculty well-being and retention. Part 1 of this white paper summarizes the literature and recommendations for preceptor development. Part 2 summarizes new evidence supporting pharmacy practice faculty development with an emphasis on topics updated from the 2008 white paper. Many concepts outlined in this section are also beneficial for preceptor development. Part 3 provides guidance and resources for individuals responsible for creating and implementing development programs and systems.

2 | PART 1: PRECEPTOR DEVELOPMENT

According to recent estimates, 30 000 U.S. pharmacist preceptors are involved in experiential training.[6] This equates to around five preceptors for every full-time pharmacy faculty member.[4] Considering the importance of experiential education and the scope of preceptor involvement in education, colleges and schools of pharmacy must provide comprehensive, structured preceptor development programs. According to the 2016 Standards, preceptors should model defined professional attributes and be adequately prepared to deliver experiential education in the context of the college's or school's broader educational mission (Table 1).[7] Both are essential for preceptor development programs.

Colleges and schools of pharmacy should provide introductory and ongoing preceptor training to ensure preceptor preparedness to deliver experiential programs. Preceptors are adult learners who may have different learning styles and challenging schedules or who may prefer different instructional techniques; thus, development programs should incorporate a diverse range of educational modalities. Preceptors who participate in formal training programs have greater confidence in understanding and evaluating student knowledge and in nurturing critical thinking and problem-solving skills.[8] The impact of the formal training of preceptors on student performance measures has not been evaluated.[9]

2.1 | Continuing professional development

Continuing professional development (CPD) for preceptors largely depends on self-assessment. A comprehensive CPD process may be particularly useful for developing skills and professional attributes. The Association of Faculties of Pharmacy of Canada conducted the Canadian Experiential Education Project, a 2-year initiative to enhance the quality of experiential education in

TABLE 1 Accreditation Council for Pharmacy Education guidance on preceptor attributes and preparation

Desired attributes	Areas of preparation
• Has desire and aptitude for teaching	• College- or school-specific mission, goals, and values
• Practices ethically and with compassion	• Curriculum and teaching methods
• Assumes responsibility for patient outcomes	• Objectives for pharmacy practice experiences
• Applies literature in clinical decision-making and evidence-based practice	• Assessment of students' prior knowledge and experience relative to rotation's objectives
• Is willing and able to advocate for patients and the profession	• Assistance in handling student challenges
• Shows creative thinking to foster innovative, entrepreneurial approaches to problem solving	• Performance assessments and grading systems
• Effectively facilitates learning and assesses student performance	• Policies to address behavioral problems or misconduct
• Embraces continuing professional development and self-directed lifelong learning	
• Collaborates with other members of the health care team	
• Is committed to practice organization, professional societies, and the community	

Canada.[10] The project group proposed a framework for preceptor CPD that incorporates self-assessment on the basis of nine competencies: commitment to teaching, modeling of best practices, promotion of collaboration, assessment and documentation of student performance, facilitation of critical thinking, engagement in lifelong learning, development of student relationships, effective communication skills, and adaptation to student learning needs. Development opportunities are tailored to the outcomes of the self-assessment. These self-assessment criteria are well aligned with the desired training and attributes for preceptors outlined in the ACPE Standards guidance document[7] and thus are also a valuable tool for preceptor self-assessment and development in U.S. colleges and schools of pharmacy.

Common themes described for preceptor development include defining preceptor roles, setting goals of preceptorship, establishing the learning environment, ensuring continuous quality improvement, tailoring approaches to the learner's needs, providing student assessment and feedback, and developing methods for handling common student challenges.[11-13] Other development needs commonly identified by preceptors include managing unmotivated or struggling students, handling academic misconduct, and identifying external factors affecting student performance.[8] Preceptors are well positioned to reinforce the knowledge, skills, and attitudes taught in the classroom and laboratories and to demonstrate the application of concepts in practice. Preceptors should clearly understand the relationship

between the educational outcomes of their individual rotation experience and the broader educational goals of the curriculum. Studies have shown a negative correlation with the transfer of learning when the preceptor does not consider the learning relevant, applicable, or important to job performance.[14]

Preceptors play a valuable role in evaluating and reinforcing the Pharmacists' Patient Care Process[15] and entrustable professional activities (EPAs),[16] fundamental tasks that all new pharmacy graduates should perform. The 2017-2018 American Association of Colleges of Pharmacy (AACP) Professional Affairs Standing Committee developed and piloted the preceptor self-assessment tool (PSAE) to measure faculty and preceptor confidence in performing the EPAs.[17] Because the EPAs are mapped to both the Center for the Advancement of Pharmacy Education (CAPE) 2013 Educational Outcomes and the Pharmacists' Patient Care Process, the PSAE provides broad feedback across a variety of domains. After the tool is further revised and validated, colleges and schools of pharmacy will be able to use it to identify resource needs and support preceptor CPD.

2.2 | Assessment

Performance assessment is essential for ongoing preceptor development. Summative preceptor evaluations completed by students are the most common method used to assess preceptor performance.[18,19] However, these evaluations correlate strongly with student grade expectations and thus may not accurately represent performance.[20] Peer assessment, although also useful, is employed much less often in experiential settings than in traditional didactic settings.[18] Cox et al described the long-term benefits of a formative, on-site peer-

evaluation process for faculty development.[21] Formative peer review is also beneficial when combined with preceptor reflection and mentorship from an educational expert.[22] Colleges and schools of pharmacy should use a multimodal approach for assessing preceptors to ensure an accurate picture of preceptor performance and provide meaningful formative feedback for CPD. Preceptors should be educated on the assessment process, including how to interpret and respond to feedback.

2.3 | Access to resources

The benefits of mentoring programs are explored in detail in the 2008 paper.[2] The documented impact of formal mentoring programs is almost exclusively for full-time faculty. However, these programs may be beneficial for part-time or adjunct faculty preceptors as well. In addition to active mentoring and development programs, preceptors should have access to local experiential course information, including answers to common questions and challenges. Preceptors should have a clear understanding of whom to contact within the school for both administrative and course-specific guidance. Colleges and schools of pharmacy should consider providing preceptors with access to various resources for self-development. Table 2 provides a detailed list of resources.

3 | PART 2: UPDATES IN FACULTY DEVELOPMENT

The body of literature supporting full-time pharmacy faculty development is more extensive than the available information describing

TABLE 2 Resources for preceptor development

Resource	Description
American College of Clinical Pharmacy (ACCP) Teaching and Learning Academy https://www.accp.com/academy/teachingAndLearning.aspx	A longitudinal development program requiring attendance at national meetings and webinar programs. Participants identify a mentor to assist in their development and complete assignments and reflections on their teaching as they progress through the program. This program can be personalized for didactic or experiential teaching
American Pharmacists Association (APhA) Advanced Preceptor Training https://www.pharmacist.com/apha-advanced-preceptor-training	An online program available to members and nonmembers that uses self-assessment to devise a more personalized preceptor development track. Participants complete online modules
American Society of Health-System Pharmacists (ASHP) National Pharmacy Preceptors Conference	A national meeting with a new agenda annually that communicates best practices in precepting and promotes networking among pharmacy preceptors
ASHP Teaching Certificate for Pharmacists http://elearning.ashp.org/catalog/	An online program available to members and nonmembers consisting of 40 modules with three distinct tracks to develop the knowledge and skills of those who wish to teach
ASHP Preceptor's Playbook: Tactics, Techniques, and Strategies http://elearning.ashp.org/catalog/	An online program available to members and nonmembers consisting of eight online modules that enhance both the traditional and the "soft" skills needed for effective precepting
Local college or school of pharmacy programs	Many colleges and schools of pharmacy offer free live or virtual continuing education programs for affiliated preceptors
CEImpact https://learn.ceimpact.com/library/group/3?query=precept	A virtual continuing education program that offers live journal clubs, online and live courses on the scholarship of teaching, and other teaching tools for preceptors

successful preceptor development practices. This section summarizes new evidence to support the development of full-time, non-tenure-track faculty. Although there is a recognized need for additional research in the area of preceptor development, many of the concepts and recommendations described here will likely benefit preceptors as well.

3.1 | Teaching skills

Fundamental changes have occurred related to the development of teaching skills for pharmacy faculty. Most notable is the expansion of teaching certificate training within residency programs.[23,24] Certificate programs provide a more formal foundational knowledge of teaching and learning and increase hands-on application. Many foundational concepts that were historically learned "on-the-job" are now addressed within these programs.[25] The increased prevalence of these programs may allow schools to focus on developing more advanced or institution-specific teaching skills for both new and adjunct faculty. Other drivers of faculty development include new learning and assessment strategies, endorsement of specific educational practices within the accreditation standards, and knowledge of the evolving needs of learners. Several areas identified for faculty development at all stages of training are discussed in the text that follows.

3.1.1 | Interprofessional education

Interprofessional education (IPE) has become a significant component of pharmacy education over the past decade. The 2016 Standards devote an entire standard to IPE, stating that "the curriculum prepares all students to provide entry-level, patient-centered care in a variety of practice settings as a contributing member of an interprofessional team." The statement continues: "In the aggregate, team exposure includes prescribers as well as other healthcare professionals." The three main elements of the standard are interprofessional team dynamics, education, and practice.[5] Guidance on developing and providing high-quality intentional IPE is minimal; most literature describes the type and number of experiences rather than the quality or how to intentionally design an IPE experience.[26-28]

Faculty and preceptors may have varying levels of formal training and experience with IPE. Delivery of IPE is also heterogeneous with different types of activities and assessments across a variety of settings. Furthermore, most published IPE has been described as consisting of compartmentalized or isolated activities.[29] This level of variability, combined with the lack of formal training, can make it challenging for individual faculty and preceptors to develop, and implement IPE. Many IPE resources are available to help both new and veteran faculty and preceptors in this regard (Table 3). However, institution-specific guidance is necessary to ensure that faculty and preceptors understand their role within IPE in the context of the overall educational plan of their college or school of pharmacy and tailor it

to their specific circumstances (eg, practice site, health care disciplines available).

3.1.2 | Use of technology

Technological advances have facilitated rapidly changing models of pharmacy education. The 2016 Standards state that a college or school of pharmacy should use current educational technology to achieve its mission and goals and should have sufficient staff to support technological resources.[5] Ensuring that students experience equivalent levels of engagement when using technology for instruction compared with face-to-face or hands-on methods can be a challenge.[30,31] Although expansion and availability of educational technology have significantly increased in the past two decades, recent survey data show that more than 19% of faculty disagreed or strongly disagreed that their college or school had the resources to adequately address instructional technology support and pedagogical needs.[32] Development programs should train faculty on the educational technology available for their use and provide adequate staffing and continued support to ensure its optimal use.[2] Common technology resources include online course management programs, distance learning technology, classroom podiums, chat rooms, conferencing technology, and assessment systems. Table 3 provides additional technology-related resources for faculty development.

Use of simulation in pharmacy education has increased significantly since publication of the 2016 Standards, which allow for up to 20% of the introductory pharmacy practice experience (IPPE) hours to be achieved through this method.[5,33] Simulation using high-fidelity patient simulator/mannequins, low/moderate-fidelity simulators, standardized patients, and virtual reality has been reported in the pharmacy literature. Although multiple publications stress the importance of faculty development, there is minimal literature describing comprehensive faculty development programs for simulation.[34] Most publications emphasize debriefing while excluding other important aspects of simulation faculty development. Faculty involved in simulation activities should be trained on constructing evidence-based, objective-driven scenarios. They should also have the knowledge and skills to implement the scenarios and a general understanding of the use, scope, and limitations of the available technology and systems.[35]

Widespread use of social media by both students and faculty has introduced new intricacies to the legal and ethical environment of pharmacy education.[36] Because of lack of experience and training, issues related to social media communications and relationships with and among students may be challenging for faculty, preceptors, and administrators.[36,37] Programs should provide guidance on using social media, including electronic professionalism; the legal and ethical implications of using online postings in student-related decisions; and the responsibilities involved in educating faculty and preceptors about the risks of online social networking with students. Additional research is needed to determine the impact of "e-professionalism" training and the best strategy for training faculty on educational technologies.

TABLE 3 Resources for development related to teaching

Resource	Description
Interprofessional education	
National Center for Interprofessional Practice and Education (The Nexus) https://nexusipe.org/	The Nexus is a multi-organizational collaborative that supports interprofessional collaborative practice by focusing on developing the experienced practitioner, now working in a health care team. Components are valid for all phases of learning and can be adapted as needed by institutions and individual educators
Interprofessional Education Collaborative (IPEC) https://www.ipecollaborative.org/	IPEC promotes, encourages, and supports efforts to prepare future health professionals for interprofessional collaborative practice. Competencies for effective interprofessional collaborative practice are provided
American Interprofessional Health Collaborative (AIHC) https://aihc-us.org/	AIHC prepares the workforce to exemplify ethics, values, and skills for effective interprofessional collaboration. AIHC focuses on developing foundational skills and competencies for effective interprofessional communication and teamwork. Tools available include webinars and links to Interprofessional education (IPE) efforts at universities
World Health Organization (WHO) https://www.who.int/hrh/resources/framework_action/en/	WHO promotes health, safety, and protection of the vulnerable through a variety of initiatives. Tools include guidance documents, specifically the Framework for Action on Interprofessional Education and Collaborative Practice
Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) https://www.ahrq.gov/teamstepps/index.html	TeamSTEPPS is an evidence-based set of teamwork tools provided by the Agency for Healthcare Research and Quality (AHRQ) to optimize patient outcomes. Tools include curricula on communication and collaboration among health care team members
International Learning Collaborative (ILC) https://intlearningcollab.org/	ILC identifies current challenges to delivering care and integrating clinical practice, research, and education and shares best evidence, practice, and policy to promote excellence in care Tools available include summit meetings, workgroups, research, and podcasts
EIC-ICU toolkit https://nexusipe.org/informing/resource-center/eic-icu-toolkit-enhancing-interprofessional-collaboration-intensive-care	EIC-ICU is a set of three tools for interprofessional collaboration in critical care practice and family involvement based on research performed in intensive care units across North America
Kahaleh AA, et al. An interprofessional education panel on development, implementation, and assessment strategies. Am J Pharm Educ 2015;79:78	A primer for implementing IPE that includes strategies for innovative programs, reforms, and lessons learned
Shrader S, et al. A systematic review of assessment tools measuring interprofessional education outcomes relevant to pharmacy education. Am J Pharm Educ 2017;81:119	A description of 36 different IPE assessment tools and their application to curricula of colleges and schools of pharmacy
Rogers GD, et al. International consensus statement on the assessment of interprofessional learning outcomes. Med Teach 2017;39:347-59	An international consensus that outlines the challenges and difficulties of implementing IPE in pre-licensure health professional student education and describes learning outcome categories and assessment methods
Gilligan C, et al. Recommendations from recent graduates in medicine, nursing and pharmacy on improving interprofessional education in university programs: a qualitative study. BMC Med Educ 2014;14:52	Reflections of recent health care professional graduates in pharmacy, medicine, and nursing on their IPE experiences during their undergraduate education and training and their value in preparedness for practice
Van Driel ML, et al. Learnings and challenges to deploy an interprofessional and independent medical education programme to a new audience. J Eur CME 2017;6:1400857	A description of IPE activity among Australian general practitioners and community pharmacists on medication-overuse headache (MOH). The goals of the activity were to improve knowledge and foster a willingness to work collaboratively to enhance the prevention, diagnosis, and management of MOH. Both participating groups found the experience valuable
Technology	
University of California San Francisco (UCSF) Social Media Guidelines www.ucsf.edu/about/social-media-overview/social-media-guidelines	UCSF policies and guidelines for the use of online media to ensure that laws are being followed and that the university is accurately and consistently represented. These guidelines apply to all members of the UCSF community participating in university-branded or university-sponsored blogs and social media
University of Louisiana Monroe College of Pharmacy Social Media Policy www.ulm.edu/pharmacy/documents/ospa/socialmedia.pdf	Policy on student use of social media as it relates to the values and professional standards of the college and the profession

(Continues)

T A B L E 3 (Continued)

Resource	Description
Society for Simulation in Healthcare (SSH) https://www.ssih.org/	SSH fosters the improvement and application of simulation-based modalities such as human patient simulators, virtual reality, standardized patients, and task trainers
Peterson DT, Watt PE, Epps CA, White ML. Simulation faculty development: a tiered approach. Simul Healthc 2017;12:254-9	A description of a formalized, structured model for developing facilitators of simulation
Seropian MA, Brown K, Gavilanes JS, Driggers B. An approach to simulation program development. J Nurs Educ 2004;43:170-4	A template of concise steps for developing successful and efficient stimulation education program
Assessment	
The Assessment Institute: Indiana University www.assessmentinstitute.iupui.edu	The Assessment Institute sponsors an annual program focused on outcomes assessment, designed to introduce attendees to best practices as well as innovative practices
American Association of Colleges of Pharmacy (AACP) https://www.aacp.org/events/institutes	AACP sponsors an annual institute, often with a fall encore, designed for teams of faculty to work on a specific curricular issue at their home institution. Each institute has a theme. Experts lead sessions
University of Toronto Leslie Dan Faculty of Pharmacy OSCE-ology Workshop http://cpd.pharmacy.utoronto.ca/programs/categories/faculty-development.html	The OSCE-ology Workshop provides tools to educate faculty on developing an OSCE program and stations. Faculty may attend individually or in teams
Harden RM, Lilley P, Patricio M. The definitive guide to the OSCE: the objective structured clinical examination as a performance assessment. New York: Churchill Livingstone Elsevier, 2016	A step-by-step guide for developing and implementing an OSCE. Available in print or electronically
Zabar S, Kachur E, Kalet A, Hanley K. Objective structured clinical examinations: 10 steps to planning and implementing OSCEs and other standardized patient exercises. New York: Springer, 2013	A step-by-step guide for developing and implementing an OSCE. Available in print or electronically
Hodges B, Hanson M, McNaughton N, Regehr G. Creating, monitoring, and improving a psychiatry OSCE. Acad Psychiatry 2002;26:134-61	The steps to develop an OSCE program. Although the example is psychiatry based, the procedures are applicable to other disciplines
Student challenges	
Coalition for Disability Access in Health Science Education https://www.hsmcoalition.org/	The coalition is a collaboration among peer institutions that improves the health care education experience for students with disability accommodations. The coalition offers expert advice and awareness about the nuances of clinical education and increases access to health science programs for students with disabilities
Association of American Medical Colleges (AAMC) medical students with disabilities: a generation of practice (2015) report https://www.aacp.org/sites/default/files/aamcmedicalstudentswithdisabilities.pdf	Guidance on how to work through the challenging application of section 504 and the ADA in the context of a medical school setting through examination of key legal cases
Lippmann S, Bulanda RE, Wagenaar TC. Student entitlement: issues and strategies for confronting entitlement in the classroom and beyond. Coll Teach 2009;57:197-204	A review of student entitlement at the college level in its social context, with specific attention to the prevalence of the consumer mentality, the grade inflation, and the self-esteem of the student generation. Also outlines several strategies for dealing with entitlement behavior
Holford DA. Is a pharmacy student the customer or the product? Am J Pharm Educ 2014;78:3	A description of how colleges and schools of pharmacy may inadvertently encourage academic entitlement. Article proposes placing the patient at the center of the educational process as a method to combat academic entitlement for pharmacy students
Cain J, Romanelli R, Smith KM. Academic entitlement in pharmacy education. Am J Pharm Educ 2012;76:189	A discussion on the factors attributing to academic entitlement in pharmacy students and recommendations regarding practices that may curb issues associated with academically entitled students

Abbreviations: ADA, Americans with Disabilities Act; IPE, interprofessional education; OSCE, objective structured clinical examination.

3.1.3 | Assessment

Effective assessment is an essential element of quality pharmacy education. Assessments consider learner growth, enhance quality assurance of teaching methods, and contribute to the achievement of programmatic outcomes. The 2016 Standards emphasize that programs must implement valid and reliable assessments of both cognition and performance.[5] Guidance is widely available for traditional cognitive assessments (ie, multiple-choice exam items) and statistical evaluation of knowledge-based assessments. In contrast, performance assessments are more complex, relatively new for many programs, and thus a focus for faculty development.

The objective structured clinical examination (OSCE) has become a gold standard for performance-based assessment. OSCEs assess clinical competencies such as those identified in the CAPE outcomes.[38,39] Faculty development is essential for successfully developing exams that assess the competence of skills in an objective, replicable manner.[40] Development needs depend on individual faculty roles.

Faculty involved in planning and implementing OSCE programs have development needs related to the design of the exam structure and environment; staff coordination, including actor training and scheduling; and exam administration, remediation, and feedback.[38] Faculty who design or administer scenarios should fully understand the individual OSCE's purpose, examination logistics, and quality assurance processes such as peer review.[7] Faculty may also require guidance related to workload and cost barriers because these have historically affected implementation.[41] Pharmacy literature describes the development of effective OSCEs; however, descriptions of faculty development methods are lacking.[38] Programs can be developed by reviewing successful OSCE implementation at other institutions. In addition, OSCE-ology workshops periodically occur across the country. Indiana University conducts institutes that allow the attendance of teams of faculty to develop specific assessment skills. Faculty attending these programs can then return to train other faculty onsite. Several publications also serve as excellent resources specific to improving faculty understanding, development, implementation, and evaluation of OSCE programs (Table 3).

3.1.4 | Student challenges

To ensure ideal management of the learning environment, faculty, and preceptors should be trained on methods to address challenging student situations. Common areas where instructors report difficulty with learners include managing and providing reasonable accommodations for students with disabilities, assisting students with mental health or academic entitlement issues, maintaining academic integrity and developing methods for successful remediation, lacking expertise in advising/mentoring, and having a limited understanding of the litigation risk when making decisions regarding individual students.[42-48] Colleges and schools of pharmacy should provide access for faculty and preceptors to institution-specific policies and procedures related to interactions with students. Programs should also provide guidance on how to address and document challenging student situations as well as key contacts within the organization to help navigate these issues. Table 3 provides a selection of general resources.

Since passage of the Americans with Disabilities Act in 1990, most higher-education institutions have invested in the development and oversight of policies and procedures to guide the process of providing students with reasonable accommodations.[49,50] U.S. Census data indicate that the number of students requiring academic accommodation in postsecondary education will continue to increase in the next decade,[51] yet limited effort has been devoted to faculty development in this area, particularly in the experiential setting.[50] Existing literature suggests that faculty and preceptors who are not well informed on how to provide reasonable accommodations for students with disabilities develop negative attitudes that create additional barriers for these students.[45]

A troublesome trend is the growing and alarming picture of the mental health status of the college student population. In a 2018 survey of 12 569 graduate and professional students from 108 schools, the American College Health Association reported that, within the past 12 months, 44.5% of students "felt things were hopeless," 54.4% "felt very lonely," 58.9% "felt overwhelming anxiety," and 36.1% "felt so depressed that it was difficult to function."[52] Almost 7% reported seriously considering suicide during that time. Within pharmacy, there are concerns about worsening depression and anxiety related to joblessness, given that the supply of pharmacists in the workforce is rapidly exceeding demand.[53] Many universities struggle to handle the expanding need for counseling and treatment of students with mental health issues.[43] Other health professions, especially medicine, have been adding suicide prevention training for faculty to address the growing concern for mental health issues.[54]

Anecdotal discussions among pharmacy educators regarding academic entitlement—a propensity to hold an expectation of academic success without taking personal responsibility to achieve said success—have been increasing.[55] Faculty members who repeatedly encounter academically entitled students may develop a sense of distrust toward individuals and potentially the entire educational process. The extent to which academic entitlement exists among pharmacy students is unknown, as is the effectiveness of many of the suggested strategies to combat entitled behaviors. Colleges and schools of pharmacy should equip faculty and preceptors with the knowledge and skills to curtail entitlement behaviors in students. Table 3 includes several resources to guide training in this area.

Academic dishonesty is also a prevalent concern in professional programs. Motivators of academic dishonesty include the expectation of a competitive advantage, the desire to help a classmate, the inability to manage time, and the fear of failure.[46,47] Both students and faculty report a high incidence of academic dishonesty, although educators express stronger attitudes against misconduct.[46,56] Faculty should receive guidance on strategies to minimize academic dishonesty, including using seating charts, changing test questions, using test versioning, and revisiting examination policies regarding personal belongings. In addition, both faculty and preceptors should be trained on preventing and identifying plagiarism.[47]

Many students require some form of remediation during their educational career. The 2016 ACPE Standards require remediation as part of progression policies,[5] but the implementation of remediation can vary widely. Faculty and preceptors may be involved in developing, implementing, or supporting remediation measures as a preventive strategy at any stage of the curriculum, depending on early identification of risk or student performance.[42,57] Examples of preventive measures include supplemental instruction, peer tutoring, individualized learning plans, and academic advising. Performance-based remediation can vary from revising work or completing an independent study to repeating a course, semester, experience, or year. Although multiple techniques are described in the literature, evaluative, and comparative literature to aid in prioritizing methods is lacking. Faculty need to understand and be able to implement the practices found successful, including selecting the most appropriate remediation methods for the given context and educational setting.

Faculty should also be equipped to help develop individualized plans, when needed. Steinert proposed a model for formulating individualized learning plans to promote success in the experiential setting that is based on a process of inquiry to determine whether the lack of success is related to knowledge, skill, or attitude.[58] Davis expanded on this idea to formulate pharmacy-specific solutions that are based on commonly identified experiential challenges.[42] An important factor for success in remediation is recognizing and addressing causative factors, whether cognitive, behavioral, medical, or social. Faculty should be aware of outside referral resources and strategies for counseling or mentoring in relation to remediation.

Colleges and schools of pharmacy are required to provide student advising and mentoring programs.[5] As a result, faculty are likely to participate in these types of programs. However, neither descriptions nor evaluations of student advising or mentoring programs are well represented in the literature. Traditionally, few faculty have received formal training in advising, mentoring, or coaching, often relying on previous and current relationships or internal guidance documents to guide the process. Advising and mentoring roles result from assigned responsibilities such as organizational advising, academic advising, research mentoring, and student coaching or more organically from mutual interests or needs.

Faculty should be knowledgeable of college or school policies and have access to resources to minimize the risk of legal intervention. The 2016 Standards describe the necessary policies to minimize litigation risks.[5] Potential areas of litigation related to pharmacy education include sexual conduct and harassment (Title 9); honor code and professional conduct; processes for progression, remediation, and dismissal; grants administration; accommodations for disabilities; privacy (Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act (HIPAA)); and recordkeeping.[48]

3.2 | Patient care activities

Clinical pharmacy practice comprises a significant component of workload for both preceptors and full-time clinical faculty members.[59] Each institution, position, and relationship will have different expectations and needs, of which the faculty member or preceptor must be cognizant. To be successful, pharmacy practice faculty and preceptors must maintain high-quality practice sites while managing their other assigned responsibilities.

3.2.1 | Workload balance

Workload balance, in this case, refers to achieving and maintaining an appropriate distribution of service, teaching, scholarship, administrative, and professional responsibilities. Around 70% of clinical faculty members report inadequate time to fulfill their academic and scholarly obligations.[59] Despite the broad reach of this concern, there are few targeted, validated assessment instruments for managing professional responsibilities. However, novel ideas have been proposed to help improve professional balance among clinical faculty (Table 4).

Faculty should receive guidance, especially early in their career, regarding position expectations with respect to distribution of effort and boundaries. Most available resources suggest the practitioner should stay on top of professional responsibilities, with continuous review of personal responsibilities and deadlines to avoid "last-minute" time crunches and overextension of duties.[60,61] Unique positions, such as those that are shared, blended, or co-funded, may require special considerations of the varied responsibilities involved to achieve good professional balance.[62] For clinical faculty, published data on different models can help improve professional responsibility balance (Table 4).

3.2.2 | Leveraging learners to support practice roles

Preceptors can leverage learners in a practice site to help keep their own knowledge and skills up to date, extend pharmacist-provided patient care services, and implement layered learning to increase the capacity for learners at their practice site. The concept of layered learning is an experiential learning approach long used by physicians and medical learners and, more recently, pharmacy education. The layered learning approach changes the preceptor's or attending pharmacist's role to managing the team's approach to patient care activities. Table 4 contains resources for setting up these experiences and how health systems can support layered learning. A review of the literature regarding integrating learners into pharmacy practice reveals an undeniable need to organize the learning experience.[63-65]

The demand for pharmacist services often outweighs the pharmacist's ability to provide them; thus, developing projects that are continuously carried out by learners on-site or only offered when learners are on-site can help expand pharmacy services or offset the time spent teaching. Examples include organizing and analyzing a report pulled from the electronic medical record, developing a new service, evaluating existing services, offering a quality check service only when students are on rotation, operating and delivering services for influenza clinics, and developing a presentation for staff.[66-68] In addition, to offset some of the orientation or organization burden that preceptors encounter, experiential opportunities can be tied to a course in the curriculum, or a course can be offered that

TABLE 4   Resources for balancing responsibilities

Resource	Description
Workload balance	
El-Ibiary SY, Yam L, Lee KC. Assessment of burnout and associated risk factors among pharmacy practice faculty in the United States. Am J Pharm Educ 2017;81:75	A description of risk factors for pharmacy faculty burnout, thereby indicating characteristics for faculty, mentors, and administrators to be vigilant about
Johnson JF. Balancing professional and home life. Curr Pharm Teach Learn 2009;1:41–9	A review of the risks of imbalance between the personal and professional lives of faculty, as well as a discussion of the qualities of successful faculty. A table of additional resources is provided
Arif SA, et al. Novel work models needed for faculty members trying to balance clinical practice with scholarly responsibilities. Am J Pharm Educ 2014;78:21	An overview of the use of a "block" model to protect clinical and nonclinical time among clinical faculty. Benefits include improved relationships with the clinician, practice site, and colleagues; improved continuity of care; improved teaching quality and student interaction; and sustained scholarship efforts
Griffin B, et al. Part-time and job-share careers among pharmacy practice faculty members. Am J Pharm Educ 2014;78:49	Part-time and job-share faculty positions to improve work-life balance and pursuit of professional goals. Benefits include flexibility, improved retention, and work-life balance improvements. A paper that describes pharmacy practice chair views of this model is also available (Fjortoft N, Winkler SR, Mai T. Pharmacy practice department chairs' perspectives on part-time faculty members. Am J Pharm Educ 2012;76:59)
Leveraging learners	
Bates JS, et al. Expanding care through a layered learning practice model. Am J Health Syst Pharm 2016;73:1869-74	A model of layered learning with APPE students, pharmacy residents, and a general pharmacist to meet a dual need to fill rotation experiences and expand pharmacist services in oncology. Pharmacist services expanded to deliver comprehensive medication reviews at transitions of care. Bates and colleagues also evaluate and report on education outcomes (Bates JS, Buie LW, Lyons K, et al. A study of layered learning in oncology. Am J Pharm Educ 2016;80:68). These authors report that knowledge scores for learners improved and that feedback from learners demonstrated comfort and improved clinical skills
Pinelli NR, Eckel SF, Vu MB, Weinberger M, Roth MT. The layered learning practice model: lessons learned from implementation. Am J Health Syst Pharm 2016;73:2077-82	Findings from an interview of 24 attending pharmacists with experience in implementing the layered learning model. Pharmacists shared their perspectives on the benefits of layered learning and essential components to minimize challenges. In addition, health systems most effective in delivering the layered learning model had "seven key attributes," which are detailed in this report
Nuffer W, McCollum M, Ellis S, Tumer CJ. Further development of pharmacy student–facilitated diabetes management clinics. Am J Pharm Educ 2012;76:50	A program that had a 1-day training course to review previously learned skills to prepare the students for delivering specific services (diabetes care and education) consistently across different experiential sites
Wuller CA. A capstone advanced pharmacy practice experience in research. Am J Pharm Educ 2010;74:180	A description of how capstone projects were used for APPE students while on a 5-weeks experiential rotation. A yearlong course was concomitantly offered to facilitate and build skills for APPE students delivering these services at experiential sites. The mentors for the projects were on-site. Eighty-four percent of mentors agreed that they could use the information from the capstone project to benefit their facility or research

Abbreviation: APPE, advanced pharmacy practice experiences.

relates to the clinical activities of the experience. Table 4 provides examples of courses to complement experiential rotations.

3.3 | Research and scholarship

3.3.1 | Consistency and productivity

Advancing and disseminating knowledge through research and scholarship is an integral role for all pharmacy faculty. The 2016 Standards reaffirm this, requiring all schools to establish an environment that requires scholarship and promotes and assesses scholarly productivity.[5] The 2008 white paper thoroughly outlines the essential elements of an effective research development program for faculty. These aspects remain current and are not revisited in this update. However, faculty members' ability to carve out time for scholarship and balance scholarship with other responsibilities continues to be a primary barrier.[69,70] Lack of adequate skills development is identified as a secondary concern.

Although initial development programs are valuable, strategies are needed to actively engage faculty in ongoing development activities to promote productivity within a culture of scholarship. Several

TABLE 5 Resources for general development

Resource	Description
American College of Clinical Pharmacy (ACCP) Leadership and Management Academy https://www.accp.com/academy/	A program designed to help individuals "better lead their personal lives as well as guide and inspire their colleagues...." Like other Academy programs, this program requires attendance at specific ACCP meetings, participation in webinars, and completion of assignments
ACCP Research and Scholarship Academy https://www.accp.com/academy/	A program designed "to build foundational clinical research and scholarship abilities...." Like other Academy programs, this program requires attendance at specific ACCP meetings, participation in webinars, and completion of assignments
AACP Academic Leadership Fellows Program https://www.aacp.org	A yearlong program designed to develop leaders in academic pharmacy and higher education through expanding relationships and leadership development. This program accepts a limited number of applicants annually. Participants must attend specific meetings, complete assignments, and complete a group project
Patterson K, Grenny J, McMillan R, Switzler A. Crucial conversations: tools for talking when stakes are high, second ed. New York: McGraw-Hill, 2012	A discussion on how to handle disagreements and high-stakes communication based on studying successful communicators over 25 years. A skill set that is easy to learn and that enables an individual to confront any situation is described
Covey S. The 7 habits of highly effective people. New York: Simon & Schuster, 1989	A book grounded on Covey's belief that individuals see the world according to their own perceptions. To change a given situation, a person must change his or her perceptions
Zlatic TD, ed. Clinical faculty survival guide. Lenexa, KS: American College of Clinical Pharmacy, 2010	This book, written by faculty at various levels of their career, offers new clinical faculty practical information, advice, and encouragement for succeeding in the roles of practitioner, teacher, researcher, and scholar

methods have been described in the literature to promote long-term productivity and consistency, including writing retreats,[71] longitudinal peer-writing support groups,[72] and designated research support personnel to provide mentorship and skills development, encourage collaboration, and assist with grant writing and publication.[73]

Colleges and schools of pharmacy can also support faculty participation in external research and scholarship development programs. Programs that provide hands-on learning experience and longitudinal mentorship are ideal. Characteristics of effective mentoring programs are described in the Mentorship section that follows, and Table 5 lists example programs. Schools may also incentivize participation in research through seed funding, workload redistribution, sabbaticals, educational leave, and so forth.

3.3.2 | Incorporating learners within research

Consistency and productivity in research and scholarship can be enhanced by incorporating learners. Developing an organized process to incorporate learners into research and scholarship is a mutualistic experience. Faculty who effectively engage learners in research may achieve scholarly goals in a shorter time. Learners with meaningful involvement in research projects can develop many skills, including collaboration and communication with the research team, timeline development, project management, and research integrity. Opportunities for learner engagement in research may occur within a formal didactic or longitudinal course, experiential rotations, and elective and co-curricular activities.

Lee and colleagues described the benefits of a student research program that used near-peer mentoring between a senior student and a junior student. Faculty or preceptors supervised the project, including the final assessment of completion. The authors reported positive student feedback for the program and successful outcomes over 3 years, including the dissemination of 51 posters and 20 manuscripts.[74] Michalets et al described a 6-fold increase in national poster presentations after the implementation of structured longitudinal advanced pharmacy practice experiences (APPE) in research.[75] Preceptors involved in the rotation noted that the projects completed during the experience significantly influenced the conduct of patient care practices (83% of project outcomes influenced practice). Wuller noted similar benefits and described the use of capstone projects for APPE students while on a 5-week experiential rotation.[76]

Learners can be leveraged for projects that require data collection from a large number of subjects, including multisite projects, or for more simplistic activities that also provide learning opportunities for students through repetition. For example, one pharmacy school trained students to distribute patient education materials while on IPPE rotations. Researchers measured patients' understanding of their medical conditions and opinions on the usefulness of the education discussion. Overall, researchers were satisfied with the information gathered by students, and students provided feedback that the learning objectives of the project were met.[77] Learners may be engaged in various aspects, including data collection, analysis, and distribution of results. Faculty and preceptors should receive guidance on how to structure research in order to formally incorporate learners, including selecting optimal

research activities and strategies to maintain progress and ensure quality.

3.4 | Professional engagement

Professional engagement occurs when faculty use their professional knowledge, skills, or expertise to the direct benefit of a partner (eg, committee or organization). Professional engagement by faculty is often categorized as either "service" or "outreach." The following discussion focuses on service-related engagement. Barker defined the scholarship of engagement as "practices cutting across disciplinary boundaries and teaching, research, and outreach functions in which scholars communicate to and work both for and with communities."[78] Professional engagement and collegiality are two behavioral components of faculty citizenship.[79] In pharmacy, faculty citizenship has been defined as "a pattern of behaviors by pharmacy faculty members that promotes the welfare of the school or college of pharmacy, and as a consequence, the larger university structure." The culture of citizenship within each institution or organization influences the level of professional engagement.[79,80]

Professional engagement includes service to student organizations; the department, school, or university; communities; agencies; and other professional organizations.[81] Effective professional engagement can lead to multiple benefits, including networking, skills development, professional advancement, scholarship, new opportunities, and advancement of the profession.[81,82]

Professional engagement may also bring challenges. Definitions, expectations of extent, support, and recognition of professional engagement often vary by institution and can be unclear.[80-82] Professional service activities can compete with the requirements of teaching, practice, and research. Risks of engagement include overcommitment, conflicting priorities, and lack of alignment with institutional/professional goals.[81] For example, a survey of deans of colleges of pharmacy showed that the most common reasons schools develop collaborative relationships with state pharmacy associations are for legislative and advocacy initiatives and enhancement of pharmacy practice, suggesting that service activities around legislative advocacy would be desirable and supported, as would activities that advance pharmacy practice.[82]

The pharmacy literature contains no research on methods to develop quality professional engagement. However, experts recommend various avenues for development, including identification and use of mentors.[83] Faculty development programs should engage faculty to provide and document evidence of effective service activities both within and outside the school. Colleges or schools of pharmacy should promote a shared understanding of expectations and establish a culture of faculty citizenship. Faculty need to understand how best to select engagement opportunities to promote personal and programmatic strategic goals and balance engagement activities with other efforts. Furthermore, faculty need to understand how to incorporate engagement activities into meaningful scholarship.

Internal faculty development programs may be of benefit but are challenging, given that individual development needs may vary.[84] Human resources departments are useful for promoting professional engagement.[83] External programs can also be used for focused skill development of individuals or departments (Table 5).

3.5 | Well-being and longevity

3.5.1 | Retention of new and junior faculty

Pharmacy practice faculty members represent over 50% of all members of the pharmacy academy, with almost 25% of these being at the assistant professor rank with less than 5 years of academic experience.[4] It is estimated that three pharmacy practice members per department will resign on a yearly basis.[85] Therefore, retention of junior faculty is crucial to the long-term sustainability of the faculty as a whole.

Although many reasons exist regarding why new and junior faculty leave academia, they can be placed into one of two categories: organizational or personal.[85-88] From an organizational perspective, reasons for faculty leaving are primarily linked to breaches of psychological contracts.[86] This is defined as "a set of expectations by a new faculty member about the promises made as part of the new job but not formally written in the letter of offer and official contract."[86] Factors that may lead to a breach in the psychological contract include unclear expectations, impaired culture of the organization, lack of mentorship, increased teaching workload, lack of support from staff and colleagues, poor communication with administrators, office space concerns, and lack of time to develop an experiential site.

Personal influences for faculty departure can be more difficult to define, given that some reasons may directly be linked to the organization. In general, stress and burnout may lead to faculty retention concerns.[88] El-Ibiary et al identified higher burnout rates in female faculty, assistant professors, and those without hobbies.[89] Furthermore, faculty with young children (younger than 12 years) had more difficulty harmonizing work and outside commitments.

3.5.2 | Development concepts related to well-being

College and school of pharmacy leadership must be vigilant with respect to the faculty's morale and should implement strategies to promote well-being. Although this is an evolving concept, two specific areas that can be targeted to improve faculty well-being are the concepts of growth mindset and grit (resilience). Dweck proposed that two mindsets manage our actions, behaviors, and thoughts: fixed mindset and growth mindset.[90] Fixed mindset rests on the premise that intelligence and abilities are static, whereas growth mindset views these as dynamic and changeable. Individuals with a growth mindset welcome challenges and persist when faced with setbacks. Those with a growth mindset have more resilience, embrace feedback,

and find inspiration when others succeed. An 8-question mindset assessment exists that can be used by both students and educators to promote self-awareness and identify opportunities for developing a growth mindset (www.mindsetworks.com/assess/).[91]

As defined by Duckworth, grit is having perseverance and passion for long-term goals.[92] The original validated Grit Scale (Grit-O) consisted of 12 items broken into the two areas of the grit definition, with six questions each: consistency of interest (passion) and perseverance of effort (perseverance). Duckworth together with Quinn later developed a shorter and more valid 8-item scale (Grit-S).[93] Individuals who are passionate about what they are doing and who stay focused on a goal to see it through to completion would score high on the 5-point scale and be described as "gritty." The concept has been evaluated in a wide range of subject groups. Application of these principles within pharmacy education has so far focused on student, rather than faculty, development.

3.5.3 | Work-life balance challenges and avoiding burnout

The balance between work and personal life is essential for work satisfaction, contentment, productivity, and engagement and ultimately leads to faculty success and retention. Factors associated with work satisfaction, success, and productivity include clearly delineated roles and expectations, purposeful use of talents, supportive administration, and collegial community. Incorporating these factors into professional development and mentoring helps faculty members achieve a balance, given that such factors purposefully increase transparency about and culture around responsibilities and expectations.[85,94-96]

If assessing job satisfaction alone, a work-life imbalance, which may be contributing to stress, may be missed. Lindfelt et al. found high levels of job satisfaction in pharmacy faculty, but this came with lower levels of satisfaction with work-life balance.[95] The chronic occupational stress to achieve work-life balance leads to burnout over time. Burnout is defined as a pathological syndrome in which emotional depletion and maladaptive detachment develop and is measured by emotional exhaustion, depersonalization, and lack of personal accomplishment.[88] A recent study identified emotional exhaustion as the most common manifestation of burnout in pharmacy academia, with the following groups having the highest representation: assistant professors, women with young children, and those who work many hours per week.[89]

Faculty members' ability to handle work-life balance depends not only on their previous training and mentorship, but also on their awareness of personal characteristics and traits that may contribute to burnout. These include disorganization, pessimistic outlook, procrastination, perfectionism, failure to delegate, being a people pleaser, and lack of emotional intelligence.[88,94,97]

Programs should provide faculty with professional development opportunities focused on how to balance responsibilities that fall within and outside the workplace. Focus in this area supports faculty engagement, productivity, satisfaction, and retention. Faculty development, especially of assistant professors, should focus on elements of achieving a work-life balance, including identifying and addressing individual stressors, structured mentorship, and time management guidance.[94]

3.5.4 | Mentorship

Programs should provide faculty and preceptors in all career phases (junior, mid, and late) with mentorship on professional engagement, psychosocial function, and the administration's support of faculty development, well-being, and retention. As discussed in the previous section, mentorship that focuses on factors that increase productivity, job satisfaction, and success improves faculty well-being and retention. Engaging junior faculty from day 1 in orientation to all aspects of pharmacy academia increases their connection to the organization and identity in academia. Areas to focus on include organizational support; research mentorship, particularly for pharmacy practice faculty who report lack of time in this area; and psychosocial function of the mentor and mentee.[98] The support of administrators in this process cannot be understated with respect to faculty well-being and is a significant predictor of overall work satisfaction in faculty.[99] Deans, department chairs, and mentors should also receive professional development on increasing and improving their mentorship abilities.

McRae and Zimmerman recently conducted a systematic review of health sciences-focused mentoring programs to identify specific components and structures associated with programmatic success.[100] The review identified the importance of routine engagement with mentorship programs that demonstrate success on the basis of scholarship that was met on a monthly basis, at minimum. Successful programs used a variety of mentoring relationships, including peer, external, and staff mentors and writing groups. Programs targeting promotion and retention also had frequent meetings. The content of these programs aligned with faculty promotion criteria and included both structured and unstructured encounters.

3.5.5 | Ongoing holistic development for mid- to late-career faculty

Faculty in the mid- to late stages of their career make up a significant proportion of pharmacy faculty. According to the American Association of Colleges of Pharmacy 2018-2019 Profile of Pharmacy Faculty, 58% of nonadministrative faculty are at the rank of associate level or higher, and 24% are full professors.[4] The overall percentages are likely higher when administrative faculty are included. More than 70% of faculty are older than 40, so regardless of definition, those advanced in their career account for most of the faculty workforce. In contrast, most mentoring and development programs target junior faculty, and many schools have inadequate local resources for mentorship of senior faculty and faculty administrators.[100,101] In academic medicine, mid-career faculty experience significant declines in mentorship relationships and professional development opportunities.[102] This same

demographic reports the highest levels of burnout and emotional exhaustion.[103] They also have greater issues with isolation, lack of identity, and increased career dissatisfaction than their more junior colleagues.[102]

The type and nature of development needs differ for mid-career faculty. Mid-career faculty are not likely to respond to programs targeting more junior colleagues. Mid-career faculty often have lateral needs, such as developing leadership and administrative skills.[104] Mid-career faculty often transition to leadership positions. However, many do not receive adequate training related to the transition. In a survey of department chairs from various health professional schools, only 30% of faculty received any formal internal training when transitioning to leadership positions, 50% of whom received 5 hours or less.[105] The remaining chairs learned "on the job." In contrast, chairs were highly likely to identify and engage in external leadership training opportunities. New skill sets may be required for administrative or leadership positions, such as budget and personnel management. In addition, skills that are already well developed may need to be used differently. Late-career faculty also have unique development needs, particularly related to role transitions, continued engagement, and retirement.[103] Resources are limited, but some unique strategies have been published for ongoing development of these faculty (Table 5). Longitudinal, project-based development programs may be ideal for these faculty, given that they provide more flexibility to tailor learning around individual interests and are easier to balance with other time constraints and competing responsibilities.[106]

4 | PART 3: PROGRAM DEVELOPMENT AND IMPLEMENTATION

Research and descriptive papers targeting the design and implementation of faculty development programs are limited, with mentorship programs being the most commonly described aspect. These are described in-depth in the 2008 white paper.[2] This update targets two areas: the role of institutions in supporting the development of preceptors and suggestions for the effective delivery of faculty development in a resource-constrained environment.

4.1 | Institutional support of preceptor development

A successful educational partnership between the college or school of pharmacy and a rotation site must be viewed as a "win-win" for both sides. Because most colleges and schools of pharmacy have a finite number of faculty or rotation sites in hospital, community, ambulatory care, or inpatient general medicine to provide the required practice experiences for all students, they must establish a cadre of external pharmacist role models who enjoy teaching and nurturing, can handle challenging students, and are willing to share knowledge and skills. Similarly, a preceptor fully expects that well-trained, motivated, and enthusiastic students will provide value-added patient care services or contribute to

ongoing or new initiatives at the practice site. Although these motives are both altruistic and practical, the 2016 ACPE Standards also include requirements for preceptor education and development.[5] The college or school should foster the professional development of preceptors commensurate with experience and educational responsibilities to the program. Therefore, colleges and schools of pharmacy must provide evidence of compliance with this standard and their efforts to successfully engage preceptors in development programs.

4.1.1 | Challenges with implementing preceptor development programs

Common challenges for preceptor participation in development programs include:

- Lack of employer support for participation.[23]
- Insufficient time or funds to participate in programs that require travel to and participation in an annual meeting of a professional pharmacy organization.[107]
- Competing job-related priorities.[108]
- Absent or insufficient incentive to participate.[109]
- Perceptions that a "one-size-fits-all" development program is not personally relevant.

In addition to preceptor challenges, limited college or school of pharmacy resources to create or support a development program are an important barrier to consider.

4.1.2 | Incentives to engage preceptors in development programs

A monetary incentive is a straightforward way to engage rotation sites and/or preceptors in development programs. Affiliation agreements between colleges or schools of pharmacy and their educational partners can include a development program participation requirement, with failure to meet that requirement resulting in potential termination of the contractual relationship.

In addition, employers can show their support for development programs by (a) providing on-the-job release time from routine duties or dedicated development time for preceptors; (b) covering the cost of registration fees and travel-related expenses to attend the program; and (c) emphasizing the expected return on investment to the pharmacist's expanded level of patient care service or expanded initiatives of the department of pharmacy as a result of having well-developed pharmacist employees or better-trained students.[110]

Colleges and schools of pharmacy can incentivize preceptors to participate in development programs by appointing model preceptors as adjunct faculty and sending letters of appreciation or invitations to special recognition events. Most colleges and schools of pharmacy regularly recognize outstanding preceptors. When a preceptor at a rotation site is recognized, the pharmacy supervisor should share this

with the rest of the department. This may incentivize others to strive for similar recognition. In addition, the college or school can reward individuals who complete significant development programs with a title (eg, a scholar or a fellow) or offer a certificate for program completion.[84,111,112] Colleges and schools of pharmacy can use a substantive title for a robust faculty development program (eg, Institute or Academy) to attract preceptors to the program.[113]

Some preceptors may want continuing education credit for participating in development programs. If a college or school of pharmacy is not an ACPE-accredited continuing education provider, it can partner with an accredited provider to grant continuing education credit for successful completion of the program.

Finally, employers of all pharmacists must emphasize the importance of lifelong learning and develop an organizational culture that exemplifies this by engaging individuals at all levels of the organization.[110,114,115]

4.2 | Considerations for program implementation

When a college or school of pharmacy has insufficient personnel, space, or financial resources to deliver its own faculty development program, various strategies can be used to defray costs, including (a) partnering with other colleges or schools of pharmacy to offer a joint faculty development program for all eligible participants from all partnering institutions; (b) partnering with a national, regional, or state pharmacy association to offer a development program at a state or regional meeting, ideally at a location that is convenient for all participants and speakers; and (c) joining to contract with an external vendor or consultant who can deliver a development program for faculty or preceptors.[114,116]

4.3 | Customizing faculty development

A common challenge with traditional development programs is that they use a one-size-fits-all approach, with many participants engaging in the same activities. Customizing development programming to meet the needs of faculty or preceptors should consider several key areas so that the program is perceived as essential, resulting in increased attendance. Table 6 provides strategies for customizing programs, including identifying subject matter important to participants and using convenient delivery methods, scheduling, and timing. As discussed previously, methods beyond presentation-style programming may be beneficial for faculty who are more advanced in their careers.[117-119]

5 | CONCLUSIONS AND FUTURE DIRECTIONS

Over the past 10 years, pharmacy education has significantly changed. However, colleges and schools of pharmacy have been responsive to these changes and have documented new strategies and approaches for faculty development.

Colleges and schools have begun to develop innovative programs for both initial and continued development of preceptors, recognizing that these individuals play a significant role in the overall educational process. Preceptor development leads to increased confidence in the delivery of experiential education and may result in better student performance. A wide range of preceptor development needs have been recognized, including understanding experiential roles within the broader context of curricular outcomes, having the ability to train students to perform EPAs and standardized patient care processes, assessing student abilities, and managing common student challenges.

The focus of faculty development related to teaching roles has shifted. In addition to traditional teaching and learning skills, faculty development should focus on delivering IPE, employing assessment methods, and using technology. Similarly, many faculty identify navigating common student challenges as an area of importance. Development related to other faculty roles should emphasize strategies that improve success, including managing workload balance, leveraging learners within practice and research, and ensuring professional

TABLE 6 Key areas of consideration when planning faculty development programs

Area of consideration	Possible strategies
Topics cover practical and useful information	The faculty development program sponsor should collect information from preceptors and experiential education staff on commonly encountered rotation problems. Some colleges and schools have preceptor advisory committees made up of key preceptors, which can be a useful resource
	Tailor faculty development programming to apply to the audience, recognizing the changing needs of junior and senior faculty, the various needs of preceptors in different practice settings, etc.[8,9,100,117]
Delivery format must be convenient and flexible for the audience	Identifying a single day and time when all preceptors must gather for a development program is not feasible; consider self-instructional online course delivery, web-based courses, virtual mentoring, or other creative ways that focus on convenience for the preceptor[100,108,118,119]
Length of the program must consider other priorities (personal and work related) of the prospective participants	Programs should only be as long as needed to deliver the content and assess the participant's learning
Program should start and end as scheduled; outcomes should be assessed	The sponsor of faculty development programs should have effective program management and adequate staffing to ensure smooth program delivery[84,109]

engagement. Finally, increased emphasis on the long-term development and retention of faculty is needed, including strategies to assess and improve well-being and avoid burnout. Additional work is needed to identify the most effective and efficient practices for ensuring the preparation, growth, retention, and well-being of both faculty and preceptors.

Colleges and schools of pharmacy should share successful development practices. Development programs must be versatile to address not only the continued changes in education, but also the needs and goals of the faculty. Ongoing efforts to develop national resources for faculty and preceptor development are laudable. Both faculty and preceptors are critical resources. Customized, continuous, goal-oriented development programs are essential for the success of individual faculty and preceptors and the continued vitality of pharmacy education.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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