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Preceptor Handbook for Pharmacists

Lourdes M. Cuéllar
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4th Edition

Preceptor's Handbook *for* Pharmacists

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DEDICATION

We dedicate this edition of the *Handbook* to all our colleagues who have the passion to teach, mentor, and give back to others—those who understand the importance of giving and educating the next generation of pharmacist practitioners.

Paulo Coelho in *The Witch of Portobello* has a great description of a teacher in the following quote: "What is a teacher? I'll tell you: it isn't someone who teaches something, but someone who inspires the student to give of his or her best in order to discover what they already know."

We are especially grateful to those who were our first and most important teachers and have selflessly given to us throughout our lives: our late parents, Phyllis Ginsburg, and Celso and Matiana Cuéllar. We honor their memories by giving to others.

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FOREWORD

"What is your precepting philosophy?" The first time someone posed that question to me, I was admittedly befuddled. As a new pharmacist, I had never connected precepting to any structured, intentional, or measured process. I considered it simply to be something one did, perhaps out of personal interest, professional obligation, or for some higher purpose. And, I assumed that everyone knew how to precept.

From where I sit now, I view the role and approach to precepting quite differently. I certainly am a "seasoned" pharmacist. I have precepted hundreds of students and residents. When I was a residency program director, I was witness to a myriad of precepting styles and approaches. Culling a bit from each of those observations, I developed a style that students, residents, and employees I have since supervised refer to as "Kelly's preceptor mode."

To me, precepting is empowering others, all the while providing a safety net for them as they explore new areas of practice, grow their self-awareness, capitalize on their strengths, gain comfort in asking for input or tough feedback, and align their performance with unit or organizational goals. Apparently, when I shift to my preceptor mode, I ask questions—lots of questions. I encourage my colleagues to think out loud, to describe their decision-making processes, and to make recommendations for next steps.

From my perspective, these are the things a preceptor (and a supervisor) does. You help people perform maximally by ensuring they have the information they need, the resources they require, and the support to take action when warranted. It's my job to push them to new heights, to ask thought-provoking questions, to inspire them to think differently, to continually communicate their progress, and to encourage them to find their own way through situations.

Consider the parallels between precepting and patient care. Neither should be static or formulaic. One must continually assess the situation, anticipate challenges, set goals, collaborate with others, measure progress, and be prepared to provide clear, decisive, and sometimes difficult communication. The fourth edition of *Preceptor's Handbook for Pharmacists* embraces this dynamic nature of precepting. While the foundational take on precepting is not diminished, an expanded roster of authors tackle emerging issues in higher education, the profession, and healthcare. Enhancing caregiver well-being, dealing with learner misconduct, understanding the influence of accreditation standards on education and training, encountering ethical dilemmas, and engaging a diversity of learners highlight new content areas. The hallmark features of this edition of the *Handbook* remain—practical content, a grounding in evidence, and a repository of information that benefits you as a preceptor, whether you are beginning your journey as a pharmacist preceptor or sharpening your skillset decades into your career.

Now that I am a full-time administrator, formal precepting moments for me are less frequent, and I am certainly not providing bedside patient care. But, the importance of precepting is not lost on me. I still supervise a team of individuals, and I am quite certain that they have seen me switch to preceptor mode. Perhaps a more profound element is this—I now am the dean of my alma mater. Many of those who precepted me when I was a pharmacy student are now my faculty colleagues. As they will attest, you should never forget the impact you can have on someone else's development by serving as a preceptor, for your trainee may one day become your boss! As you seek to shape and engage the next generation of pharmacy leaders, or perhaps your future employer, apply the contemporary guidance on precepting that Cuéllar and Ginsburg are known for eliciting from great colleagues in the pharmacy profession.

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PREFACE

> If a teacher is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind.
>
> *Kahil Gibran*

How do you measure the worth of the outstanding preceptors and mentors who have come into our lives? Each one of us demonstrates or exemplifies characteristics or skills that we learned along the path toward becoming the pharmacists and preceptors we are today.

We have been very fortunate to have significant influences in our lives who have guided our personal and professional development. These individuals contributed toward our development as pharmacist practitioners, educators, preceptors, mentors, and leaders within our profession. They taught us to focus on each of our patients, students, and residents individually; to listen actively and communicate with empathy, compassion, and understanding; and to be active participants of a multidisciplinary team.

Our mentors set the bar high, guided us through the learning process, and always provided positive, constructive feedback. They challenged us to look for innovative ways to change our practice for the betterment of our patients. By setting high standards, they set the example for us.

The need for proficient, energetic preceptors has never been greater. This new edition, like the previous editions, is designed to provide pharmacists with critical information about preceptor programs around the United States and to help preceptors design a dynamic and effective experiential program at their practice site. All the chapters have been updated, and six new chapters have been added. The new chapters added to this edition are topics that we have identified as highly pertinent to current and future pharmacy practice. These new areas include the significance of wellness and resiliency of learners, teaching and precepting across a diverse student population, a discussion of ethical issues that may confront the learner on rotation, misconduct and inappropriate behavior situations, teaching and learning methods for students and residents, and onboarding requirements from institutions. This book is meant to be comprehensive, and topics are organized by common areas of skills or proficiencies.

To be an effective preceptor, a pharmacist should exhibit clinical competency skills, possess excellent written and verbal communication skills, and also demonstrate humanistic skills such as listening, compassion, empathy, and observation. We invited pharmacists from across the country and from different or unique practice programs to bring their expertise to this edition. The intent is for this book to be reflective on broad practice guidelines.

One of the greatest satisfactions for the pharmacist today is mentoring students, residents, and young practitioners. We are both still in contact with many of our former students and residents we have had the privilege to precept. It is difficult to express the pride and satisfaction one feels as learners you have mentored and precepted develop into outstanding professionals and clinicians.

How do you measure the worth of exemplary preceptors and mentors? You cannot. You thank them for their selfless contributions by practicing and enhancing the skills and training they provided. Most importantly, you pass these gifts on to the next generation of practitioners.

Lourdes M. Cuéllar

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2019

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Passion is defined as "extreme, compelling emotion; intense emotional drive or excitement." When one decides to teach another, it is this emotion, this excitement about seeing others develop, that overcomes and satisfies this passion and encourages us to do more. To teach is to have passion and dedication for others, a selfless giving of your time and commitment. This passion is at the very core of what we do as individuals and professionally as practitioners.

When we began the first edition, we knew there were many who shared our same passion for teaching and developing others. Throughout the first three editions, we were fortunate to work with so many contributors who understood this passion. Anyone who has ever precepted a student knows the importance of giving back to the profession by assisting in the development of its future practitioners. This fourth edition brings new perspectives, as we welcome new authors to this *Handbook*. We are truly grateful to all who have contributed and thank you for your leadership and commitment to the future of this profession. As with prior editions, we hope this text continues to be a valuable guide for those who are embarking on this aspect of their practice. There are few things more rewarding than knowing you have helped develop another pharmacist and perhaps added to the continuous, evolving practice of our profession.

We want to thank those who have impressed on us the importance of giving back—the many students and residents we have taught and mentored over the years. All of you have imparted many important lessons and are the reason we both actively teach today. All of you have touched our lives in immeasurable ways, and we are committed to those who will be teaching and leading practice in the future.

We want to thank our editors and staff at ASHP for their assistance with the publication of this fourth edition. We greatly appreciate your support, insight, and understanding of the need for this type of practitioner guide.

In addition, we want to thank the true inspiration in our lives, our late parents, who instilled in each of us the importance of giving back and helping others. We were fortunate to have had such incredible role models in our lives. We honor their memory by giving to others.

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1

Precepting Fundamentals

Christina E. DeRemer, Kisha O'Neal Gant, Nancy D. Ordonez, and Nancy T. Yam

> Tell me and I forget, teach me and I may remember, involve me and I learn.
>
> *Chinese Proverb*

Being an effective preceptor is a significant but very rewarding professional responsibility and is quite different from being a competent pharmacist. You must understand precepting fundamentals, determine learning objectives that align with the expectations of the program and your practice, and while outlining expectations of your learners, balance your own position-related duties and responsibilities. Because precepting involves one-on-one communication, interpersonal and teaching skills are essential. Even a seasoned preceptor must continue to improve his or her skills. This chapter addresses the foundational expectations of being an effective preceptor and provides insights into the basics of successful and rewarding precepting.

REFLECTING ON ORIGINS AND CURRENT EXPECTATIONS OF PRECEPTING

The theories of precepting and mentoring have existed for a long time and can be traced back to ancient Greece and Greek mythology. *Mentoring* is "the activity of supporting and advising someone with less experience to help them develop in their work."[1] *Precepting* is a practice of providing a learner the opportunity to develop and apply the art and science of a profession in a practice setting. This practical experience—observing a role model—also enables developing and shaping the learner's values and attitudes.

LEARNING OBJECTIVES

- Define *precepting* and *mentoring*.
- Integrate competency development and assessment into rotations based on educational standards that impact pharmacy education.
- Develop activities that provide learners with the opportunity to meet learning objectives while balancing work requirements.
- Discuss the main areas of focus for preceptors.
- Identify technical skills and abilities of preceptors.
- List core values of preceptors.

Note: The authors would like to acknowledge Randy Ball, Lourdes M. Cuéllar, Kevin Purcell, Steven L. Sheaffer, and Sara J. White for their foundational contributions to this chapter.

The earliest reference to precepting can be found in the Hippocratic oath, written about 400 B.C. by the great Greek physician Hippocrates.[2] In his famous oath, Hippocrates defined a set of compelling duties and responsibilities of the physician, which can be applied to preceptors as well. A strong and enduring commitment to patient care was formed as the art of medicine was passed down from father to son and from preceptor to learner. Today, the foundational knowledge of pharmacy and practice expectations is taught in colleges and schools of pharmacy, but the art is still passed on from preceptor to learner.

Understanding the evolution of the role of precepting in our profession provides insights into how we have progressed. Current pharmacy curricula now require more than 30% of students' education to be in practice settings completing their introductory pharmacy practice experiences (IPPEs) concurrent with their didactic training, followed by their entire final year of full-time training in their advanced pharmacy practice experiences (APPEs).[3] The continued evolution and growth of pharmacy practice residencies have further expanded the need and opportunity for pharmacists to serve as preceptors.

Postgraduate residency training is viewed as an asset to promote professional development and education, and it is becoming more competitive. The number of postgraduate year 1 (PGY1) residencies has increased, but so has the number of graduates wishing to pursue a residency; approximately 25–30% of graduating pharmacy classes pursue postgraduate training.[4]

As Henri Manasse chronicled in his 1973 article, "Albert B. Prescott's Legacy to Pharmaceutical Education," the education of a pharmacist in the early 1800s was entirely "experiential," based on completing an apprenticeship.[5] Contrast this description by Professor Edward Parish to today's experiential training:

> *The apprentice enjoyed a wholesome development of muscle through wielding the ponderous pestle, handling the sieves and working the screw press. He learned how to make pills by wholesale, to prepare great jars of extracts and cerates, to bottle castor oil, Turlington's balsam and opodeldoc by the gross, and what he lacked in the number and variety of articles he dealt in, was made up by the greater extent of his operations and the completeness with which, in a single establishment, all the then-known processes were practiced.*[6]

This was how pharmacy education began. The first colleges and schools of pharmacy required an apprenticeship as a condition of beginning formal pharmacy education. It was not until the 1860s that pharmacy education was required before training as an apprentice. By the middle of the 20th century, experiential training was almost entirely mandated as paid internships and overseen by boards of pharmacy. Experiential education has evolved and is primarily managed by pharmacy colleges and schools as the mandated intern training required by most state boards of pharmacy. Many practice settings are now identifying roles for pharmacy students during their experiential rotations and as employed interns where they are depended on to be an extension of the pharmacists and their preceptors in the provision of patient-focused services and in learning and understanding their role in relation to technicians and other healthcare providers.

Today, precepting is vital to the professional growth and development of pharmacy learners as pharmacists and to the future of the pharmacy profession. We rely on experienced practitioners to become preceptors and pass down knowledge and experience to their students, resident learners, and fellows. Precepting involves a partnership for education, investment of time and energy, negotiation and individualization of learning activities, teamwork, coaching, evaluation of performance, and professional role model-

ling and guidance. Preceptors ensure that their learners attain competency in the practice of pharmacy much in the same way that the apothecaries supervised their apprentices in developing the skills of the trade. Service is exchanged for education and training, denoting a mutual benefit.

Residency precepting provides opportunities for more in-depth and demanding training as well as greater engagement and contribution to the provision and advancement of pharmacy services. One desired outcome of residency precepting should be for the resident to become a preceptor for future practitioners. Noted in the literature, pharmacy residents experience personal growth in skills through focused and intensive training that correlates with programs involving an increase in productivity for patient care, program and process development, and scholarship.[7,8] However, new challenges have emerged in maintaining wellness, with 40% of pharmacy residents reporting moderate-to-severe depressive symptoms.[9] Have organizations recognized the need to support learners and preceptors in maneuvering this new territory? See Chapter 16, Resiliency and Well-Being, for more information on this subject.

Students as well as residents and new practitioners may benefit from seeking out a pharmacist mentor. Unlike being a preceptor, a *mentoring relationship* usually involves ongoing engagement with a mentee. These relationships require a much greater investment of time and commitment by both parties but also allow for a greater sense of accomplishment by both individuals. Often, a mentoring relationship evolves during and continues after a rotation with a preceptor, but should be formalized through a conversation that results in both parties' commitment to the relationship. Mentoring is a relationship based on the following:

- Trust and respect
- Education and nurturing
- Inspiration to advance the practice of pharmacy and improve patient care
- Opportunities to grow and develop
- Metamorphosis through engaging in a process of self-reflection, self-assessment, and self-transformation
- Professional guidance
- Celebration of achievement when success is obtained

We also depend on preceptors to become mentors and to help their mentees attain professional excellence and become leaders (see Chapter 5, Mentors, for more information).

Pharmacy preceptors and mentors provide the most critical aspects of professional education and training and can truly make a difference in the lives and careers of their learners and mentees.

Standards Impacting Experiential Education and Preceptors

Expectations of learners and preceptors are impacted by numerous organizations that have developed positions and standards specific to pharmacy education, including experiential training. Preceptors should become familiar with the intent and expectations of preceptors and students as defined by each organization noted below. The focus of pharmacist education today is shaped by the 2013 Joint Commission of Pharmacy Practitioners vision statement: "Patients achieve optimal health and medication outcomes with pharmacists as essential and accountable providers within patient-centered, team-based healthcare."[10] The Council on Credentialing in Pharmacy further substantiated this notion in a resource paper highlighting the scope of contemporary pharmacy practice credentialing and privileging and referenced it in numerous organizations through commissions.[11-13]

Accreditation Council for Pharmacy Education (ACPE)

Colleges and schools of pharmacy must meet accreditation standards for Doctor of Pharmacy programs established by the ACPE released in 2016.[3] Of note is the increased focus on interprofessional education in Standard 11, which states:

> *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. In the aggregate, team exposure includes prescribers as well as other healthcare professionals.*[3]

Standard 12 focuses on the "Pre-Advanced Pharmacy Practice Experience (Pre-APPE) Curriculum," where expectations of the IPPEs are defined, including the minimum of 300 hours of experiential training. Standard 13 defines expectations of the APPE Curriculum. For the 1440 required APPE hours, it is mandated that APPEs occur in four practice settings: 1) community pharmacy, 2) ambulatory patient care, 3) hospital/health-system pharmacy, and 4) inpatient general medicine patient care. Appendix 2 of the APPE curriculum defines specific expectations. Many are using the term *APPE-ready* to express the expectation that core student competencies must be assessed and met prior to students beginning their APPE rotations. In addition, the American Association of Colleges of Pharmacy (AACP) developed the Core Entrustable Professional Activities (EPAs) for New Pharmacy Graduates (**Box 1-1**), which "are discrete, essential activities and tasks that all new pharmacy graduates must be able to perform without direct supervision upon entering practice or postgraduate training and operationalize the AACP Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes."[14,15]

ACPE standards have been developed to integrate expectations defined or supported by the pharmacy profession. The following documents are valuable references for preceptors.

CAPE Educational Outcomes 2013 and Institute of Medicine Report: Health Professions Education: A Bridge to Quality

The AACP CAPE released the fourth version of the CAPE Educational Outcomes.[15] This initiative resulted in a publication that "was guided by an advisory panel composed of educators and practitioners nominated for participation by practitioner organizations."[15] Preceptors are encouraged to review the entire document online, where learning objectives for each competency domain are provided. Rotation objectives and evaluations developed by colleges and schools should focus on preceptors improving and assessing relevant student competencies. Preceptors should define rotation-specific expectations and roles for students to develop and demonstrate competencies consistent with the expectations of the students' corresponding college or school of pharmacy and the CAPE outcomes. The first four ACPE 2016 standards focus on achieving these four domains of educational outcomes (see **Box 1-2**).

BOX 1-1. Core EPAs for New Pharmacy Graduates[14]

1. Patient Care Provider Domains
   a. Collect information to identify a patient's medication-related problems and health-related needs.
   b. Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.
   c. Establish patient-centered goals and create a plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence- based and cost-effective.
   d. Implement a care plan in collaboration with the patient, caregivers, and other health professionals.
   e. Follow up and monitor a care plan.

2. Interprofessional Team Member Domains
   a. Collaborate as a member of an interprofessional team.
3. Population Health Promoter Domains
   a. Identify patients at risk for prevalent diseases in a population.
   b. Minimize adverse drug events and medication errors.
   c. Maximize the appropriate use of medications in a population.
   d. Ensure that patients have been immunized against vaccine-preventable diseases.
4. Information Master Domains
   a. Educate patients and professional colleagues regarding the appropriate use of medications.
   b. Use evidence-based information to advance patient care.
5. Practice Manager Domains
   a. Oversee the pharmacy operations for an assigned work shift.
   b. Fulfill a medication order.
6. Self-Developer Domains
   a. Create a written plan for continuous professional development.

BOX 1-2. CAPE Outcomes[15]

DOMAIN 1—Foundational Knowledge

Learner: Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient-centered care.

DOMAIN 2—Essentials for Practice and Care

2.1. *Patient-centered care (caregiver)*: Provide patient-centered care as the medication expert (i.e., collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

2.2. *Medication-use systems management (manager)*: Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication-use systems.

2.3. *Health and wellness (promoter)*: Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

2.4. *Population-based care (provider)*: Describe how population-based care influences patient-centered care, the development of practice guidelines, and evidence-based best practices.

DOMAIN 3—Approach to Practice and Care

3.1. *Problem solving (problem solver)*: Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

3.2. *Educator*: Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.

3.3. *Patient advocacy (advocate)*: Ensure that patients' best interests are represented.

3.4. *Interprofessional collaboration (collaborator)*: Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.

3.5. *Cultural sensitivity (includer)*: Recognize social determinants of health to diminish disparities and inequities in access to quality care.

3.6. *Communication (communicator)*: Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

DOMAIN 4—Personal and Professional Development

4.1. *Self-awareness*: Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

4.2. *Leadership*: Demonstrate responsibility for creating and achieving shared goals, regardless of position.

4.3. *Innovation and entrepreneurship (innovator)*: Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

4.4. *Professionalism (professional)*: Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

Institute of Medicine Report: Health Professions Education: A Bridge to Quality[16]

As part of the Institute of Medicine (IOM) Quality Chasm Series to improve patient safety and patient outcomes, the IOM identified five competencies that all healthcare professionals should attain during their education:

1. Provide patient-centered care
2. Work in interprofessional teams
3. Employ evidence-based practice
4. Apply quality improvement
5. Utilize informatics

These competencies are also integrated into the ACPE standards.

Revised North American Pharmacist Licensure Examination Competency Statements

A critical outcome of the pharmacy curriculum and student education is preparation for and passage of their licensure exams. In the North American Pharmacist Licensure Examination (NAPLEX), two broad areas are examined.[17] Preceptor familiarity with the specific expectations, by accessing the blueprint online, will help prepare both rotation students and employed interns to be successful in passing the NAPLEX exam.

- *Area 1*: Ensure Safe and Effective Pharmacotherapy and Health Outcomes (approximately 67% of test)
- *Area 2*: Safe and Accurate Preparation, Compounding, Dispensing, and Administration of Medications and Provision of Health Care Products (approximately 33% of test)

A similar blueprint for the Multistate Pharmacy Jurisprudence Examination can be found on the National Association of Boards of Pharmacy website.

Core Competencies for Interprofessional Collaborative Practice

The increased emphasis by ACPE on interprofessional education, noted previously (Standard 11), stems from recommendations by the IOM and collaboration among organizations representing health professions' educators. Colleges and schools of pharmacy seek to define competencies and provide opportunities to achieve them within the didactic curriculum and during rotations. Preceptors should plan for increased interprofessional engagement during rotations.

More details about achieving the following competencies can be found in this document endorsed by national associations representing educators from pharmacy, medicine, nursing, dentistry, and public health.[17]

- *Domain 1*: Values/Ethics for Interprofessional Practice
- *Domain 2*: Roles/Responsibilities
- *Domain 3*: Interprofessional Communication
- *Domain 4*: Teams and Teamwork

Rotation Structure and Expectations

The remainder of this chapter will address how to engage students effectively during rotations to create a positive experience for both the student and preceptor. These same concepts apply to integrating pharmacy residents into your practice. Also, consider

how you might enhance the experiences of employed interns. Although many interns start out performing technician responsibilities, you and the interns can also benefit from having interns perform many of the same activities afforded to APPE students. We will suggest ways that preceptors can and should define routine expectations of rotation students. Just as pharmacy interns cover for technicians over holidays and vacations, so too can pharmacy interns sustain services usually provided by rotation students (e.g., medication histories and reconciliation, device training, patient counselling, adherence calls). The EPAs will help guide the activities pertaining to particular rotations.

PRECEPTOR PEARLS

A preceptor must have good communication, organizational, and time management skills.

BEING A PRECEPTOR IS AN IMPORTANT ASPECT OF PHARMACY PRACTICE

Pharmacy is a proud profession with a rich history and many varied practice settings. Recent and future graduates will determine the future of pharmacy. These graduates rely heavily on experiential rotations for developing their foundation and values in pharmacy practice today and what it can be in the future.

Each practice setting has unique experiences that may be utilized to teach students how to practice pharmacy in a real-world environment. Through experiential rotations, students learn how to apply the knowledge they have acquired in their pharmacy college/school coursework. Students also learn how to be professionals and interact with other healthcare practitioners. Experiential rotations provide students with the opportunity to learn how to provide pharmaceutical care within various practice settings, under the guidance of a skilled practitioner.

In addition to the value precepting has for the students, precepting rotations also provides value to the practice site. Hosting students on experiential rotations provides the site with an infusion of intelligent practitioners who help to keep the pharmacy knowledge base sharpened. Journal clubs and formal presentations provide pharmacy staff, both professional and technical, with up-to-date pharmacy information. Students who have completed interesting rotations also serve as positive advertising for the site among their classmates as they begin to seek employment after graduation. In addition, precepting students provides sites an opportunity to recruit future residents and employees. Layering learners within a single experiential site deepens the learning from a single source. It optimizes collaboration, peer teaching, and mimicking the medical layered learner model for postgraduate students.

Precepting is professionally rewarding for preceptors. They have the opportunity to influence future practitioners and, in doing so, can influence the future of the profession for many years to come. Precepting helps sharpen preceptor skills, as preceptors reinforce their own knowledge and expand their horizons through student interactions. As preceptors answer questions and explain pharmacy practice, they gain an even deeper understanding of practice. Routine daily tasks that preceptors frequently do without much thought become fresh again as they explain them to students. Taking time to befriend students creates a unique professional bond that can last beyond the rotation period. It is not uncommon for former students to maintain contact with preceptors who helped to shape their professional perspective.

Characteristics of a Preceptor

Whereas the state boards of pharmacy define the legal responsibilities of preceptors, and the colleges and schools of pharmacy define

the educational requirements of the rotation, precepting requires many skills and traits that these formal bodies do not identify. Preceptors are responsible for the education of students while on practice experiences. Ideally, this should build on the knowledge and skills learned in a classroom environment that increasingly includes simulation experiences and other active learning exercises to better prepare students for their rotations.

Three of the most important areas of focus for preceptors include teaching students professionalism, effective communication, and application of the knowledge and skills they have gained from formal courses to real, dynamic patient care situations. To achieve this goal, preceptors must possess a set of core values, technical skills, and abilities.

PRECEPTOR PEARLS

Integrate learners into patient care activities, projects, and staff learning opportunities to enhance their experience.

PLANNING THE LEARNING EXPERIENCE AND SETTING EXPECTATIONS

Four Areas for the Structure of Rotations

The structure of any rotation should consist of four areas: 1) setting of expectations through a formal orientation, 2) learning by doing, 3) providing constructive and scheduled feedback, and 4) deriving mutual benefit. More suggestions on successful rotations are provided later in the chapter.

Orientation

Integration of the learner into the practice setting is essential and includes defining expectations of the student and preceptor(s)/staff. Defining expectations for all parties is essential to a successful working relationship and understanding of the role of activities. Additionally, this may allow preceptors to modify experiences to engage learners fully for mutual learning and personal development while ensuring site and school requirements are met. Orientation and introduction to the site and staff with confirmation of access to resources and a schedule of activities and deadlines optimize communication throughout the experience. This should be scheduled as a formal discussion, preferably within the first days of the experience if not prior to the start date. Despite clear planning and open discussion, the unexpected will occur. For more information, refer to Chapter 7, Fundamentals of Experiential Teaching (Strategies for Dealing with Difficult Learners and Situations) or to Chapter 17, Misconduct and Inappropriate Behaviors (Case Scenarios).

Learn by Doing

Provide learners with opportunities to engage in activities within the practice to develop their knowledge, skills, competency, and confidence. These can be routine, daily expectations for patient care or team meetings, projects, and learning activities such as topic discussions, journal clubs, patient education, staff presentations, and/or layering the practice model. For early learners such as IPPE students, these would include more shadowing and performing technical or minimal clinical judgment tasks. For APPE students and especially residents, the learner should be afforded progressively challenging responsibilities with as much autonomy as the preceptor is comfortable with, the learner is capable of, and the state legally allows.

AACP developed core EPAs and examples supporting tasks, which have been mapped to the CAPE 2013 Educational Outcomes (see Box 1-1 and Box 1-2). Ensuring that learners understand the building relationship of the tasks and/or the importance

of completion can also add to instilling self-confidence and ownership. *Busy work* is viewed negatively, but can involve a skill-developing task where discussion and relationship setting may improve the reception of the assignment.

Feedback

Ongoing, informal feedback from the preceptor is just as important as the formative, formal mid-rotation and summative final evaluation. In addition to "on the fly" perspectives of performance and suggestions to improve what the preceptor provides to the learner, the learner's self-assessments or peer feedback will enhance the learning experience. Before providing feedback on how well a patient interview went, consider asking learners how *they* thought *they* did and what they would do differently the next time. Reflective writing and journaling of activities provides additional feedback. Having the learner complete the formative formal mid-rotation and summative final evaluations as self-evaluations allows the preceptor and learner to better define and align performance expectations. Also, teach students and residents to provide constructive feedback to the preceptor regarding teaching style, designed activities, and the rotation.

Mutual Benefit

As noted previously, precepting is itself a rewarding but demanding experience. Later in this chapter, advice is provided on how to integrate students and residents so they can become extensions of you while having a good learning experience. However, think about ways you can personally benefit from the presence of a student or resident. Is there a longitudinal drug utilization evaluation or project that learners can work on? Do you choose journal club articles that you are familiar with or ones you hope to read in your spare time? Are there presentations on topics that learners could research and present, which also align with your professional or departmental goals, such as a new role for pharmacists or technicians or a new drug that a medical colleague inquired about? Preceptors should not hesitate to create learning opportunities for learners that also meet their own developmental needs.

PRECEPTOR PEARLS

Use their experiences, goals, and interests to help tailor rotations to individual learners.

Standards and Expectations

Students generally progress through predictable stages of learning development. It is critical to the student's success in the rotation that preceptors take time on the first days of the rotation to assess each student individually. This exercise should not only determine students' basic pharmacological competency and core clinical and patient encounter skills but also verbal and written communication skills, problem-solving skills, ability to perform multiple tasks, and ability to handle complex patients. As a preceptor, you should be able to identify student strengths and their needs relative to meeting all the learning objectives of your rotation. Have a plan, but be flexible in adjusting it to meet student needs and abilities.

The first meeting with your students sets the tone for the entire training encounter. Ensure students understand and accept that both of you must work together throughout the rotation to ensure quality patient care as well as quality education and training. Identify what your students can do or recommend independently versus when they need you to review, approve their plan of action, or observe their engagement with a patient. Documentation of activities demonstrates to students their influence as contributors to the medical record, whether documenting a full clinical note, pharmacokinetic note, or educational activity. All of the documents will need to be co-signed after the preceptor's full review. This activity may easily increase an individual preceptor's documentation

practices through cosigning learners' contributions. As you gain confidence in their abilities, provide them with increased autonomy and responsibility as legally appropriate.

To have a successful experiential experience, the preceptor should establish standards. Be specific when you communicate your expectations to students. Consider creating templates, guidance documents, and formal evaluation forms as well as providing students with examples of the assignments. Offer ideas as you mutually establish specific goals for their rotation. Give them creative challenges; promote their strengths. By linking the students' performance to those standards, the preceptor creates a benchmark for achievement. The ultimate goal is to transition from a teacher/student (i.e., learner) relationship to clinical supervisor/responsible performer (i.e., clinician) relationship. Students should be able to demonstrate their problem-solving skills and integrate their didactic knowledge and clinical training to real-life situations. There should be a good balance between education and service learning. Model the desired activity and then have the student practice with you. Afterwards, shadow them in the actual activity and provide immediate feedback; repeat this until the learner has shown competency in performing the activity independently.

PRECEPTOR PEARLS

Establish standards and communicate them clearly to your students.

A good preceptor should relay to students how all their activities impact patient care. Preceptors should provide guidance, answer questions, explain answers, and assist students in developing self-confidence and self-esteem. An exemplary preceptor demonstrates a positive attitude and is dedicated to helping students achieve their full potential.

Most experiential training sites afford students the opportunity to work and train with many professionals besides the primary preceptor. Choose professionals who are motivated and committed to student education. The pharmacist team of preceptors can teach students a number of critical skills that are not necessarily related to the science of pharmacy but rather the human side of our profession. Students will be able to observe the various healthcare professionals' different approaches. Some of these critical skills include ethics, teamwork, leadership, empathy, compassion, and communication as well as the technical and cognitive abilities to be a pharmacist. Introduce diverse activities that provide students with the opportunity to meet all learning objectives while satisfying work requirements.

Organization and Time Management

To simultaneously provide a successful educational experience and ensure clinical effectiveness, the preceptor must be organized and identify strategies for providing educational opportunities. Orienting students to patient encounters is a sound strategy for creating a good learning environment and providing effective, direct patient care. Learn to present a 1- to 2-minute patient-specific presentation. This will help learners efficiently interpret vital patient information. For example, the preceptor should review the patient's medical background and explain to students which symptoms or conditions they should focus on and how to look for the patient's nonverbal forms of communication. Establish guidelines for interventions, monitoring, and patient care plans. Other examples would be reviewing with students the importance of calling a physician if they are unclear about a prescription, the steps to take if they come across a drug interaction, and how to negotiate with or talk to an angry patient or physician. During each patient-specific encounter, the preceptor should alert students to any potentially coexisting

problems or additional medical conditions in the patient's history.

Time management is a skill that also should be taught to students and practiced by preceptors. If students are appropriately oriented, they can expand the reach of the pharmacist through planned activities. Concepts such as the "One-Minute Preceptor" can be used.[18] This involves weekly discussion topics related to patient cases and other learning opportunities. Students who are able to perform medication histories and document these activities can enhance the impact of the department as a whole. Documentation of clinical activities, such as education, pharmacokinetics, and even progress notes, is another effective way that students can be integrated into practice, provided it is completed in accordance with individual state laws and co-signed by a licensed preceptor. As pharmacists pursue provider status, objective activities such as documentation of clinical interventions, education, and other topics address necessary skills in time management and improve communication.

The patient case presentation or drug utilization review process offer both preceptors and students an opportunity for teaching and learning. In addition, teaching with the patient allows the preceptor to observe students' performance and enables them to provide immediate feedback. The preceptor should verbally identify what students did well, and then ascertain opportunities for improvement and suggest steps that students might take to correct them, without dictating a solution, even if it seems obvious.

Box 1-3 lists some examples of effective opportunities to teach in a productive manner. Presentations do not need to be limited to preceptors, other pharmacists, or peer students. Students are effective educators with appropriate oversight; they learn from educational sessions provided to other multidisciplinary groups, such as nursing in-services and provider or physician medication pearls, as well as patient or consumer education.

BOX 1-3. Opportunities to Teach in a Productive Manner

- Patient education and counseling
- Health screenings
- Pharmacotherapy, nutrition, renal dosing, and pharmacokinetic consults
- Literature searches
- Physician case conference or grand rounds presentations
- Patient-specific drug utilization review
- Quality improvement activities, such as evaluation of regulatory compliance
- Medication-use evaluation/drug utilization evaluation criteria development, data collection, queries, and compilation of results
- Interprofessional education (e.g., shadowing a nurse, dietitian, or respiratory therapist for a set number of hours)
- Technician activities
- Departmental budget preparation and review process
- Employee feedback and evaluation process
- Policies and procedures development or revisions and updates to staff
- Patient case presentation
- Presentation for pharmacy and therapeutics committee
- Journal club
- Drug information questions
- In-services for nurses, pharmacists, medical residents, and other disciplines and community
- Special projects, presentations, or experiences
- Reflective statements

Remember that students should be active participants. The preceptor must be careful not to make any pertinent learning

activities a shadowing experience unless he or she is precepting an IPPE. Students should understand the reason or rationale for all activities or projects.

Promotion of Learning

Promote self-directed and lifelong learning. At the end of the day, ask the student, "What did you learn today?", "What medical problem or condition would you like to learn more about?", or "What was the most important thing you learned today?" Link self-directed learning to a recently observed patient problem, departmental process, or procedure. Self-directed learning can also include research, literature review, or selected reading about a disease or condition that is prevalent in the patient population you serve. Self-directed learning should apply the students' didactic knowledge to real-life patient encounters or experiences.

Service-based education is a very effective teaching tactic. There are two ways a preceptor can use this teaching strategy. The first is by identifying to students the tasks that non-licensed staff or other healthcare providers routinely perform in your department. The second is by encouraging students to participate in community service-based education.

Non-licensed staff are an integral part of the daily operation of a pharmacy. To help students comprehend and appreciate how each employee is a valuable member of the pharmacy team, allow students to spend some time with the support staff within the department. During institutional and community rotations, have them perform duties such as triaging patient or nursing phone calls, assisting at the service window, calling insurance companies, retrieving charts, repackaging medications, calling physicians to clarify orders, and assisting in the ordering and inventory process. Students will learn how these functions are critical to the operations of the department.

Value of Community Service Education

It is also imperative that students learn the value of community service education as part of their experiential training. Start by inviting them to go along to one of your local pharmacy organization's continuing education programs. Teach them the value of fellowship and networking with colleagues within your community.

PRECEPTOR PEARLS

Preceptors empower students to function independently and apply their knowledge and skills to real-life clinical and nonclinical situations.

UNDERSTANDING CORE PRECEPTOR VALUES AND CHARACTERISTICS

The core values for a preceptor include the following:

- *Professionalism.* Students mature as professionals by observing practitioners in the experiential setting and by functioning as healthcare providers themselves. The most important person to instill this professionalism in students on rotations or as interns is their preceptor. To do so, the preceptor must exhibit professional behavior and discuss professional responsibilities and expectations of pharmacists with students. The preceptor should also discuss the different professional organizations and encourage students to become active members in them.
- *Desire to educate and share knowledge and experiences with students*. Draw on your personal experiences. Help learners understand why something is important, and develop the ability to navigate the process or ambiguity while evolving

the "soft skills" to achieve success with others.

- *Willingness to advise, mentor, and provide valuable feedback and direction.* The progression of students from the classroom setting to experiential sites and, ultimately, to professional practice requires the personal growth of students. Preceptors must be willing to advise some students, guiding them along their path from student to pharmacist by helping them move from dependent learners to competent, independent, and committed professional colleagues. This transition will prepare students for the lifetime learning model that all pharmacists follow. After rotations end, many preceptors maintain contact with learners and their relationship evolves into one of mentor/mentee.
- *Willingness to commit the time necessary for precepting.* The majority of experiential rotations are supervised by pharmacists who are precepting students while performing their normal duties. Simultaneously teaching and maintaining a full work schedule requires preceptors to have a true desire to teach and commit the time necessary to precept effectively. Precepting often requires a commitment beyond normal working hours. Without the true desire to educate students and the willingness to devote the necessary hours, preceptors will not be able to teach their learners effectively. Precepting also requires preceptors to continue developing their own knowledge and education to improve patient care services provided.
- *Respect for others.* Being a positive role model in how you engage colleagues, other health professions, and especially patients is critical to a student's development.
- *Willingness to work with a diverse student population.* The student population today is more diverse than it was even 10 years ago. This includes ethnic, gender, cultural, and generational diversity. Many students today are entering pharmacy colleges and schools after having worked for several years in another field, and some students already possess advanced degrees. There is also variability in student work experiences, career plans, and what students may view as important for their future. Although these factors will help strengthen the pharmacy profession in the future, preceptors must recognize and respect these differences.

The degree of diversity that exists today also requires preceptors to adapt teaching techniques for maximizing students' learning experiences. When precepting multiple students on the same rotation, diversity factors can present unique and challenging situations.

Although each preceptor will have different areas of strength within these core values, he or she must hold each of them as personally important.

In addition, precepting students on experiential rotations requires excellent skills in the relevant practice area. If a preceptor is not knowledgeable about a particular area, students will not gain the necessary oversight and guidance to meet their learning objectives. A rotation with an unprepared or inexperienced preceptor can also adversely affect the students' view of the profession. Preceptors should never be forced to take students on a rotation if they are not competent in that particular area. Sometimes, in an effort to schedule an experiential rotation for students, the site will try to accommodate the needs of both the student and the college/school. When this occurs, the site and preceptor almost always fall short, and the result is a negative experience for all involved.

Precepting is an additional duty that you undertake because you want to be involved in our profession's educational process. To be effective at balancing your job requirements with time spent teaching, preceptors must

possess a number of abilities. Preceptors must have good time management, organizational, and written and oral communication skills. Obtaining knowledge of available resources is also helpful in achieving balance between the practice and precepting.

PRECEPTOR PEARLS

Precepting benefits both the students and the preceptor, who learn from one another.

MAINTAINING ACCOUNTABILITY TO SUSTAIN MUTUAL BENEFIT

Overall, when done correctly, precepting experiential rotations is one of the most important aspects of pharmacy practice. When the time and resources are devoted to making the rotation a top-notch experience, the students, preceptor, and site all benefit. Ultimately, patient care is improved—the reason we practice pharmacy. Embracing precepting for mutual benefit is an important viewpoint to establish. Residents will experience an intensity of learning that can be overwhelming if not properly supported with open discussions surrounding the vision for mutual benefit. Establishing experiential goals in the beginning that align the learner's, preceptor's, and organization's needs and objectives allows for the mental and physical planning to accomplish the desired end goals.

Increased capacity is defined in various modes as an expansion in capability for improved quality patient care, increase in revenue generated, and extension of services for professional growth in learning and development. These metrics are often tracked to assess objectives met for practices participating in educational activities. This increase in capacity can also stretch to cover education delivery and scholarship.[7]

The potential for expansion in mutual benefit requires the establishment of accountability to and among all parties, including learner, preceptor, and organization. Some of this accountability has been measured through productivity in research, improved quality of patient outcomes, and increase in scholarship activity.[19]

PRECEPTOR PEARLS

Promoting and modeling lifelong learning is an essential skill for a competent pharmacist.

FACILITATING EFFECTIVELY FOR CONTINUOUS PROFESSIONAL DEVELOPMENT

Striving to be an effective and productive facilitator takes continuous self-evaluation and personal development to create and maintain an experience with a streamlined plan (as described previously), which will allow all parties to perform and engage with a mutual understanding of expectations.

Continuing professional development (CPD) is designed to promote ongoing learning and application of information. ACPE defines CPD as "a self-directed, ongoing, systematic and outcomes-focused approach to lifelong learning that is applied into practice."[20] CPD has four stages: reflect, plan, learn and apply, and evaluate. These stages are cyclic, resulting in continuous growth. Teaching and precepting are considered CPD activities. Desire to learn, maintenance of professional licensure, and change of pace—resulting in the relaxation and enjoyment of learning activities—are characteristics that facilitate the passion for lifelong learning.[20] The top-referenced barriers for pharmacists to implement CPD fully are job constraints such as funding and availability, time allowance, and personal motivation.[21,22]

With the ever-evolving profession, preceptors as well as learners must embrace and engage in CPD on a personal level (**Box 1-4**).[21-23] There is a move from more structured formal learning, which previously was self-sought or funded at a state or national level, to more of an emphasis on workplaces that support learning and teaching.

BOX 1-4. The *What? So What? Now What?* Process for Learning Reflection[24]

- *What?* (What happened? What did I learn?)
  - Documentation of reflecting about what has been learned from what resource.
- *So what?* (Why does this learning matter? Why is this learning significant?)
  - Documentation for the meaning or impact of the learning: How will this relate to standards? How did you feel about the learning? What was the value of the learning?
- *Now what?* (What implications does this learning have for my future?)
  - How will the learning be used in the future?

EXPERIMENTING WITH NEW IDEAS FOR SEASONED PRECEPTORS

Seasoned preceptors often experiment with implementing new ideas and concepts into their training programs. This provides new challenges and excitement for preceptors as well as some new learning opportunities for students. Preceptors can either formulate unique and innovative ideas that are true revolutionary advances in student education, or they can simply add a different spin to the ideas and practices of others. Updated and contemporary ideas are available from the ASHP Preceptor Toolkit.[25] This section of the chapter presents ideas that both new and seasoned preceptors can use to help students become the best pharmacists they can be.

PRECEPTOR PEARLS

Incorporating unique and challenging activities into a rotation ensures that both the student and preceptor remain engaged and committed.

A Practice Model Incorporating Learners

Preceptors can create a practice model for students to integrate effectively with defined duties and responsibilities that are important functions and aspects of patient care and pharmacy operations. Often, students do not have clearly defined roles at practice sites, and they are not well integrated into the patient care process or pharmacy operations. It is difficult for preceptors to essentially create an unsalaried job position and description for students if they do not have a constant supply of students. However, these barriers can be overcome to provide a mutually beneficial experience.

Student intern positions are typically salaried with shared components of technician duties while focusing and authorizing some clinical- and pharmacist-level activities. For optimal integration, duties and responsibilities would have to be filled year-round to provide consistency and continuity of services, especially if the students are integrated into a patient care unit and team in a hospital. When students have met expectations that other healthcare professionals have established by providing them support for patient care services, there cannot be lapses in coverage. The practice site will always need to have a student in that position. This will require a strong partnership with one or more colleges/schools of pharmacy to meet the site's demand for students (refer to Chapter 13, Partnerships with Colleges and Schools). Sites are offering longitudinal

APPEs to benefit students, preceptors, and the institution. Students will have an opportunity to develop professionally through scholarship activities that are designed with purpose as well as development of mentorship, curriculum vitae review, mock interviews, and other preparatory activities. Sites can benefit by integrating students into projects and then have those projects presented at state and national meetings.

The skills learned and practiced as a student intern complement those training skills taught and evaluated during rotations. Under the supervision of a pharmacist preceptor, students can be decentralized to a patient care unit or team in a hospital and provide a spectrum of pharmacy services (in accordance with individual state laws). Students can be responsible for a number of functions, including taking initial medication histories, conducting daily drug regimen reviews, answering drug information questions, restocking and delivering medications, performing therapeutic drug monitoring services, writing patient care plans and daily progress notes, reviewing discharge medications, counseling patients, and providing in-services to the medical, nursing, and allied health staff. Students could also act as liaisons for the pharmacy department and help nurses on the patient care units and centralized staff pharmacists troubleshoot problems with the medication-use system (e.g., prescribing, dispensing, administration, monitoring). Utilization of learners as extenders is an adopted concept in many settings and even referenced in the ASHP Pharmacy Practice Model Initiative. This includes responsibilities for patient care activities, including documentation in the patient's medical record.[3]

Although the above example is for creating a student practice model in an inpatient setting, student practice models related to patient care services outside the hospital environment or within pharmacy operations and management could be developed in many other pharmacy practice settings and include similar activities as noted above. Whenever possible, preceptors should get senior students involved in more advanced practice activities (as permitted by state law) and enlist other professionals (e.g., physicians, nurses, dietitians, respiratory therapists, business managers) in their internships as co-preceptors to provide more diverse education, experiences, and understanding. Advanced practice activities can include disease screenings, patient assessment (e.g., physical examination, laboratory test interpretation), medication administration, drug therapy and disease management, patient counseling on health promotion/disease prevention and their specific diseases and medications, and practice and financial management. In addition, students could act as teachers by providing in-services to other healthcare professionals and educating support groups about drug therapy and disease management. Teaching is a very effective way to ensure a full understanding of the material.

Other suggestions on how more seasoned preceptors can engage and further develop students, interns, and residents include the following:

- *Evolve a project to the point where you and the learner can present or even publish the results.* Students require introduction to scholarship activities; with proper direction and oversight, they can contribute extensively to the progression of projects that are mutually beneficial. Medication-use evaluations are a focused and often student-level project that can be expanded easily to research, performance improvement, and even policy or procedures documents. Additional opportunities could remain within the institution or work environment, serving as an educational or communication tool. Articles written for department newsletters, contributions to website blogs, and co-writing short works for a consumer site are all examples of scholarship that a learner can fulfill. Preceptors can archive these

documents so that future learners can review and learn from them as well. Health-system sites have created longitudinal APPEs, which allow students to complete several rotations at the same site to allow for continual mentoring, development of research projects to present at state and national meetings, and fulfillment of a service need (e.g., medication reconciliation, patient education).

- *Use a layered learning approach.* Have residents supervise APPE students and APPE students to oversee IPPE students. As requirements change for IPPEs, innovative methods to expose students to rewarding learning environments need to be explored. One of the most commonly cited interests of students is serving as a future preceptor. This is a skill that can be taught but needs to be practiced, adapted, and continually evaluated. It serves all parties well to provide students with an environment to precept with a supported structure and feedback regarding their designed experience. This is easily incorporated as a resident rotation, when learners are provided an opportunity to design an experience and practice precepting with oversight and timely feedback. This translates to all practice environments but is underutilized.
- *Encourage attendance at professional meetings or serving with you on a committee.* Most preceptors are attempting to foster the ambition of future leaders, innovators, and practice changers. Allowing students and residents to participate early on in organizations is a great introduction to the process. Due to the design of some national and local committees, it may not be possible for learners to be an active member of a particular committee. Consider allowing them to listen to a conference call or attend a meeting as an observer, and then discuss the topics debated or support their interest to enlist at a student- or resident-level committee. Students are curious about how a pharmacist spends his or her time during the day, so bringing them to departmental, institutional, or small workgroup meetings will help outline some of the responsibilities that need to be balanced daily. It also teaches them a different perspective of our profession.
- *Attend student meetings or workshops on campus where you can share your expertise and experiences with multiple students.* It has become commonplace to have question-and-answer sessions reflecting the various pharmacists' roles. For some, courses have been developed focusing on residency preparation with classes or small group discussions dedicated to successful interviewing, designing a competitive curriculum vitae, or scholarship activity such as collaborating on publishable projects. Regardless of the role, participation demonstrates your vested interest and opens opportunities to serve as a mentor.
- *Develop a library of commonly used references and resources by having students review and update the content during rotations.*
- *Perform institutional audits or evaluations that may not be publishable but can improve safety and benefit the institution.* Examples could be evaluation of PRN (as needed) medications to ensure that enough detail is included to define their use but also to minimize any overlap in coverage with medications, such as pain regimens. Another example would be interviewing patients about their understanding of medications that likely would involve scripting and (depending on state laws) may not be conducted at all.
- *Encourage students to document activities in the medical record.* Depending on state law and institution-specific rules, if students are permitted, they should

be encouraged to document. Medical writing for the purpose of communicating medication information via a patient's medication record is a taught skill. Documentation includes activities such as medication history clarifications, full subjective-objective-assessment-plan notes with interventions, simple recommendations focusing on a single disease or medication, pharmacokinetic notes, and (most commonly) documentation of patient/family education.

- *Request that students provide feedback regarding the rotation on a weekly basis and honor the suggestions made by implementing change.* This helps keep the rotational experience fluid and contemporary while still dedicated to students' needs and styles. Adaptation is important, but the core of the rotation and its learners should remain stable.

Portfolios

Some preceptors require students to assemble a portfolio during their rotation that documents their achievements and reflects their competency as demonstrated during the rotation. Colleges and schools of pharmacy are increasingly requiring portfolios, which can serve as a wonderful example of work to show during interviews. This is consistent with the movement in healthcare to better assess the competency of students, residents, and practitioners with the ultimate goal of improving patient safety and outcomes (i.e., clinical, economic, humanistic). Competency is difficult to assess because it is composed of multiple domains, including knowledge, skills, abilities, values, attitudes, beliefs, and behaviors. No single evaluation method (e.g., examinations, assignments, direct observation) can be used to assess competency accurately and appropriately in all of these areas. Competency assessment really requires the use of a variety of methods and instruments.

A *comprehensive competency portfolio* may have some similarity to a diary (e.g., reflective writing on feelings and experiences) and promotion or tenure dossier of a faculty member (e.g., demonstration of activity; achievement in certain areas, including practice, teaching, research, and service). Of course, the first step is to define the desired areas of competency for students. Preceptors should check with their respective academic programs to determine if the programs require identification of the desired areas of competency. The colleges and schools with which preceptors are affiliated should have already done this. If not, preceptors can take the lead and develop a set of activities that allow students to demonstrate competencies they expect students to have after completion of their rotation or internship. Students can demonstrate how each competency has been attained by showing various documents in a competency portfolio as well as by doing self-assessment and reflective writing related to each competency.

INTEGRATING PHARMACY LEARNERS INTO YOUR PRACTICE

Pharmacy education in most practice settings is characterized in part by balancing educational effectiveness with optimal patient care. As practitioners, we are all juggling multiple tasks and responsibilities while teaching and supervising learners. Time constraints, multiple pressures, and deadlines are all factors. The constraints associated with high census, high volume, high patient acuity, clarification of prescriptions or medication orders, dealings with insurance problems, and staffing shortages complicate being an effective preceptor. There are educationally sound methods that incorporate time management, organizational skills, service learning, and effective planning to assist preceptors in integrating pharmacy student education and meeting employment and practice requirements.

Orientation for Your Students

Be prepared when students arrive at your facility or practice setting. Students appre-

ciate structure, and it provides them with the opportunity not only to meet all learning objectives but also to be trained and participate in services and activities that are unique to your practice setting. As the preceptor, you will be able to teach in a more productive manner and allow the students to have effective patient encounters with appropriate education, guidance, and supervision.

Begin by developing a detailed syllabus or training manual specific to your facility and experiential rotations. This demonstrates to the learners your commitment to their education and training and provides an outline of expectations. Revisit the syllabus weekly to ensure that timelines and tasks are on target. Part of a syllabus could be to request learners to define their personal goals for the experience. At this point, their personalized goals need to become actionable items evaluated on a weekly basis to ensure that all parties are engaged and productive in achieving the desired outcomes. This should be a formal process that includes encouraging students to provide feedback.

Be sure to orient students to their new temporary environment; this sets the foundation for a successful integration into practice. Remember that students are changing practice areas frequently and accommodating various expectations. This initial orientation and introduction can aid in a more rapid assimilation to the new site. Include not only information about the pharmacy and the experiential rotation but also about your hospital, community pharmacy, ambulatory care site, specialty site, or other practice site or facility. Do not forget to include a map of your facility, especially if it is a large teaching or community hospital. Tell the story of your institution. How did it come to be? Include organizational maps of the hospital or practice site and of your department. Insert a copy of your job description as well as other position descriptions that may be of interest. Students who have never worked in a pharmacy or seen a pharmacist in clinical practice are often surprised at the extent of duties and responsibilities and the creative practice structure of pharmacists in today's health system, community practice, ambulatory care, management, and other professional practice environments.

PRECEPTOR PEARLS

Providing students with a detailed training manual or syllabus on their first day orients them to the site and demonstrates your commitment to their training; soliciting and incorporating their personal goals and objectives personalizes the experience.

Orientation is a well-recognized strategy for creating a positive learning experience and communicating goals, objectives, and minimal competencies for the experiential training rotation. Orientation should include the following:

- Goals, objectives, and minimal competency requirements of the rotation
- Rotation hours and attendance policy
- Requirements of the student during off-hours
- Regulatory compliance standards relating to your state board of pharmacy
- Tour of your facility and department, and giving students pertinent contact information
- Review of required readings and assignments for the rotation from both the college/school and site
- Terms and definitions for students completing a rotation in an unfamiliar practice setting
- Issuance of an identification badge and computer access codes
- Facility orientation requirements (e.g., infection control, Health Insurance Portability and Accountability Act)

- Introduction to members of the department or practice and a brief explanation of their duties
- Introduction to key members of the medical, nursing, and other health professional staff or store or office manager with whom the student will be working with daily (In a community setting, it is helpful to include a list of the top physician prescribers.)
- Review of the facility's policies and procedures
- Introduction to your pharmacy information system and insurance adjudication system
- Introduction to your site's drug utilization review process
- Introduction or review of your facility-specific medical record system or patient information system
- Review of all pertinent medication-use policies (e.g., standard administration times, approved abbreviations, substitution guidelines), including how errors are handled
- Publications, journals, and other reference materials available to students
- Evaluation instruments, timing and methods, and grading policy
- Process when students are not meeting competencies or when an issue arises at the site

Familiarity with Your Students' Experiences and Goals

Familiarize yourself with students' prior rotations, experiences, and professional goals. Ask for a copy of their curriculum vitae and review professional engagement and accomplishments. Review work from previous rotations if the college/school mandates and makes the student's portfolio accessible. Consider having them complete a quiz on the first day so they know what you expect of them and you get a sense of their preparedness. You can repeat a similar quiz on the last day so they can see how much they have progressed. Providing reading assignments prior to and during the rotation helps to get them up to speed and to know your expectations.

Assess the students' areas of interest. Determine their short- and long-term goals on the first day of the rotation. Some colleges/schools require that students send biographical information to preceptors prior to the rotation. The preceptor may give students a biographical form to complete. Let them know that the schedule is flexible enough to allow for their involvement and input into planning their daily activities. Assess their readiness and motivation to learn and how they learn best. Ascertain if they have previous experience working as a pharmacy intern either in the hospital or community pharmacy setting or possibly in a nontraditional setting such as home care, managed care, or the pharmaceutical industry. For example, students may have prior experience working as an intravenous (IV) technician in a health-system setting. You may choose to perform a validation of their skills and then take the time usually assigned to that activity and change it to an area of particular interest to the students or on a special project or assignment. A student who has worked as a technician in a community setting may have a comfort level with insurance adjudication and could work on health screenings and intake information projects instead.

Devote a significant amount of time the first week of the rotation to setting requirements, modeling expectations, and establishing ground rules. By ensuring that students have a full understanding of your expectations, there is less of a chance for misinterpretation or confusion later. This makes for an easier transition to empower students to take on projects and be more independent as they move throughout the remaining weeks of the rotation, with ongoing supervision and follow-up from the preceptor. The concept of students functioning as extenders to practice and not observers needs to be established as an expectation. Many students struggle with their role, and this permission is necessary.

Building of the Schedule

When building the schedule for the rotation, include time for preceptor teaching and feedback as well as time for the students to reflect on their patient encounters, experiences, or projects, and unplanned events that enhance an experience. Be sure to include dates for midterm and final evaluations, site-specific college/school events, and holidays as well as assignment due dates (e.g., case presentations, journal club, patient care plans, a project where the patients or the site will benefit and students experience success). Be sure to communicate your expectations to students.

Capitalize on the advantages of your practice site and your strengths as a preceptor when developing student schedules. Assign special projects and presentations that will benefit both the site and students. Include patient education, literature searches, physician case conferences, morbidity and mortality rounds, pharmacy and therapeutics or formulary meetings, grand rounds, and health screenings/immunization opportunities in community and ambulatory settings as part of their experiential training. As you review the schedule with students, be sure to allow them time to ask questions and also explain how all the activities impact patient care.

Supervise the project with frequent checkpoints or spot validation of data collected. Use the opportunity to discuss time balance with integration of scholarship works or institution-requested projects with patient care or other daily activities so that students have a full appreciation for the value of their work. Ensure that they understand how being an extender differs from busy work, which has little value for the institution or student.

Allow for student individuality and creativity. Make provisions in the schedule to accommodate activities that meet specific student needs and desires. Assess their strengths and weaknesses and allow enough flexibility to meet their educational needs and interests. If you develop a project encompassing some of their interests, they will be more motivated to perform those activities that are less interesting as well. Be flexible and try out new concepts or ideas. Most importantly, identify opportunities for student involvement when considering any and all of your planned activities.

Preceptors must keep in mind that, more than anything else, students want to spend quality time talking with and learning from them. Due to the hectic nature of many practice environments, preceptors often are not able to spare much time during the workday to do this. One suggestion is allowing students to accompany you to departmental meetings related to their experience. They may help a student learn and appreciate the discussions that happen prior to practice changes or decisions. Meetings also serve as an opportunity for conversation about time management, including balancing and prioritizing daily activities. A practice model needs to be established that extends beyond only observational experience. Students are engaged and empowered when they are provided tasks that designate them as extenders to practice. Standardize your time during the workday to meet and discuss related topics.

PRECEPTOR PEARLS

Teach students the importance of community service.

If you are actively involved in any volunteer community activities, such as helping at local health fairs, providing healthcare to the homeless, serving food at local shelters, or volunteering at a clinic for indigent families, invite the students to go with you. Alternatively, develop a community service site directory and let students choose where they would like to visit. **Box 1-5** lists examples of good learning environments for students. Give them specific goals, such as learning about topics listed in **Box 1-6**. Also give them observation questions or assignments. Help them to see the "big picture" of healthcare as well as the specifics of patient care. **Box 1-7** lists some examples of these questions and assignments.

BOX 1-5. Examples of Service Learning Environments

- Adult or child protective services
- Nursing home care unit
- City/county clinics or emergency department
- Visiting nurse association
- Hospital social work department
- Hospital chaplaincy
- Child development in a pediatric unit
- Local AIDS clinic
- Local substance abuse program

BOX 1-6. Examples of Topics Taught through Service Learning

- Role of community agencies, nursing homes, hospices, and public agencies, programs, and clinics
- Professionalism and community spirit and advocacy
- Funding of community health services
- Practice of preventive medicine
- Social, economic, and ethical aspects of healthcare
- Effect of a person's culture, heath beliefs, and literacy on health disparities and outcomes

The most useful activity after community service education is reflection. Focus on a teaching point, such as whether the student effectively addressed the patient's concerns. The preceptor should provide meaningful feedback and ask if the expectations were realistic and reasonable for the learner. The goal is to help learners realize that the contributions they can make go beyond the workplace environment. The professional rewards of the service-oriented teaching are great, and students recognize the value of intrinsic rewards (e.g., personal/professional growth and development); see Box 1-7.

BOX 1-7. Examples of Questions and Assignments for Encouraging Observation in Service-Learning Experiences

- Describe services provided to the patient.
- List the disciplines and their roles within the clinic or facility.
- Describe how pharmacists interact with this site.
- Name some ways in which literacy is a public health issue.
- Identify common reasons why a physician orders home health or hospice care.
- List physical findings consistent with domestic violence or abuse.
- Describe the role of the hospital chaplain.
- Briefly define the care rendered at a skilled nursing facility and the role of the pharmacist.

SCHEDULING TIME FOR FEEDBACK AND ASSESSMENT

Find opportunities to ask students questions about their learning experience, such as times when you are both on break. Provide frequent, timely assessment; informal assessment should be ongoing throughout the rotation. In your informal conversations, discuss issues such as lifetime learning habits, the role of residency training, balancing career and family goals, applying for a job, and interviewing skills.

Sit down with students consistently to provide formal feedback and assessment. Being purposeful allows the importance of the activity to be highlighted while forcing the necessary focus to provide meaningful and useful feedback. Review the progress that they have made and give them the opportunity to suggest ways to improve. Be candid; provide honest and constructive feedback. Listen carefully

to students when you ask them for their self-assessment. If deficiencies are identified, the preceptor should maintain contact with the pharmacy college/school for guidance and a process for developing a plan of improvement. In addition, if professionalism issues are identified, the pharmacy college/school must be notified in order to address any corrective action. It is always best to keep the pharmacy college/school abreast of any student issues identified on the rotation.

PRECEPTOR PEARLS

Provide frequent, specific, and constructive feedback.

Acknowledge student contributions in front of other members of the healthcare team or during departmental staff meetings. This will go a long way in helping build self-esteem. Help them promote their strengths and teach them to assume broader responsibilities in meeting their educational goals.

Do not forget to bring in some real-life experiences. Tell them about your preceptors and mentors and the influence they had on your life. As much as possible, be accessible and approachable to the students.

Successful Scholarship Activities

Preceptors should encourage students to present and publish their work on projects or their opinions on issues. Presenting and publishing (e.g., papers, posters, abstracts) are excellent educational activities that also bring recognition. There are numerous opportunities for students to present (e.g., local, state, and national pharmacy society meetings; community organization meetings) or publish (e.g., employer or professional society newsletters, local and national newspapers, state and national pharmacy society journals) their work or opinions. Often, students are required to complete a project (e.g., research, process improvement, community service) or an assignment (e.g., formulary monograph, therapeutic review) that they could present or publish in a variety of forums. In addition, students sometimes see patients with significant clinical findings that are either unusual or new and not previously reported, which they could write up as a brief case report. They can submit their thoughts on issues such as viewpoints, opinions, commentaries, or letters to the editor to many newsletters, newspapers, and journals. Additionally, they can author a review article for a newsletter or journal based on background research they have done while supplying evidence-based pharmaceutical recommendations for patient care problems, developing policies and procedures, or conducting formulary evaluations. Overall, writing articles of any type can reinforce learning, enhance written communication skills, and stimulate students to clarify their beliefs and positions.

Professional Societies and Community Service Organizations

Preceptors are often involved in professional societies and community service organizations, which provide an excellent opportunity to get students involved. Many professional societies utilize conference calls during the workday, and it can be a relatively easy opportunity to have a student sit in, listen, and possibly participate in the conversation. This demonstration of how to balance patient care responsibility with conflicting daytime activities, while engaging students with the preceptor's passions, is an important skill to observe and master. Live conferences provide an excellent networking opportunity to excite student learners. Most people want to feel needed and engaged in the activities that provide positive affirmation of the contributed time and activities; this can be demonstrated to students by involving them in those activities. Community service can be provided in numerous modalities, and students should be exposed as much as possible. Confidence, social interaction, communication, and information

sharing can be taught during these activities. Participation in professional societies and community service organizations is critical to becoming a professional and provides one of the best opportunities for leadership development.

Compensatory time off during the workweek for attending evening and weekend professional society and community service activities should not be an expectation. This is part of the students' learning about public service, the advancement of pharmacy practice and patient care, and lifelong education. Some colleges and schools of pharmacy recognize the attendance of outside professional organizational meetings as "special activity hours" and give credit for these during the rotation.

SUMMARY

There are an infinite number of concepts that add value to a student-focused practice model and make the educational process more meaningful to both preceptors and students. It is important for preceptors to keep themselves challenged and energized about precepting students. Experimenting with ways to add new dimensions to student involvement or completely reinvent internships can be therapeutic for preceptors and also create new and better learning opportunities for students.

Both the preceptor and the students must be committed to patient care and pharmacy education. The preceptor must consistently demonstrate competency and professionalism and have a passion for education, service, and excellence. Consistency and standardization are essential for effective teaching as well as the integration of pharmacy students into your practice. Effective planning, comprehensive student orientation, clear expectations, diverse learning experiences, and ongoing constructive feedback are integral to the students' successful learning experiences.

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Remember, if you ever need a helping hand, it's at the end of your arm; as you get older, remember you have another hand: The first is to help yourself, the second is to help others.

Audrey Hepburn

People ask me, "What if you spend all this time and money on training and someone leaves?" I ask them, "What if we don't spend the time and money, and they stay?"

Thomas Crosby

2

Onboarding
Preparing the Learner to Be Part of the Team

Avani Desai, Jennifer L. Ridings-Myhra, and Sarah Lake-Wallace

PROVIDING A GENERAL OVERVIEW

Onboarding is the process of embedding new employees into the culture, processes, attitudes, and behaviors of an organization or organizational socialization.[1] It is a method of improving employee engagement and reducing turnover. The concept of onboarding widens the scope of the previous concept of orientation beyond the paperwork and regulatory requirement to focus on the "people" aspect.[2] Onboarding is not accomplished in one day or by using one checklist but is an ongoing process. Although the timelines recommended for employees (e.g., often 1 year or longer) would not be feasible with a 5–6 week rotation or even a 1-year residency, some of the goals and concepts can be adapted to ensure a successful learner experience.

By dedicating time to develop an onboarding plan, preceptors can improve the effectiveness of the learning environment and may even save the preceptor time by preemptively addressing common struggles for new learners. Engaging other staff members by delegating specific tasks can help reduce the burden of onboarding. It also serves the dual purpose of exposing the learner to other key staff members as well as creating opportunities to diversify the staff members' routine work.

If your organization has several preceptors, developing a department-level onboarding program can be helpful to ensure all learners are getting a consistent message. Onboarding should not be a one-way process of preceptor

LEARNING OBJECTIVES

- Define onboarding as it relates to the pharmacy learner.
- List at least three essential elements that the pharmacy educational program will need from the site prior to the learner's arrival.
- List at least three essential elements that the site will need from the pharmacy educational program prior to the learner's arrival.
- Identify personal and professional expectations based on both preceptor's and learner's reflections.
- Develop three onboarding tools to utilize on the first day of the learner's experience.
- Recognize key safety components to integrate into onboarding.
- Design a strategy for competency assessment and evaluation of onboarding experience.

providing information to the learner but rather a *shared* process. Below we will outline an approach to develop an onboarding plan starting with prior to the arrival through the learning experience as well as important issues and concepts to consider.

PREPARING PRIOR TO THE LEARNER'S ARRIVAL

Onboarding of pharmacy students into a facility can be an involved process that requires careful coordination of preceptors, students, practice site human resources staff, the pharmacy education program's experiential office, and both site and university legal personnel. A checklist for getting started should include the following elements:

- Affiliation agreements
- Numbers of students anticipated to be assigned to the site
- Preceptor eligibility and assignments
- Objectives and outcomes for the rotation experience
- Students' credentialing requirements based on the site and accrediting bodies (e.g., The Joint Commission)

Just as your organization has regulatory expectations, the educational institution that you are partnering with has its own regulatory expectations to meet. Preceptors must be appointed through the pharmacy educational program and oriented to electronic databases used to evaluate student rotation performance. These requirements are rooted in accreditation standards, university rules, pharmacy board regulations, and site requirements.[3] Some of these activities require a year or more lead time. Successful navigation of all of these moving parts in a timely manner is necessary to ensure that the site, preceptor, and student are ready to engage in a meaningful learning experience on the first day of the rotation.

Before any firm plans are put into motion between a university program and an experiential site, careful thought should be given to the utility of the relationship. These questions are explored more fully in Chapter 13, Partnerships with Colleges and Schools. Once these questions are answered, and the site and university program have determined that such a relationship is in the best interests of both parties, it is time to take the next step.

PRECEPTOR PEARLS

Early in the process of planning to host learners at your site, be aware of your practice site's requirements for learner onboarding.

LEARNING ABOUT THE AFFILIATION AGREEMENT PROCESS

Affiliation agreements are required by both the Accreditation Council for Pharmacy Education[1] as well as accrediting bodies such as The Joint Commission. The affiliation agreement between the experiential site and the pharmacy educational program articulates the requirements and expectations of both parties and forms the foundation for the relationship; see **Table 2-1** for examples.

In lieu of an affiliation agreement, a memorandum of understanding (MOU) or another similar agreement may be negotiated. The site may have its own agreement, or the educational institution may have a standard agreement that is frequently employed. Either way, both parties should be aware of the acceptable format for these types of contracts. Additionally, each party should be aware of the office in their organizations approved to generate agreements, as well as who holds signature authority for these documents.

Due to the potential complexities involved with this process, affiliation agreements can take weeks or even years to negotiate. Therefore, it should be one of the first

TABLE 2-1. Affiliation Agreement Elements

Learners/educational program	Academic preparation prior to the experience Health requirements, including immunizations Health insurance coverage Criminal history checks and drug screens Responsibility for evaluation of learner performance Type and scope of liability insurance coverage Statement regarding removal of the learner from the practice site for cause State intern registration, if required
Site	Personnel Equipment Space for learning activities Orientation to site policies and procedures Supervision of learners Maintenance of all site licenses Access to the site by educational institution personnel
Miscellaneous	Conflict resolution Compliance with applicable state and federal laws, ordinances, rules, and accreditation requirements Liaisons for both entities Agreement on number of learners assigned Indemnification clause Term and termination dates FERPA (Family Educational Rights and Privacy Act) clause Health Insurance Portability and Accountability Act (HIPAA) and protected health information (PHI) language Handling of intellectual property Nondiscrimination language Financial terms

activities that takes place when a site and educational program choose to initiate a relationship. Additionally, these contracts must be renewed periodically, so adequate lead time should be figured into the timeline for renegotiation.

CREDENTIALING OF THE STUDENT TO THE SITE

Once the affiliation agreement or MOU is in process, it is time to address the terms set forth in the agreement. One of these activities is the credentialing of learners into the site. It is important that you are well informed about:

- Requirements of learners to access your organization and its learning opportunities; you should be able to provide detailed instructions to the pharmacy educational program regarding those requirements
- Documentation needed to verify that requirements have been met
- To whom or what department this information is sent
- Deadline for provision of this information

If this is the first time you are hosting students, you should check with other departments that have prior experience with the onboarding process. Educational programs must ensure that their students are instructed to meet these requirements and coordinate the completion of all documentation required for the onboarding process. Given the myriad of requirements involved,

receipt of all necessary documentation to certify learner readiness may be due to the site months before the learner is scheduled to begin the experience.

Some items that sites may request of the student or the educational program as part of onboarding:

- Proof of acceptable background check
- Proof of acceptable drug screen
- Immunizations in accordance with state laws, federal regulations, and site requirements
- Proof of liability insurance in specified amounts
- Proof of cardiopulmonary resuscitation (CPR) training
- Attestation that students have completed all prerequisite coursework required for the experience at the site
- Proof that the student is currently registered in good standing as a pharmacist intern with the state's board of pharmacy
- Proof of health insurance
- Proof of intern or licensure status

Educational programs may choose to provide other documentation to sites, such as certifications the student has earned.

Sites should pass along any of this information to Human Resources or the appropriate department (e.g., Security) to ensure, to the extent possible, necessary badging and computer access that the learner will need to participate fully in the practice experience.

REMEMBERING OTHER INFORMATION TO BE EXCHANGED BY THE SITE AND THE EDUCATIONAL PROGRAM

Similarly, educational programs should expect to have information from the site and preceptor regarding:

- Preceptor description(s) of rotation experience(s) offered
- Preceptor availability for specified rotations
- Complete instructions for the items needed to onboard learners
- Instructions on how to contact the preceptor and/or education coordinator at the site
- Any prerequisites for the experience, such as other rotation experiences
- Any readings or other preparation that might be required prior to the experience

Educational programs should make sure that the preceptor is familiar with the software used for evaluation of learners and other functions of the experience. Sites should ensure that site-specific firewalls do not block access to this software to allow for effective evaluation interactions between learner and preceptor. Preceptors should be trained on the use and completion of evaluation tools. The preceptor specifically should:

- Develop a general outline of the experience that covers all required elements of the experience. The outline should be reasonably prescriptive but allow for flexibility.
- Schedule a time for an orientation with the learner prior to or on the first day of the experience.
- Be familiar with board of pharmacy and educational program requirements for preceptors and experiences.
- Ensure that his or her professional training, experience, and competence are commensurate with the position.
- Serve as a role model, supervisor, designer of instruction, and resource person for the student intern.
- Develop an appropriate relationship with the intern, which is one of teacher–student rather than employer–employee.

- Be willing to work with student interns with varying levels of experience.
- Not discriminate against student interns on the basis of race, color, religion, national origin, sex or gender orientation, age, or disability.

Additionally, the site/preceptor and educational program should work together to ensure that:

- The experience meets educational program requirements, accreditation standards, and regulatory requirements.
- The preceptor's, educational program's, and learner's expectations are identified and articulated.
- Any required activities for the learner other than experiential activities are identified and worked into the learner's schedule.
- The preceptor is familiar with the master syllabus for the experience, or any document that articulates general policies, procedures, and terms of the experience.

PRECEPTOR PEARLS

Early in the process of planning to host learners from a particular pharmacy educational or training program, you should become familiar with that program's educational objectives and preceptor/student requirements.

PREPARING THE PRECEPTOR FOR ONBOARDING

As a preceptor, part of creating an onboarding process will require self-reflection about your level of expectation. Ask yourself these questions:

- What are you pet peeves?
- How are you going to provide feedback?
- How do you want the learner to engage you?

By answering these questions, you can incorporate those important elements into your onboarding process. By sharing this type of information early in the learning experience, you can help advance the preceptor–learner relationship rather than waiting for events to go off track. Also, take time to consider what pieces of information helped you feel welcome in your organization as those are the types of things to share with a learner. Orientation information you had several weeks to learn about are the types of items your learner needs to know as soon as possible to maximize the time at your site.

PREPARING THE LEARNER FOR ONBOARDING

Once you have a structure in place for the learner, onboarding should start several weeks before he or she arrives. You should send an email welcoming the learner and details with logistics about where and when to be on the first day. Providing the learner with a contact number in case he or she gets lost or other issues arise can prevent first-day frustrations for all parties. Submit the required access levels. (With many organizations, it can take several weeks for computer access to be established.) You may want to consider sending an assessment, such as Myers–Briggs Type Indicator, to help you understand your learner.

PRECEPTOR PEARLS

Prior to the learner's arrival, reflect on your professional expectations for this experience. Also, ask the learner to identify his or her goals and expectations for the experience.

PREPARING FOR THE LEARNER'S FIRST DAYS ON SITE

PRECEPTOR PEARLS

Create an onboarding checklist and packet so all the key pieces are together and easy to access. Think about all the things that were helpful to know in your first week of work.

New learners often are eager to get started, so in the first few days you will have to balance the need to relay information and meet organizational procedural requirements with activities. Many of the traditional orientation activities have to occur on the first days, but many of them can be expanded to incorporate elements of organizational culture awareness (see **Table 2-2**).

Create a checklist to highlight key elements to help the learner know what will be covered. Although a preceptor may give this information every few weeks, remember that this is a new experience for the learner, so try not to rush through the information for the sake of checking it off the list.

Even though you may be the preceptor, do not feel you should have all the answers for your learner or be the expert in all processes. Directing the learning to other individuals to help problem-solve is key to the onboarding process. Helpful reference tools to add to your onboarding kit include:

- Maps of the facility
- Key codes needed (i.e., copiers, long distance phone calls, door access)
- Calendars of educational activities
- Templates for note documentation
- Dress code standards
- Preceptor's calendar

Onboarding is also about making the learner feel welcome to the site. Offers for lunch on the first day can help show how lunch breaks are handled and the importance of breaks, and they allow for casual conversations. Incorporating specific time during the first days to understand the learner's previous experience, needs, and goals helps to customize the learning experience and establish that the learner needs to be an active member of this process as well.

PRECEPTOR PEARLS

Incorporating safety culture into onboarding can begin by just talking about the importance of safety and recognizing safety efforts.

ONBOARDING TO PATIENT/EMPLOYEE/MEDICATION SAFETY

As healthcare's journey of reducing harm continues, it is important to include this topic in your onboarding process. Sharing direct information about how to report events and how events are evaluated and used are important. But, in the onboarding process, also using indirect methods to emphasize the importance of safety culture is critical. Let the learner see staff recognized for good catches and sharing lessons learned from errors. Recognize the learner's good catches and thank him or her for asking questions, even when questioning something that is not an error or safety issue. *Remember: One of the most essential onboarding tools is modeling your own behavior.*

ONGOING ONBOARDING

If you are ready to sit back and enjoy the ride after a strong onboarding start on day one, we implore you to reconsider. Although the first days of onboarding are critical to establishing a solid foundation of your site, expectations, and resources, onboarding is a continuous process. The first day is a limited timeframe to expose the learner to all the

TABLE 2-2. Orientation to Onboarding

Orientation Activity	Onboarding Expansion
Regulatory paperwork	◆ Discuss the importance of regulatory and accrediting bodies. ◆ Discuss possible Health Insurance Portability and Accountability Act (HIPAA) events and concerns gleaned from previous learners (e.g., sharing of lessons learned to take concept to reality).
Confirm access levels to network, EHR	◆ Develop game-like approach to find specific elements in the patient chart. A scavenger hunt can make learning patient records more proactive. Illustrated reference tools can also be helpful when working through an electronic chart. ◆ Discuss the role and etiquette expectations of emails and calendars in your organization.
Security badges	◆ Discuss how to handle situations where they have concerns about their personal safety. ◆ Discuss specifics about alarms, access, or monitors.
Emergency code process	◆ Discuss how they can and cannot be involved. ◆ Alert them about what to expect during emergencies. ◆ Inform them about what resources are available to them in the event of poor patient outcomes. ◆ Acquaint them with the common codes and emergencies they are likely to encounter during their learning experience (e.g., frequency, locations).
Essential policies and procedures	◆ Consider a game-like approach to policy review, which can reduce the burden of the task. Create a list of questions to answer from the policies (e.g., "seek and find"). These questions can help highlight key processes and add a proactive step to reading. ◆ Consider a learner review of policies, which can help ensure elements you think are documented actually made it to the policy; ask the learner to look for elements "someone said we had a policy on."
Tour of the facility	◆ Introduce the learner to different key people you encounter. Do not forget to include administrative staff. Allow the learner to see how you interact with staff. ◆ Include meeting rooms they are likely to encounter and general rules of where to sit and etiquette during meetings (e.g., food, phones). ◆ Include key landmarks that can assist with bearings, if lost. ◆ Utilize walking/elevator time to get to know your learner informally. ◆ Share some of the history of your organization. ◆ Share suggested places to find lunch or coffee near your facility.
Staff introductions	◆ Include the formality used with staff (e.g., who to call by first name versus a title). ◆ Include their role in the organization or department. ◆ Inform the learner how he or she is likely to interact with staff members.
Safety program	◆ Discuss how you report errors and your expectations for the learner to use that system. ◆ Establish an open culture for questions. ◆ If your organization does a daily safety huddle, consider bringing the learner along to demonstrate the level of importance of this practice.

intricacies of a specific rotation or site. In fact, the greater number of boxes checked off on day one comes with the simultaneous burden of information overload. Although it is vital to orient the student to the basics prior to the start date and on the first day, it may be advantageous to evaluate each component of the first day and consider expanding the onboarding topics across the first few days to the first week. Depending on the needs of the site, the expectations for the learner, and ongoing patient care opportunities for the learner, onboarding topics that may not be critical to ensure a smooth transition can be moved to a day later in the first week.

Below is a checklist of questions to ask yourself as a preceptor to determine if a particular topic is necessary to cover on day one or whether it can be pushed back if the first day is overburdened.

- Is this training/topic necessary to be successful tomorrow and onward?
- What is the probability that the student will run into a critical problem if this training/topic is not offered on the first day?
- How significant is this training/topic to the institution?
- Does this topic involve the safety of patients or the learner?
- If the student did not have access to this training/topic on day one, what risks could the learner face?

Asking yourself the aforementioned questions will assist you in narrowing the scope of day one topics to these most critical topics:

- Schedule for the learner, including information on where and when to report to the site
- Tour of the facility, including location of resources such as the bathroom, food, and parking
- Institution-specific patient safety topics, including code information, security, and HIPAA
- Preceptor-specific expectations for learner success, including contact information
- Introduction of key pharmacy staff and personnel to whom the learner will interact

Topics that may be reserved for subsequent days of orientation and onboarding include:

- Specific patient care issues not encountered daily, such as end-of-life care
- Hospital events and activities students may attend or participate in
- Interdepartmental introductions and contact exchange
- Special projects that students may take on beyond set learning expectations
- Information about the site's advanced training opportunities post-learner graduation

In addition to realizing that every topic does not need to be addressed on day one, it is important to remember that onboarding should be tailored to the individual learner.

PRECEPTOR PEARLS

Onboarding is a continuous process that requires frequent revisiting to evaluate quality and effectiveness for learners.

GAUGING COMPETENCY ASSESSMENT

To ensure appropriately catering to the specific learner, it is imperative to use assessment tools for gauging retention. Assessment for competency can be conducted in formal or informal ways. An informal assessment may be a verbal question and answer (Q&A) with the learner at the end of orientation on key information and areas of confusion. A formal assessment may be an open-note quiz at the end of orientation. Although a written

assessment may be appropriate for documentation, it is vital to ensure all assessments offer an opportunity to reflect and share the appropriate answers as well as clarify any vague areas for the learner through discussion. If onboarding a group, you should consider an interactive quiz to break up the routine of monotonous presentations. Kahoot, Quizizz, EZPuzzle, and Quizlet are online, free, game-based learning platforms that cater to the Millennials' need for instant gratification and feedback while simultaneously ensuring competency and discussion. Furthermore, whether assessing informally or formally, it is important to understand that all answers may not necessarily need to be on the forefront of the learner's mind. On the contrary, if the learner has a reference and knows where to go to answer the question, the preceptor has been successful in his or her onboarding efforts. Assessing the learner offers an opportunity to clarify expectations and policies and ensure gaps are addressed in advance.

EVALUATING THE ONBOARDING PROCESS

In addition to assessing competency of the learner, it is essential to evaluate the effectiveness of the onboarding process. Just as healthcare stresses the importance of continuous quality improvement for patients, this theme is universal because it applies to us as educators within the healthcare system. Each aspect of onboarding should be regularly updated and refined based on the feedback of learners and staff. As policies and procedures within institutions are amended, onboarding information should be reevaluated for pertinence and edited to reflect current material. Both positive and negative experiences with learners often identify gaps in the onboarding process. Making notes of these occurrences and modification of onboarding tools will ensure your learners are most effective and future aggravations are avoided.

Evaluating onboarding involves more than the view of the preceptor. Student evaluations serve as a distinct tool to parse out whether the onboarding process offered a strong foundation for the learning experience. A more directed evaluation focused solely on the onboarding process would be a best practice to implement to gauge strengths, weaknesses, and opportunities for improvement. The evaluation should encompass all aspects of onboarding, including the effectiveness of presenters, presented material, written documents provided, communication prior to arrival, and overall comments. Allowing time for the learner to complete the evaluation directly after the onboarding process opens up the potential for maximal feedback when the information is most fresh. However, many times the quality of the comments will come through application of the onboarding material. Once learners experience the rotation and utilize the information gathered during their onboarding, they may recognize the value or notice areas that were not adequately covered. Therefore, additional benefits may be gained if the learner evaluates the onboarding material at the completion of rotation. The learner may offer ideas or perspectives that assisted him or her in transitioning to the learning experience. Upon review by the preceptor, these tools can be included in future onboarding material for the site. Below is a list of questions you may consider asking the learner when evaluating the onboarding process:

- What areas of the onboarding process were the most effective?
  - What made these areas most effective?
- What areas of the onboarding process were the least effective?
  - What made these areas least effective?
- What areas need to be expanded further for you to be successful in your role?
- What ideas do you have to improve the onboarding process?

In addition to open-ended questions, presentations and overall readiness can be measured with statements tagged to a Likert scale. Likert scales can range from agreement (i.e., Strongly Agree, Agree, Neither Agree or Disagree, Disagree, Strongly Disagree) or overall satisfaction (i.e., Excellent, Good, Average, Poor, Unsatisfactory). Examples of such statements with a Likert scale are provided in **Table 2-3**.

PRECEPTOR PEARLS

Onboarding will morph into ongoing evaluation and feedback to your learner.

All of this may look intimidating. Do not let thinking about all the steps of onboarding prevent you from taking on learners. Like everything else in your career, the first few times you follow your plan, you are likely to find significant changes are needed. Borrow tools that have worked for others, and keep building your onboarding tool box. As you spend time building your process and tools, you will find it pays off both for the learner and yourself. The following are hints to engage the outgoing learners in the onboarding process for future incoming learners:

- At the end of the learning experience, ask the learner to create a reference piece that would have been useful upon arrival.
- Have learners review and edit onboarding materials annually.
- Utilize experienced learners to provide some of the onboarding material to new learners.

SUMMARY

Onboarding is a critical step to setting up your learner for success. The onboarding process starts before the learner arrives by setting clear expectations between the learning site and the pharmacy educational program. The legal and organizational structures affect the requirements for each site, so it is important to start early. The next step requires preceptors' self-reflection to consider what they know of their teaching styles, expectations, and processes. Incorporating what you know of yourself can help prevent learning barriers. Developing tools to help the learners understand with whom and how they will interact integrates them into your organizational structure and culture. Time invested into well-crafted tools can help empower the learner and help the preceptor stay on track. Onboarding continues throughout the learning experience via feedback from the learner and evalu-

TABLE 2-3. Example of a Likert Scale[4]

	Unsatisfactory	Poor	Average	Good	Excellent
The orientation met my expectations.					
I will be able to apply the knowledge I learned to enhance my learning.					
The content was organized and easy to follow.					
The materials provided were useful and relevant.					
Adequate time was provided for questions and discussion.					

ation of your processes. Investments made into your onboarding process will improve the learning experience and reduce stress and burden on preceptors.

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3

Necessary Skills for Effective Preceptors

Rochelle M. Roberts, Kristina L. Butler, and Holly J. Phillips

> I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.
>
> *Maya Angelou*

Sometimes the first step to becoming an effective preceptor is to assess your own skills as a pharmacist, communicator, educator, and mentor. Consider the following questions:

- How do I demonstrate to the learner the importance of cultivating the pharmacist–patient relationship?
- How do I apply knowledge of the unique qualities of the individual, support system, and community to improve outcomes?
- How do I interact with patients, family members, learners, peers, direct reports, and leadership?
- How do I manage time in a busy practice and balance my professional life?
- How do I encourage postgraduate training?
- How do I give back or contribute to the profession?

These skills are rarely taught in pharmacy school, so it is important to understand and develop these areas as part of lifelong learning.

GENERATIONAL DIFFERENCES

Before getting into specifics related to precepting skills, it is important to discuss the various generations that are currently in the workplace. With a multigenerational workforce, it can be challenging for both learners and preceptors to communicate effectively and meaningfully. A basic understanding of the different generations and associated characteristics can help improve communication and allow

LEARNING OBJECTIVES

- Describe at least two common traits of each work generation.
- Define the elements of the communication process, and identify the preceptor's role in the communication process.
- List three interpersonal aspects of precepting.
- Describe three ways to be an effective clinical teacher.
- Describe how to select appropriate assessment tools for various learning activities.
- List at least three possible activities that will expose rotation learners to leadership.

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preceptors to tailor learning experiences to best meet the needs of individual learners. **Table 3-1** summarizes generations and their common traits.[1,2]

For the purposes of this chapter, we will focus on describing the Millennial generation, as this group made up 35% of the workforce in 2018 and became the largest generation in the labor force in 2016.[3] Millennials are significantly different than members of past generations, and appreciating these differences can positively affect teaching methods. In general, Millennials are exceptionally comfortable with and rely heavily on technology. They are used to instant gratification and communication, so they can be impatient with more traditional communication methods. Millennials are far less linear in their thinking and approach than previous generations. Past generations such as Generation X and Baby Boomers tend to be respectful of authority and have a hierarchical management style, while Millennials are more likely to challenge authority and question processes. This should not be considered a flaw; challenging the status quo can bring valuable lessons and change into the workplace. However, employers (and in our case, preceptors) must be open to such challenges and not see them as threatening but rather as constructive opportunities for improvement. Many modern-day employers are adapting to accommodate Millennials in the workforce. For example, Citigroup released a "Workforce and Talent" document in 2016 that is geared toward the Millennial workforce. It highlights the company's focus on a global workforce, diversity of thought,

TABLE 3-1. Generational Traits

Generation	Work Ethic	Characteristics
Silent Generation Born 1927–1945	Loyalty to company	Not comfortable with technology Hard workers Slow to change work habits Good team players Respect authority/top-down approach Traditional morals and values
Baby Boomers Born 1946–1964	Willing to sacrifice for personal and financial success	Motivated by success and achievement "Workaholics" Goal-oriented Independent Competitive Challenge status quo and authority
Generation X Born 1964–1980	Value work–life balance	Utilize technology Work–life balance is key Self-reliant Informal communication preferred Wary of authority Seek collaborative leadership
Millennials/Generation Y Born 1980–2000	Seek recognition at work Focus on corporate responsibility	Driven by technology Confident/assertive Seek meaningful work Desire autonomy and opportunity Prefer real-time communication Achievement-oriented
Generation Z Born middle of 1990–2010	Independent Entrepreneurial	Risk-averse Accepting of diversity

workforce well-being, volunteer opportunities, and employee engagement. These seem to be clear strategies that are intended to build loyalty within the Millennial workplace.[4]

In 2014, the White House issued a paper titled "15 Economic Facts about Millennials," which reported that Millennials comprised one-third of the U.S. population, making them the largest generation.[5] Born into a world that is much different than previous generations, Millennials have grown up utilizing technology and having quick, almost instantaneous, access to information. They can effectively multitask, whereas other generations may find this challenging and even counterproductive. Parenting styles are also much different for Millennials, who were heavily supervised and had highly structured activities. With their involvement in many group activities (e.g., athletics, camps, clubs), they have excellent team-building abilities, whereas previous generations can be described as much more independent. Interestingly, Millennials may have a different view of their bosses compared with other generations. Past generations have seen bosses as content experts, but Millennials can typically find content in a matter of seconds with the use of the Internet and social media. In the eyes of Millennials, a supervisor serves more as a mentor or coach than a content or process expert. Millennials have a strong sense of community and family, which can change what they value in the workplace. Unlike previous generations, Millennials are less concerned about financial incentives and more concerned with job flexibility and the ability to make a difference.

Workplace loyalty is often thought to be lacking in Millennials. Stewart et al. surveyed employees about factors they associate with organizational commitment. Millennials' responses showed no relationship between organizational commitment and workplace culture in contrast to the Baby Boomer generation.[6] This suggests that Millennials will be more difficult to retain in a workplace environment without a creative strategy that specifically addresses their needs. Workplace changes may include ensuring that Millennials understand how their responsibilities contribute to the larger needs of the organization, while performance evaluations of Millennials focus on their specific contributions that have helped the organization achieve positive outcomes. Millennials generally like to see how their efforts can translate into positive change on a more global scale. Millennials prefer team-based work, so preceptors should be mindful of this when organizing projects and work assignments. This generation places great importance on freedom and flexibility to do the job. They are less concerned with how long it takes to do the job and more focused on ensuring the task is completed. Specifically, Millennials are more likely to desire flexible work hours and location compared to past generations that worked with structured work hours and an "in the office" presence. Lastly, the Millennial generation has an expectation to be appreciated for their contributions, so employers and preceptors should focus on positive feedback and recognition.[6]

What does all of this mean for preceptors? One expert identified the following five Rs of engaging Millennial learners[7]:

1. *Research-based methods*—Millennials perform better in active learning methods. Use of multimedia and collaboration with peers is important.
2. *Relevance*—Millennials do not have difficulty finding information. A preceptor should focus on how the information is applied and utilized.
3. *Rationale*—Millennials are less authoritarian than past generations and are more likely to question the "why." Be prepared to explain the "why."
4. *Relaxed*—Millennials do well in less formal learning environments. They value informal interactions with preceptors and peers.

5. *Rapport*—Millennials have strong relationships with their peers and parents. They seek personal connections, approval, and constant, real-time feedback.

As a preceptor of a Millennial learner, it is important to keep these differences in mind. Although other generations may have difficulty understanding these traits, Millennials are a product of their upbringing. As with all generations, specific traits can easily be utilized as strengths. A key difference to consider when precepting Millennial learners is that they need more personalized feedback, coaching, and mentoring. Some preceptors may believe this approach is too time-consuming, but keep in mind that in-the-moment feedback does not need to be a formal event. In fact, Millennials are much more laid back and casual, so they would typically prefer to have a quick chat after rounds rather than a formal, sit-down evaluation. Ideally, both types of feedback are needed to address the learner's needs fully. As a preceptor, focus on developing a personal connection with the learner. Millennials do well as team members, so be sure to introduce them to your team and explain their role to others. In addition, Millennials tend to have a more casual approach to the work environment. It is critical that the preceptor expresses clear and concrete expectations of the learning experience on the first day. Often, preceptors make the mistake of assuming the learner understands what is obvious to the preceptor. Establish when various modes of communication are acceptable (e.g., email, text, face-to-face). Set clear expectations related to breaks, lunch hour, and even things other generations would consider "simple," including use of ear buds, workplace attire, and use of social media. Deadlines should be clearly established and agreed on. Inform learners that they will not be reminded of deadlines going forward; otherwise, they may expect such behavior. Millennials need things to be spelled out in a very clear, step-by-step manner.

With Millennials, preceptors should always reinforce the importance of face-to-face communication with patients and family members. In this age of technology and electronic medical records, it is tempting to use these tools exclusively for teaching and patient communication. Although technology offers valuable reinforcement of teaching points, personal communication cannot be overemphasized. It allows the care provider to establish a relationship of trust with the patient, and it allows the provider to pick up visually on the patient's nonverbal cues that may be critical to a successful therapeutic plan.

Millennials thrive with constant, positive reinforcement. Remember, this is a generation commonly referred to as the "trophy kids" because they grew up being rewarded for simply participating.[8] To some generations, it may feel like coddling, but this generation truly needs consistent, positive feedback. Preceptors should provide constructive feedback about poor performance, but it will be better received if it is delivered in a supportive and caring nature. Listen to what the learner has to say and then build on that. Millennials want to feel as though they are peers, not subordinates. They were raised to achieve, so they have high motivation to improve their performance. They are also full of bright, innovative ideas, and they can find novel ways to integrate technology into the workplace. Preceptors should be open to hearing those ideas and seeking ways to incorporate them into practice.

Of note, younger Millennials recently have been carved out into Generation Z (i.e., those born between the mid-1990s and mid-2000s) and are just starting to enter the workforce. This generation tends to be independent and have an entrepreneurial side, thought to be due to the economic stressors their parents' generation has faced along with increasing personal debt and income gap. Studies have shown that this generation may be more risk-averse than previous generations,[9] and they are generally thought to be

more accepting of differences and cultural diversity. As these learners start to enter the workforce, employers need to be mindful of how they may differ from their Millennial counterparts.

PRECEPTOR PEARLS

Express clear and concrete expectations for the learning experience on the first day.

Provide constructive feedback about poor performance in a supportive and caring nature, and routinely provide positive feedback when appropriate.

Encourage learners to have face-to-face communication with patients and family members.

COMMUNICATION SKILLS

The ability to communicate well is one of the most important skills for practitioners in any situation. This is especially true for preceptors, as they must be able to communicate effectively with learners to help them develop into successful practitioners themselves. Learners coming out of pharmacy programs today are required to receive training in communication skills, whereas some preceptors may not have had this type of course work or practical experiences as part of their curriculum when in training.

Interpersonal Communication

It is important for preceptors to understand how interpersonal communication can affect their relationship with learners. To be an effective communicator (and hopefully an equally effective preceptor), an understanding of the basic communication model is important. The transactional model of communication in **Figure 3-1** is applicable to all situations, not just to pharmacy practice.[10-12]

The transactional model represents the simultaneous and ongoing message exchange between individuals, or an individual and a group. The *communicator* who initiates the communication (*sender*) *encodes* (puts thoughts into words and gestures) the *message* (content) and sends it via a *channel* (medium used to transmit message, such as face-to-face, phone calls, emails, text messages) to the other communicator(s). The receiving communicator (*receiver*) *decodes* (applies meaning to the words and gestures) the message, which leads to an *effect* (cognitive, emotional, or physical result of the interaction). The encoding and decoding of the

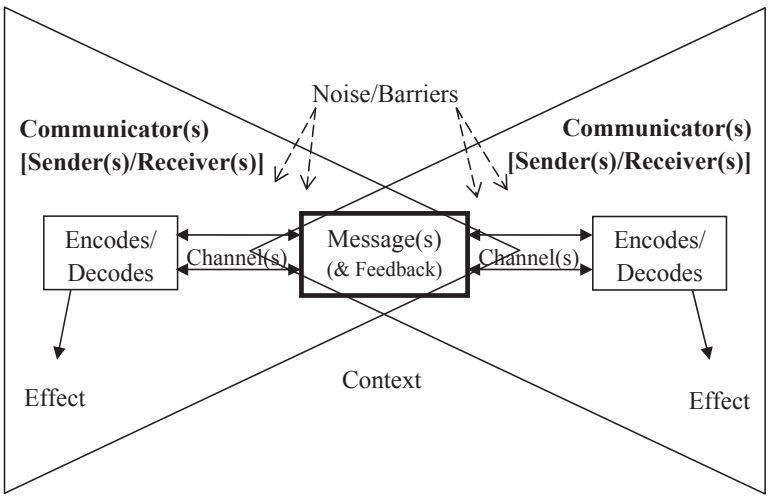

FIGURE 3-1. The transactional model of communication.

message are influenced by *context* (cultural, environmental, or situational setting of the communication), whereas *noise* or *barriers* (distractions or interference) can impede the ability to send or receive messages. Noise or barriers can occur in many forms (see **Table 3-2**), and both parties should attempt to identify and remove them to ensure that the message is sent and received accurately, thereby preventing miscommunication.[11-13] The communication path is reversed as the receiver responds, thus becoming the sender. In most exchanges, communicators are both sending and receiving messages at the same time, providing *feedback* as a critical part of the communication process. In conversations involving a complex topic, feedback can be used to determine the level of understanding of the receiver, and, when used effectively, the sender can correct any miscommunication.

TABLE 3-2. Types of Noise/ Barriers to Communication

Noise/Barrier	Caused by
Environmental	Place Space Time Sounds Smells Visual distractions Climate
Physiological	Vision/hearing limitations Memory impairment Illness Discomfort
Communication method	Choice of medium
Semantic	Varied connotative meanings Different languages Jargon/slang
Cultural	Diversity of cultures
Psychological	Emotions Attitudes/bias Assumptions Relationships/past experiences Confusion
Intellectual	Information overload Underpreparedness Varied levels of understanding, comprehension, detail

The message itself is the most common source of miscommunication; specifically, the way the message is sent often changes how others decode and interpret it. Communication is not only *what* we say, but *how* we say it (see **Figure 3-2**). The words we use (verbal communication), although important, are only a small part of how we deliver and receive messages. Our tone, inflections, and volume (paraverbal communication); and our posture, facial expressions, eye contact, movement, gestures, body language, and appearance (nonverbal/physical communication) account for over 90% of communication. (Hereafter, paraverbal and nonverbal/physical communication will be grouped together as *nonverbal communication*.[11,14]) In communication, the receiver is decoding the sender's nonverbal communication along with the spoken message; this nonverbal communication can either support or contradict the intended message. When interpreting nonverbal communication, it is also important to apply the 3 Cs: context, clusters, and congruence.[15] *Context* includes the environment of the situation, the history between the individuals, and other factors such as each person's role (e.g., boss and employee, preceptor and learner). Assessing nonverbal communication in *clusters* helps avoid using a single gesture or movement to determine a person's attitude or emotion. *Congruence* assesses whether the verbal and nonverbal messages match.

PRECEPTOR PEARLS

Remember that how you say something is as important as what you say. Choose your words carefully and be aware of nonverbal communication.

Communication in any setting should be clear, concise, and fair.

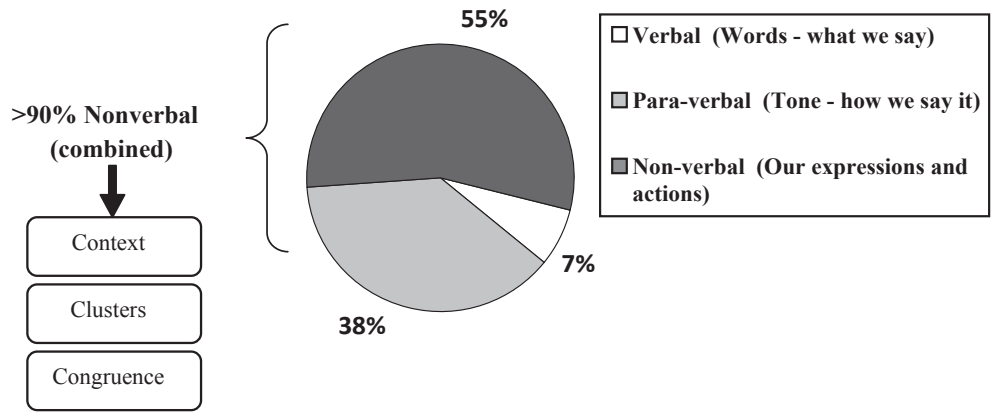

FIGURE 3-2. How we communicate.

Word choice, or *semantics*, is particularly important in written communication when we do not have the other elements of communication to complete the process. Despite not being able to assess voice inflections, body language, and other nonverbal communication components, there is still an appreciable tone in written communication that reflects the writer's attitude or emotion toward the subject and the reader(s) of the message (see **Box 3-1**).[16] As with oral communication, the tone can impact the way the reader receives the message. Refer to the section on written communication later in this chapter for more detail.

BOX 3-1. Tips for Appropriate Tone in Professional Writing

- Be appropriately, but not overly, formal (conversational, but not overly casual/familiar)
- Be confident
- Be courteous and sincere
- Use appropriate emphasis and subordination
- Be clear and concise
- Use appropriate language, grammar, punctuation, and capitalization
- Avoid use of slang or jargon
- Use nondiscriminatory language
- Use active voice
- Be positive; consider the reader's perspective
- Write at an appropriate level of difficulty
- Take the time to reflect on the message and write well
- Adapt tone slightly depending on circumstances (e.g., conveying enthusiasm, appreciation, regret, humility)

Questioning and Listening Skills

Questioning and listening skills go hand-in-hand in effective communication. Preceptors must be conscious of their communication style and the way they ask questions. These skills are covered in current didactic courses through simulations and actual interactions with patients and other healthcare providers. Role-playing with observation and feedback from colleagues are two ways in which questioning skills can be evaluated.

The manner in which a question is asked can dictate the type of response received. For example, a common communication mistake is to ask a closed-ended question while expecting a response to an open-ended question. The receiver may answer the yes/no question with *yes* or *no* instead of with the detailed response the sender expected. Simply changing the beginning of the question (e.g., replacing "Do you know..." with "What is...") will ask the correct question and will, in turn, elicit the expected

response. *Open-ended questions* can be created by beginning the sentence with *who, what, when, where, why,* or *how*. All types of questions, including closed-ended, open-ended, leading, and probing questions, need to be incorporated in effective communication. Examples of these questions are shown in **Box 3-2**. When feedback is used effectively, either party—sender or receiver—can indicate a level of understanding and use additional questions to elicit the desired information. Good questioning skills require practice and the willingness and awareness of others to provide input.

BOX 3-2. Types of Questions

***Closed-ended*—**Have you ever prepared a total parenteral nutrition (TPN) solution?

***Open-ended*—**What are your goals for this rotation?

***Leading*—**How would you counsel this patient?

***Probing*—**What else could be done to minimize the side effect profile of the current regimen?

Listening skills are as important to effective communication as questioning skills. As the saying goes, "The reason we have two ears and only one mouth is that we may hear more and speak less." *Active listening*, or listening with the intent to understand, is both informative and affective-based.[17] It allows the listener to gain valuable information from and develop rapport with the speaker. Because learners will mirror the behaviors of their preceptors, listening is a very important skill to practice and demonstrate to learners.

Being a good listener is not as easy as it seems, however. It takes focus and desire on the part of the listener because it is easy to be distracted. An active listener looks and sounds sincerely interested. Avoid falling into the habit of *selective listening*, where the listener is not fully engaged and appears to be barely listening, nodding his or her head and mumbling, "uh huh," "hmm," or "okay." Most people can see that a person responding in this manner is not truly listening. If a preceptor does this frequently to learners, it is likely that they will stop asking questions or talking because they will feel that the preceptor is not listening or is disinterested. Furthermore, selective listening can cause a practitioner to miss crucial information when talking to patients.

An active listener also considers the speaker's perspective. Avoid interrupting, finishing the speaker's sentences, or rushing the speaker. Keep an open mind and try to see the speaker's point of view, rather than rushing to form—and share—an opinion. As with all communication, pay attention to nonverbal communication. You should use questions to clarify the speaker's thoughts and feelings, and reflective responses (paraphrase or summarize) to check the accuracy of your understanding. Then, as appropriate, you may need to shift to a more direct or persuasive approach to advise, correct, or confront.

PRECEPTOR PEARLS

Active listening—listening with the intent to understand—is an important aspect of communication.

Written Communication

As knowledge-based professionals, pharmacists depend on their ability to transfer information in order to care effectively for patients. Although that transfer of knowledge most often takes place verbally, written communication skills are also essential. Written skills are not only needed by pharmacy administrators and educators but are increasingly a prerequisite for successful pharmacy practice in all settings.[18,19] Preceptors must be prepared to provide learners with training on effective and efficient writing.[20]

The first step in effectively teaching writing skills as a preceptor is to recognize that learners may not fully realize the importance of being good writers. Preceptors must emphasize the fact that clear, concise, and informative writing can demonstrate professionalism and competence. Likewise, lack of clarity of thought and expression will quickly compromise a pharmacist's credibility in the eyes of patients and other professionals. Being able to write well must be learned, practiced, and improved. As a preceptor, you will transfer writing skills passively to your learners as they read your written work and recognize its quality. You must also respond to your learners' written documents and provide constructive feedback on their writing skills.

Pharmacists are expected to write in a wide variety of formats, and preceptors should provide learners with exposure to various types of documents common in their practice area. It is useful to contrast differences in style, tone, and even grammatical form required of various written documents. For example, the form of writing used for progress notes in patients' medical records may not require precise grammar, sentence structure, or even punctuation. In contrast, higher expectations are normally set for new drug monographs written for presentation to pharmacy and therapeutics committees, clinical reviews or summaries of new studies or guidelines for provider education, or creation of patient education materials. However, accuracy of information, appropriate use of medical terminology, avoidance of dangerous abbreviations, and correct spelling are important issues regardless of the context.

Institution-specific style manuals should be developed and provided to learners to help them identify important writing conventions relevant to particular types of written documents. In the absence of a desired format, the *American Medical Association Manual of Style* can serve as a guide for appropriate format, style, and tone of most technical biomedical writing (e.g., appropriate citation format, technical terminology, abbreviation standards).[21] Simply requiring learners to read several examples of particular document types will assist them in adopting the appropriate tone and format. One of the most valuable tools for honing writing skills is Strunk and White's *The Elements of Style*.[22] The full text of the fourth edition, which is the content in both the illustrated and 50th anniversary editions, can also be accessed free online through numerous sites. It is an indispensable guide to good writing that should be read and reread before undertaking any substantial writing task. In addition, preceptors should ensure that learners have access to a standard collegiate dictionary, a medical dictionary, and a thesaurus during clerkship rotations.

PRECEPTOR PEARLS

Strunk and White's* The Elements of Style *is an invaluable resource for improving writing skills.

When learners have completed a written document, the preceptor should edit it using a coaching approach. Rather than simply identifying an error or unclear phrase, sentence, or paragraph and expecting an appropriate change, suggest specific corrections or even offer completely rewritten alternative sentences in the margin. Conversely, do not just change the learner's writing without discussing the changes and why they were needed. Writers improve when better writers edit and provide feedback on their work. After learners receive corrections in this way, they are more prepared to better articulate similar thoughts and information in the future. Therefore, editing with appropriate coaching/feedback serves to improve the writing of the moment and for the future.

Preceptors may also need to assist learners with particular writing challenges, such as overcoming writer's block or improving the writing of learners who are not native English speakers. A variety of writing resources are available at most colleges, and preceptors should familiarize themselves with those resources. However, many writing clinics guide liberal arts and general education learners, and their staff is often unfamiliar with the technical conventions used in biomedical writing.

Development of good communication skills is an important component of the learning experience, and effective communication is vital for both the preceptor and the learner. Learners and preceptors should be mindful that communication is not just face-to-face interaction but includes all facets of communication (e.g., verbal, written, electronic). Care and nurture of the communication process can aid in facilitating a positive practice experience for all involved.

INTERPERSONAL SKILLS

As preceptors, learners will seek to gain from your wisdom and experiences in all aspects of performing your job. Experiential rotations are generally considered an opportunity for learners to begin applying their knowledge of the appropriate uses of medications, and for preceptors to serve as resources to augment and supplement this knowledge base. Although this is true, your daily actions also provide a model of how a pharmacist functions within the overall healthcare environment. Demonstrating warmth, interest, and compassion in your relationships with learners, patients, and other healthcare team members will encourage learners to act the same way.

By observing and working alongside practicing pharmacists, learners continue developing their ability to interact with others. Therefore, it is important to promote healthy professional relationships with pharmacy coworkers and members of other healthcare disciplines and to demonstrate and teach the skills involved to learners. However, many learners—and even some preceptors—struggle with finding the balance between being professional and friendly without being overly familiar. It should be recognized that professional relationships may differ depending on many variables; with some people you may be "true friends" inside and outside of work, while with others you may be "work friends" or colleagues—and it may be very appropriate to maintain those distinct relationships. The following are some common skills that can be utilized when developing professional relationships:

- Make a conscious effort to smile and interact with people.
- Demonstrate a genuine interest in others by asking questions about them, their families, and their hobbies.
- Be willing to share information about yourself in return.
- Participate in workplace conversations.
- Keep inquiries, sharing, and conversations appropriate for work (i.e., avoid asking questions or sharing items that are too personal or casual, avoid distracting others and preventing them from getting their work done).

Being friendly will help people feel more comfortable coming to you with their medication-related questions or to ask your assistance on a drug-related topic. A secondary benefit of forming strong relationships with colleagues and peers is the potential for networking, career advancement, and enhanced psychosocial support.[23-25]

PRECEPTOR PEARLS

Having good interpersonal skills not only demonstrates to learners an appropriate way to act but can also provide you with personal and career benefits.

As a preceptor, it is also beneficial to develop professional relationships with your learners and future colleagues. Learners who are just beginning a new rotation are often nervous or intimidated about being placed in a patient care situation in which they lack confidence and experience. The first few moments of positive interaction between learners and a preceptor can quickly put the learners at ease and will demonstrate that you are genuinely interested in them and their academic and personal needs. Learners may have a variety of challenges in and outside of their professional life; these may manifest in different ways during the learning experience. When you have a good rapport with learners, you will often know the true reason for a particular learner's tardiness or failure to complete an assignment and be able to provide an empathetic and appropriate response. An engaged preceptor can offer encouragement to learners facing difficult times or can attempt to motivate wayward learners. Regardless of the situation, it is difficult to meet learners' academic needs without first displaying a caring and compassionate attitude toward them as individuals. The proverb is true: "People don't care how much you know until they know how much you care."

Speaking of knowledge, it can be difficult to maintain confidence in your own knowledge base when learners seem to know all the latest information on a particular medication or disease. This can be especially challenging for young practitioners or for seasoned practitioners who are new at precepting. However, when interacting with learners it is important to convey confidence in yourself, in the services you provide, and in your real-world experience. It is not necessary for you to be an expert on all subjects to be a successful preceptor. Be a lifelong learner, taking the opportunity to learn new concepts from learners; it will only strengthen the bond when learners realize you are willing to listen and learn.

PRECEPTOR PEARLS

It is not necessary for you to be an expert on all subjects to be a successful preceptor. Be willing to listen to your learners and learn something new.

Leaders who exhibit positive behaviors such as hope, confidence, and optimism obtain better outcomes from others.[25,26] It is important not only to communicate your expectations but also to convey your confidence in the learner's ability to achieve them. Maintaining confidence in the abilities of yourself and your learner will often cause learners to work even harder to reach goals. Be cognizant of the attitude you project and how this impacts your ability to get the most from your learners.

Building trust takes time, but it is a crucial element for any pharmacist who wants to significantly impact patient care. Once trust is established, others respect your judgment and know they can rely on you for credible information that can be directly applied without the need for excessive questioning or verification. In order to build trust, you must be honest, reliable, and predictable.[27] This means that you act in an honest and ethical manner, show up for work and meetings on time, provide accurate responses, follow up on pending issues, and meet deadlines. As you demonstrate your trustworthiness, other colleagues will begin to place more trust in you, and your credibility will grow. When teaching learners, remind them that trust takes a long time to build, can be destroyed quickly, and is much more difficult to regain a second time around.

In developing integrity, it is important to have a solid foundation first of central beliefs and values by which you conduct your life. Daily decisions can then be made within the context of this value system. Trust and integrity go hand-in-hand; once integrity

of character has been developed, it is much easier to gain trust. People will come to rely on you to provide honest and consistent answers, backed up by sound reasoning and data, and to be accountable for your actions.

ASSESSMENT SKILLS

In any educational setting, teachers must determine not only the instructional methods they will use, but perhaps more importantly, they must identify the learning objectives as well as the ways the learning will be assessed. Likewise, preceptors should decide ahead of time the specific knowledge, skills, and abilities in the form of objectives the learners will gain from instruction, and they should also locate the tools needed for learners to practice and demonstrate those objectives. Ideally, the learning objectives and assessment tools would be communicated to the learner at the beginning of the learning experience and would highlight behaviors that are both observable and measurable, which are entirely possible in a clinical setting. Perhaps one of the challenges is to ensure that preceptors can document the assessment of learning in a useful and efficient way for learners to receive the constructive feedback they need to promote confidence and make improvements.

When planning for the assessment of learning and striking a balance between learning objectives and assessment methods, constructing a table like the example given in **Table 3-3** can help preceptors decide if the overall assessment plan adequately covers the content areas taught. Commonly referred to as a *course map*, this practice is strongly recommended by faculty development experts in higher education.[28,29] Table 3-3 can also reveal any gaps or redundancies where preceptors can adjust their teaching, objectives, assessments, or all of the above.

Assessment Tools

Depending on where preceptors are located and where learners are completing their programs, some assessment tools may already be developed and even standardized by another entity. These entities (e.g., college or school of pharmacy, state board of pharmacy) may set forth expectations for the preceptor and the learners to use these existing tools, so it is advisable to inquire about program requirements for both experiences available to students and assessments (e.g., evaluation forms) for you to complete. In fact, national organizations, in particular the Accreditation Council for Pharmacy Education (ACPE), heavily influence the way learners are assessed. The most recent ACPE Accreditation Standards require the assessment of learners' interprofessional skills, and with the revision of the Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes, assessment of learners' skills related to self-awareness, leadership, innovation and entrepreneurship, and professionalism.[30,31] Meanwhile, efforts are being made through the Joint Commission of Pharmacy Practitioners (JCPP) to ensure that while completing a PharmD program, learners understand and apply the Pharmacists' Patient Care Process (PPCP).[32] As a result, preceptors can expect programs in the future to modify assessment tools and/or procedures to reflect these skills in learners.

TABLE 3-3. Example Course Map

		Assessment Methods					
		Activity 1	Activity 2	Journal Club	Reflection	Self-Assessment	Final Evaluation
Rotation Objectives	Objective 1	X		X			X
	Objective 2			X			X
	Objective 3				X	X	X
	Objective 4		X			X	X
	Objective 5					X	X

As preceptors consider different assessment resources, the tools should meet four measurement principles as much as possible to ensure high-quality assessments: they should be relevant, reliable, recognizable, and realistic.

- A *relevant (or valid) assessment method* must be an accurate reflection of the skill or concept being tested, must be derived directly from learning objectives, and may predict performance on other closely related skills.
- *Reliable assessments* should communicate clear expectations to students and have clear criteria for rating, whether graded a second time by the same person or by a second person. One way of increasing reliability is to use a variety of assessment methods instead of relying on only one to measure a learner's ability to meet a learning objective.
- All assessments should be *recognizable* to the learner, meaning they should be aware of how they will be evaluated, and activities should help prepare them for those evaluations.
- Finally, *realistic assessments* are only truly useful if they are valuable for both the preceptor and the learner. In other words, the amount of information obtained from an assessment should balance the amount of work required. Smaller, more frequent assessments may be a more realistic approach, for example, than one large evaluation at the end of the learning experience.

With respect to the four measurement principles described above, a combination of *formative* and *summative* assessments should be used. Some differences between these two types of assessments are presented in **Table 3-4**.

Summative assessments may be most familiar to individuals in higher education. They are conducted at the end of a learning experience, and the only feedback learners usually receive is an overall score.

TABLE 3-4. Types of Assessment

Formative Assessment	Summative Assessment
Low stakes	High stakes
Minimal or no impact on final evaluation	High impact on final evaluation
Ongoing feedback	Evaluative feedback
Focus on progress	Focus on outcome

On the other hand, *formative* assessments take place while the learner is still acquiring the expected knowledge and skills. They allow learners to practice without having to take great risks, they provide learners with prompt feedback about their strengths and weaknesses, and they help the preceptors and learners make ongoing improvements to the learning experience.[33] In fact, to help decrease the learner's anxiety normally associated with "tests," Svinicki and McKeachie support the idea that learners (and preceptors) frame assessments as "learning activities" instead.[29]

Competency-based assessment is appropriate for the training of health professionals in general, where the focus should be on the assessment of competencies, or performance on an observable and measurable skill that is expected at the end of instruction. Preceptors can evaluate these skills in a number of different situations.[34] Examples are provided in the Formal Assessment Methods section.

For most assessment methods, preceptors should strongly consider accompanying that method with some kind of *scoring guide* or *rubric* that is already developed, adapted, or created from scratch, in particular for the many subjective types of assessments commonly found in a clinical learning environment. For example, when a preceptor observes a learner performing a skill, evaluating that skill may be done informally, but a rubric clearly communicates expectations for that skill and provides a formal way to document the evaluation of that skill. Rubrics are useful for evaluating many other learning

activities, including oral presentations, written critiques, and formal reflections on an experience. Rubrics can be formatted in any of the following ways[33]:

- *Checklist*—Simple list of behaviors that are observed.
- *Rating scale*—Checklist with a rating scale to note the degree to which the behavior was observed (e.g., Never, Rarely, Sometimes, Often, Always).
- *Analytic or descriptive rubrics*—Instead of the checkboxes found on a rating scale, brief descriptions are included to explain expected performance for each rating.
- *Holistic rubrics*—When listing all expected behaviors is unrealistic (e.g., when distinct criteria cannot be identified or when many learners need to be evaluated quickly), holistic rubrics contain a single, brief description for each level of performance (e.g., poor to exceptional work).

Analytic rubrics are ideal because they can address reliability and validity issues as well as provide learners with more detailed feedback on their performance. An example of an analytic rubric that could be used to evaluate a research paper is provided in **Table 3-5**.

Formal Assessment Methods

The following list provides a few examples of formal assessment methods that could benefit from an associated rubric to help with evaluation:

- *Direct observation*—Although preceptors may observe their learners regularly, there should also be *intentional* observations that are formally documented and allow for feedback on the learners' strengths and weaknesses. Hauer, Holmboe, and Kogan describe 12 tips regarding direct observation for medical trainees, some better addressed by educational programs as a whole, some possibly useful just between preceptor and learner, but all applicable to pharmacy education.[35]
- *Journal article critique; case presentation; subjective, objective, assessment, and plan (SOAP) note*—Whether the learners are completing these or other similar activities in an oral or written format, they should still be evaluated with some kind of rubric.
- *Reflection/portfolios*—When thoughtfully and purposefully assembled, a portfolio can provide evidence of a learner's progress and achievement; but, even if a formal portfolio is not expected, a reflective essay can still reveal a learner's thought process about his or her skill development. Portfolios for learners can be useful to demonstrate achievement during advanced pharmacy practice experiences (APPEs).[36]

TEACHING SKILLS

Today's learners respond well in an active learning environment. They strive to apply or practice the information they are learning. For example, a preceptor can explain the important aspects of sterile technique; however, unless the learner actually compounds a sterile parenteral solution, they will probably not develop the critical skills necessary to learn this technique. The most training learners have had prior to starting their APPEs has been in didactic lectures and simulations. Although learners have been exposed to clinical practice through introductory pharmacy practice experiences (IPPEs), their hands-on participation may be limited depending on the program and rotation experience.

PRECEPTOR PEARLS

Providing learners with a variety of opportunities to practice their skills will help them better retain the information.

TABLE 3-5. Example Analytic Rubric

	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Literature Review	Explanations of published works require larger scope or more analysis; evidence of lack of understanding of key concepts	Analysis of major published works related to area of interest; further development of some ideas recommended	Comprehensive, organized analysis of key relevant peer-reviewed literature with appropriate breadth and depth
Research Design	Incomprehensible or completely inaccurate experimental design	Some missing or flawed descriptions; not consistent with learner knowledge	Research design based on research aims and within the learner's expertise
Methodology	Obvious weaknesses; explanation requires substantial improvements	Adequate explanation of procedures; more details recommended	Fully explained and appropriate procedures
Results	Explanation of results is not clear	Results are missing pertinent information and/or could be better organized	Effective and organized presentation of data results
Conclusion	Unreasonable or senseless conclusion and/or interpretations	Rational conclusion; interpretations lack some explanation	Valid, defensible conclusion; use of sound arguments to support interpretations

Many pharmacists who decide to teach learners do so with little formal training in teaching and instructional design. Although some preceptors may have been exposed to and/or involved in organized teaching during their training (PharmD and/or residency program), the majority of preceptors do not have a background in teaching and learning methods. Most preceptors are very good at communicating clinical information, but the learners they are precepting sometimes have difficulty applying this clinical information because of the way their preceptors present the information. The pharmacist who is a great clinician is not necessarily the best teacher, and vice versa.

What can preceptors do to be better teachers? The following are some helpful hints to be an effective clinical teacher[29]:

- A model of desired performance helps learners. Positive examples of what to do are more effective than what not to do.
- Provide verbal cues that identify key features of the skill.
- Provide simplified and step-wise instructions.
- Allow learners the maximum freedom to experience successful completion of a task. This will facilitate their knowledge and skill development.
- Provide positive and constructive feedback.
- Do not try to correct everything on the first attempt. Sometimes the best way for a learner to learn is by failing.
- High-level skills are developed through much practice.
- As you evaluate work, verbalize the process you are using and the basis for your evaluation.

Reflect on your own experiences and incorporate them into your teaching styles. Did you have a great professor and/or preceptor you really admired when you were a learner? These are the individuals you want to emulate. Excellent preceptors possess the following qualities[37]:

- They are supportive of and respectful to their learners, colleagues, and patients.

- They are excellent role models and look for opportunities to demonstrate excellence in practice.
- They exude enthusiasm for their practice, their patients, and their learners.

There are many ways that preceptors can improve their teaching skills. Having a true desire to teach and to give back to the profession are the most important criteria. For some practical teaching strategies to consider, see Chapter 20, Teaching and Learning Methods for Students and Residents. Many schools also offer or require specific preceptor continuing education and training. Frequently, these types of workshops and programs cover everything from teaching skills to assessment.

LEADERSHIP SKILLS

Teaching leadership skills and identifying potential leaders is critical for the future of pharmacy. In two landmark pharmacy workforce surveys, the vast majority (i.e., 74%–80%) of pharmacy leaders (e.g., directors, middle managers) responded that they did not anticipate remaining in their current positions within the next 10 years.[38,39] The survey respondents indicated the main reason for this turnover would be attrition through retirement. Although more current practitioners and students indicated their intent to seek leadership positions at some point during their career in the 2011 survey compared with the 2004 survey (i.e., from 30%–45% for practitioners and 62%–63% for students), work is still needed to avoid a pharmacy leadership crisis in the near future.

In the event of a pharmacy leadership crisis, the risk is significant that a pharmacy leadership position may be filled by a nonpharmacist (e.g., nurse, materials manager, physician, master of health administration, master of business administration). Health-system organizations may have no choice because they need pharmacy leadership and can have a pharmacist act as the board of pharmacy pharmacist-in-charge without having a senior leadership title. It is more beneficial to the site—and the profession—for a pharmacist to serve in a senior pharmacy leadership role, with the possibility of nonpharmacists functioning in some middle management roles, such as financial management or human resources, under the guidance of a pharmacist director or chief pharmacy officer.[40]

The findings of the aforementioned landmark surveys have dramatically influenced thinking about pharmacy leadership, leading to the development of multiple programs and services and highlighting the need to include leadership—in addition to clinical considerations—to education and policy efforts. The ASHP Statement on Leadership as a Professional Obligation emphasizes that each pharmacist needs to accept the responsibility and accountability of this personal development challenge as a critical part of the professional role.[41] Further, the need for integration of leadership development to begin as learners has been highlighted as an important element of both Doctor of Pharmacy and pharmacy residency training programs.[42-45]

To ensure consistent and quality pharmacist leadership into the future, we need both *Big L* and *Little l* pharmacist leaders. The *Big L leaders* are those with a formal title, such as chief pharmacy officer, director, associate director, assistant director, manager, supervisor, or clinical coordinator, whereas the *Little l leaders* include every pharmacist in one's practice.

PRECEPTOR PEARLS

Both Big L and Little l leaders are critical to the advancement of the pharmacy profession.

Leadership is crucial because it helps the advancement of the profession in immeasurable ways. Before the 1960s, pharmacists did not typically practice in hospitals, and the rare hospital pharmacy was generally in

the basement. Hospitalized patients received their medications from nurses who prepared intravenous admixtures and took the oral doses they needed from stock bottles on their unit, rather than relying on hospital pharmacists. Clinical pharmacy services as they are now began in the late 1960s, when pharmacists left the basement pharmacies to participate in medical rounds and to better utilize their therapeutic expertise to make prescribing and medication monitoring decisions. Now, many health systems not only have pharmacists participating in clinical activities on the floors and units of the hospital, but also across environments of care including practices in primary care and specialty clinics, community and specialty pharmacies, and home health. Each of these service innovations resulted not just from Big L leaders but also from many Little l leaders taking calculated risks, setting up the services, and performing the day-to-day activities. This evolution of pharmacy services is one example of how important pharmacist leadership is to the profession.

It is paramount that every preceptor incorporates leadership exposure and training into rotations, even the purely clinical rotations. Leadership and clinical practice are integrated skills for every pharmacist as a Little l leader so that practice continues to evolve. The preceptor's goal must be to build every future pharmacist's leadership confidence, so he or she will continue to evolve pharmacy and healthcare services. The preceptor is the role model that the learner emulates, so it is important that the preceptor believes in this integration of leadership and clinical practice. Consider the benefits your Little l leadership in action has created for your patients, practice, and career.

Leadership and management are complementary but different. To understand leadership, it is helpful to contrast it with management. A *manager* focuses on maintaining the system and ensuring that things are done correctly and relies on checks as controls. Managers maintain the status quo and focus on the short term. Management includes planning, organizing, coordinating, implementing, administering, monitoring, and evaluating. Being a good manager requires leadership skills, and an effective leader will rely on applying his or her own and others' management skills to achieve goals. *Leaders* make people feel significant and develop a sense of commitment that fosters teamwork that, in turn, excites people through their own enthusiasm and passion. Leaders challenge the status quo and try new ways of organizing and processing work; they are innovators and visionaries. Leaders take calculated risks, making adjustments as they gain experience. They have a bias for action and hold themselves accountable. Leaders are change agents who use their creative dissatisfaction with the status quo to innovate and improve services. *Leadership involves identifying the right things to do, inspiring, motivating, focusing, aligning, mobilizing, innovating, and developing.* Leadership development can—and should—occur for all pharmacists and learners.

Think of precepting leadership as a continuum beginning with exposure, continuing through identifying potential leaders, and, as time permits, leadership training. Suggestions for each point on the continuum appear in **Box 3-3**.[43,46] The preceptor needs to provide the suggested messages, so the learner puts this leadership involvement in the proper context and realizes its future application to his or her practice. The preceptor must be interested in learners as individuals and provide time to listen to their experiences. As the preceptor helps the learner develop leadership skills, the teacher–learner relationship develops more into one between colleagues. This evolution provides learners with the expectation that they begin to perform more as a pharmacist than as a learner. Devoting time to leadership activities nurtures the learner's leadership involvement, which, in turn, is making an investment in the future of the profession.

BOX 3-3. Precepting Leadership Continuum

Leadership Exposure Activities

- Provide messages to learners (repeat frequently; once is not enough):
  - Remind them that every pharmacist is a *Little l* leader during a shift or in his or her practice.
  - Share your personal experience of how pharmacy services have improved during your career and what future trends might be.
  - Describe what leadership means (both *Big L* and *Little l*).
- Encourage learners to attend meetings (committee/staff/faculty/practice) with you; their focus should be on the following:
  - Interactions among caregivers (both effective and ineffective)
  - Pharmacist input and impact
  - How to productively function in a meeting
- Help them arrange to shadow/observe *Big L* leaders and focus on:
  - What leaders do, who they interact with, what they are trying to achieve
  - How their careers have evolved
  - Their impact (actual and potential)
- Suggest they do small actual projects (e.g., performance/quality improvement, formulary, data analysis) that include making recommendations for changes.
- Recommend professional organizational leadership opportunities:
  - Attend meetings/committees/board meetings, interview elected officers.
  - Set them up for learner/new practitioner involvement opportunities/push news/listservs.
- Suggest they read Stephen Covey's *The 7 Habits of Highly Effective People* (in the self-development section of any bookstore).

Identify Potential Big L Leaders

- Look for characteristics that enable people to be effective leaders and have some of the following qualities:
  - Passionate about what they do and willing to work hard
  - Good with people, get along with everyone, concerned about others, share credit
  - Reasonably organized and confident
  - Good interpersonal communication skills
  - Decisive, discerning, responsible
  - Broad thinker, beyond the pharmacy task at hand; curious; inquisitive; identifies service problems and proposes solutions
- Frequently convey the following messages to learners:
  - Remind them that they have leadership skills; use specific examples and affirm what they do well because frequently they are unaware of their strengths.
  - Suggest that they take on projects beyond just doing the requirements. By doing so, they will learn to work efficiently and to balance competing priorities—two skills they will need in their practice.
  - Encourage them to consider taking a formal leadership position sometime in their career.
  - Encourage them to think, question the status quo, and propose changes. Reinforce when they do, no matter how small an effort they make.

Leadership Training: Make Additional Opportunities Available

- Messages for learners:
  - Suggest that they find a *Big L* leader mentor. Tell them to ask someone formally who they are comfortable with to help guide their careers; then spend time asking that person for advice.
  - Help them learn by observing other successful people so that

they can see what works and what does not work.
  - ❖ Stress the importance of learning from your own experience. Tell them to ask for feedback on ideas and approach.
  - ❖ Suggest they investigate health-system pharmacy administration accredited residencies through the ASHP website. Even if they are not interested in a residency now, they may be in the future.
  - ❖ Suggest they research practitioner leadership training opportunities through the American College of Clinical Pharmacy and ASHP Foundation websites in case they are interested once they move into practice.
- Expand leader shadowing/observations; include different types, if possible, such as residency program directors, school department chairs, or others outside of pharmacy. Encourage observing pharmacy leaders in interdisciplinary groups.
- Involve them in actual projects, such as:
  - ❖ Review/revise relevant work documents (e.g., policies, collaborative agreements, business plans).
  - ❖ Create agenda and facilitate staff meetings.
  - ❖ Take a leadership role in practice management process, performance/quality improvement project.
  - ❖ Review medication errors and adverse events, providing clinical and process improvement recommendations.
  - ❖ Evaluate compliance with policy or regulatory requirement.
- Challenge them with "what if" leadership scenarios that do not have one right answer.
- Attend pharmacy leadership team meetings.
- Report on meetings attended, content, and human dynamics.
- Perform psychological self-assessments such as Emotional Intelligence, Myers–Briggs, Strength Finders, and communication style preference.
- Suggest possible readings; see Suggested Readings and Resources at the end of this chapter.

Another suggestion for preceptors is to consider utilizing the vast resources available through professional meetings and colleges of pharmacy. Local and national meetings and colleges of pharmacy often offer programming related to preceptor development with topics such as providing feedback, assessment techniques, and dealing with difficult learners. These offerings can help develop or augment precepting skills and hone leadership skills as well. Preceptors should also emphasize the importance of active involvement in local and national organizations not only through conversations with their learners but also through modeling the behavior and their own participation. When learners are directly exposed to the value of professional organizations, they will immediately benefit from opportunities that include networking, professional development, leadership roles, and professional activism.

No matter what leadership activity the learners perform, preceptors must set them up for success to help build their confidence. Clearly describe what to expect with the activity, why it is important, and what to look for as learning experiences. Express your confidence in them and set up a time to debrief after the activity by having them share their experiences. Ask questions that challenge them on what they learned and how they might apply it in their practice. Then set up another activity and repeat the process as time permits.

PRECEPTOR PEARLS

Leadership activities expose learners to leadership and teach them to become leaders on their own.

Preceptors are critical to providing leadership experience for all future pharmacists and ensuring that pharmacy services will continue to evolve in support of optimum patient care.

SUMMARY

Serving as an effective preceptor to learners requires the pharmacist to possess and demonstrate numerous skills. Many of these are critical for pharmacists in any position, but some are unique to the role of a preceptor. When developing precepting skills, it is important to periodically perform self-assessment and identify areas that could benefit from additional growth through education, experience, and mentoring—the same approach preceptors use to help learners gain skills. Strong communication skills are critical as a preceptor (and pharmacist), and they complement solid interpersonal skills. As a preceptor, assessment skills will be used frequently in both formal and informal ways, as will teaching and leadership skills. Preceptors also need to understand and value generational differences. Today's learners value relationships, flexibility, active learning, and the ability to make a difference. Preceptors who understand the unique characteristics and values of different generations can further develop their skills in all core areas to better meet their learners' needs and be the most effective preceptors possible.

SUGGESTED READINGS AND RESOURCES

- ASHP Foundation Leadership Programs (Conversations with Health-System Pharmacy's Most Influential Leaders Video Series, Harvey A.K. Whitney Lectures Collection, Pharmacy Forecast Reports, Joseph A. Oddis Ethics Colloquium, leadersEDGE Webinar Series, Student Leadership Development Workshop, Visiting Leaders Program, Student-New Practitioner Taskforce Report: Leadership Is a Professional Obligation). https://www.ashpfoundation.org/Leadership-Development/Conversations-with-Pharmacy-Leaders-Video-Series. Accessed October 24, 2019.
- ASHP Leadership Journal Club articles. https://academic.oup.com/ajhp/article-abstract/68/21/2026/5129284?redirectedFrom=fulltext. Accessed October 24, 2019.
- ASHP Policy Positions and Guidelines. https://www.ashp.org/pharmacy-practice/policy-positions-and-guidelines. Accessed April 7, 2019.
- ASHP Pharmacy Practice Management resources: Fostering Management Skills and Effective Leadership. https://www.ashp.org/Pharmacy-Practice-Leadership. Accessed October 24, 2019.
- ASHP Pharmacy Practice Leadership resource centers. https://www.ashp.org/Pharmacy-Practice/Resource-Centers/Leadership. Accessed October 24, 2019.
- ASHP Foundation Center for Health-System Pharmacy Leadership Student and New Practitioner Leadership Task Force. *Leadership is a Professional Obligation*. 2009. http://www.ashpfoundation.org/SNPTaskforceReport. Accessed April 7, 2019.
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- Leadership book summaries, available at http://www.summaries.com.
- Leadership abstracts, available at http://www.getabstract.com.
- Leadership books written by John Maxwell, Ken Blanchard, or Spencer Johnson (found in the bookstore business section).
- Sample Leadership Syllabus. https://www.ashp.org/-/media/assets/new-practitioner/docs/np-sample-leadership-syllabus.ashx. Accessed April 7, 2019.

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4

Successful Preceptor–Learner Relationships

Todd W. Canada and Jeffrey J. Bruno

By learning you will teach, by teaching you will learn.

Latin Proverb

People don't care how much you know until they know how much you care.

Jim Rayburn

EFFECTIVE PRECEPTOR–LEARNER RELATIONSHIPS

When a learner comes into contact with a preceptor, he or she becomes connected within a working environment to create a professional relationship. Many preceptors and learners often ask, "What produces a positive relationship?" It is primarily accomplished through two-way communication, appreciation, listening, and feedback. Preceptors should structure a positive learning environment and clearly define expectations, roles, and responsibilities as well as identify goals at the beginning of a rotation to set the foundation for success. Modeling behaviors, coaching learners, and fostering self-reflection also further enhances the likelihood of a positive experience. This chapter focuses on cultivating the preceptor–learner relationship and creating an environment where that relationship can flourish.

QUALITIES OF AN EFFECTIVE PRECEPTOR

Effective Preceptors Know Their Learners

Effective preceptors strive to understand their learners. Each learner will have expectations of his or her preceptor, which sometimes can be unrealistic or unreasonable for the environment we are presently in. **Box 4-1** displays some of the learner descriptions of an ideal preceptor that are highly desirable. Preceptors also have expectations of

LEARNING OBJECTIVES

- Define and discuss an effective preceptor–learner relationship.
- Recognize your learners entering the experiential practice environment and their concerns.
- Describe the desired characteristics of an effective preceptor.
- Describe the desired characteristics of a high-quality learning environment.
- Characterize learner orientation steps to ensure a positive experience.
- Outline the roles, responsibilities, expectations, and goals of preceptors and learners during practice experiences.
- Utilize preceptor modeling and learner self-reflection to coach performance and engage learners in successful experiential rotations.

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BOX 4-1. Learner Description of an Ideal Preceptor

- Customizes experience to individual learner
- Works directly with learner for modeling and coaching of desired practices
  - Actively practices what learners will learn
- Is nurturing and understanding without being intimidating
- Is compassionate, honest, relatable, and patient
- Enjoys their job
- Provides structure and focus on being detail-oriented
- Asks learners questions to help them learn
- Provides hands-on activities or interactive projects to make learners think critically
- Identifies learner's weaknesses and offers ways to improve them
- Provides frequent feedback and addresses issues as they come up
- Delivers constructive criticism in a respectful manner
- Helps learner meet goals
- Is supportive and open to questions
- Reassures learners when they are uncertain and provides direction
- Pushes learner outside of comfort zone and challenges him or her
- Is willing to teach and provide something practical or useful each day (e.g., clinical pearls)
- Shares their personal experiences to guide the learners
- Provides mentorship regarding careers
- Is active in their profession to provide opportunities for learners (e.g., networking)

their learners, which coincidentally can be unrealistic or unreasonable, depending on their academic rank and age. Aside from addressing each learner as a unique individual, there are clearly generational issues to consider. Preceptors may be from the Baby Boomer or GenX generations, while our current generation of learners is known as the Millennial generation. Although there is no agreement on the name or exact range of birth dates for Generation Z, they are also entering our learning experiences.[1–3]

Millennials are hard-working, competitive, and productive; they have been successful in many aspects of life to date. They are more connected to their parents, have high expectations, have a need for quick answers, are collaborative, and have huge social networks. They expect to be treated with respect and are open-minded with respect to different races, religions, sexual orientations, and other issues in the workplace. They consider themselves to be global in perspective and are motivated to improve the human condition, in our country and abroad. Although they like challenges and are capable of multitasking due to technology in their education, Millennials strongly focus on maintaining a work–life balance to keep friends and family near and involved.

Even their perception of feedback needs to be considered. Millennials' perception—"Whenever I want feedback, it can happen at the push of a button"—is very different from previous generations. The perception of feedback of the Baby Boomers can be expressed as "Once a year, with lots of documentation," whereas the GenX population perceives feedback as "Sorry to interrupt, but how am I doing?" Millennials prefer praise and respond poorly to those who act in an authoritarian manner or who expect to be respected due to higher rank alone. Parents and teachers alike have praised this generation heavily, and they need and expect this recognition.[4]

Some preliminary reports indicate Generation Z members are technology savvy and used to having instant access to copious amounts of data. This may explain why they may crave constant and immediate feedback. In addition, these individuals may look for the quick answer versus trying to solve the problem. Having grown up during an economic recession, these individuals have a sense of social justice and philanthropy. Generation Z members seem to have a sense of entitlement because of the significant independence provided by mobile technology along with consistent affirmation from parents. It has been suggested that this generation may expect flexibility, have little interest in a 40-hour workweek, prefer tailoring their work to their expertise and interests, and expect faster career advancement.[5,6]

As preceptors, we must continue to be open-minded about all generations of learners. Rather than labeling them, we need to recognize the different generations and adapt to them. At the beginning of the learning experience, we can be transparent with the learner regarding the preceptor style that will be used, as well as setting the expectations about how feedback will be shared. It is important to share with the learner what feedback means from the preceptor perspective versus what it may mean to them.

After acknowledging their generational differences, preceptors should appreciate the concerns of learners as displayed in **Box 4-2**. Some learners are introverts and may be especially sensitive to external stimuli from the preceptor and learning environment. From the preceptor's perspective, this may appear as though the learner is not engaged, when it may be the learner's concern about being called out in front of other healthcare professionals and embarrassed for not knowing the correct answer. From the learner's perspective, preceptors may be viewed as intimidating because they have years of experience and certifications that the learner has yet to achieve. This can lead to learners feeling they have to gain your acceptance, and it may further deter their performance within a rotational experience. They may feel they do not matter to the preceptor if they do not have your acceptance. This is frequently complicated by the learners' lack of confidence in their own abilities, skills, and knowledge when they truly exist. As preceptors, it is our role to bring out the best in our learners while acknowledging their expectations and concerns.

BOX 4-2. Concerns of Learners

Learners are:

- Afraid preceptor and others will think they are stupid so they will not risk being called out by interacting with others.
- Afraid preceptor and others are better than they are, which leads to beliefs they cannot improve with time and experience.
- Afraid they will not be accepted as they are so they may do things to win your acceptance that have nothing to do with the learning experience (e.g., bring donuts for no reason).
- Afraid they do not matter to the preceptor or the site, so they may not show their true abilities in regard to their performance.
- Always afraid of failure or the perceived threat of it, which may lead to poor self-esteem and lack of confidence in their abilities.
- Always seeking the approval of their preceptor who may not always want or be willing to give it to them. This may give preceptors a feeling of power; however, it is devastating for learners if they take it personally. Preceptors may also have unrealistic expectations of the learner that are not achievable, further frustrating both parties.

Effective Preceptors Possess Similar Traits

Effective preceptors have certain characteristics in common that are similar to effective educators (see Box 4-1). They are confident, enthusiastic, and knowledgeable as well as show an interest in teaching, relate to the learner as an individual, work well under stress, and are willing to learn.[7,8] They enjoy their work, freely share information, and seek to further develop their professional skills. Effective preceptors are willing to spend the time necessary to be prepared for learners' experiences, model the skills, coach and observe the learners through their professional development, and provide meaningful feedback.[9] In addition, effective preceptors are mindful of their responsibility to serve as professional role models, to inspire learners to develop their professional skills, and to show learners how to establish professional relationships and find their career paths.

Preceptors supervise, mentor, and promote the professional development of learners. The preceptor's role is to facilitate the professional development of a learner throughout the learning experience to allow the learner to build on prior knowledge. As listed in **Box 4-3**, there are several resources available to preceptors to further their own professional development**.** The 2011–2012 American Association of Colleges of Pharmacy (AACP) Professional Affairs Committee developed criteria for the AACP Master Preceptor Recognition program, which recognizes preceptors who have demonstrated sustained commitment to excellence and are not directly employed by the college or school of pharmacy for their professional practice position. The criteria include the following skills and attributes as essential components of being an effective and successful preceptor; the preceptor should:

- Possess leadership/management skills
- Embody his or her practice philosophy
- Be a role-model practitioner
- Be an effective, organized, and enthusiastic teacher
- Encourage self-directed learning of the learner with constructive feedback
- Have well-developed interpersonal and communication skills[10]

Learners expect that preceptors are prepared and eager to teach, with appreciation for different learning styles. The preceptor should assess learners' entry-level knowledge, previous experiences, and their college-based portfolio to individualize their specific learning topics, goals, and objectives. Performing a gap analysis enables the preceptor to avoid repeating material that learners may have already mastered and also identify pre-existing weaknesses in learners' knowledge and skills. Orientation is the ideal place to perform a gap analysis.[11]

BOX 4-3. Preceptor Resources

- ASHP Preceptor Toolkit - https://www.ashp.org/Pharmacy-Practice/Resource-Centers/Preceptor-Toolkit
- APhA Advanced Preceptor Training - https://www.pharmacist.com/apha-advanced-preceptor-training
- Habits of Preceptors Rubric - https://www.habitsofpreceptors.org/
- ACCP White Paper: Quality Experiential Education - https://www.accp.com/docs/positions/whitePapers/Pharm2810_ACCP-Haase-ExpEd.pdf

The Preceptor's Teaching Style

Anthony Grasha has identified five different teaching styles that can be combined in various ways to achieve effective teaching: expert, formal authority, personal model, facilitator, and delegator.[12] Similarly, Whitman and Schwenk described two learning styles that could be applied to the practice setting: *pedagogy (teacher-centered)* and *andragogy (learner-centered)*.[13] Because experiential rotations are especially designed for learners to develop

hands-on clinical skills, experiential teaching is more learner-centered and requires the preceptor to be a model and a facilitator.

A Chinese proverb says "*Tell me and I forget. Show me and I remember. Involve me and I understand.*" A good preceptor uses the concepts tell, show, and involve in his or her teaching process. Guiding learners to apply their knowledge into practice by having open discussions and competency evaluations facilitates more effective learning in the practice setting. Designating specific times weekly for the purpose of reflection can also be helpful. Reflection is a time when the preceptor and learner can discuss their feelings of security or insecurity in learning or ways of coping with mental stress during the experience.

The Preceptor's Interaction with Learners

To establish a dynamic relationship with learners, the preceptor must be willing to invest the time and effort needed to communicate effectively with learners. Effective communication requires that the preceptor be sensitive to learners' educational needs and be able to evaluate learners' strengths and areas for further development without intimidation. Communication is a process, and different communication styles may be needed during the 4- to 6-week experience.

ASHP has embraced four major roles of precepting: *direct instruction*, *modeling*, *coaching*, and *facilitation*. ASHP encourages preceptors to be creative and flexible in the application of each these roles.[14] Initially, the preceptor may provide direct instruction to the learner and model expectations. Gradually, as learners become more familiar with the practice setting and more confident in their professional skills, the preceptor should transition to the roles of a coach or facilitator, allowing the learners to become more actively involved in the clinical education. Appropriate feedback to learners about their performance is essential, especially when preceptors discuss the goals, objectives, and performance expectations of the rotation with them. Preceptors also need to listen to and answer learners' questions. Continual, open communication will encourage learners to keep asking questions and will help them solve problems and make decisions. Preceptors also need to be able to recognize mental health issues, particularly related to learner stress, financial hardship, and anxiety about postgraduate training opportunities and jobs. Similar to employee assistance programs for a preceptor, the learner should utilize his or her sponsoring entity's mental health resources to maintain a healthy work–life balance.

PRECEPTOR PEARLS

Consider the learner's generation and identify ways to bridge the different generations to enhance the learning experience. Be transparent with the learner regarding your preceptor style, and set expectations for how feedback will be shared. Develop a common understanding about what feedback means to the learner versus what it may mean to you as the preceptor. Remember, the preceptor's role extends beyond teaching to include role-modeling, coaching, facilitation, and even mentoring.

Effective Preceptors Create Environments That Promote Win-Win-Win Situations for Preceptors, Learners, and Practice Sites

Building a positive preceptor–learner relationship relies not only on the traits of the preceptor but also on the practice environment surrounding the preceptor and learner. This section explains how the teaching and learning environment, the physical space

afforded to the learner, and the integration of the learner in patient care and teamwork can support a positive preceptor–learner relationship. It focuses on how preceptors, learners, and sites can mutually benefit in even very complex practice settings that may include practice-based research. Creating an environment that promotes a win-win-win situation for preceptors, learners, and practice sites reinforces the preceptor's efforts, resulting in successful rotations.

Creating a Vibrant Teaching and Learning Environment

Learners can both benefit from and contribute to a vibrant teaching and learning environment for practice sites (see **Box 4-4**). By participating in existing platforms for professional development within the site, learners advance their own education and that of their colleagues. Examples of common teaching activities include other healthcare professionals' inservices, journal club discussions, clinical forums, formal presentations, pharmacy work rounds, pharmacy grand rounds, and patient education seminars. As learners increase participation in these activities, they have the opportunity to observe various presentation styles and incorporate them into their own presentation skills. Preceptors support quality teaching environments by also supporting learners' attendance at interdisciplinary teaching events. Their presence will reinforce the multidisciplinary team approach of modern patient care. These activities could include medical and nursing grand rounds, nursing shift report, unit-based/patient-centered medical home huddles, medical work rounds, medical journal clubs, morbidity/mortality conferences, and provider-led morning reports.

A high-quality learning environment requires that preceptors take measures to ensure the intended learning results from attendance at these teaching activities, and they should be included in the rotation calendar with locations listed for the learner. This does not require, however, that the preceptor co-attend all these teaching events with the learner. Rather, learners often enjoy attending such sessions independently and can be challenged to grow. Preceptors can assign learning by self-reflections and report-back activities that create discussion opportunities between the preceptor and learner where gaps in understanding can be addressed. This strategy is applicable to various activities and can be utilized with increasing independence across the continuum of learner levels.

BOX 4-4. Learner's Description of an Ideal Learning Environment[15]

- Providing structure while allowing learner the autonomy to feel confident and independent to troubleshoot through issues on their own (e.g., time management skills)
- Displaying patience and a genuine interest in teaching
- Having the opportunity to see an adequate number and variety of patients
- Being welcoming to questions
- Providing challenges without intimidation
- Finding the potential in learners for handling difficult situations
- Asking what the preceptor or site could do to help the learner reach his or her goals
- Making learner feel like a valued member of the practice site

Creating a Supportive Physical Environment

Having a supportive physical environment will help both the preceptor and the learner attain better and more efficient workflow. Readily available access to a workspace, computer, the Internet, and electronic medical record has been found to be associated with learners' satisfaction in the VA Learners' Perceptions Survey.[16] Although

many experiential sites have limited office space and few workstations, the benefit of designating workspace (even if shared) promotes teamwork between the preceptor and the learner. It also makes it easier for the preceptor or other staff members to locate the learner when necessary. Likewise, having a designated computer or workspace for the learner in the vicinity where the primary duties are satisfied allows the learner to better manage clinical or operational services while mixing in time for project assignments and other nonproduction-related activities. The availability of medical library services or facilities (physical or online) in close proximity to the site will allow the learner to continue developing his or her drug information skills and access to potential office space. Many sponsoring entities offer full or limited library access off campus for learners and preceptors.

Creating an Integrative Patient Care Environment

Given the pace of work in most pharmacy practice settings, the preceptor–learner relationship can be undermined if the practice environment and rotation are not structured. One of the critical components in achieving a win-win-win situation is establishing true integration of the learner in the preceptor's practice. This practice will ultimately support the goals of the organization, and it should be expected that by investing early in the development of the learner, preceptors and sites will attain a return on that investment through increasing productivity and quality care. The needs of the clinical practice can be assessed by surveying administrators, office staff, clinical colleagues, and patients for ideas and feedback. Pharmacy administrators may need learners to help with outcomes assessment projects related to drug utilization, cost-effectiveness analyses, and continuous safety and quality audits and reviews, whereas clinically-oriented practice sites can benefit from learners' contributions to medication reconciliation, comprehensive medication management, and patient–provider education. Integrating learners into daily clinical practice activities that match the level of their capabilities and training is essential for the win-win-win. By requiring learners to actively participate in patient care, preceptors demonstrate respect for learners' abilities and promote the learners' autonomy in their self-development. The preceptor should coach and encourage the learners during initial encounters. Any patient encounter should be coordinated with colleagues and the clinical staff, of course.

Creating a Practice-Based Research Environment

Considering learners' professional development goals before the rotation can assist the preceptor in designing a better rotation experience for the individual learner. If the learner desires or needs research and scientific writing experience, preceptors can assign the task of developing a research protocol and preparing poster abstracts, manuscripts, or letters to the editor for publication. Such a focus requires that the preceptor is knowledgeable about research procedures and has scholarly discipline.

One of the constraints to providing support for such activities is the lack of time to see a project from inception to completion and write-up for presentation or publication. As discussed later, a planned, ongoing relationship with the learner can support this goal. If, however, there are limitations for extended contribution beyond the confines of a 4- to 6-week rotation, breaking several projects into the constituent components and having the learner participate in or complete a component of the work is valuable. Consider what contributions a learner can make in advancing the development of a study question or project idea. If the learner performs a comprehensive literature review and reports it, that sets the stage for future research steps and is not only an asset to the preceptor but also a valuable learning experience. Future learners can design and test data

collection forms and perform data analysis under the direction of the preceptor. Finally, the project write-up, whereby a learner can increase written communication skills, can be a meaningful assignment.

Practice-based research identifies, studies, and evaluates common problems encountered in clinical practice.[17] Collaboratively engaging in practice-based research projects gives the learner an opportunity to see how research efforts could improve the quality and safety of care; by helping to collect and analyze data used to improve operations, clinical outcomes, patient satisfaction, and staff efficiency, the learner benefits the preceptor and clinical site. Practice-based research questions arise from the practice; the practice could use study findings to re-engineer the practice operations, increase appropriate medication use, and explore additional ways to further improve medication safety.[17]

PRECEPTOR PEARLS

Create a model learning environment by integrating learners into as many daily activities as possible, where they can begin to foster self-development. Encourage their presence at multidisciplinary/interprofessional activities to reinforce the team approach of modern patient care.

FOSTERING THE RELATIONSHIP BEFORE THE LEARNER ARRIVES

Do good preceptor–learner relationships just happen? Can every preceptor–learner relationship be a good one? If the preceptor invests the time and effort (see **Box 4-5**) and puts the learner at the center of the experience, every preceptor–learner relationship can be effective and rewarding for both

BOX 4-5. Seven Essentials Learners Need from Their Preceptor

1. *Support*—When your learner started, you immediately became a team. Help your learners achieve their goals and let them know you believe in them.
2. *Listen*—Show your learners that you are interested in what they are saying and helping them prepare for their future professional career.
3. *Being a priority*—We are all human and can become consumed in our work day, but learners need to feel they are a priority for you daily.
4. *Compliments*—Learners need to hear these for their accomplishments. Compliments provide a confidence boost for learners, so take the opportunity to recognize them.
5. *Communication*—Ask your learner questions and his or her opinions on patient-related management. When learners ask you questions or your opinion, be open to discussions.
6. *Acknowledgment*—Tell your learner that you notice all of the minor and major efforts he or she puts forth to promote professional growth. Mistakes help them learn and as humans, we make mistakes, even as preceptors. You must let them know that their mistakes do not define them as each day they have the power to learn and progress. By making mistakes, learners will understand more about themselves, how to manage their emotions, how to interact with others, and how to bounce back from failure.
7. *Be an example*—Learners want to be with a preceptor who will bring out the best in them. They notice how you interact with and treat others, as well as how you spend your free time. Always do what is right and lead learners on the correct path to fulfillment in their profession.

parties. Placing learners' needs at the center of the experience is most important. Many preceptors expect learners to understand them and what is going on in their lives and careers. However, most learners are in their mid-twenties and, although interested and devoted to their new professional career, are still trying to discover themselves. Recognizing this fact, remembering your own experiences at this age, and putting learners first will make the preceptor–learner relationship a mutually positive experience.

Learners have enormous expectations of experiential education when entering their rotations. Their expectations are a product of 3 to 5 years of structured didactic learning. Learners thirst for guided learning opportunities from preceptors to correlate textbook with clinical practice knowledge. They anticipate that preceptors will provide opportunities to build on their drug knowledge from didactic coursework and prior early learning experiences. The transition to experiential education provokes learner anxiety from fear of performance failure, as they learn to apply knowledge and validate competency prior to graduation. These expectations and their eagerness to display proficiency may be unrealistic because of a lack of practice and clinical experiences, which may cause learners to be disappointed with educational experiences and/or themselves. Ultimately, learners want a contributory role during their experiences, an opportunity to apply and offer evidence-based recommendations, and the chance to mature into competent practitioners. As a result, learners have significant expectations of their preceptors.

Most preceptors had great pharmacy practice experiences and likely began to forge a strong professional relationship with their mentors and colleagues during those experiences. Some interpersonal relationships may happen because of similar professional interests and personalities. At other times, it may appear there is no chance of a relationship due to differences in these same characteristics. The preceptor and learner should agree to peacefully coexist until their time together is over. Leaving a relationship to chance puts the preceptor, the learner, and the educational experience in danger before it even begins.

A contentious preceptor–learner relationship will almost certainly frustrate both the preceptor and learner, and possibly other individuals (e.g., colleagues, other learners). The learning opportunity may be significantly impacted, even negated, when the relationship is compromised. The learner may feel shortchanged by the educational experience and may not appreciate the preceptor's knowledge, skills, and abilities. The preceptor may have feelings of guilt and wonder what happened. Conversely, a cooperative preceptor–learner relationship will be one where both the preceptor and learner look forward to working together. They will jointly seek out opportunities to advance the learning experience. The preceptor may learn from the learner, who is up-to-date with the school's pharmacy curriculum. The learner will appreciate the preceptor's practical experience and knowledge. Before either person knows it, they will have formed a bond that may last for years. Those preceptors will be the ones that the learners recall as their professional inspiration.

A supportive preceptor concentrates his or her energy on bringing out the best potential in the learners. The preceptor communicates clearly about learning objectives and goals, designs interactive learning activities, explains and shares professional and personal experiences, demonstrates skills, provides timely feedback, and encourages continual learning despite failures and imperfections. Although training may involve diligent discipline and growing pains, the preceptor guides the learner during the difficult stages of the educational learning process and delights in seeing learners become better practitioners. By having respect for their learners, preceptors can foster meaningful and lasting professional relationships. Preceptors can also share with learners their professional

practice weaknesses identified through a continuing professional development plan. The preceptor—sharing his or her own self-directed, ongoing, systematic, and outcomes-focused approach to lifelong learning—will hopefully foster this behavior for the learners in their career paths. The preceptor's sharing of participation in formal and informal educational activities can show learners how to develop and maintain their competence, professional practice, and career goals.

Finally, preceptors who involve themselves professionally in learners' lives, and who involve learners in their lives, will have the greatest impact and the most rewarding preceptor–learner relationships. However, preceptors cannot put their career objectives, daily responsibilities, or family life on hold to provide this learner-centered experience. The key is to have an open dialogue and model the work–life balance to the best of the preceptor's ability. Communicate personal expectations, goals, outside commitments, and feedback on performance to learners and be sure both parties have clear expectations at the beginning of the learning experience. No one aspect is more important than another. Learners will realize that successful preceptors are private persons, too. Appreciating learners as whole persons and communicating with them on a peer level demonstrates leadership, commitment, and compassion. Learning will flourish in such a relationship.

PRECEPTOR PEARLS

Preceptors who involve themselves professionally in learners' lives, and who involve learners in their lives, will have the greatest impact and the most rewarding preceptor–learner relationships.

ORIENTING LEARNERS

Orientation

A complete orientation at the beginning of the experience is essential for building an effective learning experience and preparing learners for success on the rotation.[18] Providing adequate orientation enables learners to participate actively in patient care while creating a positive learning environment. A checklist of common elements of a quality orientation is provided in **Box 4-6**. Discussing the experience's precise goals and objectives that are required or expected is necessary. Demonstrating your ability to customize those goals and objectives within the confines of the rotation expectation to learners' needs is important for establishing a strong preceptor–learner relationship from the start. In addition, when preceptors share their training background, current professional responsibilities, contact information, and work schedule, learners better understand how to interact positively with the preceptor. As a practical matter, preceptors should collect a learner's emergency contact information as part of a rotation's intake inventory. Also, more and more learners maintain professional portfolios. These documents can be a fountain of information for preceptors in preparation for orientation discussions.

BOX 4-6. Rotation Orientation Checklist[19]

- Provide practice site and departmental orientation (e.g., work with the human resources department).
- Discuss with learners the business hours, the expected learner's hours, lunch, breaks, parking, emergency phone numbers, and emergency codes.
- Discuss professional interactions and attire.

- Provide a tour of the practice site, highlighting key areas.
- Introduce learners to colleagues and staff.
- Review security standards.
- Review relevant site-specific policies and procedures.
- Review roles, responsibilities, and expectations of learners.
- Review rotation materials:
  - Syllabus
  - Goals and objectives
  - Performance competencies to be assessed
  - Activities checklist (i.e., to help learners stay on track with assigned projects and readings)
  - Timeline/schedule, including a rotation calendar of planned rotation activities (e.g., preceptor–learner meetings, topic discussion assignments, project deadlines)
  - Monitoring forms and self-assessment tools
  - Formal and informal feedback instruments the preceptor will incorporate on the rotation
  - Evaluation process review; discuss expectations for learner self-assessment, as appropriate, and preceptor evaluation inputs (e.g., personal observation, feedback from others, objective tests)
- Review grading or evaluation criteria (i.e., as established by learners' sponsoring entity).

Preceptors' and Learners' Roles, Goals, Responsibilities, and Expectations

Precepting can be rewarding for practitioners but, as a part of a larger array of professional responsibilities, it can also be very challenging. Although some rotation experiences will have one learner at a time, contemporary pharmacy practice will often include several learners with differing levels of experience.[20] In addition, the learner may be assigned to a patient care team of multiple disciplines with varying learner types. In such a setting, establishing learner roles, responsibilities, and expectations is key to a productive, patient-care-centered learning experience that fosters rewarding preceptor–learner relationships and positive patient care. Value is realized across stakeholders from the learner, preceptor, practice site, and patient. Key to achieving this outcome is the purposeful involvement of learners in real-life contributions to departmental and patient care activities commensurate with the expanding level for which their training has prepared them.

Determining Roles

An important first step in establishing an effective teaching–learning relationship is to understand the learner's contribution expectations. Having assessed the skills and capabilities during orientation, the preceptor can establish expectations for the learner at the beginning of the experience. Expected contributions should range from activities and accountabilities targeted toward novice pharmacy practitioners (e.g., medication history services for a learner on an introductory pharmacy practice experience [IPPE] or first advanced pharmacy practice experience [APPE]) up to highly skilled practitioners having more depth of experiences (e.g., a postgraduate year 2 [PGY2] resident during the final months of the program year). Over time and with experience, novice learners will exhibit growth in knowledge, skills, and professional maturity. As they do, their roles should advance.

The role of the preceptor is multifaceted. The preceptor is a teacher (instructor), role model, supervisor (facilitator), evaluator, and mentor to the learner, but the role is best described as a coach. He or she must be adaptable to each learner's educational background, previous pharmacy practice experience, professional aspirations, personality, and cultural background. Preceptors are often chosen for the role because, among other factors, they are competent practi-

tioners who act ethically, with compassion, engaging in continuing professional development and desiring to educate others.[21] Preceptors are often selected to instruct and coach learners because they have been effective producers for their organization. Beyond prolific production, successful preceptors are also effective leaders. Leadership author John C. Maxwell draws distinctions between producers and leaders that can be adapted to pharmacy preceptorship. *Leaders* concentrate on the team performance and ask "What can we do?" compared to *producers,* who rely on task management and ask a more limited question, "What can I do?" Maxwell suggests that producers contribute through addition, whereas leaders achieve through multiplication.[22] Preceptors' effective delegation and coaching can achieve the synergistic outcomes that are one of the signatures of team leadership.

Setting Mutual Goals

As a coach, preceptors benefit learners by becoming astute observers of practice patterns and learner habits. These observations help establish baseline performance assessments and contribute to forming mutual, rotational goals that are consistent with the sponsoring program's interests in developing the learner. Goals will vary based on the learner type (e.g., PharmD student, resident) and by the timing of the rotation throughout the year. These goals should be realistic (e.g., Is the student a first year or fourth year?), measurable via some form of assessment (e.g., evaluation form, examination), mapped against educational outcomes, attainable in the amount of time allotted for the practice experience, commensurate with the particular practice experience and environment, and timely. They can be short- or long-term goals.

Beyond the goals, objectives, competencies, and outcomes prescribed directly from the sponsoring program, preceptors are encouraged to discuss the learner-specific goals. This effort will further customize the experience and advance the buy-in of the learners to the preceptor's future directives and guidance as well as strengthen the preceptor–learner relationship.

Defining Learner Responsibilities

It is the responsibility of the sponsoring entity to provide preceptors with associated accreditation standards that are to be satisfied through the learning experience. Periodic meetings between the sponsor and preceptors are necessary to discuss changes in expectations from the perspective of the hosting facility or the sponsoring program.

Once onsite, it is critical for preceptors to again define responsibilities in writing with learners. In many cases, the duties of learners and preceptors are spelled out via evaluation forms, course syllabi, and other materials made available by the sponsoring entity and the facility. A review of these responsibilities contributes to a clearer understanding of expectations for each of the partners in the preceptor–learner relationship.

Describing Expectations

Failure to set reasonable and mutually agreeable expectations can create misunderstanding, resulting in a disappointing practice experience for all involved. Learners may feel that their rotation or other experience was not educationally rewarding. Preceptors may feel disappointed if their expectations for learner performance are not fully realized. The sponsoring entity may feel the strain of unmet expectations either from the preceptor, the learners, or both. Over time, this can adversely affect relationships critical to the rotational experience.

General expectations, such as responsibilities, should be described in some detail through evaluation forms, course syllabi, and other materials. For learners, these should be defined for professional behavior as well as academic performance by both the educational sponsor and the preceptor. Core knowledge, skills, attitudes, and values should be defined, articulated, and assessed.

An orientation immediately prior to the practice experience, during which rotation materials are reviewed and learners are prepped for the experience, can help accomplish this goal. Preceptors need to know what the sponsor expects from them in the areas of learner activities, communication, evaluation, and other aspects of the relationship. This can be achieved within the framework of preceptor development activities, site visits, periodic group meetings between preceptors and sponsors, rotation evaluations, and surveys.

Expectations specific to each experience can be individualized between the preceptor and the learner. Ideally, this would occur immediately prior to the beginning of the experience in a meeting between the preceptor and learner, so that both parties will make the best use of the time allotted for the experience. The preceptor's expectations of the learner can relate to the following areas:

- Daily schedule and times the learner can expect to meet with the preceptor throughout the week
- Specific responsibilities within the institution and how that translates into opportunities for the learners
- Details about how the learners should interact with other pharmacy and institutional personnel
- Educational and behavioral goals related to the preceptor's practice
- Any specific training or orientation required by the facility prior to the beginning of the rotation

Learners should be able to articulate their expectations in the context of their previous experience, desire for exposure in specific areas of the practice, and career goals.

PRECEPTOR PEARLS

Many steps should be considered when onboarding learners, ranging from a welcome orientation to assessing learners' skills and capabilities and knowing what contributions are expected.

MODELING FOR THE LEARNER

Role Modeling

Learners expect that preceptors will adhere to the same standards and performance behaviors set forth for the learners. Positive role modeling via professional socialization is considered most important in improving professionalism among learners.[23] Professional socialization is the process by which learners learn and adopt the values, attitudes, and practice behaviors of a profession. This "hidden curriculum" is largely influenced by the preceptor–learner relationship during experiential rotations. It is essential that the preceptor act according to the American Pharmacists Association Code of Ethics for Pharmacists to influence learners in a positive manner for the benefit of other healthcare professionals, patients, and the practice of pharmacy.[24] Learners admire their preceptors and are eager to find mentors that emulate their career interests. This type of positive relationship builds an attitude that creates success beyond the experiential learning environment. As articulated by leadership developer Gene Klann, "Leaders live in a fish bowl and are always being watched. They should always be conscious of that fact and take advantage of it." Preceptors will do well to remember this, and they should consider their impact through actions, reactions, attitudes, behaviors, and practices as

they go about their daily activities under the observing eyes of the learners. Preceptors are effectively, efficiently, and continually (albeit subconsciously) teaching without having to schedule a meeting or a topic discussion. Model the habit of professional curiosity through reflective questioning of not only the learner but of yourself in the presence of the learner. Doing so will help the learner develop the essential professional trait of lifelong learning.

Fostering Self-Reflection in Learners

Aristotle wrote that "the more you know, the more you know you don't know." In a study of physicians and self-assessment, David Davis and colleagues observed that physicians deemed least knowledgeable or most confident were found to possess the poorest self-assessment skills. In writing about medical resident learners, Joan Sargeant comments that:

> *Experiential knowledge is gained through different clinical experiences, through trial and error in the clinical area, through observation and, perhaps most importantly, through managing similar situations and learning from those experiences.*[25]

Pharmacy learning is no different. It is no surprise that self-reflection is at the center of modern paradigms for high-quality self-assessment and continual self-learning. To prepare learners for independent practice, preceptors must take steps to promote self-reflection.

Curiosity is a powerful, motivating force for self-reflection. By helping learners formulate questions, preceptors create an environment of openness that encourages learners' curiosity. This is especially true among learners who might withhold their questions for fear of appearing naive. Research has shown that rewarding the formulation of incisive and insightful questions enhances the expression of diagnostic reasoning, thus promoting the acknowledgment of the inherent uncertainty in clinical practice rather than branding it as a sign of inadequacy.[26] When preceptors promote learners to ask questions, they foster not only curiosity but also support the preceptor–learner relationship.

Among the many technical and clinical skills that preceptors must teach, developing habits in learners of asking insightful and challenging questions may be one of the most important to supporting a learner's long-term success. "Asking profound questions," writes John Maxwell, "promotes profound answers, life confidence, wisdom, and maturity." These positive attributes can be enhanced as preceptors model such behaviors with learners through self-disclosure, sharing their clinical reasoning during and immediately after encounters, and reflecting on the outcomes observed.[27] Mamede has promoted adding reflective questioning into daily discussions for medical residency learning, which has direct application for pharmacy learners.[28] Some examples of reflective questions are:

- If there were data that you ignored, what might they be?
- What about this situation was surprising or unexplained?
- What are you assuming that may not be true?
- What are important aspects of the present situation that differ from your previous situations?
- How do prior experiences affect your response to this situation?
- If presented with a similar situation, what would you do the same and what would you do differently? And why?

Habitually incorporating these self-reflective questions promotes clinical mindfulness, thus avoiding premature closure and availability bias and improving clinical care while avoiding medical errors.

Because learners are more experienced with fact-based questioning, preceptors often need to explain the paradigm shift. Preceptors should establish the expectation that

the quantity and quality of learner-originated questions will be assessed similarly to other clinical skills in terms of evaluation. Creating this as an expectation should lower the defenses of learners who do not want to appear that they do not know something and as such may impede the extent and pace of their own growth.

The preceptor can provide learners with the following template to incorporate in their clinical care discussions they report to you.

> *"I saw a patient with this condition in school/past rotation, AND this is how we treated him. This patient is SIMILAR in the following ways ... and DIFFERENT in these respects ... The outcome I observed with the previous patient was "X." I think the outcome from the previous patient is/is not consistent with other evidence/recommendations, so I plan to do "Y" for this patient ..."*

This quick exchange contains a bundle of information that is valuable to the preceptor for assessing a learner's scope of knowledge and revealing the extent to which the learner is self-reflecting on past experiences for application in future practice. When preceptors follow up with the question "What could you have done differently to be more effective?," they are coaching self-reflection and promoting professional development. This last question is not limited to commentary about clinical decisions or technical operations activities. The question also prompts reflections on how learners managed relationships and communication among team members and patients.

Self-reflection can also be promoted through simple daily learning logs. Requiring learners to record a minimum of three concepts or facts they learned and applied in practice each day is an effective strategy to promote self-reflection as well as learning retention. We suggest that the learning log be reviewed at the midpoint and final evaluation so preceptors can validate knowledge, re-teach as necessary, and affirm that core elements of rotational learning have been satisfied. Learning portfolios, reflective narratives, and written case vignettes that include outcomes observed are more time-intensive, but they have been used with success. All of these techniques seek to address the cloud of recall/memory bias and can ensure accuracy of information learned. Experienced preceptors are sure to recall situations where learners presented wrong information as fact. This sincere belief that they are correct—when they are not—may have its origins in a recall or memory bias that was not corrected when originally learned. Learning logs, portfolios, and case summaries help to prevent perpetuation of incorrect understanding and create rewarding preceptor–learner interactions.

PRECEPTOR PEARLS

"A practitioner's reflection can serve as a corrective to overlearning. Through reflection, he can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice and can make new sense of the situations of uncertainty or uniqueness that he may allow himself to experience."

Schön DA. The Reflective Practitioner: How Professionals Think in Action. *New York, NY: Basic Books Inc.; 1983:61.*

As the preceptor, consider what impact your actions, reactions, attitudes, behaviors, and practices have to the observing eyes of your learner. Model the habit of professional curiosity through reflective questioning of not only the learner but of yourself in the presence of the learner. Doing so will model for the learner how to develop the essential, professional trait of life-long learning.

PRECEPTOR PEARLS

Those who have studied the issue found that negative feedback isn't always bad and positive feedback isn't always good. Too often, they say, we forget the purpose of feedback. It's not to make people feel better, it's to make them do better.

Alina Tugend

Feedback and Evaluation

In most arenas that host professional basketball games, members from the audience have opportunities to participate in contests during time outs. One game in particular features a blindfolded contestant who has to crawl to a prize on the court. The contestant is solely dependent on crowd noise to direct him or her toward the prize before time is up. In some ways, learners are similarly dependent on their preceptors during a learning experience. Although the learners are not blindfolded, a preceptor's feedback is essential to the learner's ability to meet the goals of the learning experience within the finite period of time allowed. Feedback on performance in practice is essential for developing competent practitioners.

Literature has indicated that feedback is the most important way to affect future learning.[29] Feedback and evaluation are essential for learning, improving performance, reinforcing appropriate behavior, correcting deficiencies, and promoting confidence. As mentioned earlier, learners from the more recent generations expect feedback to be immediate as well as frequent or continual. In addition, feedback should be constructive and used to assess objective achievement (i.e., formative assessment). **Box 4-7** lists several simple learner feedback questions and constructive suggestions.

In contrast, evaluation or summative assessment is a formal, written assessment based on learner-specific goals used for grading and assessing global performance. This evaluation should encompass learners' daily performance feedback and an assessment of fulfillment of goals for the rotation.

Correlation between feedback and evaluation of the learning experience provides learners with a realistic expectation of their experiential rotation performance. Learners should not be surprised by their final evaluation. Preceptors who place high importance on feedback and evaluation provide an accurate and constructive evaluation of learners' experiential performance.

Precepting requires adequate preparation. Preceptors should design and plan learners' rotation activities carefully in conjunction with their practice interests and goals, in addition to considering the needs of the rotation site and the required outcomes of the learning experience. A learner's capacity to incorporate didactic learning with practice skills depends a great deal on the relationship with the preceptor. Preceptors have an enormous opportunity to develop and shape future pharmacists. This is a valuable service for learner pharmacists, the profession of pharmacy, and for the public's health.

BOX 4-7. Simple Learner Feedback Ideas

- What did you learn today?
- What was the most important thing that happened today?
- What was the one thing that you would like to learn more about?
- What was your biggest challenge today?
- What might you improve on?
- Continue to....
- Start, or do more of....
- Consider....
- Stop, or do less of....

Feedback as a Motivator

Incorporating frequent feedback within a learning experience will help stimulate, challenge, and motivate your learners. Too often, learners demonstrate appropriate behavior and receive positive feedback, negative feedback, or no feedback at all. Because every learner is an individual, different styles of feedback may be needed for different learners, and different styles of feedback meet different needs in working with learners. However, the differences in competency between preceptors and learners may contribute to how feedback is received.

One published theory is that novices respond better to positive feedback because of their tendency to evaluate their commitment to the learning experience, while experts are more concerned with a specific goal and may respond better to constructive feedback to fine tune their efforts toward achievement.[30] Perhaps it is this unique dynamic between preceptors (experts) and learners (novices) that contributes to differences in opinions about what type of feedback is ultimately beneficial. Although some educational programs require that preceptors provide criteria-based feedback, it is still possible to provide the right type of feedback to motivate learners effectively. Positive feedback involves pairing a desired behavior or outcome with positive reinforcement and feedback. Responding with positive feedback encourages learners. It is reinforcing and motivates learners for additional achievement.

Negative feedback may yield less predictable results. With negative feedback, you are acting to correct a behavior or deficiency in knowledge that has already occurred. The result may encourage learners to perform better, but it does not always work that way. Learners may feel that they are being punished and may quit trying. Refocusing the feedback toward the goal(s) of the learning experience can consider a learner's personal feelings about feedback and redirect that individual toward ways to improve and achieve those goals.

Withholding feedback might be the least effective strategy in building an ideal preceptor–learner relationship. Not offering feedback to reinforce good behaviors could lead to the eventual discontinuation of those behaviors and a decline in performance. Withholding feedback related to bad performance can increase the likelihood of those negative characteristics or behaviors continuing throughout the learning experience.

Failure to Fail

One of the most difficult tasks for most preceptors is determining when a learner has failed to achieve the outcomes and goals for a learning experience. In fact, there have probably been instances where pharmacy learners have officially completed a learning experience without actually demonstrating the required level of practical competence to pass. It is not uncommon to see this phenomenon within other health professions, such as nursing. In 2003, the Nursing and Midwifery Council in the United Kingdom, led by investigator Kathleen Duffy, completed a qualitative study on factors that influenced decisions to pass practice experiences without demonstrating clinical competence. Duffy identified that on some occasions, preceptors were "failing to fail" nurse learners, and potentially enabling nurses unfit for practice to enter the profession.[31] To that end, part of a preceptor's obligation is to ensure that the learners actively demonstrate competence in order to fulfill the set outcomes and goals of the learning experience. Failure to do so should ultimately result in failing the rotation.

Getting back to the blindfolded contestant scenario previously discussed, if the contestant was in an empty arena it might not only take longer for the contestant to find the prize but the chances of finding the prize at all are drastically reduced. The preceptor must provide effective feedback to give learners the opportunity to fulfill the goals of the learning experience, and only after that has happened can a preceptor

determine whether the learner has successfully completed or failed the learning experience.

Failing to fail a learner happens due to the following four reasons: lack of documentation, lack of knowledge of what to specifically document, anticipating an appeal process, and lack of remediation options.[32] To remedy this, appropriate written evaluation tools must be developed for the learning experience. The outcomes or goals of the rotation must be clearly stated to provide criteria-based feedback. The easiest way for preceptors to evaluate learners in this way is through use of *entrustable professional activities (EPAs)*, as these are units of professional practice or descriptors of work, defined as specific tasks or responsibilities that learners are entrusted to perform without direct supervision once they have attained sufficient competence.[33] EPAs fundamentally encompass professionalism, self-awareness, and communication. They are intended to be evaluated by the preceptor to ensure the learner's competence over the domains of patient care provider, interprofessional team member, population health promoter, information master, and practice manager (see **Box 4-8** for examples).[33] Ensuring public health should outweigh any concerns or anticipation of an appeal process. As long as appropriate documentation exists in assessing EPA domains for the learner, there should be no negative repercussions to the preceptor if an appeal process commences. Finally, remediation options must be developed as a contingency if any learners require additional attention to elevate them to the level of competence required to pass the learning experience.

BOX 4-8. Domains with Examples of Entrustable Professional Activities for Learners[33]

- Patient Care Provider
  - Collect a medication history from a patient or caregiver.
  - Assess a patient's health literacy using a validated screening tool.
  - Follow an evidence-based disease management protocol.
  - Educate a patient regarding the appropriate use of a new medication.
- Interprofessional Team Member
  - Communicate a patient's medication-related problem(s) to another healthcare professional.
  - Use appropriate communication skills when interacting with others.
- Population Health Promoter
  - Perform a screening assessment to identify patients at risk for prevalent diseases within a population.
  - Perform a medication-use evaluation.
  - Perform basic life support.
- Information Master
  - Retrieve and analyze scientific literature to answer a formal drug information question.
- Practice Manager
  - Assist in the preparation for regulatory visits or inspections.
  - Enter patient-specific information into an electronic health record system.
  - Prepare commonly prescribed medications that require basic sterile- or nonsterile-compounding prior to patient use.

Resilience

One author wrote that "failure catches up with everyone; being able to navigate it is a crucial form of resilience."[34] *Resilience* refers to a person's ability to overcome challenges or obstacles, and it is a key characteristic that allows individuals to learn from their failures, utilizing such past experiences and the lessons learned to ultimately advance their professional development. Some of those lessons are

straightforward, such as learning to ask for help when you are struggling or learning that failure is preferable to cheating. Others are complex, such as figuring out how to rebuild the sense of identity when goals and plans crumble. Preceptors are in a position to help learners develop resilience to use feedback more effectively and prevent themselves from failing a learning experience.

One of the most intriguing studies regarding resilience was a series of interviews with Vietnam conflict prisoners of war (POWs) conducted by a physician in New York. Among all the POWs he interviewed, he found that those who never developed depression or post-traumatic stress disorder all shared the same 10 personality traits.[35] The traits included:

- Optimism
- Altruism
- Moral compass
- Faith/spirituality
- Humor
- A role model
- Social support
- Facing fear
- Having a mission
- Training

One of the most important traits to understand is the importance of developing one's own personal mission statement.

Your Focal Point Preserves Your Resilience

To understand the purpose of a personal mission statement as it refers to a learner's (or a preceptor's) ability to develop resilience, think of a figure skater or ballet dancer who commits to dozens of spins on the ice or stage in a single performance. If any of us were to spin several times in one place, chances are we would become dizzy and even fall over. The reason this does not happen with athletes and performers is because they focus their eyes on a single point on each revolution to prevent becoming disoriented. Similarly, pharmacy learners and practitioners are constantly spun around by the professional and personal expectations. The best way to maintain balance and prevent from tumbling is to have a focal point: one's own personal mission. To better understand learners, preceptors can discuss their mission statements and, if a learner does not have one, the preceptor can help him or her quickly develop one to gain a greater understanding of motivation and learn how to provide feedback effectively.

PRECEPTOR PEARLS

Consider the optimal time for feedback with a balance of positive and constructive statements that can assist learners in their professional development. Correlation between feedback and evaluation of the learning experience provides learners with a realistic expectation of their experiential performance. Withholding feedback can produce mixed results, and learners should not be surprised by their final evaluation.

Developing a Mission Statement

Developing a mission statement should not be difficult. It is not the type of statement you want to polish and share with everyone you know. It should encompass what makes someone tick, why someone does the things they do every day. For instance, the preceptor can ask the learner "Name the top three reasons why you got out of bed this morning that didn't begin with 'I had to' but rather 'I want to.'" Why did they want to become a pharmacist? To help others? To be a leader in the community? Whatever the reasons, place these in the mission statement. When learners develop their mission statement,

preceptors should feel free to compare their own with that of the learners and revisit the mission as often as possible. Preceptors should encourage learners to take a look at their statement several times a year and use it as a reminder about why they chose pharmacy. Most importantly, discuss how acceptable it is for one's mission to change over time. The statement should be considered a living document, one that will change given one's progression through career and life.

FACILITATING TOPIC DISCUSSIONS

Topic discussions are valuable opportunities for both learners and preceptors. Fundamentally, they entail a learner independently reviewing assigned readings (e.g., either provided or directed searching criteria offered) to gain new or enhance existing knowledge and then discussing the material with his or her preceptor to validate learned concepts and acquire practice-based pearls.[14] Topic discussions primarily target the cognitive learning domains of knowledge and comprehension, laying the foundation for future application, analysis, and synthesis.[36,37]

To optimize the topic discussion experience, both the learner and the preceptor must be active participants. Unfortunately, there are no standards for learners regarding how to properly prepare for topic discussions and no guidelines for preceptors regarding facilitation. Accordingly, as individuals move along the continuum of learners to eventual preceptors, they are left primarily with their own past experiences to guide and facilitate the topic discussion experience for others. This section will provide tips for preceptors regarding how to facilitate topic discussions successfully. Given the lack of published literature, the authors will primarily draw on their vast precepting experience of pharmacy learners to offer practical recommendations.

Preceptor facilitation of topic discussions can be categorized into three stages: 1) the planning phase (i.e., pre-discussion), 2) the discussion phase, and 3) the post-discussion phase. A summary of the key principles for each phase of topic discussion facilitation is provided in **Box 4-9**.

Planning Phase (Pre-Discussion)

The planning phase revolves around one primary and simple concept—transparency. On or before day one of the learning experience, preceptors should provide learners with a calendar that specifies all required topic discussions and the dates on which the discussions will take place (assigned readings can also be provided at this time, as discussed below). A calendar will provide the learner with the opportunity to prepare on his or her own time. A calendar can also help ensure that all topic discussions assigned to a specific learning experience are addressed. Although creation of a calendar implies structure, preceptors must be flexible enough to modify the calendar to enhance learner learning. For example, in direct patient care learning experiences, consideration should be given to switching dates of assigned topic discussions to align with patient encounters. This approach allows the learner to develop foundational skills and knowledge while fostering tangible bedside applicability.

Second, preceptors should ensure the discussions are manageable for the learner. It is recommended to limit the number of assigned readings to three or less—keep in mind this is an informal topic discussion, not a continuing education-based professional lecture. Of course, learners may choose to read additional information on their own, but ideally, topic discussion preparation should not take more than 2 hours. In addition, if your intent as a preceptor is to discuss specific literature (e.g., a specific clinical trial, meta-analysis), provide the citation(s) to the learner. It is highly unlikely that the learner will

BOX 4-9. Three Phases for Preceptor Facilitation of Topic Discussions

Phase	Preceptor Action Items
Planning (Pre-Discussion)	■ Provide calendar with dates of all scheduled topic discussions. ■ Provide citations for all assigned readings (limit to three or less per topic discussion). ■ Ask learner to complete an inventory of learning style (e.g., VARK) for the discussion component. ■ Discuss learner expectations.
The Discussion	■ Allow the learner to lead all topic discussions. ■ Actively facilitate the discussion: ❖ Listen and remain attentive (minimize distractions), taking notes for later discussion. ❖ Provide an ample balance of questions and answers. ❖ Interject clinical pearls acquired through experience. ❖ Ask the learner to summarize the take-home message(s). ❖ Incorporate situational or case-based learning activities. ❖ Consider the learner's preferred learning style (e.g., VARK). ❖ Limit topic discussions to 90 minutes or less. ■ Identify if learner is not adequately prepared >> stop the discussion / provide feedback / reschedule.
Post-Discussion	■ Provide feedback to the learner regarding topic discussion delivery. ■ Ask the learner for feedback regarding topic discussion facilitation ❖ Implement changes to the facilitation strategy. ■ Revisit follow-up questions 48–72 hours after every topic discussion. ■ Assess suggested changes in delivery/facilitation following subsequent discussions with the learner.

VARK = visual, aural, read/write, kinesthetic

coincidentally stumble upon the exact piece of literature you had in mind, which may subsequently lead to a wasted topic discussion opportunity and frustration of both parties.

Third, the topic discussion content should match the level of learner in regard to needed/required skill. Generally speaking, readings for pharmacy students should entail introductory information (e.g., pharmacotherapy fundamentals, disease state pathophysiology), whereas practice guidelines can serve as the foundation for PGY1 residents and primary literature for PGY2 residents to substantiate current best practice. However, this approach cannot be applied blindly, and preceptors should gauge baseline knowledge as well as inquire about prior learner experiences to optimize the content for each discussion.

Lastly, preceptors should be clear with their expectations. Generally speaking, the learner should lead the discussion while the preceptor facilitates (see The Discussion Phase section below). Also, preceptors should not require learners to develop handouts or presentations for informal topic discussions. Rather, the learner should be allowed to choose the method of preparation, with preceptor intervention only if the method is deemed inadequate.

The Discussion Phase

The role of the preceptor during topic discussions is to facilitate the learner's learning. The preceptor should avoid all urges to take over the discussion and/or lecture the learner. It is the learner's responsibility to lead the discussion, and the preceptor's responsibility to provide practice-based pearls (i.e., things not available in the literature but learned via experience), ask probing questions to enhance the learner's understanding, and interject as needed to provide clarification.

Fundamental to facilitating the discussion is first understanding how the learner prefers to learn; insight to this preference can be obtained via such tools as the visual, aural, read/write, kinesthetic (VARK) assessment.[38] By having this knowledge, the preceptor can then tailor his or her facilitation methods in hopes of optimizing learning (e.g., asking visual learners to draw diagrams/figures during the discussion, incorporating preceptor repetition of key points for aural learners). Despite knowing the individual's preferred method of learning, preceptors should incorporate a multimodality approach during topic discussions to broaden the learner's skill set as a future educator.

Second, the preceptor should provide an ample balance of questions and answers. Keep in mind that the learner should have already completed the assigned readings, hence their questions likely stem from areas of uncertainty, confusion, and/or gaps in available literature. Turning every question back to the learner can inappropriately facilitate feelings of learner inadequacy and possibly be interpreted as preceptor disappointment. Furthermore, questioning should not be done with the intent of simply pointing out everything the learner does not know or to create an exhaustive post-discussion to-do list. Any of the above will likely hinder not only the effectiveness of the current interaction with the learner but future interactions as well. Questions posed by the preceptor should promote additional dialogue, some during the topic discussion and others after for application of learning. Learners truly appreciate the insight that preceptors provide based on the experiences they have gathered over the years, as well as the enthusiasm that should come along with sharing such information.

Third, keep in mind that learners often lose perspective when leading topic discussions. Following the learner's discussion of each piece of literature (e.g., clinical trial) or the topic discussion overall, preceptors should ask learners to summarize three to four take-home messages in hopes of facilitating future recall of learned information. Additionally, preceptors should provide opportunities for learners to apply the information to enhance and/or reinforce learning. This can be done via case-based teaching, with use of actual or simulated patient scenarios.[14]

Fourth, topic discussions should be limited to 90 (preferably 60) minutes or less and be conducted in a setting with minimal distractions. Consider holding some topic discussions with the learner over lunch as a method of scheduling within the context of a typical work day.

Lastly, preceptors should feel empowered to stop and reschedule the topic discussion if the learner is not adequately prepared. If this is deemed necessary, the preceptor should provide immediate feedback to the learner regarding the lack of preparation and reaffirm topic discussion expectations as discussed in the planning phase above.

Post-Discussion Phase

Feedback, feedback, feedback—you should provide it and ask for it in a timely manner. It is crucial to provide feedback to the learner following the first topic discussion as this sets the stage for all future interactions. A useful technique is to begin the conversation by asking the learner, "How do you think the topic discussion went?" and "Can you provide me some specifics of what you did well and what you need to improve upon for the next discussion?" The preceptor should then share his or her thoughts. If the learner

performed well (i.e., in accordance with expectations discussed– see Planning Phase), let him or her know how and why. Similarly, if the performance was below expectations, provide specifics regarding the quality of the topic discussion and help the learner identify strategies for improvement. It is also important that the preceptor ask the learner for feedback regarding how the topic discussion was facilitated. For example, "Did you find the teaching methods helpful?" and "Was the use of diagrams/figures helpful?" Preceptors should not be resistant to change after receiving feedback. *Remember*, topic discussions are for the benefit of the learner, not the preceptor. If the facilitation methods are not working, then it is time to try a new way of connecting with the learner. Honest feedback following the first topic discussion and all others for which immediate feedback is deemed necessary is crucial for optimizing the learning opportunity.

Another important aspect of the post-discussion phase is the revisiting of questions posed to the learner. A 48- to 72-hour window should be sufficient for learners to answer all questions while still having the information readily available for recall. Preceptor follow-up is of great importance as the lack of inquiry can demonstrate to the learner that the questions are not important (i.e., just busywork) and/or that the preceptor is too busy to re-engage in the conversation. Furthermore, learners may be left wondering if the answers they found and interpretations drawn were appropriate, which can minimize the learning opportunity.

AFTER THE LEARNING EXPERIENCE

After the final evaluation is provided and discussed, the learner–preceptor relationship is not over. Now more than ever, learners are pursuing additional education opportunities or advanced, highly competitive positions, and preceptors are the primary source for recommendation letters. The highest level of professionalism must be maintained when discussing a request for a letter of recommendation. If a preceptor would recommend a learner, the preceptor must have all of the information needed regarding that learner's abilities and achievements, the position he or she is applying to, and related deadlines to ensure that the recommendation is delivered to the appropriate individuals in a timely manner.

For those learners who a preceptor cannot recommend, or would not feel comfortable recommending due to limited interaction, the concerns can be communicated professionally to the learner. For instance, if a preceptor had limited interaction with a learner, it is completely appropriate to respond with an accurate account of the preceptor's perspective. A sample response would be "I am honored to be one of your choices to recommend you for this specific position. However, given our limited interactions overall, I am unable to speak with a high level of authority about your professional abilities. As a matter of strategy in your career search, it may be best if someone with more familiarity with your professional abilities provide a recommendation letter."

If a learner did not demonstrate competence or enough ability for the preceptor to provide a positive recommendation letter, the preceptor should respond with a professional message conveying that information. A sample response of this nature would be "During the time that we worked with one another, I did not observe the highest quality of your work. Therefore, it might be in your best interest to have someone other than me write you a letter of recommendation. Best wishes with your career search efforts."

SUMMARY

Many factors contribute to a successful practice experience for the learner and to a rewarding professional experience for both the learner and the preceptor. Being cognizant of what it takes to be an effective preceptor is vital, and both the learner and preceptor perspectives are helpful. Preceptors can increase the likelihood of a successful practice experience with effective planning

and by engaging the learner before, during, and after a learning experience.

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5

Mentors

Phuoc Anh (Anne) Nguyen, John B. Hertig, and Jerry Siegel

> A mentor is someone who sees more talent and ability within you, than you see in yourself, and helps bring it out of you.
>
> *Bob Proctor*

This chapter presents an organized review of activities for preceptors and mentors to use in advising mentees, which include students, residents, new practitioners, and seasoned professionals, on selecting the best potential path for a successful and rewarding career. It describes the many roles that mentors play in guiding growth and development over the course of a career and highlights the qualities that are important in both the mentor and mentee.

Having a mentor is crucial when one 1) is at a stage of career growth to consider greater leadership responsibilities in local, state, or national pharmacy or healthcare associations or 2) may become discontented or unchallenged in a current job or likely to consider changing positions, organizations, or career directions. This deliberate relationship, known as *mentorship*, is fostered through empathy, trust, respect, and dedication to create a committed relationship of sharing from both parties.

The goal of this chapter is to provide ongoing support to pharmacists of all phases of practice to enhance their potential continually throughout their career. This chapter will provide practical tips for seeking and having a successful mentorship relationship and will highlight real-life scenarios.

LEARNING OBJECTIVES

- Differentiate among *precepting*, *sponsoring*, and *mentoring*.
- Compare the characteristics of a preceptor relationship with those of a mentoring relationship.
- Recognize and identify traits that are important for a successful mentoring relationship.
- Identify the benefits of mentoring for both the mentor and mentee.
- List behaviors that detract from a mentor–student relationship.
- Describe the personal and professional challenges of being a mentor.
- Highlight specific examples of contemporary mentorship methods.
- Discuss practical mentorship pearls with common mentoring scenarios.

DIFFERENTIATION AMONG PRECEPTORSHIP, SPONSORSHIP, AND MENTORSHIP

Before mentorship can be fully explored, it is important to differentiate among other types of professional relationships; preceptorship, sponsorship, and mentorship can all serve an important purpose in one's career. The *precepting relationship* is associated with trainees' learning experiences. It has a defined beginning and end through a formal didactic rotation, which has specific learning objectives and tasks that learners must achieve during the experiential rotation. The length of rotation may vary depending on the training program, such as a 6-week rotation for pharmacy students or a 4-week rotation for pharmacy residents. Through formal feedback structure, preceptors are required to provide feedback on performance and competence at midpoint and final evaluations. Likewise, learners are expected to provide feedback for the preceptors and sometimes the precepting site based on their experiences.

Depending on the preceptors' motivation to teach their learners, some preceptors can heavily engage in topic discussions and journal clubs, have more one-on-one time with the learner for feedback on projects and assigned topics, and at times provide guidance on career goals (as appropriate) or at the learners' request. In addition, a positive preceptor relationship may rely on the learners' interests to be precepted by showing motivation to learn and succeed as well as engaging preceptors to help develop them professionally. Overall, a precepting relationship may evolve into a mentoring relationship when both the preceptor and the student desire to continue their collaboration.

Sometimes, one may be confused between *sponsorship* and *mentorship,* as there are some similarities but also distinguishing differences. Having a *sponsor* may help advance one's career by finding the next career opportunities. Sponsorship is more career focused, and a sponsor may be able to empower one to move vertically within an organization or across an industry. Sponsors are high-ranking individuals within an organization who can speak up when the right opportunities arise and elevate the individual to capture the career opportunity. As suggested by Sylvia Ann Hewlett, founder and CEO of the Center for Talent Innovation and founder of Hewlett Consulting Partners LLC, it is important to be strategic and find sponsors who are beyond one's immediate circle of mentors and managers and who may carry significant leadership influence in the organization or industry.[1]

A *mentor* is someone who spends time to learn about the mentee and provides support and advice personally and/or professionally. A person may have multiple mentors, depending on the need, as one may have a mentor who listens to personal issues and provides insights (e.g., about difficult marriage) or may choose a professional mentor to advance in one's work life and career goals. Mentorship may take many forms with various relationship-building strategies. One can participate in a formal program, such as through a professional organization or an institution, or an informal venue, such as through acquaintances and networking events. Through a formal program, there may be a defined period for the mentorship between the mentee and mentor. Usually, mentorship is bi-directional, requiring commitments from both mentees and mentors to make it a successful relationship. Mentorship may be a lifelong journey between two individuals where the mentee builds a lasting relationship with the mentor or a temporary period where a mentor can help the mentee to achieve a targeted, specific outcome.

INTRODUCTION TO MENTORSHIP WITH VARIOUS MENTOR ROLES

Mentoring has been used as a method for handing down knowledge, maintaining culture, supporting talent, and securing future leadership.[2] The mentoring process is linked to career success, personal growth, and increased organizational productivity. Through formal or informal relationships, most people can identify individuals who have a significant influence on their learning and development both professionally and personally. These individuals, often known as mentors, provide insights and guidance to their mentees to succeed and empower them to reach their full potential and desired goals. *Mentees* are defined as individuals who the mentors advise, train, or counsel; they could be in various stages of life, such as a student, resident, new practitioner, or seasoned professional.[3] The mentor role may change over time and as the relationship develops. Mentors play a pivotal role in their mentees' successes by serving in various roles, including advisor, guide, and role model.

Mentor as an Advisor

The mentor will act as an advisor and sometimes a coach to a student who is learning about the profession of pharmacy, to a resident who is choosing different pharmacy roles, or to a working professional who wants career change or handles difficult work situations. As the mentor, your role is to guide your mentee through his or her learning experiences and potential career pathways without being authoritative or directive regarding the person's decisions. The mentor must have time to devote to the relationship and perhaps spend time outside the mentee's assigned interactions. Open, two-way communication is essential to break down any barriers, such as generational differences or organizational hierarchy, to promote healthy collaboration.

Because of this process, you will build trust with the mentee, and the mentee will feel comfortable sharing his or her feelings with you. This enables you to begin the mentoring process and helps the student discover his or her strengths, weaknesses, talents, skills, likes, and dislikes. As a mentor, you play an essential role in helping your mentee to develop confidence and self-esteem.

Mentor as a Guide

An important mentor role is serving as a guide by introducing the mentee to individuals within the field of pharmacy and to other healthcare professionals within your own organization or professional associations. This enables the mentee to see how different aspects of pharmacy come together and the key role that pharmacists play in ensuring the safety of the medication-use process. As a result, the mentee may meet new potential mentors who can serve as role models both now and in the future. It is important for mentees to learn what is needed to be considered for their "ideal" job opportunity and how to work toward it.

If you attend a professional meeting with your mentee, you can show the mentee how to network with others in the profession. Your role as guide is to enable the student to discover the many possibilities within pharmacy and build lasting relationships. Engaging pharmacy students early in their career with professional associations and a broader view of where pharmacy fits has been shown to create more job satisfaction.[4]

Mentor as a Role Model

The mentor also serves as a role model who, in addition to possessing a strong knowledge base, demonstrates caring, passion, a sense of humor, and integrity. Caring and compassion are important aspects of every human relationship and even more so in creating a bond between yourself and your mentee. The ideal mentor is passionate about pharmacy, serving as a resource to other healthcare professionals and patients.

Values are important in the pharmacy profession because of the key role we play in compliance and patient safety. It is vital to discuss values with the mentee, because it is not uncommon for these values to be tested as patient care issues arise. Some examples include an order for a medication where there are insufficient data regarding efficacy and a potential concern about safety; an expensive drug ordered for a patient without insurance coverage; and a mandate to reduce expenses, which would result in staffing reductions and jeopardize patient safety. Having discussions about value conflicts is an important contributor to the mentee's growth and understanding of how to deal with difficult issues. Finally, mentors play a crucial role in introducing mentees to the value of—and the satisfaction that comes with—being committed to life-long learning. This can be demonstrated by sharing recent articles from the healthcare or leadership literature with the mentee and taking time to discuss some key points that were addressed.

BENEFITS OF MENTORING

As described earlier in this chapter, a mentor–mentee relationship is generally a more long-term and personal one, with a broader view of that person's well-being. Often, these connections occur when there is not only trust and respect but also a more deeply committed relationship of sharing from both parties. Many benefits and positive outcomes are associated with mentoring relationships. Most mentoring relationships are established initially to benefit the mentee. The benefits of mentoring, however, often extend far beyond this initial purpose and impact both parties.[5,6] Select benefits for mentees include:

- Exposure to diverse perspectives, experiences, and knowledge
- Unbiased perspective on navigating career opportunities
- Access to a support system during critical stages of professional development
- Enrichment of academic and career development plans
- Contacts within the mentor's network
- Reflection and evaluation of skill sets and opportunities for improvement
- Awareness of professional success factors for long-term career growth
- Instilled value of mentoring, which can be passed on to others

Select benefits for mentors include:

- Satisfaction gained from positively impacting another person's professional journey
- Ongoing reflection on the mentor's own career development
- Incorporating life lessons into mentoring skills
- Broadened professional network
- Exposure to diverse perspectives, experiences, and knowledge
- Fresh feedback on ideas and projects
- Possibility for partnership and collaborations on research and other endeavors
- Satisfaction of training the next generation of professional leaders

PITFALLS AND CHALLENGES OF MENTORING

Although mentoring relationships can come with vast benefits for both the mentee and mentor, there are possible pitfalls and challenges that can impede successful mentorship. First and foremost, it is important to establish appropriate boundaries and expectations at the beginning of the professional relationship. The mentor and mentee should avoid boundary violations; unwanted gift giving, loaning money, and improper sexual conduct are out of bounds in a positive mentoring relationship. It is essential that privacy, honesty, and integrity be maintained in a mentoring relationship. Most importantly, what is discussed in the relationship is confidential.

Mentors need to be willing and able to share open and honest feedback but avoid being overly critical or harsh. Great mentors will guide their mentees, purposefully shying away from making choices for their mentee. Mentors can help to identify strengths and then encourage mentees to capitalize on them. They should stimulate the thought process that led to the decision rather than pointing out what the mentee did right or wrong—focusing on the *why* of the mentee's thinking rather than trying to fix it for him or her. The mentee should challenge the mentor's thinking. Why did he or she decide to become a pharmacist? What was it like starting out? How did he or she deal with challenges in work or personal life? Meanwhile, mentees should be given the freedom to reject or debate a mentor's advice without facing retaliation. If a mentor gives advice that does not align with the mentee's career goals, a candid conversation should occur to help re-direct the goals of the relationship. If a mentoring relationship becomes unhelpful or toxic, then mentees need to consider ending the relationship or consulting with other trusted advisors.[7]

Naturally, a positive mentor–mentee relationship will evolve as the mentee advances in his or her development. A mentoring relationship can endure months or last a lifetime. There are natural ebbs and flows where one or the other person is more invested in the relationship, and there are different mentoring needs as a person progresses through life. In the most rewarding mentoring relationships, you and the mentee have mutually identified each other. You may see the mentee as a younger version of yourself. The mentee may see you as a role model. Pitfalls can generally be avoided by setting expectations and keeping open and respectful communication flowing bi-directionally. In this way, a mentor will be able to provide just the right help to the mentee at just the right time.

CONTEMPORARY MENTORSHIP METHODS

Methods of mentoring can be altered depending on the needs and generational learning styles of a mentee. It is anticipated that by 2020, 50 billion devices will be communicating with each other.[8] Devices such as smartphones, tablets, and wearables (e.g., watches, glasses, headphones) may be surpassed by technology not yet known or imagined. Everyone will be connected as much as 100% of the time. Multiple methods for distance communication already exist (e.g., webcams, Skype), so mentoring relationships across hundreds and thousands of miles and multiple countries is possible and probable. The important tenants of the mentor–mentee relationship will continue to be valid—specifically, plan to communicate. Regardless of the method or avenue of communication, the relationship between mentor and mentee cannot be impactful and meaningful to both parties without consistent and quality communication.[9]

Mentoring is so much easier in the good times but needed so much more in the bad times. They come to everyone in different ways and not always in such a dramatic fashion. Constant change within an organization is commonplace, and it is often what attracts the new generation. Rapid growth may lead to opportunities within the same organization and, if not, there are many opportunities at other organizations and outside of pharmacy as well. Some of the most common mentoring sessions are related to change and career development.

Factors That Determine a Time for Change

A good exercise for mentees is to divide their work tasks into three columns: the far left should list tasks they do and love; the middle column should list tasks they are required to do but do with no passion; and the right column should list tasks they do but really dislike (see **Table 5-1**). When

TABLE 5-1. Career Reflection Activity

Things I enjoy doing on a regular basis with high interest (high passion)	Things I need to do on a regular basis with low to medium interest (limited passion)	Things I need to do on a regular basis with no interest (no passion)

looking back at the sheet, look for a fair balance. If the majority is what you love or don't mind, stay put and grow. If, however, most of what you do you can't stand, it's time to delegate, change, or go! This seems simple enough, but often we do not take the time to evaluate what we do. We just work and complain about not feeling appreciated. Self-appreciation and self-reflection skills are another task that a good mentor should be able to teach.

PERSONAL MENTORSHIP ADVICE

Trust and openness is foundational to a successful mentoring relationship. A key strategy to build this confidence is to demonstrate vulnerability by sharing your personal experiences, including challenges you have experienced, mistakes you have made, and lessons you have learned. The goal of this section is to provide practical pearls and tips to arm you with the appropriate toolkits needed for a successful mentorship.

Ways to Find a Mentor

Now that you have learned about mentorship and responsibilities required to foster a strong mentor–mentee relationship, the next big step is to find the *right* mentor. As stated earlier, not all preceptors will become mentors to their trainees, either students or residents, depending on personality compatibilities, career and personal goals, and commitment level of both parties. In addition, it is recommended that you find multiple mentors in your life depending on your needs and goals. You may have many mentors to fulfill your personal and professional needs. Strategies to find the right mentor include exploring:

- Existing networking contacts
- Professional organizations
- Social networks
- Workplace and potential acquaintances from one's existing networking contacts

One of the benefits of technological advances is the ability to connect with others who have the same careers, interests, geography, or history but not the same workplace or current environment. One of the largest professional networking websites is LinkedIn—with a click of your mouse, you can find thousands of others with similar interests and jobs. Networking can be as structured or casual as desired. You might join a group with members in a career field that you aspire to join or individuals who work for an organization that matches your interests. Look for ways to stay in touch with contacts even if it's just sending a note of congratulations when they achieve career successes. Some professional organizations, such as colleges of pharmacy or state professional organizations, may have mentorship programs that match mentees and mentors based on career interests. Usually, these mentors are assigned with mentees and the program is usually a year; it is up to the mentees and mentors to extend the relationship longer.

Another consideration is mentoring across borders. As technology improves and the healthcare community grows globally, international mentoring is likely to increase. For mentors, international mentees are likely to benefit from your expertise, just as a domestic mentee would. However, some additional considerations are worth noting. Most international mentees will have different collaborative or communication patterns. For example, in East and Southeast Asia, a student or mentee may communicate more softly or be "understated" and rarely challenge someone of authority. This may make conflict or questions designed to challenge a mentee more difficult. As a mentor, one needs to be cognizant of these cultural differences, and perhaps modify behaviors to maximize a professional mentor relationship with an international student.[10] Additional tips for mentoring international mentees include:

- Reach out to international students by asking about their professional and outside interests.
- If you are an international mentee, ask your peers, professors, and mentors for the best way to interact and communicate—in person, e-mail, phone, or group meetings.
- Never allow stereotypes to guide your decision making or interactions with international mentees.
- Internationally focused organizations can help facilitate and grow mentor–mentee relationships. The International Pharmaceutical Federation and International Pharmaceutical Students' Federation are comprised of international pharmacists, pharmacy students, and researchers who collaborate to improve the care of patients worldwide. For those in the United States, ASHP sometimes hosts international networking sessions at their Midyear Clinical Meeting, and it is a great venue for meeting other professionals to establish contacts and build relationships.

International professional relationships can, in some cases, be even more valuable as you learn not only about one's career journey but also about their culture and innovative pharmacy practices. In addition, while reaching out to others with mutual interests or career goals, you may discover persons you would like to mentor or who you would like to ask to mentor you. The form of the relationship will depend on time and distance, but a structured relationship can be crafted that will be beneficial to both parties.

Mentee Considerations in Choosing a Mentor

Mentoring relationships are developed based on shared values and vision. The mentee needs to examine the background of potential mentors as part of the selection process. Considerations include the following:

- Is the mentor going to support personal or professional development? Or both?
- Have other students had positive experiences with the mentor?
- Has the mentor served as an advocate for students?
- Are the mentor's areas of interest consistent with those of the student?
- What has the mentor achieved in his or her career?
- Will the mentor have time to devote to the relationship?
- Does the mentor have a professional network that will facilitate development of future relationships for the student?
- Will the mentor challenge the student and be able to provide nurturing surroundings?
- Will the mentor create an environment where the student feels at ease to discuss concerns and fears?

MENTORING IN THE BEST AND WORST OF TIMES

Sometimes it may seem easy to advise or mentor when everything is going well for the mentee. For example, a mentor was asked to advise when the resident was offered five jobs at the same time and the question was how to pick the best one. The advice seemed to center on sorting out all the variables, but the true question was to determine the "family" perspective. The questions that seemed to need answering were:

- ***Which factors are truly the most important?***

1. Determine the "mentor hand-off." Who will be the key person taking over the next step in training, and will that person be compatible with the mentee?
2. Will the facility be challenging and allow for growth?
3. Will the location be conducive to opportunities for family members' career development?
4. Will the location allow for connection to both extended family members for support as needed?
5. If married, will your spouse be happy and supportive with the decision?

You may have noticed that the best paying job was not considered as one of the factors for determination as it is often never compensation for the five factors listed above. When times are good, keep them good!

Scenario 1: What can you do about a mentee who is ready to resign when things are bad?

Consider a situation where a resident was so sure of himself he couldn't imagine making a mistake. Of course, that day came and it was a serious mistake. Even though the mistake was a combination of system and personal error, fortunately it resulted in no patient harm. The resident was devastated by the error and lost all faith in his ability to perform the duties as a pharmacist and wanted to resign not only his residency but his profession too.

Mentoring during the worst of times requires understanding, empathy, compassion, and strength. It can rarely be accomplished in only a few minutes or with a few words, and it requires repetitive support, follow-up, and follow-through.

- ***What steps should the mentor take?***

1. Understand the facts in detail.
2. Do not be quick to take sides.
3. Listen, listen, listen.
4. Understand, understand, understand.
5. Develop a recovery plan that best meets the individual's needs. There is no one plan that fits all situations.

The mentor also must be honest and not mislead the mentee. Remember that all situations do not have a happy ending, despite your best efforts.

Scenario 2: How do you handle a mentee hitting rock-bottom?

In this scenario, the mentee experienced a life-changing event that led to addiction, arrest, and loss of license and job. Even though the mentee was very talented and able to cover up his addiction for years, the secret underlying problem finally came to light leading to public and family disgrace. Is this a recoverable situation?

- ***What role can the mentor play in this situation?***

1. The first step in this process is to determine if the "good" that was the essence of the relationship is still in existence.
2. Is recovery possible if the mentee is willing to put in the effort?
3. Will the professional community support the recovery?
4. Will his family support the recovery?
5. Ongoing support is essential, as there is only one second chance.

6. The mentor will need to "vouch" for the integrity of this person to gain support for the recovery process.
7. A team effort will be necessary for success.
8. Recovery is a life-long process and mentoring is as well.
9. Recovery is possible even when you hit "rock-bottom" if you want to recover and if the support is strong.

Scenario 3: How do you handle mentees (students or residents) who don't know what they want to do with their career, or lack clear career goals during the mentorship?

This is one of the most common scenarios encountered as a mentor, and it may also be one of the most rewarding experiences to help your mentee navigate through his or her career. Often, the mentees may have an idea what they want but can't seem to "lock" down goals. The important factor to consider is that it all depends on where they are in their professional stage. If they are still in their didactic years, this is exactly where they are supposed to be. Encourage them to foster connections, seek out learning opportunities, and take on shadowing experiences with individuals who have a career that they are interested in. Lastly, ask the schools to let them choose those specific rotations early on in their advanced pharmacy practice experiences schedule, especially if they are considering post-graduate training (e.g., residency, fellowship).

Pharmacy residents in their first year who are doing a general residency may share this very same feeling regarding "being lost." Usually, by this time, pharmacy residents are more grounded about what they want to do even if it is not entirely clear. As their mentor, you have the foresight and power to alleviate these concerns and emotional distress.

- ***What steps can you, as the mentor, take?***

1. You can engage them in conversations and ask them to do some self-reflection regarding their personal and professional goals.
2. With this self-reflection activity and proactive approach to hands-on experiences, they may be able to realize their career goals.
3. You should affirm that their career interests may change over time depending on the opportunities that arise; hence, it is best to go with their gut when an opportunity comes.
4. Some questions to ask them include the team dynamics, job responsibilities, and their interests in the job, quality of life, and impact on their family members.

Scenario 4: How do you help a student who feels hopeless after a negative experience with a preceptor who was not encouraging and made her feel like she had not chosen the right field?

In this difficult situation, it will take lots of coaching and mentorship to help the student realize her passion and strengths. Sometimes, it takes 10 positive experiences to cancel out one negative experience. As a mentor, you have the capability to coach the mentee through the experience and dive into the why of the situation and how the mentee can emerge from it. Being honest and empathetic with the student, as much as possible, is the key to success. It is also the mentee's responsibility to dissect the issues at hand and know what is in her control as she must be truthful to herself. It is best to avoid the blame game; instead, focus on how to reconcile the experience, turn it into a learning lesson, and move forward. In addition, as a mentor, helping the mentee to realize career goals and professional strengths is also crucial. The pharmacy field is versatile and flexible enough to accommodate a wide variety of interests such as retail, hospital, industry, academia, and managed care.

For this mentee, she was able to move forward from her negative experience and learn from it. She was able to pivot and think creatively about pharmacy career goals that fit her strengths and desire.

Scenario 5: What advice would you give to a mentee who is looking for his/her first job, especially post-residency program, and wants to be successful at it?

The challenge of the mentor–mentee relationship right after residency is usually focused on the first job. The most critical time in that first job is the first 90 days, as it may set the tone for future success or failure.

- ***What advice can the mentor consider giving?***

1. First impression reminders: project a professional modest appearance in choosing clothing, shoes, hair, and accessories. Your goal is NOT to have people talk about how you looked on your first day.
2. Reminder: LISTEN! You need to take in everything about your new environment without offering how you can change it to make it better on the first day, week, or month.
3. DON'T remind everyone of where you are from. Colleagues at your new job really don't care or want to be compared to that place of work. Hence, try to refrain from saying "where I came from, WE did it this way." Most people in your new organization may not appreciate your opinions or view your feedback favorably (even when it may be a good solution) if you start a conversation this way. Sometimes, they may think you should have stayed where you came from if you persistently use this approach. Do your best to approach it from an unbiased manner and ask questions for clarity.
4. Build credibility. Don't expect your title, training, credentials, or previous experiences to guarantee you the respect you need to perform in your current position. You have to earn it by building trust and teamwork among your team members. Respect is earned, not given automatically.
5. Gain trust, go the extra mile, and volunteer when possible. You need to put the effort in to build the teamwork and be willing to work in the trenches or at least try to understand their workflow as much as possible. Before making a decision that affects staffing day-to-day operations, solicit feedback and show empathy.
6. Focus on being a great team member. Team leadership will naturally come if you don't try to force it too soon. Authentically get to know individual team members; people can detect insincere gestures.
7. Seek feedback on how you are doing and accept criticism with a positive attitude.
8. Remember you have been well trained but lack "real-world" experience. Respect those who have experience and surround yourself with people who are smarter than you to complement your training and background.

Scenario 6: How do you mentor professional staff who didn't go through a formal residency or training program?

Quite often, a member of the staff rises to a leadership position without having had residency training. Experience and great performance probably led to this leadership opportunity. But the disadvantage of not having a residency is that the staff member may only have singular, limited experience without the intensive, versatile training, coaching, and mentoring a residency would provide.

As the mentor, you should encourage this working professional to take the risk and seek help regularly from various other mentors for guidance.

- ***What advice can you, as the mentor, give?***

1. Remember that transitioning from staff pharmacist to manager or director is difficult within your own organization.
2. Prevent favoritism by not granting closer friends additional vacation requests or days off work.
3. DON'T point out your lack of residency or advanced training as a potential deficit or benefit.
4. Emphasize your experiences and successes that have been accomplished in the past.
5. Embrace team leadership and don't discount the value of those with training and less experience.
6. As a new leader, don't try to change the world overnight to prove your value. Long-lasting changes are more worthwhile than dramatic short-lasting impacts.
7. Seek feedback on how you are doing and accept criticism with a positive attitude.
8. Remember you have lots of experience but not the advantage of a formal residency. Respect those with that training and embrace it to complement your background.
9. Surround yourself with people who have skill sets that complement and strengthen your leadership experiences.

Scenario 7: How do you mentor seasoned professionals on career change?

Two scenarios generally occur that involve the continuing relationship between the mentor and the seasoned professional. The first is the voluntary change of position, and the second is the involuntary change of position.

Voluntary Change of Career Pathway

The success of your mentee in his or her current position will garnish recognition by the peers and superiors within and outside the organization. This can be a mixed blessing because eventually it will lead to new opportunities. Often the individual has not sought these opportunities, so it is not a planned pathway. The mentee can seek help and benefit from the mentor; it is now time to sort out the opportunity from the flattery. Often the opportunity may be outside of pharmacy into administration, with encouragement from the chief executive officer (CEO) of the organization or suggestion to leave your organization by a former CEO. Although the flattery of the opportunity is sometimes overwhelming, it is a good time to assess the reality of the situation and determine if it is in the best interests of your career. An assessment of skills, risks, and benefits needs to be explored. In our experience, we have seen great success by taking risks, believing in yourself, being willing to learn what you don't know, and reaching out for support in areas of weakness while developing those skills. Failure has also occurred when people don't adapt and change or think that the "old ways" of doing things will work in the new environment and everyone should adapt to you! Clearly, this is a formula for failure.

Involuntary Change of Career Pathway

This call to your mentor is critical when your job is terminated. It may be a soft or abrupt ending, but nevertheless you need to reevaluate your pathway. Your mentor should be able to help you through the recovery phase, the discovery phase, and the evaluation process.

Recovery. Shock and anger are not uncommon, but you may not be the only person terminated. Don't focus on blame or revenge as it is not productive.

Discovery. Conduct a self-evaluation exercise to determine what factors could help you to improve and potentially prevent reoccurrence. Become more self-aware by purposefully exploring your personality

traits and behaviors with a peer, mentor, or even a leadership coach.

Evaluation. Think about your career and professional development. Do you want to move to a similar position or take advantage of the opportunity to do something different? Is this the best thing that may have happened by chance?

Time to repurpose and rebuild before moving forward. Don't take the first opportunity that comes along. You may want some time off to reflect and then seek professional help with placement to widen your "net" and network. Don't jump into the same situation as before without a thorough evaluation of what you really want that will make you happy and eventually successful.

MENTORSHIP AND PRECEPTOR PEARLS

As a mentor, you should be willing to share your knowledge and experience. You may provide suggestions and advice in the form of "If I was in your position," "Here's something you might consider," or "Whatever you think will work best, you do." You should utilize tutoring methods that rely on asking questions and asking for plans. You should encourage your mentee to brainstorm as there are no bad ideas. Below are key pearls that should be considered in building a successful mentor–mentee relationship.

PRECEPTOR PEARLS

LONGEVITY: Mentorship should be bi-directional. It can be a life-long relationship but might be for only a defined period with a specific outcome.

TIME: Success of mentorship is dependent on the time devoted to the process. The lack of availability at crucial times is tantamount to a failed relationship.

BENEFITS: For your mentoring relationship to be successful, both individuals must perceive benefit.

LISTEN: The skill of listening is vital to being a good mentor.

Key Characteristics and Responsibilities of a Mentor

Mentors who take ownership of the mentoring relationship and possess certain traits will successfully foster their mentees' personal and professional growth.

- Collaborate with the mentee to establish mentorship expectations and goals, especially in terms of communication frequency and follow-up plan.
- Guide the mentee through a productive personal assessment to identify his or her strengths, weaknesses, skill development needs, career expectations, and objectives.
- Provide continuous support, guidance, encouragement, motivation, and feedback to the mentee in selecting and developing postgraduate goals and professional or personal development opportunities.
- Communicate with the mentee at least once monthly (e.g., via phone, e-mail) to follow up on goals and previous discussions.
- When possible, have at least one in-person meeting per year, either through local, state, and national meetings or other networking functions.
- Introduce the mentee to the mentor's area of practice and discuss various career options whereby the mentee can gain expertise in this area, if desired.
- Identify resources and introduce the mentee to appropriate networking contacts to help him or her enhance personal development and career growth.

- With difficult situations, engage in a thorough discussion to help the mentee navigate through the journey and make his or her own decisions.
- Respect and maintain confidentiality.

Key Characteristics and Responsibilities of a Mentee

There are important characteristics and responsibilities for mentees to possess to groom a successful mentoring relationship.

- Show interests and desire to be mentored (i.e., being receptive to learning and developing a learning relationship with a mentor).
- Define your expectations for the mentorship in terms of communication frequency and goals you want to accomplish.
- Share personal or professional goals and aspirations with the mentor.
- Seek feedback from your mentor and others regarding your strengths and additional developmental needs.
- Be receptive to the mentor's advice.
- Communicate and follow up regularly with your mentor at least once a month (i.e., via phone, e-mail) and respond to your mentor's communication.
- Set agenda/talking points for each meeting with the mentor and communicate with the mentor early on so he or she can prepare for the meet-up.
- Solicit feedback and ask your mentor to recommend references, resources, and opportunities to grow your expertise in areas that can contribute to your career path.
- Be willing to discuss developmental problems and concerns with your mentor as they occur.
- Seek opportunities to give back to your mentor and share any information that might be valuable to him or her.
- Respect and maintain confidentiality if sensitive information is shared.

SUMMARY

The mentor–mentee relationship is one in which both the heart and mind are nurtured.[11] The quality of the interaction is based on mutual respect, trust, openness, and honesty. The mentor guides mentees by weaving together their strengths, weaknesses, likes, and dislikes and helps mentees discover themselves. The mentor serves as advisor, coach, therapist, guide, role model, and companion. The growth experienced in this relationship is mutual, and it is the reciprocity that makes it fulfilling for both parties.

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There are three principal means of acquiring knowledge … OBSERVATION, REFLECTION, and EXPERIMENTATION. Observation collects facts, reflection combines them, and experimentation verifies the results of that combination.

Dennis Diderot

We do not learn from experience… we learn from reflecting on experience.

John Dewey

6

Goals of Experiential Education

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DEFINITION OF EXPERIENTIAL EDUCATION

The Association for Experiential Education (AEE) defines *experiential education* as "a philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities."[1] The Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree include standards that require pharmacy schools provide practice experiences throughout the curriculum, including both introductory (IPPEs) and advanced pharmacy practice experiences (APPEs). The APPEs must "integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed in the Pre-APPE curriculum and in co-curricular activities."[2]

These standards embody the definition of experiential education and require that a significant portion of learner education be provided through direct experience in practice settings, ensuring the incorporation of foundational science curriculum including biomedical, pharmaceutical, social/administrative/behavioral, and clinical sciences. In addition, the habits of self-directed education and the idea of continuous professional development are key components of all levels of experiential education. As preceptors, we assume a

LEARNING OBJECTIVES

- Define experiential education and the Accreditation Council for Pharmacy Education standards.
- Describe the principles of experiential education and engagement of learners in real-life activities and consequences.
- Construct a learner-centered approach to education.
- Describe the following concepts and how they can be utilized to maximize a learning experience: *emotional intelligence, strengths,* and *learning styles*.
- Identify the four learning stages of the experiential education cycle.

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LEARNING OBJECTIVES (cont'd)

- Distinguish the differences among *cognitive, psychomotor,* and *affective* learning.
- Employ Bloom's taxonomy when developing learning objectives and experiential activities.
- Define *cognitive apprenticeship*.
- Identify strategies to use cognitive apprenticeship in experiential education.
- Understand the importance of lifelong learning.
- Describe reflective practice and continuing professional development.
- Create a continuing professional development plan.
- Explain competency-based education.
- Define *entrustable professional activity.*
- Differentiate between *competency* and an *entrustable professional activity*.

vital and necessary role in this process and should consider ourselves as mentors for the learner. We are the experiential educators who provide and oversee learners in real-life pharmacy settings.

AEE offers 12 principles of experiential education practice (see **Box 6-1**). A review of these principles compels both the educator and learner to take on quite different roles from those assumed in the traditional classroom. It also changes how educators and learners view knowledge. *Knowledge becomes active*—something that learners experience in real-life situations. *Education becomes personal*—affecting how we react and respond in future situations.

As experiential educators (aka, preceptors), our job is to engage learners in real-life pharmacy activities with realistic consequences that allow them to achieve prescribed educational objectives, continually preparing for the goal of independent

BOX 6-1. Principles of Experiential Education Practice

1. Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis, and synthesis.
2. Experiences are structured to require the learner to take initiative, make decisions, and be accountable for results.
3. Throughout the experiential process, the learner is actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, and constructing meaning.
4. Learners are engaged intellectually, emotionally, socially, soulfully, or physically. This involvement produces a perception that the learning task is authentic.
5. The results of learning are personal and form the basis for future experience and learning.
6. Relationships are developed and nurtured: learner to self, learner to others, and learner to the world at large.
7. The educator and learner may experience success, failure, adventure, risk-taking, and uncertainty, because the outcomes of the experience cannot totally be predicted.
8. Opportunities are nurtured for learners and educators to explore and examine their own values.
9. The educator's primary roles include setting suitable experiences, posing problems, setting boundaries, supporting learners, ensuring physical and emotional safety, and facilitating the learning process.
10. The educator recognizes and encourages spontaneous opportunities for learning.
11. Educators strive to be aware of their biases, judgments, and preconceptions, and how these influence the learner.
12. The design of the learning experience includes the possibility of learning from natural consequences, mistakes, and successes.

Source: Association for Experiential Education; http://www.aee.org.

practice and responsibility for patients' medication outcomes. Often, we are co-experimenters with our learners, not knowing ahead of time the outcome of the clinical situations in which we involve them. Ultimately, we must be able to reflect effectively on the educational activities we have designed and respond to learners' reactions to these activities.[3,4]

In an experiential education environment, learners must understand while doing. They must move beyond being knowledge gatherers, instead creating knowledge for themselves based on the real-life experiences and consequences in which they are actively involved. Learners must also understand how to respond to and reflect on their experiences and to take accountability for their actions.[3,4]

Experiential education is the requisite step that assists in the transformation of learners, armed with basic facts and skills, into mature pharmacy practitioners who are able to integrate and apply knowledge to solve problems and manage patient medication therapies. Perhaps more importantly, the model of experiential education that a learner experiences will shape how he or she approaches the lifelong education process necessary to being a successful and competent pharmacy practitioner. By serving as the facilitator for experiential education activities within our practice setting, we not only elevate our own knowledge level, but we also ensure the future and vitality of our profession.

INDIVIDUALIZED TEACHING APPROACH TO EXPERIENTIAL LEARNING

Rotations consist of several different components including *preparation*, *orientation*, *rotation delivery*, *evaluation*, and *reflection*. Preparation may be the most critical component of any rotation, yet it is an area where limited time is spent. Preparation involves preceptors, students, and residents learning about each other.

- *For students and residents*, this could include past rotation performance, current professional goals, individual strengths and weaknesses, and/or personal interests.
- *For preceptors*, it might include the reason why they became a pharmacist, their personal interests, or a review of challenges learners may face on their rotation along with strategies to overcome them.

The process of preparing for and running a marathon (26.2 miles) can provide a good analogy for highlighting the importance of preparation. Training for a marathon can take several months to years depending on your baseline running experience. Individuals may need to run up to 5 days a week for 1-2 hours a day to be adequately trained. All of this preparation is necessary just to run a race that will only last on average between 4-5 hours. However without the proper training, many runners are miserable, get injured, or even fail to complete it. This can be very similar to a 4-, 5-, or 6-week rotation experience. Failure to prepare for a rotation can lead to frustration between the learner and preceptor, frequently encountered challenges, and a subpar learning experience.

Preparation includes both standardized elements applicable to all students and residents and individualized elements that apply directly to each person. *Standardized elements* include knowledge of the policy and procedure manual, understanding of course syllabus and/or rotation objectives, and the ability to navigate the online rotation management system. *Individualized elements* may include strengths and weaknesses, personal and professional goals, prior completed coursework, or upcoming rotation concerns. In addition, preceptors may consider including the concepts of learning style inventories, emotional intelligence, and strengths/talents as methods to better connect with their students and/or residents. A brief discussion of each of these concepts can be found below.

Learning Styles

Learning styles have been debated for years.[5] A variety of learning style inventories are used during the educational process, but their validity has been questioned due to the lack of scientific evidence.[6,7] An example is the Pharmacist Inventory of Learning Styles (PILS), which is based on Kolb's learning style theory.[8] It is a 17-item questionnaire that has been validated within the pharmacy profession. The instrument takes approximately 5 minutes to complete and provides information regarding an individual's dominant and secondary learning styles. Four different learning style categories are included in this questionnaire, each with a suggested focus and approach to the learning process. The categories are *assimilator, diverger, converger,* and *accommodator*. No one learning style is better than another; rather, they highlight an individual's tendency to approach each learning situation. Interestingly, multiple studies of pharmacy individuals utilizing the PILS tool have shown that pharmacists (both students and preceptors) are usually only in one of two categories, either an assimilator or a converger.[9-12] There may be many explanations for this. *Divergers* are typically "out of the box" thinkers who are less likely to settle for the status quo, while *accommodators* are more focused on efficiency than quality and accuracy. In pharmacy, medications have standard doses, interactions, and compatibilities, making it difficult to be creative. Additionally, the inappropriate prescribing of medications can prove life-threatening and thus accuracy is paramount.

The PILS tool could be used in different ways, but asking your learners to complete it in advance of their rotation can prove beneficial.[10] Preceptors should also complete the tool and, during one of the first few days of rotation, lead a discussion with the students about the meaning of the PILS findings. This tool does not predict success, and most individuals are likely to transition between learning style types depending on the situation. Matching student and resident learning styles to preceptor teaching approach is not necessary, and in some cases may limit the individual's personal growth.[12] Aside from using a good icebreaker to kick off a rotation, preceptors are encouraged to utilize different teaching strategies to challenge students and/or residents. **Table 6-1** highlights the teaching and feedback strategies that could be used with learners based on their dominant learning style. To be a meaningful exercise for preceptors and learners, it is critical that formal preceptor training be provided over administration and discussion of the PILS tool. If used inappropriately, it could be detrimental to the experiential learning process. Preceptors are cautioned to use this exercise to promote discussion between themselves and learners, but not to use the information to predict their future performance.

Emotional Intelligence

The concept of *emotional intelligence (EI)* has been around for years, but its role within the health professions is still being understood.[13,14] EI is based on the premise that as an individual it is critical for you to recognize, understand, and manage your own emotions but also recognize, understand, and influence the emotions of those with whom you interact.

To better categorize these components, emotional intelligence is divided into four major categories: *self-awareness, self-management, social awareness,* and *relationship management*. Multiple EI assessments exist, each targeting the concept in different way.[15] One commonly used assessment is the Emotional Intelligence Appraisal.[16] The assessment charges a small fee to users, but after approximately 20–30 minutes of answering multiple-choice questions, individuals are provided with a comprehensive report that gives them a score of 0–100 in each of the four categories. Scores closer to 100 are seen as strengths, while lower scores are seen as areas in need of improvement. Each report provides not only your score in each area,

TABLE 6-1. Pharmacist Inventory of Learning Styles (PILS) Teaching and Feedback Strategies[8]

Learning Style	Teaching Strategy	Feedback Strategy
Accommodator	Needs to be clear about the purpose of the assignment(s). Needs to have all the resources required to complete the assignment(s).	Wants you to just "cut to the chase" and tell him or her what to work on. Is content with doing a "good" job, doesn't need to hear "excellent."
Assimilator	Prefers individual assignments to group assignments. Seeks expert teaching instruction and advice from preceptor.	Needs the "sandwich method"—to hear constructive feedback in between positive feedback. Needs to hear "excellent," "good" is not enough.
Converger	Prefers purposeful group work. Thrives on competitions with self and/or other learners.	Wants you to just "cut to the chase" and tell him or her what to work on. Is content with doing a "good" job, doesn't need to hear "excellent."
Diverger	Enjoys group work, but only if it is not pressured by time. Likes activities to be unstructured to allow for creativity.	Needs the "sandwich method"—to hear constructive feedback in between positive feedback. Needs to hear "excellent," "good" is not enough.

but a detailed listing of potential strategies that could be used to enhance one's ability in an area. Unlike standardized personality tests, learning style inventories, strengths, and intelligence quotient (IQ) tests that are relatively stable during a person's life, EI is something that can be grown and fostered. Growth in these areas can be very slow, and it is critical to focus on only one area at a time to maximize your results.

Expecting preceptors to purchase EI tests for their learners prior to a rotation is not feasible; however, preceptors should determine whether students and residents have completed it as a part of their curriculum and/or residency.[17] If the results are available, preceptors could create opportunities that encourage learners to employ a diversity of strategies to enhance their ability in one or more of these areas. A listing of strategies to address each of the four different EI areas has been provided in **Table 6-2**. A short rotation experience will not be enough time for a learner to transform, but it could be the initial step toward long-term growth. Health professionals with good EI have been shown to be more confident; have improved mental health and resilience; and, through greater self-awareness and enhanced communication, interact more effectively with teams and individual patients.[18-21] Much like learning styles, there is an ongoing debate regarding the impact EI can have on one's performance. Many agree that EI can help in understanding one's self and interaction with others; however, the ability of EI to enhance performance has been challenged.[22] As with learning styles, it is critical that appropriate and timely preceptor training is provided in advance of promoting the use of EI in the experiential setting.

Strengths/Talents

Not all preceptors, students, or residents are the same. Individuals have learning style tendencies, varying abilities related to EI, and situations in which they flourish based on their individual talents. In fact, there are situations where a student or resident who has consistently struggled may perform a task exceptionally well, surprising their preceptor. This could result from a situation where the learner may utilize one of their inherent strengths. When individuals are put

TABLE 6-2. Emotional Intelligence Quadrants and Strategies for Enhancement[16]

Quadrant	Definition	Strategy for Enhancement
Self-Awareness	Ability to understand your own feelings and emotions	• Know who pushes your buttons. • Don't shy away from discomfort. • See ripple effects in your emotions.
Self-Management	Managing your feelings and emotions in a productive way	• Count to 10 slowly. • Smile/laugh more consistently. • Learn from each situation.
Social Awareness	Ability to recognize the emotions (empathy) and needs of others	• Be aware of body language. • Take 15-minute walking tour. • Take time to simply observe others.
Relationship Management	Managing social interactions effectively and getting the results you desire	• Say "sorry" or "thank you." • Don't try to avoid the inevitable. • Use feedback to your advantage.

in situations where their strengths are called upon, they tend to thrive and performance is enhanced. No individual can be great at everything; rather, success occurs when individuals recognize their strengths and then intentionally apply them to learning situations. Having the ability to identify individuals who complement your strengths can prove beneficial when you are required to work in teams. If done effectively, preceptors, students, and residents may become more passionate about their job and display greater motivation to help others in situations that call upon their strengths. Greater passion and motivation can lead to better practice and patient engagement, leading to better teamwork and ultimately better patient care. Much like EI and learning styles, the scientific evidence supporting the strengths concept and its impact on performance has been challenged.[23]

To discover one's talents that can be transformed into strengths, a 180-question instrument has been developed.[24] It takes approximately 45–60 minutes to complete, and users are assessed a nominal fee. Following completion of the assessment, individuals can opt to receive a comprehensive report that lists their talent themes from 1–34 (with 1 being the one most aligned with the individual) or receive only their top five signature themes. **Table 6-3** provides the four major strengths domains and the corresponding themes that support each category. In addition to the list of strengths, a detailed guide with ideas on how to best apply your strength themes is provided within the Rath text. In life, we have the tendency to want to fix our weaknesses, but the philosophy behind *StrengthsFinder 2.0* suggests that success is a result of focusing on developing your strengths rather than trying to fix your weaknesses.

Much like EI, it's not feasible for preceptors to require their learners to complete this assessment prior to the start of an experience; however, if results are available through a school portfolio system, preceptors are encouraged to utilize this information to enhance each learning experience.[25] Not only would it be beneficial for a preceptor to provide learning opportunities that tap into a learner's strengths, it can also be a powerful tool to help learners identify the roles within the profession that would best match their abilities.[26,27]

This chapter only allows for a brief overview of strategies that could be used by the preceptors, students, and residents to better understand each other. The topics of learning styles, EI, and strengths were

TABLE 6-3. The Domains of Leadership Strength[24]

Domain	Strength Themes	Domain	Strength Themes
Executing	Achiever, Consistency, Focus, Arranger, Deliberative, Responsibility, Belief, Discipline, Restorative	Influencing	Activator, Competition, Significance, Command, Maximizer, Woo, Communication, Self-Assurance
Relationship Building	Adaptability, Empathy, Individualization, Connectedness, Harmony, Positivity, Developer, Includer, Relator	Strategic Thinking	Analytical, Ideation, Learner, Context, Input, Strategic, Futuristic, Intellection

discussed, but additional approaches exist. These may include personality tests, True Colors,[28] D - Dominance. i - Influence. S - Steadiness. C- Conscientiousness (DiSC) profile,[29] and Character strengths.[30] For any of these resources to be impactful, preceptors and students must be trained on their meaning and significance. No preceptor is expected to do all of them, but you should consider using one or more of these strategies to help maximize a learning experience. None of these concepts will create the perfect rotation experience, and the evidence supporting their use is conflicting. Nevertheless, they provide insight into why individuals may approach situations in different ways. Because no student, resident, and preceptor is the same, these concepts help to recognize differences. There are other ways preceptors can connect with their students and residents. Preceptors should inquire about hobbies, such as an interest in cooking, sports, or travel. This information could be shared within a short biography that you ask them to prepare about themselves in advance of a rotation. Showing interest in these things builds a rapport with the learner and helps to create a safe and engaging learning environment where learners are more apt to listen and respond to feedback. Preceptors should also consider sharing personal stories about themselves, which may help to convince learners you are invested in the rotation experience rather than treating it as a business transaction.

The format for receipt and maintenance of the above information can be in either an electronic or paper-based portfolio system. Completion of tools such as learning style inventories, EI tests, or the *StrengthsFinder 2.0* exam could be uploaded into the system by the individual student, resident, or institution. If a formal portfolio system is not utilized, preceptors can develop an autobiographical form that requests this information. Regardless of strategy employed (electronic versus paper), materials should be received by the preceptor at least 1-2 weeks before the rotation experience begins to allow for review. Although the focus has been on learners, in order for preceptors to be confident in applying these strategies to a rotation experience, they must first complete the assessments and then be adequately trained to use the information appropriately.

Learning Stages

Aside from preparing for the rotation and getting to know your students/residents and allowing them to get to know you, one must also consider the impact of the different stages of learning. One model suggests that students, residents, and preceptors go through four different stages: *unconscious incompetent, conscious incompetent, conscious competent,* and *unconscious competent.*[31] For example, a student beginning his or her pharmacy career may be like a resident beginning their first rotation or a preceptor taking their first experiential student. Initially, all of these individuals are super excited about the opportunity before them. The student is excited about getting into pharmacy school, understanding how difficult it is to get in. A

resident is relieved to have matched with a program and excited to get started. Finally, a new preceptor has looked forward to the opportunity to educate learners and is ready to embark on the journey. All of these individuals are in the *unconscious incompetent learning stage*—they simply do not know what they do not know. In each of these situations, a student's first exam, a resident's first evaluation, and a preceptor's first day with a student asking them questions, leads to a change in demeanor and the "uh oh" moment. This is the *conscious incompetent stage*—the realization that they are not as prepared as they had initially thought. They now fear that they can't make it through pharmacy school or a residency or survive their student's rotation. Students, residents, and preceptors move through the first two stages at different paces and then settle into the third or *conscious competent stage*—when they know what they know and what they don't know. This stage can last the longest. Students may remain in this stage throughout most of their years of pharmacy school (e.g., IPPEs, APPEs), residents during the majority of their residency, and finally for years as a preceptor. It is important to recognize when your learner is in this stage because they will be open to discuss the things they are confident about, but then avoid discussing concepts they feel they are lacking in. Preceptors should use these teachable moments to challenge learners out of their comfort zone to help slowly build confidence.

Students and residents rarely reach the final stage, which is *unconscious competent*—preceptors who are in this stage have been teaching for years and are often just going through the motions in teaching, and not intentionally thinking about what they are doing since they have done it for so long. Although this may sound inviting, it can actually be a detriment to students if a preceptor in this final stage does not take the time to describe their thought process in solving clinical problems. The critical thinking process behind the delivery of an intervention to another healthcare professional could serve as a perfect example. A physician may ask a pharmacy preceptor to recommend an antibiotic dose and frequency for a patient with community-acquired pneumonia. The preceptor may pause for a moment and ask the physician for a minute to formulate the answer. After the minute is up, the preceptor confidently shares his or her recommendation with the physician. On the surface, the preceptor may think the students and/or residents are learning from this dialogue between them and the physician, but really this is a superficial learning process. They are simply hearing facts matched to a disease state. To make this experience impactful, the preceptor must sit down with the student or resident and describe what information they quickly processed to come up with that recommendation. It could include treatment guidelines, physician preference, formulary issues, patient preference, recent publications, recent travel to a professional conference, or medications on back-order. It could conceivably take a preceptor up to 45 minutes to describe a simple intervention he or she made in 1 minute. Preceptors who recognize they are in this stage will understand the importance of discussing their thinking process with their students and residents.

Peer-Assisted and Near-Peer Assisted Learning

In some cases, preceptors are responsible for more than one learner at a time, whether it is a combination of introductory and advanced students and/or residents. Multiple individuals can create challenges but also bring opportunities to the learning experience. Students and residents can be provided the opportunity to teach, assess, and learn from each other. Terminology used to describe these experiences are *peer-assisted learning (PAL)* and *near-peer assisted learning (nPAL)*.[32] PAL is the process of obtaining knowledge, skill, or understanding from students or residents who are at the same academic level as each other (i.e., two fourth-year students,

two PGY-1 residents). nPAL refers to learning opportunities between students and/or residents who are between 1-5 years apart in academic standing (i.e., third-year and fourth-year student, fourth-year student and PGY-2 resident). Preceptors can intentionally design activities where learners are responsible for teaching each other. This could be simple tasks, such as chart reviews or topic discussions, or more advanced tasks, such as taking a medication history or counseling a patient or caregiver. In many instances these interactions can be unsupervised; however, it is the preceptor's responsibility to recognize when a learner is ready. Aside from working together on tasks, students and/or residents may also be asked to assess each other on the same rubrics utilized by the preceptors. This is often uncomfortable to them but provides a great learning experience.

There are benefits and challenges to PAL and nPAL. Benefits for students and residents include social congruence; cognitive congruence; ability to practice skills prior to working with a preceptor; and teaching as a method of studying, which can help them to improve their knowledge, skills, and abilities.[33] *Social congruence* describes when peers are on the same social level. This can help to make the learning environment feel safer to learners, thus allowing students and/or residents to relate better to one another, ask questions more freely, and be more willing to take risks and even make mistakes. *Cognitive congruence* describes when the knowledge of the person teaching is similar to the learner. This can prove beneficial in that students and residents may be able to explain information in terms that are easier for them to understand as compared to their preceptor. For preceptors, PAL and nPAL can help alleviate the pressure to have to teach everything and delegate more of the basic skills to students or residents, allowing them to focus on higher-level activities.

Challenges to this learning strategy is that not all students and residents are good communicators and/or listeners, which could negatively impact the learning experience.[34] It can be viewed as increased workload or burden, especially for those individuals who have no interest in pursuing a future career as a preceptor. It is possible that it may create an unhealthy competition between learners, which could impact the quality of constructive feedback that is provided. It is also very difficult for a preceptor to know what level of supervision to provide and when to incorporate learning activities into the rotation. Most likely, PAL and nPAL are not good strategies for all learners; in some situations, students may only be prepared to assist in teaching some knowledge, skills, or abilities.

Regardless of approach, it is critical to train both students and preceptors on this process before formally implementing it within your program. Close observation and follow-up is also key.

PRECEPTOR PEARL

Preparation for each rotation is a critical step of the preceptor process. Preceptors are encouraged to learn as much as they can about their students and/or residents. This may include learning style inventories, emotional intelligence, strengths/talents, and personal and professional goals.

LEARNING STRATEGIES FOR PRECEPTORS AND LEARNERS

Frameworks to Guide Experiential Education

The development and study of learning theories, taxonomies, ideologies, and preferences has led to the belief that learners and educators alike should consider how each individual learns in various educational situations before developing the learning strategy.[35] In fact, educators should be as

concerned with the way learners learn as they are with the content of a course. The idea that individual learning styles are pivotal to course development is, in part, responsible for the movement over the last 20 years in medical and pharmacy clinical education toward learner-centered activities. Curricula in colleges of pharmacy have continued to adapt by including more problem- or outcomes-based approaches to teaching as a result of overarching educational theories such as constructivism, which suggests that learning must utilize various approaches (e.g., learner reflection) to allow adequate understanding.[35]

Experiential education is a unique learning model based on the theories of Kolb and others.[4] This type of learning is based on the perspective that learning must come from experience, behaviors, perception, and cognition, and it must involve the learner's active reflection, observation, and experimentation.[36] Both problem-based and outcomes-oriented approaches in experiential education are methods for enhancing learning while meeting the preceptors' goals and objectives.

Curricula in colleges of pharmacy, even individual courses incorporating experiential education, should be designed using multiple types of teaching and learning methods that will allow individuals to learn in a manner that is comfortable and beneficial for them. Recognizing that individuals do not all learn the same way or at the same pace will aid the preceptor in designing activities that meet curriculum objectives at the experiential education site, while helping them learn knowledge, skills/clinical applications, and attitude. The following discussion provides a brief overview of Bloom's taxonomy, which is not a learning theory (e.g., constructivism) or a model (e.g., experiential education) but a naming structure for categorizing domains or areas of learning based on cognitive level and complexity.

Bloom's Taxonomy

Bloom's taxonomy categorizes learning approaches into three broad psychological domains: *cognitive, affective,* and *psychomotor* (see **Table 6-4**). Although Bloom never intended for these categories of learning to become a theory or philosophy, over time this taxonomy has been used as a way to assess and define objective measures of learning. The overarching idea of Bloom's taxonomy is that the acquisition of knowledge, skills, and attitudes build on learning theories and approaches. This idea may help preceptors devise different strategies for learning the same information for individual learners.[37] Preceptors should understand and employ the basics of this taxonomy when developing activities and objectives for any educational experience.[37]

Cognitive learning is the acquisition of knowledge and information. Multiple-choice questions effectively evaluate cognitive learning because they assess what facts learners remember or have memorized for the examination. There is no guarantee that, at the most basic cognitive functioning level, learners can incorporate these facts into anything useful. Some learners perform better at the cognitive and affective level,

TABLE 6-4. Bloom's Three Domains of Learning

Cognitive Domain	Affective Domain	Psychomotor Domain
Knowledge	Receiving/attending	Reflex movements
Comprehension	Responding	Fundamental movements
Application	Valuing	Perceptual abilities
Analysis	Organizing/conceptualizing	Physical abilities
Synthesis	Characterization by value complex	Skilled movements
Evaluation		Non-discursive communication

but others need to practice and apply information to learn. The latter leads to the importance of the psychomotor domain, especially for experiential education. Bloom's taxonomy for the cognitive domain is structured as a hierarchy, beginning with lower-order thinking, or knowledge, and then moving up the scale to higher order, or evaluation (see **Figure 6-1**).

Affective learning involves the development of attitudes, feelings, and preferences; often, education is provided in a hierarchical fashion to allow awareness and growth of the learner.[37] However, it is difficult for the educator (preceptor/mentor) to assess how the learner is receiving, responding, valuing, organizing, and *internalizing* (i.e., the process of consolidating and then embedding beliefs, attitudes, and values into one's behavior) the information provided. Thus, utilizing this type of learning often occurs through more complex learning situations, such as the development of professional presentations or the learner's ability to organize and relay complex drug information to others. The preceptor can assess the learning through others providing an evaluation of these activities and feedback.

Psychomotor learning is crucial in the setting of experiential education. Psychomotor or performance learning describes the acquisition of skills and development of competence in the performance of procedures, operations, methods, and techniques. In experiential education for pharmacy learners, examples of psychomotor learning may include the technical skills of making or dispensing an intravenous admixture or providing patient education on the proper use of an inhaler. Psychomotor learning can include simple motor tasks that individuals must learn to perform, while integrating other learning approaches and knowledge, to move toward a higher level of competence as a professional in the performance of various procedures, methods, and techniques. Such learning pushes the individual toward a higher level of professional competence. To achieve success, preceptors have to develop activities that enable the learner to practice this integration and reach the desired outcome or objective.[38]

Learners report more enjoyable educational experiences and changes in attitude with the learner-centered approach that engages various domains. **Table 6-5** matches Bloom's domains with methods or models of instruction, which help learners achieve and learn. Not all domains and levels are represented as they may not be applicable in this setting. For example, reflex movements in the psychomotor domain refer to innate reflexes that are not generated through skill development. Both full-time faculty and adjunct professors/preceptors must recognize Bloom's taxonomy when evaluating

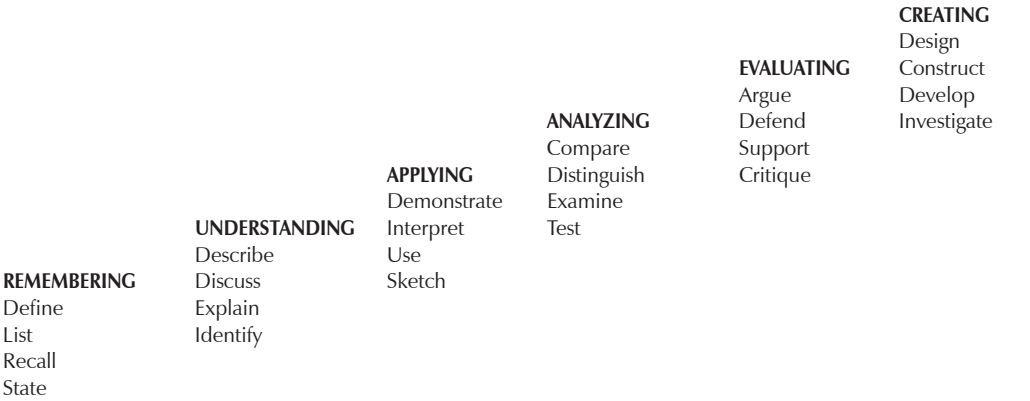

FIGURE 6-1. Hierarchy of educational learning in the cognitive domain.

Source: Courtesy of Michael Wolcott, PharmD, PhD

TABLE 6-5. Example Education Methods Matched to Domain and Level of Bloom's Taxonomy

Domain and Level	Method
Cognitive	
Knowledge	Lecture, programmed instruction, drill, practice
Comprehension	Lecture, programmed instruction
Application	Discussion, simulation and games, field experience, laboratory
Analysis	Discussion, projects, simulations, field experience, role playing, laboratory
Synthesis	Projects, field experience, role playing, laboratory
Evaluation	Projects, field experience, role playing, laboratory
Affective	
Receiving	Lecture, discussion, field experience
Responding	Discussion, simulations, role playing, field experience
Valuing	Discussion, projects, simulations, role playing, field experience
Organizing	Discussion, projects, simulations, role playing, field experience
Psychomotor	
Perceptual abilities	Discussion, simulations, field experience
Physical abilities	Observations, demonstrations, simulations, projects
Skilled movements	Observations, demonstrations, simulations, projects
Non-discursive communication	Observations, role playing, simulations, field experience

Source: Reprinted from Springer Nature, *Advances in Health Science Education.* Lyons K, McLaughlin JE, Khanova J, Roth MT. Cognitive apprenticeship in health sciences education: a qualitative review. *Adv in Health Sci Educ.* Copyright © 2017;22(3):723-739.

what learners have learned and to develop a method of teaching that recognizes that not all learners are alike when it comes to education. If learners seek to think like pharmacists, to be problem-solvers, and to become lifelong learners, they must learn to reflect, evaluate, validate, and verify their actions. These skills are not inherent—learners must learn *how* to learn, and educators and preceptors can help them.

Experiential education does not just fill the learner's brain with facts; it provides him or her with the concepts, application of knowledge, and desire to learn that will allow for advancement to higher levels of learning. Preceptors must continue to recognize that individuals learn differently, at different paces, and that there are different domains of learning even though the educational system is designed to build on itself. It is up to the individual preceptor to determine the right blend of teachable moments and the appropriate time to push toward active learning to maximize the educational value being provided.

PRECEPTOR PEARL

Simulation Training

It was not that many years ago when healthcare providers would review a textbook, watch a lecture, and then show (on paper) that they understood the components of providing advanced cardiac life support (ACLS). In more recent

times, training introduced more types of simulation, from written scenarios to a mannequin on which to practice basic aspects of cardiopulmonary resuscitation. Today, may institutions have changed their entire approach to ACLS education and training. The individual learners now participate in interprofessional, live educational sessions within highly advanced simulation centers—where all learners have to interact with a continually changing clinical situation (simulation environment) and with other healthcare providers to show their competencies in all aspects of ACLS. This approach has moved from the passive approaches of the past to a highly-orchestrated, active learning model that mimics real-life situations and allows for enhanced patient care outcomes.

Cognitive Apprenticeship

Fundamentally, experiential education incorporates an apprenticeship model of learning in which an individual learns an art, trade, or job under the intense guidance of an expert. In the case of clinical education, students learn under the guidance of a preceptor who has extensive training in the area of practice. The cognitive apprenticeship model offers a framework that has been effectively used for the design of learning environments as well as supporting teaching and learning practices.[39] This section describes the components of the cognitive apprenticeship model and strategies to integrate the framework into experiential education.

The *cognitive apprenticeship model* developed by Collins, Brown, and Holum emphasizes the necessity to "making thinking visible."[40] To train students effectively, this implies that experts should work to deconstruct tasks that have become automatic to their practice and situate learning tasks in contexts that make sense to learners. This model includes four interconnected dimensions, which are described in **Table 6-6.**

The first domain—*content*—includes defining the knowledge and skills required for expertise. This is the foundational domain for cognitive apprenticeship often consistent with the information that is taught throughout the curriculum and expanded on within experiential education. Bloom's taxonomy can be used as a strategy to organize how students engage with this content. This domain also includes the rules of thumb or tips and tricks that preceptors may teach their students, which help to facilitate the application of knowledge and skills in specific contexts.

The second domain—*method*—identifies strategies to engage learners. In health professions education, the implementation of cognitive apprenticeship has focused on identifying and utilizing various methods to support preceptors as they engage learners.[41] **Table 6-7** provides a list of examples that preceptors can consider when employing the cognitive apprenticeship model to practice. Preceptors should tailor the experience to the student and engage in methods from across the six sub-categories whenever possible to provide a balanced experience to learners.

The third domain—*sequence*—describes how learning tasks should be arranged in order of increasing complexity. The cognitive apprenticeship model highlights that learning activities should help learners conceptualize an entire task before addressing the finer details or components of the task itself. For example, helping a learner see the "big picture" of the patient care process or the delivery of medications from start to finish should be done first before teaching subcomponents of this structure in greater detail. Preceptors should organize learning activities to increase in complexity as the rotation builds so that the challenges become increasingly difficult without becoming discouraging. In addition, students should be invited to explore how the context may affect choices and actions. For example, students can be asked to recon-

TABLE 6-6. Four Dimensions of the Cognitive Apprenticeship Model

Content	Components	Description
Content	*Types of knowledge required for apprenticeship*	
	Dimension knowledge	Subject matter specific concepts, facts, and procedures
	Heuristic strategies	Generally applicable techniques for accomplishing tasks
	Control strategies	General approaches for directing one's solution process
	Learning strategies	Knowledge about how to learn new concepts, facts, and procedures
Method	*Ways to promote the development of expertise*	
	Modeling	Teacher performs a task so students can observe
	Coaching	Teacher observes and facilitates while students perform a task
	Scaffolding	Teacher provides support to help the student perform a task
	Articulation	Teacher encourages students to verbalize their knowledge and thinking
	Reflection	Teacher enables students to compare their performance with others
	Exploration	Teacher invites students to propose and solve their own problems
Sequencing	*Keys to ordering learning activities*	
	Increasing complexity	Meaningful tasks gradually increasing in difficulty
	Increasing diversity	Practice in a variety of situations to emphasize broad application
	Global to local skills	Focus on conceptualizing the whole task before executing the parts
Sociology	*Social characteristics of learning environments*	
	Situated learning	Students learn in the context of working on realistic tasks
	Communities of practice	Communication about different ways to accomplish meaningful tasks
	Intrinsic motivation	Students set personal goals to seek skills and solutions
	Cooperation	Students work together to accomplish their goals

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TABLE 6-7. Examples of Cognitive Apprenticeship Methods

Method	Examples
Modeling	• Observation of experts, both skills and attributes • Externalizing mental processes in text or oral explanations • Modeled in person, 3-D animations or video footage
Coaching	• Individualized feedback • Expert observes student demonstrate a skill • Replay of a videotaped student performance • Checklists for trainers and learners • Formative assessments
Scaffolding	• Individualized support from experts • Conceptual models, algorithms • Hints, reminders, access to resources, informal chatting • Simulations, scenarios
Articulation	• Summative assessments • Socratic questioning, assessment questions • Students explain rationale
Reflection	• Post-hoc reflection of performance • Informal or formal discussions with colleagues or peers • Portfolios, online forums, journals, online prompts, video footage of performance • Comparison with expert performance • Encouragement by mentors
Exploration	• Self-directed learning in related content areas • Encouragement to explore and form one's own learning goals • Stimulate students to ask more questions

Source: Reprinted from Springer Nature, *Advances in Health Science Education.* Lyons K, McLaughlin JE, Khanova J, Roth MT. Cognitive apprenticeship in health sciences education: a qualitative review. *Adv in Health Sci Educ.* Copyright © 2017;22(3):723-739.

sider treatment decisions in the setting of other diseases, medications, or sociocultural settings.

The fourth domain—*sociology*—emphasizes the role of social factors in the learning environment, which are often neglected in experiential education. To create a safe learning environment, educators are encouraged to consider socioemotional features that can dramatically impact how students learn and perform. Some components are readily achieved, such as situated learning, as this requires preceptors to provide realistic tasks and settings that are abundant in experiential learning. Communities of practice, however, may require the preceptor to help students connect with colleagues in the practice setting such as other pharmacists, physicians, nurses. Orienting them to the practice site can be critical for learners to feel included. Lastly, preceptors should confirm that they construct goals to ensure the learners' experiences are relevant and applicable in order to increase their motivation in accomplishing the necessary tasks and outcomes.

The cognitive apprenticeship model outlines the complex dynamic that is required for preceptors to present an effective learning environment. In addition, it explicates the structures and strategies that can assist preceptors as they design their experiences. Preceptors are encouraged to review their current learning experiences to evaluate whether they address each of these components sufficiently; the goal is for preceptors to engage all of the domains and be cognizant if they are neglecting crucial elements. All of the domains are believed to be essential when engaging learners in an

apprenticeship model;[41] therefore, preceptors should be reflective of their practice and optimize each domain accordingly.

PRECEPTOR PEARLS

Let Them Fly with You

Learning to become a pilot is not unlike learning to become a pharmacist. Every student pharmacist looks forward to his or her first opportunity to make a patient-specific clinical recommendation that affects the outcome of a patient's care. However, the cognitive learning provided in the classroom only yields a basic level of comprehension. Similar to learning to fly, preceptors must create educational models to resemble actual on-the-job activities. The following approach, used with pilots progressing toward their first solo flight, can be utilized in pharmacy education:

- **First,** ***the preceptor must master his or her job and understand the purpose and process of job duties before educating others.***
- **Next,** ***the preceptor does his or her job (i.e., demonstrates and explains) while the learner observes.***
- **Then,** ***the preceptor allows the learner to take the flight controls with the preceptor's assistance. As soon as possible, the preceptor should allow the learner to perform the skill that has been taught while providing oversight, correction, and encouragement.***
- **Finally,** ***the preceptor allows the learner to take the first solo flight. Once the preceptor has confirmed the learner has become proficient, the preceptor should step back and allow the learner to work independently while remaining in the background for questions. This process allows the learner to move up in the hierarchy, enabling the preceptor to begin teaching new topics to the learner.***

When the student pharmacist has learned the process, the preceptor should congratulate the student on the success of the first flight and then provide the permission and tools to continue.

DEVELOPING LIFELONG EDUCATIONAL HABITS

The expanding roles of pharmacists and scope of practice in an ever-evolving healthcare climate[42] underscore the need for preceptors to be lifelong learners and reflective practitioners.[43,44] Reflective practice is based on the principles of building new learning upon existing knowledge while integrating self-awareness of attitudes, values, and beliefs with the professional culture.[45,46] Through exploratory analysis, Nguyen and colleagues defined *reflection* as "the process of engaging the self in attentive, critical, exploratory and iterative interactions with one's thoughts and actions, and their underlying conceptual frame, with a view to changing them and a view on the change itself."[47] Continuing professional development has been promoted as a model to facilitate reflective practice.[43]

Continuing professional development (CPD) is a self-directed, outcomes-focused process of personalized lifelong learning that incorporates reflection to achieve competencies and learning goals relevant to an individual's specific professional responsibilities.[48] The stages of the process include *Reflect, Plan, Learn, Apply*, and *Evaluate* (**Figure 6-2**). In the *Reflect* stage, preceptors identify professional development needs through self-assessment of learning needs and goals. In the *Plan* stage, a personal development plan is then created to accomplish the goals. It is suggested to write learning objectives as SMART goals (**s**pecific, **m**easurable, **a**chievable, **r**elevant, and **t**imebound).[49] Next in the *Learn* stage, the plan is operationalized to gain the knowledge, skills,

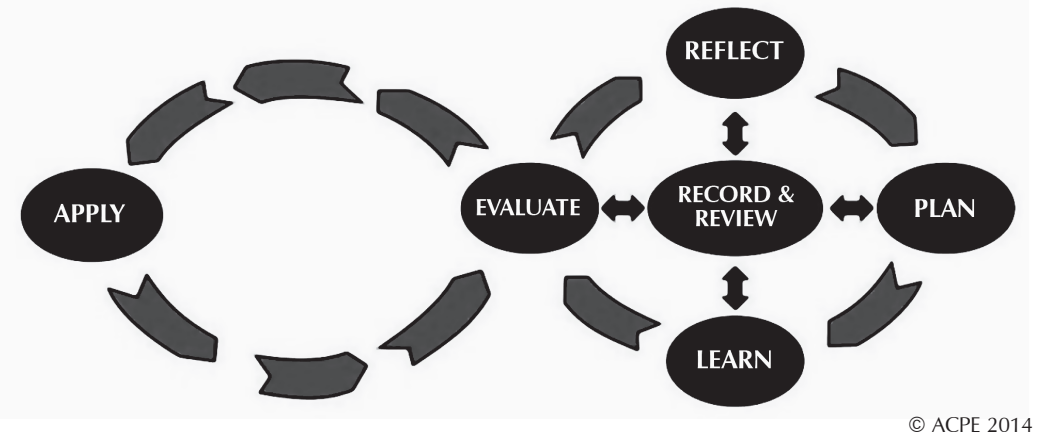

FIGURE 6-2. Continuing professional development.

Source: Reprinted with permission from Guidance on Continuing Professional Development (CPD) for the Profession of Pharmacy. Accreditation Council for Pharmacy Education. January 2015. https://www.acpe-accredit.org/pdf/CPDGuidance%20ProfessionPharmacyJan2015.pdf. Accessed April 7, 2019.

or attitudes identified. Achieving learning objectives may be accomplished using an array of learning activities that include and extend beyond traditional continuing education such as classes and courses, scholarly activities, service, and precepting. This allows preceptors to choose activities that would be most meaningful to them. In the *Apply* stage, the new learning is applied into practice. In the *Evaluate* stage, the preceptor assesses the success of the personal development plan in achieving learning goals and outcomes. This stage also involves reflection and may help identify additional learning needs for future CPD cycles. Documentation of each stage in a portfolio is suggested to facilitate reflection and evaluation. It also serves as evidence of the work done (*Record and Review*).[48]

CPD is one method that schools and colleges of pharmacy may adopt to help meet Standard 20.3 (Preceptor Education and Development) of the Accreditation Council for Pharmacy Education (ACPE) Doctor of Pharmacy Accreditation Standards: "The College or school fosters the professional development of its preceptors commensurate with their educational responsibilities to the program."[2] The elements of the CPD process also align well with the guidance provided to meet the ASHP residency accreditation standard—to create and implement a preceptor development plan for the residency program—by documenting the plan and including an assessment of needs, providing a schedule of activities to address identified needs, and reviewing the effectiveness of the development plan.[50] CPD has been noted to be an effective method to induce changes in practice, knowledge, skills, and attitudes based on pharmacist perception[51] and deemed beneficial as a method for preceptor development.[52]

Despite its known benefits, a supportive environment for CPD may be needed for sustainability.[53] A study investigating the sustainability of CPD over a 3-year period in a not-for-profit integrated health system found that the use of CPD by pharmacists waned over time.[54] Further, pharmacists incorporating CPD at a health maintenance organization cited time as a barrier.[51] Employers may facilitate CPD by incorporating elements into performance review and by assisting preceptors with alignment of learning needs to organizational and practice needs.[53] The outcomes-based approach of CPD meets the needs of employers, while the individualization aspect of CPD gives employees a purpose to learning by selecting goals that motivate them.[53] Other means to support CPD discussed in the literature include learning communities of practice

type, early introduction of CPD to learners, and sharing of learning needs with interprofessional teams.[53] To encourage the use of CPD to improve precepting practices, organizations that have a commitment to teaching may also consider teaching advancement initiatives as part of their organizational goals.

In adopting a CPD approach, the ease of documentation for the *Record and Review* stage should be considered because documentation was identified as a barrier in the study of five states piloting the effectiveness and feasibility of a CPD approach. The authors suggested that the CPD portfolio needs to support learning versus hindering it.[55] CPD portfolios may be paper or electronic. **Exhibit 6-1** is an example of a CPD tool that could be used by preceptors and incorporated into a paper or electronic portfolio.

Cox and colleagues describe a prototype of an electronic preceptor development platform that incorporates CPD with assessment of preceptor competencies.[56] These preceptor competencies, which were developed from the health professions literature and reviewed by Canadian and U.S. pharmacy stakeholders, include the following: commitment to teaching, creating practice-based learning opportunities, engaging in CPD, demonstrating effective communication skills, creating professional relationships with learners, adapting to learners' educational needs, modeling best educational and clinical practices, facilitating development of critical thinking, problem solving and decision-making skills, and assessing learner performance.[57] Preceptors may consider competencies such as these and clinical competencies when designing CPD plans.

It is imperative that preceptors reinforce and model CPD principles to prepare learners for the aforementioned practice opportunities and challenges that await them. ACPE Accreditation Standards reinforce the need for schools and colleges of pharmacy to have processes for learners to develop a commitment to CPD and lifelong learning.[2] Pharmacy curricula frequently incorporate reflection in didactic and experiential courses. To promote development of CPD skills through reflection, Janke and Tofade—in a statement on the need for a curricular commitment for CPD—emphasized the need to communicate the expectations for CPD-related reflection and to focus those reflections on learning.[49] They noted that the *What? So What? Now What?* model of reflection is one method that can be used to focus reflection on learning.[49] The *What? So What? Now What?* structure includes the experience (*What?*), the significance (*So What?*), and the application (*Now What?*).[58] This model could be utilized in experiential learning environments. Similar to teams sharing learning goals to encourage CPD, preceptors are encouraged to create an environment that supports learners with CPD by encouraging them to share their learning needs and plans and assisting with those plans.[49] A commitment to lifelong learning and reflection will help ensure that preceptors and learners alike are positioned for success.

PRECEPTOR PEARL

Aligning lifelong learning goals and CPD plans with personal values may support preceptor resilience. Encourage learners to identify personal values and compose a personal mission statement. These values will help direct goals. Share yours with your learner and discuss.

ENTRUSTABLE PROFESSIONAL ACTIVITIES

Utilizing all the aforementioned strategies is critical as preceptors prepare learners to be practice-ready and reflective practitioners. An additional element to consider is how to assess learner competency.

EXHIBIT 6-1. Example Continuing Professional Development Tool

1. REFLECT:

- *What knowledge, skills, and attitudes do you want to achieve?*
- Identify **one** learning goal (Consider career goals, personal values, preceptor competencies, clinical competencies, organizational goals, patient care needs, barriers encountered in teaching or patient care, and 360-evaluations [e.g., self, peer, learner, employer, team].)

_____

2. PLAN:

- *How will you achieve your goal?*
- Describe how your learning objective will be achieved using a SMART goal (**s**pecific, **m**easurable, **a**ttainable, **r**elevant, **t**ime-bound).[52]

Learning objective: _____

How will success be measured? _____

Start date: _____

3. LEARN:

- *What knowledge, skills, or attitudes did you gain through the learning activity?*

Learning activity: _____

What knowledge, skills, or attitudes did you gain? _____

_____

Completion Date: _____

4. APPLY:

- *How did you apply what was learned into practice?*

_____

_____

5. EVALUATE:

- *Was your plan effective?*

Did you meet your learning objective? _____

Why or why not? _____

What other learning needs have you identified in this process? _____

_____

Source: Courtesy of Charlene Williams, PharmD.

Health professions education is placing a greater emphasis on the outcome of achieving competency as opposed to a certain length of time in training due to a number of factors, including public accountability, societal needs, and learner centeredness.[59-61] *Competency-based education* involves the capacity to perform a task in the workplace as an educational outcome utilizing specific knowledge, skills, and attitudes.[62] *Competencies* are observable actions or abilities that help describe a person.[63,64]

A challenge with competency-based education is that competencies may be difficult to assess in isolation in terms of accuracy and validity.[62] Assessment is more accurate and efficient when aligned with a specific task or professional activity, which may require more than one competency to execute.[62] To illustrate, it may be difficult to accurately assess the competency of communication without context. However, it may be less challenging to assess learners on the task of educating a patient about the appropriate use of a medication. This task may require multiple competencies to complete it successfully (e.g., analyzing information, communication, professionalism).

As a means to close the gap between the constructs of competency-based education and clinical practice, many health professions curricula have incorporated *entrustable professional activities (EPAs)* as an assessment tool.[60] EPAs were first introduced in postgraduate medical education[65] in 2005 and are "defined as a unit of professional practice that can be fully entrusted to a trainee, as soon as he or she has demonstrated the necessary competence to execute this activity unsupervised."[61] An *entrustment decision* is the preceptor's decision to transfer a task or responsibility to a learner.[64] Entrustment decisions may be described based on the level of supervision required (see **Table 6-8** for an example of levels of supervision).[64] Returning to the previous task of educating a patient on the appropriate use of a medication, this task would require a greater level of supervision from the preceptor for a student pharmacist completing an IPPE versus an APPE during the latter half of the academic year. Thus, the level of entrustment for patient medication education is lower for the introductory pharmacy practice student, which would be expected at that stage of development.

Work of the 2015–2016 and 2016–2017 American Association of Colleges of Pharmacy (AACP) Academic Affairs Standing Committees and a broad range of stakeholders resulted in the publication of 15 core EPAs essential for all pharmacists to perform without supervision, which were linked to Center for Advancement of Pharmacy Education (CAPE) Educational Outcomes (see **Table 6-9**).[63,66] As with other pharmacy practice experience expectations, it is important to communicate expectations for EPAs early in the experience.[63] Preceptors should review the level of supervision required for entrustment decisions for each required EPA of the experience and provide practical examples to the learner. Learners could be asked to complete a self-assessment for required EPAs for the experience at the start; it may assist with planning of learning activities and self-reflection. As learners progress, their confidence may build as the level of entrustment increases.

In addition to assisting with assessment of learners and ensuring professional competence, other benefits of EPAs include helping learners understand professional identity in terms of their roles and responsibilities as a pharmacist on the team.[63] EPAs may also have a role in residency training to facilitate the assessment of resident performance, such as with medical education. EPAs could be created to further delineate residency competencies into practice tasks.[67] Similarly, EPAs have the potential for use in workplace development and in interprofessional teams. Developing a similar language and assessment process to direct professional development may strengthen alignment between education and practice.[68]

TABLE 6-8. Levels of Supervision for a Pharmacy Learner

Level of Supervision	Learner/Supervision Description	Setting	Level of Entrustment
I	The learner has some knowledge but is unclear how to operationalize that information. The learner is able to observe thoughtfully.	IPPE	Low
II	The learner has a broader knowledge and is able to perform rudimentary tasks with direct supervision and practice correction.	Skills lab, simulation, APPE	Moderate
III	The learner has complete knowledge and is able to perform tasks necessary of the profession.	APPE, pharmacist in practice	High
IV	The learner has complete knowledge and unique clinical practice experience of complex populations and environments.	Seasoned pharmacist, PGY1/2 pharmacy resident	Complete
V	The learner has complete knowledge and unique clinical practice experience, and is engaged in a pharmacy educational program.	Faculty member, clinical pharmacy educator	Complete

APPE = advanced pharmacy practice experience; IPPE = introductory pharmacy practice experience; lab = laboratory; PGY1/2 = postgraduate year 1/2

Source: Adapted with permission from Jarrett JB, Berenbrok LA, Goliak KL, et al. Entrustable professional activities as a novel framework for pharmacy education. *Am J Pharm Educ.* 2018;82(5):Article 6256.

TABLE 6-9. Core Entrustable Activities from the American Association of Colleges of Pharmacy

Core EPAs for Pharmacy Graduates
1. Collect information to identify a patient's medication-related problems and health-related needs.
2. Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.
3. Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective.
4. Implement a care plan in collaboration with the patient, caregiver(s), and health professionals.
5. Follow-up and monitor a care plan.
6. Collaborate as a member of an interprofessional team.
7. Identify patients at risk for prevalent diseases in a population.
8. Minimize adverse drug events and medication errors.
9. Maximize the appropriate use of medication in a population.
10. Ensure that patients have been immunized against vaccine-preventable diseases.
11. Educate patients and professional colleagues regarding the appropriate use of medications.
12. Use evidence-based information to advance patient care.
13. Oversee the pharmacy operations for an assigned work shift.
14. Fulfill a medication order.
15. Create a written plan for continuous professional development.

Source: Adapted with permission from Jarrett JB, Berenbrok LA, Goliak KL, et al. Entrustable professional activities as a novel framework for pharmacy education. *Am J Pharm Educ.* 2018;82(5):Article 6256.

PRECEPTOR PEARL

Competencies describe people, whereas EPAs describe work tasks that reflect one or more competencies. As part of your rotation design, create a list of tasks for each EPA.

SUMMARY

Experiential education is the core teaching process necessary for the development of pharmacy professionals. It is through various approaches (e.g., IPPEs, APPEs) that learners are molded into entry-level pharmacy professionals. These experiences serve as the framework that allows student pharmacists to begin putting all the pieces together and applying their skills in the real world. It is important for both preceptors and learners to find the most productive educational approach for these experiences. A key step in the precepting process is getting to know your students and/or residents. This may be done through learning style inventories, EI, strengths/talents, and personal and professional goals. Knowledge and understanding your different learners can impact the success of the cognitive apprenticeship model, which is foundational to experiential education. This model outlines strategies that expert preceptors can use to connect directly with a diverse group of students and residents based on their learning tendencies.

As with any learning process, both the educators and the learners should spend time in reflection following a rotation to inform future learning experiences. Reflection is a cornerstone of the CPD cycle, and preceptors should promote lifelong learning as a contributing factor to long-term success. To monitor student progress during the experiential curriculum, a new set of EPAs have been developed. Their role in pharmacy education is still being defined; in order to reach the vision that our graduates are practice- and team-ready, we must provide them the opportunity to demonstrate their abilities at a high level. If designed and coordinated appropriately, experiential rotations can have a profound impact on both students' and residents' career success.

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7

Fundamentals of Experiential Teaching

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> Example is the school of mankind, and they will learn at no other.
>
> *Kurt Herbert Alder*

Our pharmacy profession recognizes development of new pharmacy practitioners as a part of our professional responsibility. In addition, colleges of pharmacy need the support of their community partners to be successful. Given the significant need and professional expectation for teaching contributions to experiential education, every pharmacist should strive to include experiential teaching in their professional work goals. This chapter is designed to help you become an effective experiential teacher. We begin with a review of the practice experiences learners must complete. The chapter continues with a discussion of the necessary techniques for reaching different types of students and how to handle precepting challenges. Finally, the chapter provides a guide for developing and implementing an experiential learning program as well as continually assessing and improving the quality of your program.

LEARNING OBJECTIVES

- Describe introductory pharmacy practice experiences (IPPEs) and discuss appropriate learning opportunities for IPPE students.
- State important considerations when preparing for and precepting an IPPE learner.
- Provide examples of the usefulness and importance of intermediate experiences.
- Review common principles that guide advanced experiential education.

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PRE-ADVANCED PHARMACY PRACTICE EXPERIENCES

Introductory Pharmacy Practice Experiences

Historically, pharmacy education occurred in three parts: *didactic*, *classroom instruction*, and *site-based experiential rotations*. The typical pharmacy curriculum started with the first 3 years devoted to classroom instruction and labs, and the fourth year was dedicated to experiential rotations. Some students gained site-based experience during their first 3

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LEARNING OBJECTIVES (cont'd)

- Describe professional, patient care, and interpersonal skills relating to the practice of pharmacy in an interprofessional environment.
- Identify the different types of learners and become familiar with what teaching techniques are effective for each type.
- Explain the logic-based method of teaching.
- Explain the importance of providing ongoing feedback to learners in pharmacy practice experiences.
- Describe the use of the summative evaluation methods to evaluate students in pharmacy practice experiences.
- Identify factors in the practice setting that may contribute to learner difficulty.
- Identify strategies for dealing with a difficult learner or situation.
- Outline an approach for designing a program curriculum and constructing a program manual.
- Provide ideas for creating a learner pharmacist practice model and involving others in experiential training.
- Discuss methods for evaluating the effectiveness and success of a program.
- Describe key components of continuous quality improvement in an experiential education program.

years of school through summer internships or other pharmacy work experience, but other students stepped into a pharmacy for the first time in their fourth year of school. The absence of integrated classroom teaching and experiential training during the first 3 years of pharmacy school resulted in many students struggling through their transition from the classroom to the required fourth-year experiential rotations, now known as advanced pharmacy practice experiences (APPEs). Some fourth-year pharmacy students entering a pharmacy for the first time found that pharmacy practice was not what they expected or wanted.

Recognizing this educational gap, the Accreditation Council for Pharmacy Education (ACPE) adopted curricular standards for the Doctor of Pharmacy (PharmD) program, which were updated in 2016.[1] Experiential education is now a significant portion of the Doctor of Pharmacy curricula at all accredited colleges of pharmacy. According to the 2016 ACPE Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree ("Standards 2016") standards 12 and 13, introductory pharmacy practice experiences (IPPEs) must be at least 300 clock hours of experience within the didactic curriculum and APPEs must be at least 1440 hours of experiences with the majority focused on direct patient care. The introductory experiences are hands-on opportunities for pharmacy students to gain experience in a variety of practice settings early in their education. The students are expected to be exposed to common, contemporary U.S. practice models. The experiences should include opportunities for students to be engaged in interprofessional practice models that include shared patient care decision-making, professional ethics and expected behaviors, and direct patient care activities. The introductory practice experiences are scheduled in the first years of the professional program prior to beginning their APPEs and are designed to complement material taught in the students' pharmacy didactic courses. IPPEs are applied toward course credit, along with graduation and professional licensure requirements, so students may not receive remuneration for their time. As each state board of pharmacy has different licensing requirements, students may become licensed interns at different stages, which may determine the types of activities a student may legally perform.

Colleges of pharmacy may offer introductory practice experiences in many areas

of pharmacy practice, but at a minimum students are required to complete experiences in community (at least 150 hours) and institutional health-system settings (at least 150 hours). Simulation experiences may be a part of the IPPEs, but they may not be more than 60 clock hours and do not substitute for the 300 required hours in community and institutional health-system settings. These simulations may mimic real-life patient care environments, such as in a "mock" community or hospital pharmacy, with opportunities to practice dispensing, counseling, and other patient care activities. Some colleges have students engage in shadowing or service learning exercises during their early years, but the schools will only recognize these activities as introductory practice experiences if students receive an opportunity to develop specific patient care skills. Experiences that only focus on the development of students' professionalism or leadership abilities are not considered introductory practice experiences.

Students will have many learning opportunities during their community and hospital introductory practice experiences. These experiences will frequently focus on some of the basic pharmacy operational and medication distribution skills, but they should also provide exposure to interprofessional team-based care. Following are some example fundamental skills that may be learned during IPPEs:

- Accurate medication dispensing
- Basic patient assessment
- Knowledge of commonly used medications
- Medication reconciliation
- Identification and assessment of drug-related problems
- Accurate medication calculations
- Ethical, professional, and legal behavior
- General communication
- Patient counseling
- Drug information
- Application of health and wellness principles
- Knowledge of the health-care delivery system, including medication access and insurance concepts

In states that allow formal collaborative practice agreements, students may also have the opportunity to observe and support preceptors performing disease management activities. In the community setting, students may assist patients with over-the-counter medication selections, identify nonadherence or medication affordability concerns, and participate in the development of medication therapy management services or community outreach events. In the hospital, students may assist with medication safety initiatives, medical and nursing education, bedside and discharge patient education, medical patient care rounds, medication reconciliation services, other ongoing medication management or drug monitoring programs, and the development of new clinical programs.

A number of strategies have been successfully used to teach patient care skills and engage students in a meaningful way during their experiential rotations. Layered learning methods are frequently utilized in institutional health-system settings. For example, fourth-year advanced practice students or pharmacy residents may be partnered with students completing introductory experiences.[2] This partnership improved introductory students' self-perceived patient care ability and resulted in a smaller time commitment by faculty preceptors.[2] The partnership teaching method was studied and found to be effective across multiple practice sites, including hospital and outpatient environments; therefore, preceptors from varying backgrounds could consider this approach in the training they provide pharmacist interns. This method also allows for more experienced learners to reinforce their own skills as they teach and develop emerging precepting skills. Utilizing preceptors from other professional backgrounds (i.e., physicians, nurse practitioners) has also been effective.[3] This

approach fosters the development of collaborative relationships and an opportunity for students to better understand both the pharmacist role and the role of other healthcare workers in providing patient care. Focusing on the development of specific patient care skills has also been an effective student engagement strategy. For example, some students have had the opportunity to provide immunizations during their introductory experiences.[4] In states that allow this, administering immunizations provides pharmacist interns unique opportunities to gain confidence in both administration technique and communication with patients. By offering unique introductory experiences, preceptors can help students build confidence in their patient care skills while benefiting from the students' contributions to the preceptor's practice.

It is important preceptors recognize that students completing an introductory experience are just beginning their education, so their pharmacy knowledge base is substantially limited. This does not mean that you should have lower expectations of introductory students than advanced students, but that they must be different. The expectations must be in line with how far students have progressed within the professional sequence. In addition, because introductory students have less classroom education, they may require more direction and supervision than fourth-year students. This potential burden can be minimized by using the multiple techniques discussed above. On the positive side, introductory experiences are commonly pharmacy students' first look into actual pharmacy practice. These early experiences are an exciting time for pharmacy students, and it can be fun for preceptors to be a part of the experiences, guiding students, and helping them gain an understanding of pharmacy practice. Students are very impressionable at this stage, so preceptors play a key role in shaping student views of pharmacy practice in the numerous settings. Considering this, take care to ensure introductory students have a positive experience. Introductory students tend to be excited about on-site training; they are typically motivated and eager to learn.

PRECEPTOR PEARLS

Preceptors must recognize that introductory students, who are just beginning their didactic education, must be provided experiences on which they can build.

Preceptors can prepare for introductory practice experiences in numerous ways. Prior to a student's scheduled learning experience, work with the course coordinator or experiential program director to ensure that you receive course learning objectives, a description of the methods used for student assessment, and a summary of concurrent didactic material taught in the pharmacy curriculum. In addition, you may request guidance on appropriate methods for providing feedback to learners. You may also inquire about the student you will be precepting to learn the professional level (e.g., second year, spring semester) and specific student strengths and areas of deficiency that the experience can address. This information may assist you in starting out on the "same page" as the students. You should also be familiar with your state board of pharmacy regulatory requirements for preceptors. In addition, each college for which you are a preceptor may have different training requirements and expectations. Typically, you must be a pharmacist for at least 1 year before you may serve as a preceptor.

IPPEs are an important newer addition to the pharmacy curriculum, which serves to enhance classroom learning and prepare students for APPEs. Preceptors have the opportunity to model essential patient care skills and significantly contribute to the professional development of introductory practice experience students.

Intermediate Practice Experiences

The profession of pharmacy is built on lifelong learning, which starts early in one's career. The primary beginnings of this learning are through pharmacy practice experiences. The ACPE categorizes practice experiences into two sections: all experiences up until the final year of school are *introductory experiences*, and all rotation experiences during the last year of school are categorized as *advanced experiences*.[1] This chapter is designed to show that learning experiences are a continuum. This section proposes a middle step—*intermediate experiences*—between introductory and advanced experiences, which many colleges of pharmacy have adopted as a part of their IPPE curriculum.

Back in pharmacy school, our family and friends inevitably called for medical advice, but early in our pharmacy education those questions were likely difficult to answer. However, as our careers have progressed, those calls seem to get easier to handle. These professional experiences are invaluable, and the more experiences pharmacy students have, the stronger their foundation becomes and the greater the chance they have to grow and build on what they have learned.

ACPE does not define intermediate experiences, but they are the logical progression from the initial practice experiences to the advanced experiences. For example, a student may learn the structure and format of a patient chart during an initial experience, participate in data collection during an intermediate experience, and then work with the preceptor to analyze the data and develop recommendations during an advanced experience. Exposing the student to various aspects of pharmacy over time allows him or her to assimilate the practicality of information, and it firmly engages them in pharmacy practice. Considering the learner's previous experiences is critical in determining what tasks and responsibilities you should afford the student.

Preceptors would likely agree that students who have a broad practical knowledge of pharmacy are more successful on rotations. One common complaint among specialized clinical practice preceptors is that students enter their rotations without basic practical clinical knowledge. For example, a student who has experience only in the retail setting would lack a foundation of hospital or general medicine experience. Without this experience, if the student is assigned to an intensive care unit (ICU) rotation on the first day of rotations, the ICU rotation will ultimately become a general hospital rotation or an internal medicine rotation despite the efforts of both the student and the preceptor. However, it is impractical for all students to be assigned first to a general hospital rotation. This example highlights the importance of having students complete intermediate rotations in various settings so they can both gain experience and determine which type of fourth-year rotations they would like to pursue.

PRECEPTOR PEARLS

Encourage students to acquire intermediate experiences to continue building on their knowledge and skills.

Intermediate experiences can also include experiences outside of school oversight. Work internships are probably the best examples of this practice. They provide two key opportunities: *exposure* and *marketability*. Work internships allow students to try out pharmacy practice in various settings without an extensive time commitment. For example, students who have worked in a retail setting can take an internship at a hospital for the summer to gain exposure to the different practice settings, and vice versa. Work internship commitments typically occur during the summer, so they give students insight into what practice would be like in the chosen settings without commit-

ting students to that work setting long term. Students who complete a work internship can use that intermediate experience to guide their fourth-year rotation decisions, furthering them on their career path. For example, a student who completes a work internship in a hospital may find that he or she wants to pursue pharmacotherapy related to psychiatry. The student could use that information to choose multiple inpatient neurology or psychiatry-related rotations (as the program allows).

Besides exposure/experience, work internships offer marketability. Students who complete work internships have broader experience than those who do not complete them, and the work internship may help students choose their desired area of practice based on their experiences. Potential employers, including ones who hire pharmacy residents, are excited about students with work internship experience. In addition, in some states, work internship hours beyond IPPEs and APPEs may be a requirement for pharmacist licensure application.

Some colleges of pharmacy may have up to four distinct types of IPPEs: *classroom/laboratory simulation, community IPPE*, *institutional health-system IPPE*, and *direct patient care experiences*. The community and institutional health-system IPPE may focus more on medication dispensing and other appropriate operational elements. In contrast, the direct patient care experience may occur in the third year of the didactic curriculum, where students have opportunities to directly interact with patients. Students may provide higher-level patient care services, such as comprehensive medication review and reconciliation at the point of hospital discharge or other health-setting transitions. They may interact with other interprofessional learners and preceptors as well as different levels of pharmacy learners. At times, these experiences may be longitudinal, such that the student is at the site once a week for 3-4 hours for an entire semester or year. This offers opportunities for continuity of care and potential interactions with the same patients (e.g., in nursing homes, ambulatory care clinics) or others with consistent patient populations.

In both IPPEs and APPEs students should be exposed to interprofessional teams, including physicians, nurses, other prescribers, physical and occupational therapists, dietitians, and social workers. Historically, some pharmacists may have never had the opportunity to develop working relationships with other professional team members until they were licensed pharmacists. The ACPE Standard 2016, standard 11, specifically indicates that the Doctor of Pharmacy curriculum should prepare students to be contributing members of interprofessional teams in a variety of patient care settings. The intermediate-type experiences may provide activities that allow PharmD students to work jointly with the healthcare team providing patient care and improving their interprofessional team effectiveness in a safe learning environment.

Intermediate experiences are a means for today's pharmacy students to deepen their practical knowledge and to prepare themselves for practicing on their own. They offer an important step in the experiential training pathway, spanning and supplementing the gap between early introductory rotations and advanced experiences, allowing the students to be more "APPE-ready." Students commonly feel excitement, relief, and fear after passing the boards and realizing they can officially practice alone. The recognition that they are now the final check, the last one to approve a medication, and the last individual to catch an error can make that transition period a difficult time. However, a solid didactic education combined with all of the hands-on knowledge acquired during early and intermediate IPPEs can give confidence to a novice practitioner.

PRECEPTOR PEARLS

***Consider developing learning "stepping-stones" and activities to facilitate the spectrum and growth of IPPE students. Strive toward preparing your IPPE students to be* APPE-ready.**

ADVANCED PHARMACY PRACTICE EXPERIENCES

APPEs build on a solid foundation of IPPEs and extend into more focused areas of expertise. Pharmacists can practice in various settings, some of which are traditional (e.g., hospital, retail) and some of which are unique (e.g., nuclear, veterinary). No matter the setting, the underlying principles of interpersonal and professional skills cross all practice areas. This section aims to review the core underlying principles that guide APPEs.

Professional Skills

Advanced practice experiences provide opportunities to develop and enhance the learner's professional and patient care skills. Most advanced practice experiences focus on direct patient care activities. As you consider how to involve students in your practice environment, consider the entry-level skills that a pharmacist will need to be independent at your site or to be ready as a new resident or fellow. Also, consider how learners may be able to enhance the patient care that you are providing. In addition to direct patient care activities, other elements will enhance a student's professional skills and round out his or her experience. **Box 7-1** lists examples of direct patient care and general activities that can refine those patient care and professional skills. **Box 7-2** provides examples of additional experiences available to students beyond the more traditional sites. Activities associated with specific skills appear below.

BOX 7-1. Examples of Student Activities on Advanced Experiential Rotations*

- Formal patient case presentations
- Journal club presentations, including reviews of pertinent articles for pharmacists
- Formal written drug information responses
- Pharmacy and therapeutics drug monographs
- Medication-use evaluations
- MedWatch adverse event reports
- Formal in-service presentations regarding new therapeutic approaches
- Topic discussions
- Formal research or writing projects
- Patient-specific monitoring and evaluation
- Patient-specific interviews, physical examinations, assessment, and recommendations
- Medication reconciliation
- Individual or group patient education (i.e., diabetes, other chronic disease group education classes)
- Participation in interprofessional patient rounds (i.e., inpatient rounds, hospice outpatient interprofessional rounds)
- Vaccine administration as permitted by state law and regulations
- Health promotion/disease prevention fairs
- Grand round presentations and/or attendance (e.g., medical, pharmacy, interprofessional)
- Quality improvement projects that challenge critical thinking skills

* Students must be appropriately supervised as required by state and federal laws and regulations when working in patient care environments.

BOX 7-2. Additional Experiential Experiences

- **Pediatric Camps: Diabetic, Hematology/Oncology, Hemophilia, Dialysis**
  Allow students to work in an interprofessional environment, advising and managing pediatric patients with chronic disease over a 1- or 6-week period
- **American Association of Colleges of Pharmacy (AACP)**
  National organization that represents the interests of pharmacy education and educators; Alexandria, VA
- **American Pharmacists Association (APhA)**
  Provides experience in national association activities and operations, pharmacy practice issues, educational programming, state services, scientific affairs, student affairs, public relations, and project management; Washington, DC
- **American Society of Consultant Pharmacists (ASCP)**
  Provides experience and training in federal and state legislative and regulatory processes; focuses on pharmacy, long-term care, and other current healthcare issues being considered by federal and state legislative and regulatory bodies; Alexandria, VA
- **American Society of Health-System Pharmacists (ASHP)**
  Provides experience in association activities and operations, publications and drug information systems, membership and organizational affairs, governmental affairs, professional and public affairs, student affairs, marketing, and product development; Bethesda, MD
- **International Pharmaceutical Students' Federation (IPSF)**
  Promotes interaction among pharmacists internationally in order to improve public health; offers many international experiential opportunities; The Hague, Netherlands
- **United States Pharmacopeia (USP)**
  Develops standards for quality of medicines and publishes *USP DI*; Rockville, MD
- **U.S. Public Health Service (UPHS)**
  Offers a variety of experiences related to the provision of public healthcare; optional U.S. Public Health Service sites include the Bureau of Prisons (Washington, DC), the Food and Drug Administration (Rockville, MD), Indian Health Services (numerous locations), and the National Institutes of Health (Bethesda, MD)
- **State Pharmacy Organizations**
  Provides experience in organizational management to include membership demands, legislative activities, state board of pharmacy collaboration, and seminar development.

Teach Students to Provide Pharmaceutical Care/Disease Management

During introductory practice experiences, preceptors teach pharmacy students the fundamentals of pharmacy practice. In advanced experiential rotations, preceptors continue to educate student pharmacists in providing patient-centered and evidence-based pharmaceutical care, which involves the following:

- Evaluating and recommending optimal medication regimens for individual patients (e.g., therapeutic selections).
- Assessing adverse reactions or drug interactions.
- Identifying and evaluating clinical signs and symptoms (e.g., interview patients for history of present illness, review relevant organ systems, perform pertinent physical examinations).

- Ordering and interpreting laboratory tests in relation to medication therapy and disease management.
- Assessing medication adherence for disease management and adhering to evidence-based clinical guidelines.
- Establishing and evaluating patient-specific therapeutic goals and outcomes (e.g., achievement of a specified blood pressure, resolution of an infection).
- Selecting, initiating, modifying, or discontinuing medications to achieve therapeutic goals following site-specific policies.
- Discussing the cost of medications and other potential barriers to care with other healthcare professionals and the patient prior to selection of therapy.
- Monitoring medication therapy (e.g., drug concentration, organ function tests) for assessment of efficacy and toxicity.
- Determining the impact of medication therapy on the patient's quality of life.
- Documenting the clinical encounter (e.g., subjective, objective, assessment, and plan [SOAP] note, consultation chart note).
- Billing for pharmacist-delivered care services.
- Applying multiple guidelines to patients with multiple disease states and comorbidities.

APPEs are based on direct patient interaction and focused on further development of critical thinking and problem-solving skills. At the start of a rotation, it may be helpful to assess the learners' knowledge with patient case studies and medication-specific problems. The students' answers can help you assess their knowledge base and therapeutic understanding and allow you to design educational activities accordingly. During the rotation, you can have student discussions by assigning readings pertinent to the specialty area of practice with questions for the student to address regarding medication-specific problems. You may also ask students to draft chart notes based on additional patient case studies and to bill for appropriate current procedural terminology codes. Some electronic health records along with institutional policies will allow student notes to be included for teaching purposes only. It is important to understand the policies of your facility on patient-specific documentation by students. If you are billing for your services, you will need to understand Medicare or other third-party payer rules and regulations for the involvement of the student in direct patient care and documentation. Other student activities might include asking them to analyze their own medication-prescribing recommendations and to perform quality improvement using a systematic method for their continuing professional development. Toward the end of the rotation, you could give the students a post-test to measure the progress they have made.

APPEs that are not based on direct patient care are often challenging to learners as it may be the first time that they have encountered this type of practice setting. Non-direct patient care experiences include rotations in management, health plan administration, organizational leadership, clinical operations, and medication safety and quality. It will be important to meet with the learner at the beginning of the rotation to determine their perception of the role and goals to be successful. The preceptor will need to set up shadowing time to provide the learner with an opportunity to see how nondirect patient care roles align with knowledge gained during didactic study and in direct patient care settings.

These rotations offer the student a different view of pharmacy practice and, therefore, need to offer different learning experiences. The preceptor could provide topics for the learner to research and select a pertinent article to review together. Additional experiences may include projects

that challenge the learner in the areas such as budgeting or managing populations of patients either in a geographical area or with specific disease states. Assessing a medication from a global financial perspective to the health system—including not only drug cost but success rates, re-admission rates, long-term therapy impact, length of stay, etc.—provides dynamic discussion opportunities for the learner and the preceptor while offering a useful and timely project for the health system.

PRECEPTOR PEARLS

Pre- and post-assessments can provide the preceptor with information on the learners' knowledge, skills, and progress as well as guide topic discussions.

Encourage Students to Become Independent Practitioners

The preceptor's aim during an advanced experiential rotation is to teach students how to develop independent clinical judgment while working as members of the interprofessional healthcare team. To become independent, it is important for students to observe you providing patient care and making decisions that impact groups of patients. When they have observed you initially, it is essential for them to provide recommendations themselves with appropriate supervision. For the student to improve, providing frequent constructive feedback is essential. This can be accomplished by directly observing a student's interventions or interactions or through gathering feedback about student performance from other healthcare team members. For a management rotation, this would be nonclinical leadership such as the Chief Medical Officer or the Chief Operations Officer. The ideal preceptor–student training scenario is to have direct preceptor observation of the student. This enables you to have a clear perspective of the student's performance and allows you to provide specific feedback immediately to the student. It is this type of quality, timely supervision and feedback from preceptors—not the number of patients seen by a student—that improves student competence.[5]

The preceptor can assist the student in applying a didactic concept to an actual patient (e.g., see one, do one, teach one) by allowing the student freedom to exercise his or her judgment. For example, students should have the opportunity to solve difficult problems on their own (e.g., how to renally adjust tobramycin therapy), and then they should discuss the best approach and solution to the problem with you. Students who lack self-confidence and always rely on others to find therapeutic answers will especially need your guidance. Assign them tasks with increasing difficulty and give them positive feedback. Conversely, students who are overly confident and ignore supervision may need a reminder to check in with, and report back to, the preceptor and other team members. At the beginning of the experience, it is critical to delineate the student's role and how he or she should be interacting with the preceptor and the team, especially as it relates to making recommendations or providing direct patient care. This can help avoid the overly confident student from making a bad recommendation to the team or patient.

Learners on nonclinical rotations should also be given projects with increased complexity over the rotation. This gives learners the ability to build on previous skills but challenges them to continue refining critical thinking skills.

It is also important to involve students in evaluating their own learning in order to develop critical self-reflection for continued professional development and lifelong learning.[6] At the beginning of the experience, ask students what they perceive as their strengths and weaknesses and their specific learning goals. Throughout the experience,

ask students to self-reflect on their performance (e.g., after interacting with a patient or after providing an in-service presentation). In addition, you may want to request previous APPE evaluations or previous preceptor-identified areas for student improvement from the experiential coordinators at the colleges or schools of pharmacy. This may help to provide continuity and reinforcement of learning. Pharmacists in all settings have competing daily demands, and being able to prioritize and know which demand needs a more in-depth focus leads to long-term success. Allowing learners to practice this on rotation will set them up for future success.

Teach Students to Organize Daily Activities and Manage Time Wisely

As students move from didactic to experiential learning and from introductory to advanced experiential rotations, they need to learn to manage their time wisely in order to accomplish an increasing number of tasks. During advanced rotations, they will have to review more charts, check more prescriptions, evaluate more patients, and document more chart notes—all without compromising the quality of their pharmacy skills. Make suggestions to students for maintaining quality job performance based on your own experience, and help them by setting both quantitative and qualitative goals as the rotation progresses. Whatever pharmacy position a student may choose, he or she needs to understand that efficient organization of daily activities and wise time management are essential to success.

Influence Students to Develop a Healthy Professional Attitude

Preceptors can influence learners to develop a healthy professional attitude by being enthusiastic about their work and demonstrating a strong work ethic. When students are expected to perform a greater number of tasks during their advanced experiential training, they may face greater challenges and stress. Students may become increasingly frustrated or overwhelmed as they attempt to further develop their professional skills and stretch their capabilities. When this happens, do not lower the educational standards of the clinical training simply to alleviate student anxiety, but rather explain to students the ways in which you personally cope with stress and frustration. Healthcare professionals and model preceptors often use humor as a release for their stress and frustration.

Another point is to inform students that the most common reasons for disciplinary action from medical boards after graduation are irresponsibility, diminished capacity for self-improvement (including a poor attitude), and poor initiative as manifested by a lack of motivation or enthusiasm.[7] If students are responsible and motivated to help patients, they should feel somewhat reassured about their future practice. However, it is also important to be able to recognize students who may need professional medical care to address their anxiety or other health-related issues. Become aware of the resources for student healthcare needs of your site or school.

Empathy for patients is a professional attribute that pharmacy students can further cultivate through advanced experiential education. As students have more direct interactions with patients and their family members, they may feel more emotionally connected. Preceptors can help students to develop professional attitudes that include empathy and to establish healthy professional relationships and appropriate boundaries with patients without becoming too emotionally involved. Empathy is also important in nonclinical settings such as management. Developing relationships with appropriate boundaries of peers and subordinates is essential, and preceptors should model healthy behaviors.

Share with Students the Satisfaction of Professional Growth and Scholarly Development

Specialty education, a form of advanced experiential rotations, focuses on particular areas of expertise, allowing for concentration in both clinical learning and scholarly development. Give students opportunities to help you with a research project, whether it is a health outcomes study, a quality control study, a translational research project, a pharmacokinetics study, or a controlled clinical trial. With instruction, students will learn the necessary steps in conducting a research study (e.g., development of research protocols, tools, and instruments; methods of data collection; choice of statistical analyses) or submitting a manuscript for publication in a peer-reviewed journal. Students can also be especially helpful in completing the background literature search, data retrieval, and analysis of the information to formulate a research hypothesis. They will also benefit from learning about the obstacles that had to be overcome in a research study and will gain satisfaction in knowing that research results can improve patient care.

Another motivating factor for students is to be able to assist in the presentation of a research project at a local, state, or national pharmacy or medical meeting. These events are great opportunities for personal and professional growth. When students observe the enthusiasm that preceptors have for developing scholarly activities and gain some hands-on experience in research projects and presentations, they will be inspired to develop their own scholarly agenda.

Teach Students to Teach Others

Teaching students how to teach others is an important component of advanced experiential education. Initially, you should ascertain if the student has had prior teaching opportunities and encourage him or her to reflect on what went well and what needed improvement. Then, you can use several methods to hone the teaching skills of your students. *First,* allow students to watch you teach. *Second,* explain the teaching techniques you use and describe how you prepare to teach a class or educate a patient. *Third,* give students opportunities to teach through in-service presentations, patient education encounters, and introductory rotations with other students. Students should interact with students from other colleges of pharmacy and other health professional programs to teach each other through patient care rounds, topic discussions, and patient presentations. Giving students feedback after their presentations will also help them improve their teaching and presentation styles. Finally, embrace the opportunities for students to teach you, the preceptor. Students who are able to do this well on rotation will continue this skill into practice for years to come. Students should be encouraged to share newly learned information from the primary literature or other resources. They might share this information through their journal club presentations, drug information responses, or patient care plans. Learning should always be a mutual exchange of information between the learner and the preceptor, the patient, and the healthcare team.

Interpersonal Skills

How a pharmacist interacts with other professionals in a multidisciplinary healthcare setting can affect his or her professional future. Teamwork is essential in such a setting, and preceptors should help students develop the personable working style that makes teamwork possible. Preceptors should be a positive role model, using effective listening and nonverbal, questioning, and narrative skills to communicate with patients, families, and other healthcare professionals. Preceptors should also demonstrate sensitivity by recognizing the influence of a patient's culture, age, gender, disability, and financial status on his or her health beliefs as they relate to pharmacotherapy. How well preceptors interact with others in these situations can have far-reaching effects on their students' future professional perfor-

mance. For this reason, always role-model appropriate interpersonal skills. During experiential rotations, observe and provide feedback to students regarding their interpersonal interactions with other pharmacy staff, other healthcare professionals, and patients. Encourage sharing of information in a positive way to foster dialogue and ensure a clear message is received.

PRECEPTOR PEARLS

Helping students develop their interpersonal skills involves role modeling, observation, and feedback; preceptors should create these experiences for the student and discuss these skills as part of the rotation.

Unfortunately, preceptors and students may struggle to work effectively with others or even with each other, especially if personalities clash. If this occurs, you must have the personal confidence, emotional vulnerability, and integrity to be honest and human and to explore the possibility that you contributed to the problem. Having the ability to overcome these challenges is important to the professional development of both students and preceptors.

Pharmacy Residents as Preceptors

PGY1 and PGY2 pharmacy residency programs are designed to further develop pharmacists. To be a skilled practitioner, it is essential that you have problem-solving and critical thinking skills and that you can communicate and disseminate this knowledge. As such, you need to be able to teach a variety of learners, including patients, students, and members of the healthcare team. After completing a pharmacy residency program, many residents will pursue a career in academic pharmacy or become a preceptor. In order to prepare pharmacy residents for these future roles as clinicians, faculty, and preceptors, accredited residency programs will include instruction in the area of teaching. ASHP accreditation standards for PGY1 pharmacy residency programs require inclusion of developing competency in the area of teaching, education, and the dissemination of knowledge in the program's design.[3]

Guidelines have been developed for residency teaching experiences.[4] These guidelines outline basic teaching experience criteria and standards for formalized teaching certificate programs. Included within these guidelines are some recommendations for PGY1 and PGY2 co-precepting experiences in APPE or IPPE environments. A PGY1 resident can work jointly with the preceptor prior to the experience to develop the learning experience for the APPE or IPPE students, which includes learning goals and objectives, activities, and schedules. Jointly with the preceptor, the PGY1 resident can facilitate all activities and conduct assessments. Initially, you will want to assess the resident's teaching skills and introduce him or her to co-precepting. Early in the residency experience, especially if your experience is a new clinical area for the resident, he or she may be a student–resident partner with opportunities to provide feedback and teach, but not as a formal co-preceptor. As his or her skills improve, you can increase precepting responsibilities. Feedback on the resident's precepting skills in addition to clinical skills should be provided during the learning experience.[8]

The PGY2 resident can conduct more activities independently. In longitudinal experiences, the PGY1 resident may also perform co-precepting roles more independently as the year progresses. The roles may include conducting orientation, evaluating student assignments, and facilitating all activities with support from the preceptor as needed. Providing opportunities for residents to co-precept not only develops their teaching skills but also enhances their clin-

ical skills and knowledge. If your program has an academic affiliation, you may want to consider developing a formalized teaching certificate that further develops the teaching skills of the resident beyond the role of the preceptor. Overall, if your program includes pharmacy residents as learners, consider including them as co-preceptors.[9]

PRECEPTOR PEARLS

Advanced experiential rotations provide the opportunity for students to develop from student to professional pharmacists and to expand their mindset on what opportunities are available to pharmacy professionals.

Most colleges and schools of pharmacy have specific requirements for the number and types of rotations a student has to complete during the final year of training. The main difference among practice experiences is usually whether there is a direct patient care component to the rotation. Rotations that require the student to provide distributive services (e.g., dispensing prescriptions, performing prospective drug use reviews, compounding sterile parenterals) are required rotations for most programs. Students will have typically learned the basic distributive services in an earlier required introductory experience and will now be ready for learning advanced skills. Many boards of pharmacy require the intern to be under the direct supervision of the preceptor when performing these duties. Most traditional community and institutional pharmacy rotations fall under this category.

Today's pharmacy curricula require the student to complete several clinical rotations in both the acute care/inpatient and ambulatory care environment. The ACPE 2016 Standards require the APPE portion of the curriculum to be no less than 36 weeks (1440 hours), with the majority focused on direct patient care.[1] The students must complete required APPEs in the following four practice settings: *community pharmacy, ambulatory patient care, hospital/health-system pharmacy,* and *inpatient general medicine patient care.* Most APPEs will typically be 4-6 weeks in length, depending on the college/school requirements. Some experiences may also be longitudinal in design (e.g., 4 hours per week for 9 months). The student will complete some form of an internal medicine rotation that will involve exposure to several common diseases (e.g., hypertension, hyperlipidemia, diabetes, asthma, coronary artery disease). The student will need to complete this type of rotation in an inpatient and ambulatory area. In addition, other clinical specialties routinely qualify as direct patient care experiences including pediatrics, psychiatry, oncology, infectious diseases, critical care, and nutrition support.

Elective rotations may or may not have a direct patient care component. Moreover, some programs allow rotations that would count as a required rotation to qualify as an elective rotation. A student may request to have a direct patient care component for all rotations depending on his or her career goals. Other students may have interest in other aspects of pharmacy practice. An elective rotation allows a student to pursue his or her interests while meeting the requirements of the degree program. State boards of pharmacy may not count these types of rotations as earned intern hours, even though the academic program may require this type of rotation. Examples of elective rotations include pharmaceutical sales and education, association management, legislative and regulatory practice, academic teaching, basic science research, and drug and poison information. Some programs consider the last type of rotation to be direct patient care if the information provided by the student will be used to make a clinical decision for a patient in the institution.

Students may complete several types of competitive rotation experiences as part of their experiential training. For example, many pharmaceutical companies offer competitive internships that provide degree credits and experience for students with an interest in the pharmaceutical industry, including research. Many of the national and state pharmaceutical organizations offer internships in association management or elective rotations. ASHP, the American Pharmaceutical Association, and the National Association of Chain Drug Stores currently offer student rotations as well as executive residencies. The federal government and armed services have competitive rotations for students with the U.S. Food and Drug Administration, the Veteran's Administration, and the Indian Health Service.

EFFECTIVE METHODS, STYLES, AND STRATEGIES OF TEACHING AND LEARNING

Teaching can be rewarding, especially if you feel that you are able to pass on substantive skills and knowledge to learners. Effective teaching inspires the curiosity and helps improve problem-solving skills useful in all healthcare settings. The most important goal of a preceptor is to inspire learners to grow by questioning their environments and assessing their personal approach to patient care.

Types of Learners

There are three types of learners: *visual, auditory,* and *kinesthetic.* Knowing the learning style of the person you are precepting will help facilitate your teaching and enhance his or her learning process. Most individuals learn from a mixture of styles but tend to process information with predominantly one style. Adjusting your teaching methods to the topic you are discussing and encompassing multiple teaching formats—including reading, writing, charts, diagrams, and interactive discussions—will help to create the ideal learning environment (see **Table 7-1**).

Visual learners tend to learn from written words, graphs, charts, textbooks, and spatial arrangements. You should teach to this type of learner by giving reading assignments and having the student use visual aids such as graphs, pictures, and written responses to questions.

Auditory learners acquire new information from listening. Teaching exercises that work well for this type of learner include having discussions on topics and asking them to repeat back what they have learned. Use presentations like journal club and case presentations as major learning activities.

Kinesthetic learners process information by doing activities instead of just listening or reading. They prefer a hands-on approach and do well when they participate in rounds, communicating with physicians and other healthcare providers. One of the activities they might benefit from is shadowing professionals in other disciplines (e.g., dietary, nursing, respiratory) that encourage them to do more hands-on patient care activities. They also do well with interactive discussions from which they can then apply the knowledge learned to a patient situation.

PRECEPTOR PEARLS

To facilitate teaching and the learning process, the preceptor should immediately assess the learning style of the pupil.

Metacognition and Learning

Metacognition strategies help learners examine themselves to assess how they learn and judge which methods are effective. *Metacognition* literally means "thinking about thinking." Practically speaking, it allows students to become more aware of how they learn and to evaluate their learning needs. Metacognitive skills are essential for the efficient independent learner.

TABLE 7-1. How to Present Information to Different Types of Learners

Type of Learner	Ways to Present Information
Visual: Write It	◆ Provide written materials and exercises ◆ Write key words on board or flip chart ◆ Ask learner to write a response ◆ Use visuals or graphics ◆ Ask learner to record the discussion in a group ◆ Involve learner through visual/spatial sense
Auditory: Say It	◆ State the information ◆ Ask learner to describe specific information ◆ Provide discussion periods ◆ Encourage questions ◆ Foster small group participation ◆ Use video clips and other audio methods
Kinesthetic: Demonstrate It	◆ Demonstrate how a principle works ◆ Ask learner to practice the technique ◆ Encourage underlining and highlighting of key words ◆ Provide real-life simulations ◆ Offer hands-on activities ◆ Involve learner physically

Source: Adapted with permission from Karen Hamilton. Presenting to different types of learners. http://kehamilt.idirect.com/spklearn.html. Accessed March 30, 2019.

There are two components of metacognition: the knowledge of cognition and the regulation of cognition. The *knowledge component* involves knowing different learning strategies to use, knowing which strategy to use for a particular situation, and knowing which factors affect your performance. The *regulation of cognition component* involves monitoring learning and evaluating one's own progress and goal setting.

Strategies to facilitate metacognition are as follows: 1) ask questions that allow learners to reflect on their own learning process; 2) foster self-reflection during and after learning experiences; 3) encourage self-questioning to increase comprehension of the situation or disease state; 4) promote independent learning and challenge them to construct their own metacognitive strategies for the situation; 5) ask learners to think aloud while performing a difficult task to help point out errors in thinking and bring self-awareness; 6) encourage self-examination in writing and speaking; and 7) be available to assist if the learner needs help with the process.[17]

One great way for instructors to foster metacognition is asking the learner "*What should you do next?*" Questions the learner can ask during self-reflection are:

- How well did I do?
- What did I learn?
- What could I have done differently?
- Can I apply this way of thinking to other problems or situations?
- Is there anything I don't understand—any gaps in my knowledge?
- Do I need to go back through the task to fill in any gaps in understanding?

Logic-Based Method to Teaching

One of the most effective methods of teaching is a *logic-based system*. This method is especially conducive for the practice of medicine in which statistics and evidence-based medicine are integral. There are three components to this problem-solving tech-

nique: *identifying the problem, identifying why the problem occurred,* and *identifying solutions to the problem.*

The first step in building problem-solving skills in students is to help them identify problems that impact the care of the patient (see **Box 7-3**). Prepare activities and exercises that help the learner detect issues they need to address. Using real patient scenarios to find active problems will make the experience more meaningful. An example of a problem-solving activity with a student in a retail/community setting is to have the student who is filling prescriptions review the patient's other medications for drug interactions and duplications as well as to make sure that the patient is on appropriate medications for his or her diseases. For example, if the patient has metformin and insulin on the medication profile but not aspirin, the student can talk with the patient, ask appropriate questions, and initiate an intervention if necessary.

BOX 7-3. Sample Activities to Help Identify Problems in Common Practice Settings

1. Review medication profile
2. Manage diseases
3. Assess patient compliance
4. Assess patient comprehension

The second step in problem solving is developing a method that helps the learner assess underlying causes for the problem, which will help in understanding the full scope. Each health-related problem has many compounding aspects, and exposing learners to these aspects gives them a comprehensive and in-depth view of the patient's condition. A tool that looks at the whole patient and the interconnecting play between medications, patient medical and social history, physical examination, and laboratories is the Problem-Solving Triad (see **Figure 7-1**), which can apply to any setting for dissecting a medical problem.

Understanding each of the three aspects of the Problem-Solving Triad allows us to approach the patient and his or her management from a whole perspective. Fully assessing laboratory test results and vital signs is important to determine the impact of the therapeutic regimen on the patient's underlying health condition. An exercise demonstrating the Problem-Solving Triad in each practice setting is provided below using the patient complaint of diarrhea.

The patient complaint of diarrhea can be further examined with the Problem-Solving Triad. The health complications of the diarrhea can be used to help us elucidate the possible cause. The loss of fluids from the diarrhea has affected the patient's blood pressure and heart rate. The patient has not increased her food or water intake to compensate for the losses, resulting in dehydration, which is reflected in the laboratory values (i.e., increased blood urea nitrogen/serum creatinine [BUN/SCr], decreased potassium and magnesium). By looking at the medications, students can ascertain potential causes of the diarrhea (e.g., antibiotics, metformin). By examining the history, students can rule out potential causes such as gastroenteritis, manifestations of Crohn disease, or diverticulitis.

When the intern or resident has a list of potential causes of diarrhea, he or she can decide the most likely etiology based on the patient's subjective and objective information. Even in a community setting, where only limited physical exam and lab information are available, the student can learn to solve complex health problems using the right tools and strategies. The Problem-Solving Triad is useful in incorporating medications with all other health parameters. It allows pharmacy interns and residents to go beyond just examining the patient medication list, assessing each patient health issue from a comprehensive perspective. This will allow them to solve patient problems effectively and, thus, make a significant impact on patient care.

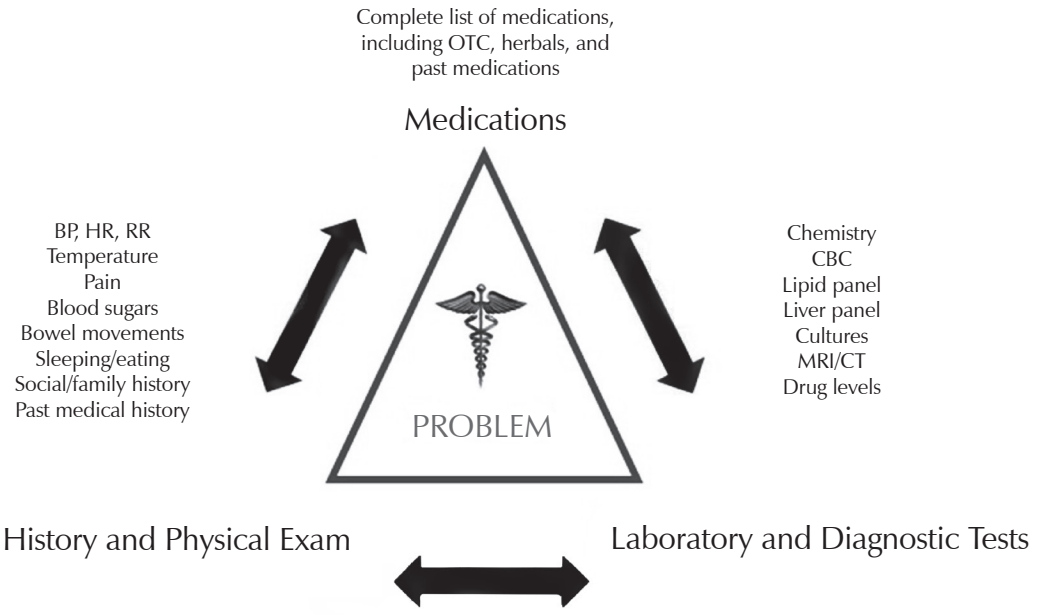

FIGURE 7-1. The Problem-Solving Triad.

BP = blood pressure; CBC = complete blood count; CT = computed tomography; HR = heart rate; MRI = magnetic resonance imaging; OTC = over the counter; RR = respiratory rate.

Source: Figure courtesy of Dehuti Pandya, PharmD, TIRR Memorial Hermann Hospital.

PRECEPTOR PEARLS

Use the Problem-Solving Triad as a systematic method for problem solving that can be applied to many different settings.

The last step in problem solving is developing solutions that are feasible for the patient and healthcare provider. It is important to remember that many patient problems are complex; having only one solution to the problem may leave other more viable and appropriate solutions undiscovered. Prepare activities for trainees that involve devising multiple solutions to a problem. This prompts them to think about confounders such as drug allergies, disease contraindications, drug interactions, cost prohibitions, insurance formulary restrictions, and compliance issues. Challenging the interns and residents to identify at least three solutions to most problems allows them to move past the most easily identifiable solution and to propose novel, potential solutions.

In the case of the patient with diarrhea (see next page), suppose the cause is the antibiotics. Three possible solutions are 1) because there are only a few days left to complete treatment, consider staying on nitrofurantoin but increase hydration and add antidiarrheal; 2) contact physician and consider change of antibiotics; or 3) keep same antibiotic, add lactobacillus treatment, increase hydration, and use PRN (as necessary) antidiarrheal. Depending on the patient's severity of diarrhea and the patient's economic and social conditions, any number of these interventions may be appropriate. Students should assess each intervention in the context of the patient's entire clinical and social picture, and then work with the patient and the physician to determine the best intervention.

CASE SCENARIO

I. Community Pharmacy Setting (Problem: Diarrhea)

History/physical exam: Patient reports loose bowel movements for 5 days; decreased blood pressure and increased heart rate when checked at counter; no change in oral (PO) intake.

Laboratory tests: No current laboratory tests are available, but patient reports that last week she had an elevated white blood count. She states that she is currently being treated for a urinary tract infection.

Medications: From the patient's filled prescription record, she is on nitrofurantoin, metformin, lisinopril, atorvastatin, aspirin, and metoprolol.

II. Clinic/Hospital Setting (Problem: Diarrhea)

History/physical exam: Past medical history of diabetes, hypertension, coronary artery disease, and current urinary tract infection; loose bowel movement for 5 days; decreased blood pressure and increased heart rate since yesterday; fluid intake is 1.5 L/day.

Laboratory tests: Hypomagnesaemia; hypokalemia; increased BUN/ SCr >20; leukocytosis but trending down.

Medications: nitrofurantoin, metformin, lisinopril, atorvastatin, aspirin, and metoprolol.

Tools for Teaching and Learning

New Technologies

It is vital to familiarize our students with new technologies and computer-based processes because they are now an integral part of healthcare practice. Students must learn how to incorporate technologies such as smart phone applications and Internet resources, which are frequently used by healthcare professionals for learning and gathering data. In many ways, these technologies offer a more efficient means of obtaining drug and medical information because healthcare professionals can obtain information rapidly, and the resources are more portable then print resources (e.g., *Drug Information Handbook*). Even though the expanding influence of the Internet and smart phone applications on healthcare practice is inevitable, preceptors must teach students not only how to use such information but how to discern medical information obtained from it. Many medical websites are not peer reviewed and often represent viewpoints of just a few individuals. Using information from such websites to make patient care decisions is strongly discouraged. In addition, preceptors need to assess the skills of learners on how well they use traditional information resources, because many pharmacy practice sites do not have access to all desired information electronically.

Use of Nonpharmacy Personnel

One of the biggest lessons for interns and residents to learn is the importance of their contributions to the care of the patient. Understanding where pharmacy fits in the whole spectrum of care will make them not only appreciate their role but also enhance their perception of other ways pharmacists can contribute to healthcare. Trainees who have exposure to or have shadowed nonpharmacy personnel (e.g., physicians, respiratory technicians, nurses, case managers, speech and physical therapists, dietitians) find themselves feeling more like part of the patient care team. Pharmacists impact other disciplines in many ways, such as the schedules we set for dose administration by nursing and respiratory technicians and the types of medications we choose that can aid or hinder therapists' or dietitians' care. Teaching interns and residents about other healthcare professionals' roles will help them communicate better with the team and will advance their ability to optimize pharmacotherapy regimens for the patient and other healthcare professionals providing care.

The greatest reward for preceptors is to know that their teaching style and methods have provided the learner with a positive experience and have inspired him or her to excel in the future.

LEARNER EVALUATION

Figure 7-2 displays suggestions for offering both praise and reprimand to learners.[10] Initiate praise when you catch the learner performing a desired behavior. Praise his or her behavior as soon as possible, being very specific about what was done right. Emphasize how the behavior positively impacts patient care or others in the practice setting. Follow with a short pause to let the student savor the moment. Then, encourage him or her to continue this positive behavior.

It is also a preceptor's responsibility to identify the learner's weaknesses or areas to strengthen so that he or she can correct them. You should initiate the reprimand as soon as possible after identifying the behavior. However, wait until you are calm, and seek a private place to talk. Be very specific; it is important to let the learner know how his or her behavior impacts patient care or others in the practice site. Although it may be uncomfortable, pause to let the learner know that how you feel is important. After this pause, assure him or her that you are there only to help. You may wish to point out it is the learner's behavior that is the focus of the reprimand, not the individual personally. Finally, do not dwell on the reprimand. When it is over, it is over.

Formative Evaluation

Formative assessment monitors the learner to provide ongoing feedback. This helps the learner identify strengths and weaknesses and target areas that need work. Formative evaluations also help preceptors recognize where the learner is struggling and plan instruction to better meet those needs. Knowing the type of learner you are precepting from the beginning of the rotation is an example of an initial formative assessment, which should occur daily as topics and tasks are discussed and completed. Preceptors should assess learners constantly for knowledge of terms and facts, rules and principles of the task, processes and procedures necessary for task completion, and the ability to translate or apply the information.[11] This information, in turn, should help the preceptor change the approach to the topic or task so that the learner can grasp it better. Utilizing the types of teaching strategies for different types of learners should help. Further examples of formative assessments include asking the learner to turn in a rough draft before the final is due (for early feedback), asking the student to identify (in one to two sentences) the main points after each topic discussion, asking the learner to draw a concept map/algorithm to represent their understanding of a topic, and asking the learner to apply the concept learned to another disease or issue.

Summative Evaluation

A *summative evaluation* assesses learning at the end of an instructional unit for competency. It is often the primary determination of whether the learner successfully completed a given practice experience. For this reason, preceptors must be as objective as possible and perform these evaluations with great care and concern. Never take lightly your responsibility to assess learner competency. Although it is unpleasant to fail a learner, you must if he or she does not achieve the competencies. Your obligation to patients, the profession, and the learner demand it.

PRECEPTOR PEARLS

Although a summative evaluation may determine the final decision of whether to fail a student or not, feedback throughout the rotation should ensure that no one is surprised by the outcome.

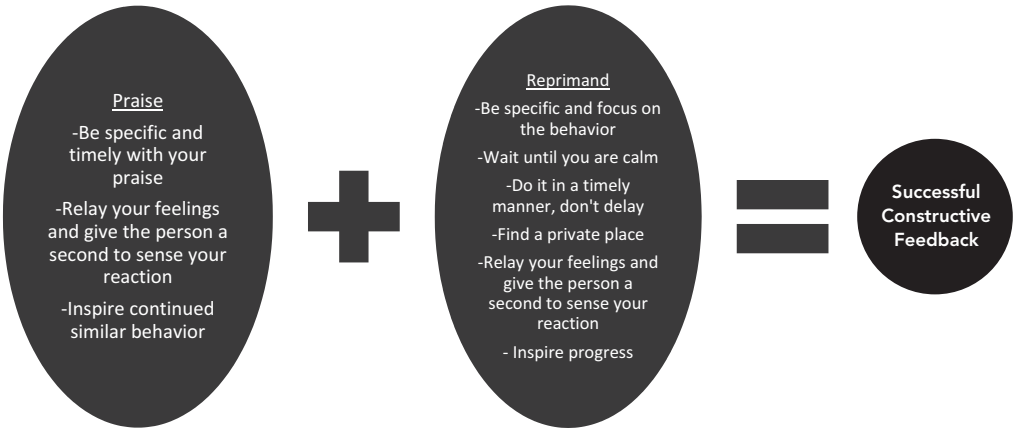

FIGURE 7-2. Praise and reprimand.

Timing of Summative Evaluation

Timing of summative evaluations is important and depends on the nature and length of the practice experience as well as the method of evaluation used. In all cases, a summative evaluation should be based on specific objectives or competencies established for the practice experience. Discuss these objectives with learners at the beginning of the practice experience. Then, tell them when and how you will evaluate them on these competencies. You should conduct at least some method of summative evaluation at the midpoint of the rotation. Learners need to know how they are progressing. Make a plan to correct weaknesses you identify. Do not wait until the end of a practice experience to let students know they are doing poorly. Surprises at the end of the practice experience are never productive for learners or preceptors.

Conduct a final summative evaluation at the end of the practice experience. This evaluation should reflect the learner's achievement of the competencies established for the rotation. Resist the temptation to reward or grade learners based simply on improvement. Remember, you are evaluating their ability to demonstrate competency in performing specific behaviors, not their ability to show improvement or display effort.

Methods of Summative Evaluation

Summative evaluations may follow a number of different methods. The method you choose will depend on the nature of the practice experience and the frequency of evaluation. Often, a combination of methods may be used to provide a broader and more accurate assessment of the learner's abilities.

Examination (Written, Oral, and Practical)

In the classroom, students are tested primarily through *written examination*. This method may also be used in the clinical setting. Individual preceptors may prepare and administer written exams or, in many cases, the college of pharmacy may do so. Use written exams to test knowledge of pharmaceutical calculations, pharmacy laws and regulations, and drug-specific information. Written exams may also test students' ability to use reference materials to answer specific questions or to provide drug information. Written exams are often part of the final summative evaluation process used to determine a student's grade for the practice experience.

Oral examinations may be a more useful method of summative evaluation in the clinical setting. Use oral examinations to test not only specific drug knowledge but also learners' decision-making and problem-solving abilities. Ask probing questions to ensure they have a thorough understanding

of the situation discussed. Alter scenarios or add information to test their ability to reformulate decisions. An oral examination may be part of the final summative evaluation process, but you can also use it more formatively throughout the practice experience to assess and guide student learning.

Practical examinations allow learners to demonstrate their ability in performing very specific, physical behaviors. Use this method to test skills such as sterile and nonsterile compounding, patient counseling, and professional interactions with other healthcare providers. Establish specific criteria for each behavior or skill and grade according to these criteria. Similar to oral examinations, this method can be part of the final summative evaluation process or occur throughout the practice experience to assess and guide student learning.

Evaluation Instruments

An *evaluation instrument* is perhaps the most common method of summative evaluation for assessment of student competency in the pharmacy practice setting. The college of pharmacy usually provides such instruments, which use a numeric, alphabetic, or Likert scale. The school may ask preceptors to evaluate students' application of knowledge, technical skills, attitudes, and personal attributes. By nature, this type of instrument is prone to subjectivity and bias. In addition, the school may ask you to evaluate behaviors that occurred several weeks prior to the time of evaluation. You must do all you can to make the evaluation process objective and reflective of student behaviors as they actually occurred. A five-step approach to completing student evaluations has been suggested[12]:

1. **Observe the students.** Observe students performing the behaviors to be evaluated at least several times over the evaluation period. Ask others who interact with the students to observe student behavior. Do they observe the same things you do?
2. **Record observations.** Make a record of the behaviors you observe. Do this soon after you observe the behavior. Use index cards or electronic devices to make recording of behaviors easy. Abbreviate and use codes, but remember to be specific. Ask others who interact with the students to record student behaviors. At this point, do not evaluate behaviors, just record them.
3. **Retrieve recorded observations.** Collect the records of your observations and the observations of others. Sort and organize them as they relate to the competencies to be evaluated. Do this weekly to identify behaviors that you have not yet observed or require a longer observation period. Use what you learn to guide student learning experiences over the remainder of the rotation.
4. **Analyze retrieved observations.** Look for patterns of performance. Do students consistently perform or fail to perform a specific behavior as required? Do students perform the behavior on their own, or do they need assistance and prompting from preceptors or others? Do the recorded behaviors reflect students' typical performance?
5. **Evaluate the students.** Use what you learn from Step 4 to complete the evaluation instrument. Develop a strategy that works for the type of scale you used. For example, if you used a numeric scale, start with the highest ranking and consider whether students have obtained this level of competence. If not, move to the next lower ranking. Continue until you have selected the ranking that best reflects student behavior. If space is provided for comment, describe specific behaviors that support your rating.

No matter what type of rating scale you use, evaluation instruments are subject to

error and bias. Familiarity with the types of errors that can occur will help you to avoid them.

PRECEPTOR PEARLS

Ensure you evaluate the learner objectively, avoiding error and bias.

After you have completed the evaluation instrument, you should share it with the student. Find a quiet, private place to talk with the learner. Review your ratings and comments with him or her. Be specific. Provide examples from the observations you recorded that support your ratings. Point out behaviors the learner does well in addition to behaviors that need to improve. Involve the learner in formulating a plan to improve areas of weakness. If necessary, re-evaluate areas of weakness on a weekly basis to ensure improvement.

The principles of *resident evaluation* are very similar to student evaluations. There are few adjustments that have to be considered when doing formative and summative evaluations for residents. Formative assessment should be done at the beginning of the rotation to gauge their knowledge base. Students are often starting out the rotation with minimal clinical background, but residents should be starting out with a better knowledge base and skills. Unfortunately, that is not always the case, and it is important to do a formative assessment of residents in the first few days of the rotation to identify weakness in knowledge, problem solving, drug information, and communication. Weaknesses in a resident may not be discovered until late in the rotation because of the preceptor's assumption that a resident has advanced skills. Previous summative assessments can be used formatively to guide efforts and activities for residents, which are often not available to preceptors for students coming in on their rotations.

PRECEPTOR PEARLS

Having detailed activities listed for each objective criteria will help residents work toward building those particular skills and help facilitate evaluations for preceptors when those activities are not accomplished. Summative evaluation of residents is very outcomes-, goal-, and objective-driven, with designated activities planned during the rotation to meet the goals of the rotation. Having detailed activities that support the rotation goals helps residents and preceptors work toward those goals and makes it easier to evaluate residents if those goals are not met.

Secrets of Success

Providing learner feedback and evaluation does not have to be a frustrating and overwhelming task. Provide students with ongoing feedback in a quick and effective manner. At the beginning of the practice experience, let the learners know what summative evaluation methods you will use and how you will determine their grades. Remember that the process of summative evaluation does not begin at the midpoint or end of the practice experience. Observe and record student behaviors throughout the entire practice experience. Retrieve and analyze these behaviors to complete the evaluation instrument. When appropriate, use written, oral, and practical examinations to aid in the evaluation. An organized, behavior-focused approach to evaluations encourages open preceptor–learner communication and ensures a less frustrating and fearful experience for both.

POTENTIAL PRECEPTING CHALLENGES

Offering a student or resident rotation is a commitment to the future of pharmacy. With that commitment comes responsibility

and expectations. When you decide to take a learner or resident on a rotation, you expect that the student will work very hard and have an excellent learning experience. Unfortunately, sometimes this does not occur. When faced with a difficult learner and resident, many times you may be unsure what to do. In addition, it is not uncommon to blame the learner or yourself for the problems. The dangers associated with this type of scenario are that the learner may have a negative experience and fail the rotation, and you may decide to stop teaching.

There are many reasons why a learner may have difficulty during a rotation. When there are problems, the origin of the difficulty usually falls into one or more of the following areas:

- Attitude and motivation
- Attention to the academic program
- Comprehension

Attitude and Motivation

A learner who begins a rotation with a poor attitude will present many challenges for the preceptor. There are several reasons why the learner or resident appears to have a poor attitude or lack of motivation, and some of those include a lack of interest in the assigned rotation or competing factors in their personal life. For some learners, a bad attitude may not have caused problems during the didactic portion of their training. Performing below expectations and being informed that his or her attitude is poor may come as a surprise to some of them. The learner with this type of attitude frequently disregards instructions from the preceptor (e.g., arrives late, does the minimal amount of work, appears lazy) and may become defensive when confronted about his or her behavior. This learner has survived for years with this type of attitude and may feel personally attacked by the preceptor. Lack of motivation is evident in everything he or she does (or does not do). The preceptor may have to be repetitive regarding instructions and usually ends up very frustrated. Helping the learner or resident understand, according to Zig Ziglar, means that "Your attitude, not your aptitude, will determine your altitude."[13]

Even though this type of learner or resident may deserve to fail based on attitude, unfortunately his or her performance may not meet the criteria for failure as outlined by the training program. The learner who does the least amount of work possible may still meet the minimal requirements of the rotation and be eligible for a passing grade. This presents a difficult ethical issue for the preceptor and program.

Assessment of behavior and conduct are routine criteria for most programs. The examples listed in the above case (e.g., reporting late, not completing assignments) could be classified as "unprofessional conduct" and be grounds for failure of a rotation. Failing a learner or resident is always difficult because you want to see the individual succeed. You may feel that you have done something wrong. It is essential to review professional expectations with the learner prior to starting rotations. (Hopefully, these are emphasized from the moment learners start the pharmacy program.) Penalties for unprofessional conduct should be specified in the course or rotation syllabus. This information should be shared with students and their preceptors.

Figure 7-3 is an example of this information; it is included in the course syllabus for all rotations at the University of Texas at Austin College of Pharmacy.

It is critical to document specific instances of unprofessional behavior and communicate this information with the college/school administration. Preceptors should never feel as if they are punished when these situations occur. It is the responsibility of the preceptor to ensure that learners or residents are accurately evaluated even if the evaluation includes outlining unacceptable behavior. Preceptors may be inclined to 'pass' a learner or resident if they have the knowledge and skills and overlook the behavioral

Student-intern professional conduct. Student-interns must also abide by all laws and regulations pertaining to a pharmacist-intern as defined by the Texas Pharmacy Act and Rules. Violation of these laws and regulations may jeopardize the intern's privilege to become a registered pharmacist in Texas and may also result in failure of the course and dismissal from the College and/or the University.

Special Note: Students will be removed from a rotation for conduct deemed unprofessional by the preceptor and/or Student Affairs Office, OR if the student's actions endanger patient health or welfare. Removal from a rotation for either of these two reasons will result in possible failure of the rotation.

FIGURE 7-3. Inclusion of penalties for unprofessional conduct in the rotation syllabus of the University of Texas at Austin College of Pharmacy.[12]

component, but note that this may inhibit the learner or resident from entering the professional workplace in the future.

Attention to the Academic Program

Today's student is very different from students 20 years ago. Many students have already been through the academic process, having completed bachelor's and master's degrees prior to entering the pharmacy program. Some learners have already spent a significant amount of time in the workforce and are back in college to facilitate a career change. This learner may not be as concerned with earning the highest grades in the class as he or she has other external pressures outside of studies. Today's student is often married with children or other dependents to support. This learner may be more concerned with passing courses and rotations than with trying to excel. In essence, this learner excels in simply making it through the program because of the number of responsibilities that he or she has to juggle. It is easy to see how the attention of this type of learner can be pulled in multiple directions and away from the academic program.

Comprehension

A surprising and troubling issue for preceptors is encountering the learner who performs poorly in the final year of the program. There are generally two types of students who fit into this category: the *4.0 learner* and the *2.0 learner*. The 4.0 learner may have done well in didactic courses yet cannot apply that knowledge in a real patient care situation. These learners may be book smart—knowing lots of information but lacking practical application skills. Learners who fall into this category may have been able to memorize large amounts of information and to regurgitate these facts on exams. Integrating this information and applying it to patients who do not present as textbook cases can bewilder the student. This learner is stunned to learn that his or her performance is lacking and may be in danger of failing the rotation.

The 2.0 learner may have worked very hard during the didactic courses yet never performed well on exams. The learner's comprehension of information may be limited; however, he or she has scored well enough to progress through the program. This type of learner may be exposed during the experiential rotations. For some, failure to perform satisfactorily on rotations does not come as a surprise and actually may be a relief. For others, they will need to take on the impossible task of learning 4 years of pharmacy curricula in a 4- to 6-week rotation. This learner will end up facing one failure after another and, depending on the circumstances and requirements of the program, may be subject to dismissal in the final year of training.

Practice Setting

For any of the learners described above, a busy practice environment can be a prescription for failure. All of these learners may

be immediately overwhelmed with the pace and expectations of their preceptor and the rotation. Intervention by the preceptor or program can cause the learner to become frustrated and disengaged. These situations may be compounded if the learner is on a rotation with any classmates. Even the best preceptor can fall into the trap of comparing learners who are from the same program, which only makes the situation more difficult for the learner who is consistently performing below expectations. In addition, the learner who is performing poorly may be intimidated by how well his or her peers are doing and reluctant to ask for assistance from anyone. It will be important for the preceptor to ease learners and residents into new situations and even more important for early rotations. Expectations for learners and residents change over the course of the rotation and the year.

Strategies for Dealing with Difficult Learners and Situations

The first consideration when facing difficult learners, residents, or situations is to determine what may be causing the learner to perform poorly. When you identify the underlying etiology, you can decide what type of intervention is necessary. In all cases, you should immediately notify the program's coordinator at the academic institution that the learner is having problems; likewise, the Residency Director should be notified for residents. The program coordinator and academic institutional coordinator or Residency Director can partner with preceptors and may have better insight if the learner's or resident's situation is a new occurrence or a reoccurrence issue. In most cases, the preceptor will need to document the areas in which the learner or resident is not performing satisfactorily in the learner's assessment or evaluation form. A comprehensive review and understanding of the academic program's requirements and its assessment tool is critical. Consider the following when dealing with difficult learners:

- Will patient care be compromised if the learner or resident continues on this rotation?
  - Were the objectives and expectations outlined clearly?
  - Where is the learner in the sequence of rotations (i.e., first versus last rotation)?
- Has the learner or resident had experience in this practice environment?
- What does the learner or resident's performance on prior rotations indicate?
- What feedback has the learner or resident received on new and unfamiliar situations?
- Is the learner or resident reaching out to me, or could he or she be afraid to ask questions?
- Could I be providing more feedback and making time to review his or her progress?
- Have other members of the pharmacy staff been supportive and helpful to the learner?

When you have identified the problem, you can institute necessary measures to deal with the issue. As previously discussed, the learner may not be aware of his or her failure to meet performance expectations. In many cases, the learner will need to deal with this emotional issue before making any progress toward resolving the difficulty and hopefully moving forward with the training. If appropriate, schedule a meeting with the learner to discuss the issues in a nonthreatening environment. Do this as early as feasible to address learner difficulties and, when possible, provide time for improvement. This meeting should occur in private unless the problem warrants having a witness or a member of the academic training program present. Confronting a difficult learner or one who is failing is not easy for any preceptor. Delaying the discussion with the learner will only feed the problem and not solve it. In addition, it is unfair to expect

improvement on an issue that a learner may not be aware is occurring.

PRECEPTOR PEARLS

Determining the cause of the issue will uncover the roadmap to resolving it. Learners, academic coordinators, residents, and Residency Directors—along with preceptors—should partner as early as possible when a difficult situation arises.

Consider the following when meeting with difficult learners:

- Agree on a time with the student to conduct a private meeting. Tell the learner that the meeting is to discuss a specific issue and not a routine meeting to assess progress.
- Let the learner know your perception of the problem at the beginning of the meeting. Try to be clear about the problem and provide examples. It is important to be specific (see **Box 7-4**).

BOX 7-4. Contrasting General and Specific Feedback

General	Specific
"You have a poor attitude."	"When you receive feedback, you interrupt frequently and have inappropriate nonverbal cues, such as eye rolling."
"You seem to lack attention to the academic program."	"You did not seem prepared for the case topic discussion; you were unable to address treatment alternatives."

- Tell the learner at the beginning about the seriousness of the problem. Is the issue something that may cause harm to a patient, the department, and other staff? What are the implications for the learner (e.g., failure of the rotation)?
- Give the learner an opportunity to digest the news and present his or her perception of the issue. Is there a factor the preceptor is unaware of that is preventing the learner from performing in a satisfactory manner?
- Do not interrupt or get defensive when the learner is talking. This may be the first time the learner is hearing that there is a problem and will need time to digest this information. It is natural for the learner to become defensive and very emotional. Allow the emotions to surface and give the learner an opportunity to express them and then calm down. The learner will not hear you while in a highly emotional state.
- Document your discussion and take notes, if appropriate, as the learner presents his or her side of the story. This will help you focus on the problem and provide concrete information for resolution of the issue.
- Actively engage the student in problem solving. Get the learner's input regarding how to address the problem, and reinforce that the responsibility for resolving the issue resides with the student. Develop a plan of what the learner needs to do to complete the rotation successfully.
- Document the plan and get the learner to sign it. This is essential if further action may be required (e.g., assignment of a failing grade, dismissal from the site). In addition, having the learner sign the plan will help convey the seriousness of the issue.
- Schedule a period for improvement and times to meet to monitor progress.
- Thank the learner for his or her time and state that you are there to provide assistance.

The Failing Learner

Sometimes learners fail no matter how hard a preceptor tries to help. When confronted with a learner who is having significant difficulty with a rotation, remember that preceptors do not assign failing grades; learners earn them. Learners and residents fail because they are not meeting the requirements of the rotation. Having to give a learner a failing grade is very difficult for a preceptor. Even if the learner has shown some improvement, there are times when the learner should not receive a passing grade and may need to repeat the rotation. The most important factor for the preceptor to consider is whether you want this learner to provide patient care with the type of performance you have observed. If the answer is "no," you should not give a passing grade, and the learner should not progress in the program. Preceptors have an essential role in the educational process. The preceptor is the one who has the final say regarding whether a learner is ready to graduate and enter the profession. This is a serious responsibility and one that you should not take lightly. As much as a preceptor has a responsibility to educate future practitioners, the preceptor's role in preventing nonqualified individuals from entering practice is as important, if not more so.

PRECEPTOR PEARLS

If the preceptor deems that the learner should practice independently, they have a responsibility and an obligation to fail the student. The learner should not progress in the program until the issue is corrected.

HOW TO DEVELOP, IMPLEMENT, COORDINATE, AND MONTOR AN INTRODUCTORY OR ADVANCED EXPERIENTIAL PROGRAM

Developing, implementing, coordinating, and monitoring an IPPE or APPE program at your practice site can be an exciting, challenging, and fulfilling experience. For preceptors who have never done this before, the director of experiential education at the pharmacy school and materials developed by the faculty can be great resources. Colleges or schools of pharmacy frequently have template course syllabi that includes their expectations and example activities for the student experiences. Inviting the director of experiential education to your practice site to see it and discuss the possibilities and school requirements can be a good way to begin planning your practice site. The colleges or schools of pharmacy may also hold regular preceptor development workshops. In addition, networking with more seasoned preceptors is a great way to benefit from the successes and mistakes of others, get useful tips, and avoid potential pitfalls. Preceptors with a similar experience to the one you are designing may be willing to share some of the materials that they have previously developed (e.g., orientation checklist, evaluation forms, program manual, student calendar).

Designing the Program Curriculum

Designing the program curriculum begins with reviewing the materials from the pharmacy school with which your practice site is affiliated. For required introductory or advanced practice experiences, the pharmacy school should have a course description and

a syllabus that outlines the course goals and objectives, activities, assignments, textbooks or other reading materials, terminal competencies, written or oral exams, grading procedures, and relevant course and school policies (e.g., attendance, tardiness, absences, makeup work, dress code, conduct, confidentiality). This information may be packaged into a program manual provided by the school that also contains assignment and presentation guidelines; assessment instruments for the various activities and assignments; weekly hours and activity sheets; site and preceptor evaluation forms; a summative student evaluation form; important dates; and contact information for the course coordinator and the director of the experiential education program. Documentation of school calendar, weekly hours, activities, and evaluations usually are available on a proprietary website utilized by the associated school of pharmacy.

For elective APPEs, especially advanced specialty practice rotations, the school may or may not have developed a program manual. The pharmacy school may provide only the relevant policies related to all experiential programs and the required forms that must be completed for any experiential course (e.g., weekly hours and activity sheets, site and preceptor evaluation forms, summative student evaluation form). In that case, the preceptor will need to define and develop the course goals and objectives, activities, assignments, reading materials, terminal competencies, written or oral exams, and grading procedures.

Pharmacy schools strive for standardization and consistency in the way preceptors at various practice sites deliver the required pharmacy practice experiences. Various pharmacy schools will have considerable overlap of core competencies for a specific type of rotation. It is important to delineate the additional or unique requirements of each pharmacy school to ensure preceptors adhere to the requirements in the program manual so that all students have a similar core experience. However, schools also realize that all preceptors and practice sites are different and have the opportunity to offer unique experiences to students. Preceptors can have students participate in more activities and complete assignments they think are important learning experiences. The key is that these unique experiences must be in addition to the activities and assignments the school requires and not a replacement of them. You must maintain the core curriculum of the pharmacy practice experience but may create supplements as desired.

PRECEPTOR PEARLS

Use the information that the school of pharmacy provides to create your program while being creative in supplementing activities with opportunities at your practice site. You have the chance to make your experience unique and invaluable to both you and your student when you actively include him or her in clinical meetings, committee work assignments, projects, and other real-world activities.

Pharmacy schools are usually not as concerned about the standardization and consistency of elective advanced specialty practice experiences that preceptors deliver at various sites. This is mainly because these experiences are elective, and relatively few preceptors and practice sites offer them. Preceptors are free to build these rotations around their personal strengths and the uniqueness of their practice sites and to tailor them to the interns' needs and desires. However, they still need a course curriculum defined prior to the start of the experience so that the expectations are clear (e.g., course goals and objectives, activities, assignments, reading materials, terminal competencies, written or oral exams, grading procedures). In addition, preceptors may be able to improve their elective advanced specialty practice experience by working together with preceptors of similar elective rotations and

sharing and combining the ideas and materials developed by each other.

Constructing the Program Manual

Many preceptors use the pharmacy school's program manual, which is perfectly appropriate. Some preceptors take the school's program manual, which the student likely has in hand, and incorporate it into a more comprehensive program manual that they have customized for their rotation and practice site. Especially for today's tech-savvy student, to incorporate any manual items into computer files can reduce wasted paper, while providing all the chosen materials in a preferred format comfortable for the student. **Box 7-5** lists sample components that could be included in a program manual. By developing a program manual, you can use their creativity and express yourself in a way that might facilitate building a good preceptor–student relationship and decrease the initial anxiety of the student. The preceptor may find providing manual items in a structured time frame allows dissemination of important information without overwhelming the student. This also is an opportunity to reveal your artistic side and your sense of humor as well as demonstrate your commitment, enthusiasm, and forethought toward the student and the learning experience.

Conducting an Effective Orientation Process

The orientation process is critical because it becomes part of the student's first impression of the preceptor and the practice site, and it can set the tone for the rest of the internship. The orientation process may begin before the student arrives at the practice site on the first day. You should have a brief conversation with your student prior to the rotation either in person, via phone, or via e-mail. Essential information to communicate to the student includes directions to the healthcare organization, parking information, arrival time, meeting place, and

BOX 7-5. Sample Components for a Program Manual

- Welcome letter
- Mission, vision, and history of organization
- Diagram and directory of the healthcare organization with current names
- Map and guide for the area
- Orientation checklist
- Forms that must be completed (e.g., self-assessment, hours sheet, practice site evaluation, preceptor evaluation, student evaluation, background checks)
- Site-specific training that must be completed prior to or during the experience (e.g., Health Insurance Portability and Accountability Act, sterile compounding, electronic health record software)
- Copy of state regulations related to intern duties
- Brief biographical statements about the preceptors and description of other rotations
- List of the names of all pharmacy employees and their positions
- Brief description of the pharmacy department and the healthcare organization
- Copies of the Pledge of Professionalism, Oath of a Pharmacist, and Code of Ethics for Pharmacists
- Goals and objectives of the experience
- Competencies that must be demonstrated
- Required activities, assignments, and exams
- Copies of articles or presentations to read and discuss
- Sample assignment write-ups (e.g., research papers, formulary monographs, case studies, clinical intervention reports), problem sets, and exam questions

- Example formats for organizing oral presentations (e.g., patient cases, journal articles, in-services) and patient care notes (e.g., medication and allergy histories, progress notes, consultations)
- Detailed schedule showing all the important activities and deadlines for assignments
- Cartoons and jokes
- Inspirational stories
- Art and history relevant to pharmacy
- Anything else you want to share to show your personality, make learning fun, and enhance the student's transition and experience at your practice site

contact information for the preceptor in case of mishap (e.g., student is lost, has an accident, or gets sick). Any site-specific training or forms that must be completed prior to the experience should be communicated at this time. Communication prior to the experience is also a chance for you to ask a few questions and allay any of the student's fears or misconceptions. The orientation process should resume as early as possible on the first day of the experience. A checklist can guide the orientation process and make sure nothing is omitted. When a site has multiple learners for the first day orientation process, utilizing ancillary personnel or a preceptor to provide a group orientation of like experiences (e.g., tour of the facility, dissemination of network access information, obtaining security badges) allows the learners to begin bonding as a group and has the added bonus of providing free time for the preceptors.

Box 7-6 lists sample items that could be included in an orientation checklist. If the orientation process cannot occur immediately after the student's arrival because you become unexpectedly busy, the student can shadow you until there is another opportunity to continue the orientation. Having students come back later that day or the next day sends a negative message about your level of commitment. In addition, involving the student into the daily activities sooner rather than later will promote engagement. Conducting an effective orientation process assures the learner that they are welcome and that the preceptor/site is organized. The preceptor may find that splitting the orientation into two sessions may offer the learner earlier involvement and enhance the preceptor's workflow. An ineffective orientation process may kick off the experience on a sour note.

BOX 7-6. Sample Items for an Orientation Checklist

- Verify that intern's license/registration is current.
- Discuss background, pharmacy experience, career goals, and plans of the student and preceptor.
- Discuss expectations of the student and preceptor (e.g., conduct, ethics, corporate culture, confidentiality).
- Tour the pharmacy and point out important areas (e.g., work space, break room, phone, bathroom, references, emergency information).
- Meet the preceptors and other pharmacy staff.
- Tour the rest of the practice site and meet other key people.
- Obtain name badge and clearance codes (e.g., pharmacy, library, computer access) and complete any other processing requirements of the healthcare organization (e.g., review immunization records).
- Review pertinent policy and procedure of the pharmacy department and the healthcare organization (e.g., dress code, phone use, universal precautions).
- Review the pharmacy practice experience's program manual.
- Discuss goals and objectives for the pharmacy practice experience, as well as past and future rotations.

- Clarify the pharmacy duties and responsibilities for which the student will be held accountable.
- Discuss the required activities and assignments and their completion dates.
- Clarify the schedules of the student and preceptors.
- Discuss the feedback and evaluation process.
- Trade contact information (e.g., work phone, pager, e-mail, cell phone).

Creating a Student Pharmacist Practice Model and Assigning Duties and Responsibilities

Students know when they are doing busywork that is not important to the operational mission of the pharmacy and that keeps them out of the preceptors' way. Sending them off to work on these exercises of futility (e.g., constructing forms or pamphlets that will never be used by the pharmacy) can be very frustrating. Students like to be engaged in meaningful work that allows them to contribute to the pharmacy, learn new things, and grow and develop as pharmacists.

One way to ensure students are engaged in meaningful work is to create a student pharmacist practice model with designated duties and responsibilities that they will be held accountable for completing. Depending on the type of pharmacy practice experience and practice site, these duties and responsibilities may be related to drug distribution services, clinical pharmacy services, a blend of both, or other types of services. Assigned tasks may be constant over the course of a pharmacy practice experience, progress in levels of duties and responsibilities, or they may change as students are rotated to different areas. In every case, it is important to explain to them why each task is important and what knowledge, skills, and terminal competencies you expect them to gain from completing it. The pharmacy school may have assigned the student study requirements separate from the rotation, such as test preparation questions for their board examination for licensure. It is important to help the student stay on track by querying him or her concerning progress while keeping the rotation priorities in line with the experience you are providing.

Potential duties and responsibilities that could be included in a student pharmacist practice model are listed in **Box 7-7**. When constructing a list of duties and responsibilities for an APPE, think about what you would want an entry-level pharmacist recently employed by your healthcare organization to be able to do. Also, think about activities that would be good learning experiences for students and at the same time would expand or improve the services offered by your pharmacy.

BOX 7-7. Potential Duties and Responsibilities for a Student Pharmacist Practice Model*

- Ordering drugs and stocking them on the shelves (possibly involve buyer).
- Taking new prescriptions and transferring prescriptions over the phone.
- Preparing, labeling, and dispensing prescriptions (possibly involve technicians).
- Obtaining medication and allergy histories from patients and other healthcare professionals.
- Providing medication therapy management with appropriate supervision.
- Triaging patients and assisting them with the selection of over-the-counter products.
- Performing patient counseling related to medications and devices and documenting it in the medical record.
- Conducting drug regimen reviews for all patients on the assigned patient care units.

- Seeing patients every day on the assigned patient care units or ambulatory clinics and assessing their subjective and objective responses to medication therapy, including performing therapeutic drug monitoring and physical assessment as needed.
- Making recommendations to physicians related to drug therapy and working with them on developing the pharmacotherapy portion of the patient care plan.
- Researching and responding to drug information requests from the interprofessional team.
- Writing progress notes or consultation notes, as appropriate.
- Serving as a liaison for the pharmacy department on the assigned patient care unit.
- Providing in-services to the pharmacy and nursing staff on requested or targeted topics.
- Collecting data for medication use evaluations or poster development.

* Be familiar with institutional, state, and federal policies, rules, and regulations that define the scope of practice for a student pharmacist.

Involving Pharmacy Staff, Other Healthcare Professionals, and Patients in Experiential Training

Many people can be involved in various aspects in the training of student pharmacists. Inclusion of people other than the primary preceptor usually depends on the type of rotation, the kind of practice site, and the desire of others to teach. Pharmacy technicians, staff pharmacists, clinical pharmacists, pharmacy managers, nurses, nurse practitioners, physician assistants, respiratory therapists, dietitians, and physicians are among those who frequently participate in pharmacy experiential training. Student pharmacists can spend some time with different healthcare professionals for exposure to certain areas or to focus on learning specific skills. For example, students can learn firsthand about issues related to medication administration techniques and devices (e.g., infusion pumps) by working with nurses. Students can enhance their patient assessment and physical examination skills through working with physicians, nurse practitioners, and physician assistants. Their patient counseling skills can be sharpened related to use of a nebulizer, inhaler, and peak flow meter by working with a respiratory therapist, or issues related to nutrition by working with a dietitian. At the same time, students are given the opportunity to practice their communication skills with other healthcare professionals. These other healthcare professionals can provide feedback to the primary preceptor about students' performance and, thus, contribute to the evaluation process. Be sure to communicate your expectations to these other healthcare providers regarding their roles as preceptors and supervisors of your students. Especially for an IPPE learning, experiencing the roles of other health professionals, how their role impacts the patient's drug therapy, and how the pharmacist is integrated to the patient's multidisciplinary healthcare team is a valuable lesson.

PRECEPTOR PEARLS

Thinking of other healthcare professionals involved in your students' training as preceptors will provide the students with an interesting and well-rounded experience.

Patients can also be involved in the training of students, particularly in the evaluation process. Although patients may not be able to assess a student pharmacist's pharmacy knowledge base or technical skills, they can evaluate a student's professionalism, communication and listening ability, and interpersonal skills. You can have patients fill out a very short, simple student assessment form after their interaction with a student.

The form should contain no more than a handful of items to evaluate and fit on one piece of paper or an oversized index card. Verify that your institution does not require legal or marketing departments to evaluate anything the patient sees. Whether written or verbal feedback, patients are often very happy to play a small role in the education and training of future pharmacists.

Evaluating the Program's Effectiveness and Success

Pharmacy schools should be able to provide preceptors with evaluation summaries of their program and their practice site on a periodic basis (e.g., annually). How often this occurs may be dependent on how frequently students complete an experience with the preceptor at a given practice site. Schools are always concerned about maintaining student anonymity, which can be important in getting valid evaluations. In addition, most schools have hundreds of preceptors and practice sites but few personnel devoted to experiential education who can compile and send out evaluation summaries. Unfortunately, you cannot improve yourself, your student pharmacy practice experience, or your practice site without valuable and timely feedback. It may be helpful to ask the learner on a regular basis if you are providing the learning experience they find conducive to learning, what the student would like the preceptor to include, and if excluding any part of the experience would improve the learning experience. Respectful two-way discussion enhances the opportunity of this exercise, however. In the end, none of the pharmacy school's mandated competencies can be eliminated simply based on the student's feedback.

If you are not receiving evaluation summaries from the pharmacy school on a regular basis, you can develop your own preceptor, student, and practice site evaluation forms. You can distribute, complete, and turn in these forms during the last day of the rotation after the students have received their final grade. Consider development of your evaluative tool to include a numeric scale that can allow you to determine trends or a measure of central tendency. You can also conduct exit interviews with the students at the end of their last day, discuss the evaluations with them, and seek additional verbal feedback. Students usually are very willing to do this if they have been told that it is solely for continuous quality improvement purposes to improve the preceptor, the experience, and the practice site. The evaluation may include the orientation process, the site's rotation manual, included and excluded activities, successful attainment of the school of pharmacy's goals of the rotation, and the preceptor's teaching style.

Besides reviewing evaluation summaries and setting goals in terms of the scores, there may be some other metrics you can track to evaluate the effectiveness and success of the pharmacy practice program. These metrics will depend on the goals you and your supervisor have for the program. Often, the primary goal of the program is to improve the recruitment of pharmacy residents or pharmacists. You can track over time the number of positions filled by graduates from the affiliated pharmacy school. A secondary goal may be to improve the job satisfaction and retention of pharmacists by making their work more intrinsically rewarding, which can be evaluated through repeated surveys. Other indirect measures of success that could be tracked include the number of students' requests made per year to complete a required or elective pharmacy practice experience at the practice site; the number of pharmacy schools forming partnerships with the practice site; and the total number of students trained per year. Of course, receiving invitations to speak at school-sponsored preceptor conferences and being presented with preceptor awards would be signs of success for those desiring to become master preceptors.

In summary, developing a pharmacy practice experience requires significant prep-

aration and planning. To be successful, you should design an appropriate curriculum, conduct an effective orientation, assign the student to interesting and relevant responsibilities, and continually evaluate and seek to improve the rotation. While developing, delivering, maintaining, and improving a practice site requires serious preceptor effort, the professional legacy is well worth the satisfaction you receive when your student pharmacist finishes the rotation inspired to impact the public health and the profession positively.

ESSENTIAL COMPONENTS OF A CONTINUOUS QUALITY IMPROVEMENT PROCESS FOR YOUR EXPERIENTIAL TRAINING PROGRAM

Continuous quality improvement (CQI) should apply to almost any education program. There are many definitions of CQI. Here are definitions from the American Society for Quality and The Glossary of Education Reform by Great Schools Partnership:

1. "Philosophy and attitude for analyzing capabilities and processes and improving them repeatedly to achieve the objective of customer satisfaction."[14]
2. "In education, the term continuous improvement refers to any school- or instruction-improvement process that unfolds progressively, that does not have a fixed or predetermined endpoint, and that is sustained over extended periods of time."[15]

The key point that every definition contains is that the process is *continuous* in developing ways to improve a program. New standards from the ACPE require a continuous quality program for experiential education. ACPE Guideline 14.7 states:

> A quality assurance procedure for all pharmacy practice experiences should be established and implemented to facilitate achievement of stated competencies, provide for feedback, and support standardization, consistency, and inter-rater reliability in assessment of student performance. All practice sites and preceptors should be selected in accordance with quality criteria established and reviewed periodically for quality improvement. The assessment process should incorporate the perspectives of key constituents, such as students, practitioners, prospective employers, and board of pharmacy members.[1]

The ACPE 2016 Standard 10.15 Experiential Quality Assurance states:

> A quality assurance procedure for all pharmacy practice experiences must be established and implemented to: (1) facilitate achievement of stated course expectations, (2) standardize key components of experiences across all sites offering the same experiential course, and (3) promote consistent assessment of student performance.

The ACPE Board of Directors and staff act as judges of the quality of a pharmacy school curriculum. They also expect that each school will have its own standards and ways of assessing curricula and faculty to ensure minimum educational and program standards are met, such as those described in Guideline 14.7.

PRECEPTOR PEARLS

The American Society for Quality provides resources for continuous improvement strategies. Evaluate the best way to assess your site for continual improvement and then put a process in place.

To meet this guideline, experiential education faculty will approach preceptors and pharmacy or institution leadership to develop and implement educational

programs that provide opportunities for students to learn and practice the profession. The expectation, in addition to the school requirements for the course, is that there will be program requirements at the site. The following discussion is meant to spur ideas for development of CQIs and staff involvement that can increase opportunities for improving quality.

Many colleges of pharmacy have one or more committees to evaluate and assess the curricula and the programs offered. The committee or task force most likely to affect preceptors is one that functions in the department of pharmacy practice or the office of experiential education. The administration and faculty in the practice department are most concerned with student education at the practice sites and availability of opportunities for students to apply their knowledge. The committee may be called the CQI committee, Experiential Education Programs Assessment committee, or a variety of other names. Its responsibilities are to evaluate and assess practice sites, preceptors, and the program at a site. Members will be looking at technology, the number of people involved in the program, the credentials of the individuals involved in the program, and opportunities available for student education (see **Box 7-8**).

BOX 7-8. Continuous Quality Improvement—What a School Requires

SITE

- Meets accrediting body standards.
- Is accessible to students and faculty.
- Maintains and advances technology in pharmacy practice.
- Maintains and provides technology to students in order to meet the demands of the course (e.g., computer).
- Provides administrative support for student training programs.

PRECEPTOR

- Is licensed and meets appropriate state board standards for providing education to students.
- Has a plan for education program to meet needs of students and school.
- Has technology available to meet the needs of the college or school of pharmacy.
- Has appropriate education or experience to provide the opportunities to meet goals and objectives of course maintained by college or school.
- Has a contingency plan in place to cover primary preceptor absences.
- Is internally motivated to provide educational opportunities.
- Is responsive to representative(s) from college or school.
- Is involved in professional organizations, community, or public health activities advancing the pharmacy profession.

SITE PROGRAM

- Provides students with multiple opportunities to meet course goals and objectives.
- Involves multiple disciplines or the community in educational program.
- Promotes and incorporates the use of technology for student learning.
- Encourages group discussions and peer interaction, which are common among all students.
- Provides reflection opportunities for students and preceptors.
- Provides access to institution amenities as applicable.

These committees take into account assessments from learners, assessments from peers, personal interactions with the preceptors at the site, and involvement of preceptors in college or school educational programs. Most schools and colleges have learners complete an evaluation form that includes information about the site, the preceptor, or the program. The schools then

share the information contained in these forms directly with preceptors in a way that provides anonymous feedback. One way a school or faculty member may evaluate the quality of a site is by the interaction of the preceptors with the school as this may be a reflection of how the preceptors also treat the learners. Schools do not perceive as quality sites for placement those sites where preceptors continuously back out of commitments to learners. Consider all of the criteria listed in Box 7-8 when developing your educational program.

The organization involved in educating may already have a CQI definition in place, which is appropriate to use. If there is not one in place, several tools from the American Society of Quality can be used to develop a quality improvement plan. These include the Plan-Do-Check-Act (PDCA), the Six Sigma, and Total Quality Management.

The *PDCA model*, also called the *Deming Cycle*, is a workable model for pharmacy education.[16] Implementing the PDCA method of quality assurance is one way to create ongoing quality assessment. The PDCA model can be used at the start of a project or when redefining projects such as educational programs. If your institution has a longstanding educational program in place, initiating the PDCA method could provide important information about the program. This model fits well when *PLAN*ning for change. The *DO* component of this tool is to run a test of the change model, or a pilot study. Then *CHECK* the results of the piloted change. Finally, *ACT* on the information that has been collected to PLAN the implementation. This cycle will become your ongoing quality improvement model.

Whether you as a preceptor or a team from the pharmacy department decides to develop a quality assurance or continuous improvement program, you should include four elements: *peers*, *learners*, *other healthcare professionals*, and the *pharmacy school* (see **Box 7-9**). Peer assessment comes in the form of those around you who may also work with learners or who view your interactions with learners. Developing a form similar to one used by human resources departments may provide an indication of how others view your performance with students. You should also complete a preceptor self-evaluation each year to see how you think you are doing. Other healthcare providers will be able to provide feedback to you because they have had interactions with learners and may have watched your interactions. The feedback they provide may help improve the program logistically or programmatically. Getting feedback from other health professionals may help to draw them into the program either as a preceptor or as an individual who helps you educate learners. Feedback from the college about the educational program is central, but it may be provided in various ways.

BOX 7-9. Sources of Assessment and Evaluations of the Site, Preceptor, and Program

- *Peer assessment:* Provides you with information that you cannot see yourself about the training program and your actions. Develop an evaluation form such as those used for performance evaluation.
- *Student feedback:* May provide you with both constructive feedback and comments that may cause you to think twice about taking students, but in the end may help improve the performance of the site and those interacting with students. ***Tip:*** After reviewing the final grade for the rotation with each student, ask for candid feedback related to the best experiences during the rotation and those with opportunities for improvement.
- *School feedback:* May come from student evaluations or from interactions with the school. The feedback may be valuable in helping change the logistics of the rotation at the site, or in changing students' perception of the rotation and the site.

- *Feedback from other health professionals:* Can provide feedback about student performance as well as logistical assessment of the program provided by your site.
- *Patients (if applicable):* May discuss a student's performance or how a student was introduced to them. Gather patient evaluations of students, logistics, and what a patient would like to see in a program, whenever possible.

PRECEPTOR PEARLS

Developing an ongoing quality program for your practice improves outcomes for patients, students, and the institution. The schools of pharmacy will be valuable partners in identifying needed quality assurance to meet ACPE standards.

Pharmacy school assessment is not always limited to—but may only be provided in—the form of student evaluations. School assessment committees may also provide an annual or periodic review by sending a faculty member to the site to look around and inquire about the program. This college or school assessment may just be a phone call to get your input. Performing a gap analysis of the school of pharmacy's rotational expectations and the reality of your site may provide one measure of your program's quality. There are over 100 colleges and schools of pharmacy in the United States, and each will operate differently. When seeking to participate with the college program, ask how the school will evaluate you and what quality assurance measures the college has set forth.

Finally, although not all rotations involve direct patient care, those that do could include patients in their quality assurance or improvement measures. Patients can provide helpful feedback regarding student performance, including how they—as patients—were treated. Many patients are eager to participate in a program, especially an educational program, in which they feel they are getting one-on-one attention. Some patients may be hesitant to participate, but even those who are not interested can provide feedback on why they do not wish to participate. Consider developing a CQI program as an extension of your practice.

Involving All Pharmacy Staff Members, Other Healthcare Professionals, and Patients

It is important to involve all members of the pharmacy department, not just an individual pharmacist, in learner education. Familiarize staff members with learners' goals and objectives as well as the roles that everyone will play. Staff involvement can help reduce the workload and stress that often result from the introduction of learners into a pharmacy. This is one of the most important aspects in starting or continuing an experiential training program.

PRECEPTOR PEARLS

All members of the pharmacy department are involved in learner education and can participate in continuous quality improvement processes.

Anyone who is going to be involved in learner education (see **Table 7-2**) is a preceptor in some capacity, and everyone should recognize this fact. It may come in the form of recognition from the college, the pharmacy, or a larger institution. It increases the commitment to the program, and students become more accepting when that recognition exists. Who can be a preceptor is an age-old question, and is defined by the ACPE and many state boards of pharmacy. In most instances, a pharmacist should be considered the preceptor of record. However, many other licensed health professionals

TABLE 7-2. Responsibilities of Those Involved in Learner Education

Role	Topics to Teach
Preceptor	◆ Course logistics ◆ Rounding ◆ Journal clubs ◆ Projects ◆ Feedback and assessment ◆ General practice skills: patient care or nondirect patient care ◆ Presentations ◆ Acclimation to the profession, site, and other healthcare professionals ◆ Integration of knowledge and skills in practice
Other pharmacists	◆ General practice skills: patient care or non-direct patient care ◆ Journal clubs ◆ Presentations ◆ Acclimation to the profession, site, and other healthcare professionals ◆ Integration of knowledge and skills in practice
Technicians	◆ General practice techniques and skills ◆ Acclimation to the site ◆ Introductions ◆ Rules and regulations
Management/ administrative staff	◆ General business and operational/management skills ◆ Business rules and regulations ◆ Acclimation to the site
Physicians	◆ Precepting ◆ Diagnosis of disease ◆ Procedures ◆ Physical assessment ◆ Communication and professional interaction ◆ Integration of knowledge and skills in practice ◆ Collaboration
Nursing	◆ Logistics ◆ Orienting to contents and location of charts ◆ Specific patient care ◆ Physical assessment, medication administration, and management logistics ◆ Collaboration
Laboratory staff	◆ Exposure to the laboratory procedures ◆ Lab panels at the site ◆ Normal and abnormal results ◆ Drugs that interfere with testing
Patients	◆ Development and improvement of communication skills ◆ Understanding of disease outcomes ◆ Medications ◆ Drug interactions ◆ Adherence

are considered the preceptor for various types of experiences where pharmacists are not involved full time. Learners are going to be in contact with many people who will provide them with various amounts of knowledge, practice of skills, and opportunities for learning. At the very least, the school should recognize pharmacists and technicians in the pharmacy as participating in the program, but may also recognize nursing, medical staff, respiratory care practitioners, laboratory, and others in the multidisciplinary team.

PRECEPTOR PEARLS

Involving other pharmacy staff and other healthcare professionals in the educational programs improves the quality.

Pharmacy technicians often spend considerable time with students teaching them the technical skills they need to be pharmacists. This is especially true of the IPPEs. Often, learners do not view the technician's role as valuable to them; in this case, the primary preceptor should point out the important role the pharmacy technician plays in his or her education. Technicians need to know what their own roles and duties are in student education. The technical staff can educate students in the day-to-day operational skills required in the pharmacy, including filling carts, delivering medications, requirements and processes of the sterile compounding room, and the daily ordering processes. For learners who have never been in a pharmacy before, assigning them duties with the head technician for a period of time is not unreasonable. When learners have been exposed to the technical duties required, they can move on to the duties of a pharmacist.

All pharmacists and other staff who are going to be involved with learners need to understand their own roles in the training as well as the goals and objectives of the students (see **Box 7-10**). It is a good idea to set up an organizational meeting and an annual meeting for those taking responsibility for learners. Announce which schools will be sending learners. This meeting should address the kind of learners who will be assigned to the site. All schools of pharmacy have implemented introductory practice experience courses; consequently, not all students who attend a site for practice skills are in their last year.

BOX 7-10. Guidelines for Involving Others in the Experiential Education Program for Pharmacy Interns

DO

- Involve as many people as possible in the program.
- Explain roles and authority to the person you are enlisting to help.
- Explain that the learners are taking a course.
- Discuss the goals and objectives of the course.
- Explain the learner responsibilities to the site.
- Include involved individuals in the orientation program for learners.
- Schedule their time with learners.
- Provide a copy of the manual and evaluation tool used by the college.
- Get feedback from involved individuals on learner performance.
- Provide those involved with feedback from learners about their performance.

DO NOT

- Leave learners in the office or work area of anyone who is not involved.
- Ask someone to help without providing the list of dos.

Plan a course with the pharmacists, technicians, and any other healthcare providers who will be involved in the educational program; enlist the college of pharmacy experiential education leadership, if necessary. In the end, you should develop a schedule that includes the days and activities as well as who will be providing or overseeing those activities.

In a community setting, it is mostly the pharmacists and technicians involved in the educational programs, but they do not have to be the only contacts for learners. Ask physicians who work closely with the pharmacy if students can spend some time in their offices. If the community setting is a chain store, include the district manager in the educational functions. Many of the district managers already precept student rotations, and they enjoy the opportunity to mentor students.

In many other settings, learners are also educated: pharmaceutical industry, mail order companies, veterinary practice settings, home infusion services, and nursing homes. Various professionals and technical staff at each of these sites can become involved with learner education.

Involving many people in education programs (i.e., especially people who often come into contact with students) is good practice, even if for logistical purposes only. The more that people know about pharmacy education, the better they will accept the learners, and the greater the likelihood is of having a quality educational program to enable learner success.

PRECEPTOR PEARLS

Experiential education is an opportunity not just for preceptors but also for an entire pharmacy staff and inter-professional team to improve practice and advance the profession.

CQI should not be a scary process. It requires planning, integration of assessment, and a team effort. When putting together an experiential education program, ask peers, staff, and other health professionals to become involved. Discern how they would like be involved before you start planning, and integrate them into the plan. Have a plan in place for educational opportunities and continuous improvement weeks before learners arrive. Make sure that information on the program is both outgoing and incoming. Gather assessment often and from multiple sources. Learn from the information gathered and improve and build your program with each learner you precept.

SUMMARY

Experiential teaching is the foundation for learners as they start the practical learning process. Initially, the preceptors should assess the learner's preferred learning style and recognize that introductory students are early in their didactic education, so they should provide experiences to build on as they move into the intermediate and advanced experiential experiences. The problem-solving triad, which is a systematic method for problem solving, is a foundational skill that can be applied to many different settings. Learners should receive feedback on both the learning experience and interpersonal skills through the learning experience. Experiential education is not just an opportunity for preceptors but for an entire pharmacy staff, in addition to other healthcare professionals, to improve practice, advance the profession, and provide the learner with a well-rounded experience.

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8

Administrative and Leadership Aspects of Practice

Stephen F. Eckel and Scott Knoer

> If you want to build a ship, don't drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea.
>
> *Antoine de Saint-Exupéry, French writer and pioneering aviator*

RATIONALE FOR PROVIDING A PHARMACY ADMINISTRATION AND LEADERSHIP EXPERIENCE

Standalone hospitals, while still in existence, are merging with others to form health systems. The complexity of the multihospital health systems that are emerging requires pharmacy executives to master a breadth of leadership skills that are very different from what the traditional pharmacy director in a standalone hospital needed for success. The pharmacy enterprise that spans across these multihospital health systems is defined as "an integrated system of business units with accountability for clinical and financial outcomes related to medication use across the continuum of care in a health system."[1]

To successfully lead a complicated pharmacy enterprise, one must understand the economic and societal forces impacting healthcare. Pharmacy lives in two different environments. On the inpatient side, the focus is on reducing costs and improving quality due to capitated payment models. In the business of pharmacy (previously called retail pharmacy) side of the enterprise, successful pharmacy leaders must be entrepreneurs who identify and maximize business opportunities to bring new revenue into the organization. These two dynamics are slowly merging as hospitals take on more at-risk contracts. As organizations start to assume full, at-risk contracts for outpatient drug costs

LEARNING OBJECTIVES

- Provide the rationale for offering rotations within your organization for understanding about pharmacy administration.
- Identify common principles that can be taught during a leadership and administrative experience or to include during other rotations.
- Implement activities that will help learners integrate the lessons and principles taught during their experiential experience.
- Describe how working with learners within an administrative setting can be a mutually beneficial experience.

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and patient outcomes, models aligned with today's inpatient philosophy of formulary management and drug therapy optimization will be utilized.

To ensure the profession's continued success into the future, learners must be exposed to the array of skills necessary to lead organizations and the profession through this constantly changing environment. Even if the learner does not take future positions in leading these complicated departments, they will need to understand the different pressures and be able to assist the organization in achieving its various quality measures.

This chapter will describe the rationale for precepting student and resident learning in the administrative aspect of the department, and provide examples of how one can expose a learner to the leadership skills needed for success.

Students

The Accreditation Council for Pharmacy Education (ACPE) requires each accredited school of pharmacy to provide introductory and advanced hospital or health-system pharmacy rotations for all student pharmacists.[2] The introductory experience needs to be completed within the first 3 years of their educational training, while the advanced hospital rotation needs to be scheduled in the last academic year. Certain administration-focused educational outcomes need to be met during their professional program, including:

- Managing medication-use systems.
- Managing human, physical, medical, informational, and technological resources to optimize medication-use systems.

Although anyone can precept these learning experiences, it is not uncommon for pharmacy administrators to lead these rotations because the functions used to provide these exposures are activities all managers are responsible for leading. When this teaching experience is assumed by pharmacy leadership, these rotations take on a focus or flavor of pharmacy administration due to the preceptor's interests and daily activities. In addition to these educational outcomes, there are activities that ACPE mentions for students to participate in, including:

- Preparing sterile and nonsterile products.
- Utilizing practice management principles and quality metrics to advance patient care.
- Preparing, dispensing, and administering medications, including the associated technology.

These activities can only be accomplished through the learner spending time in the operations of the pharmacy department, a critical function and daily responsibility of many pharmacy administrators.

Besides these introductory and advanced hospital rotations, many institutions also offer electives in pharmacy administration.[3] They are usually precepted by members of the senior leadership team. As opposed to the advanced hospital rotation, which is completed by all students, this elective experience is usually chosen by a student who is focused on health-system pharmacy administration and leadership as a career. Many pharmacy administrators offer and precept these rotations because they are able to find student pharmacists who have a passion for leadership and management responsibilities. In addition, it could lead to future employment or a residency position for the learner.

Residents

The ASHP postgraduate year 1 (PGY1) residency standard requires activities that expose residents to administration during their training.[4] In the accreditation standard, one competency area is leadership and management. Some of the educational goals under the objective of Demonstrate Management Skills (R3.2) include:

- Explain factors that influence departmental planning.
- Explain the elements of the pharmacy enterprise and their relationship to the healthcare system.
- Contribute to departmental management.

Each organization that has an ASHP-accredited PGY1 pharmacy residency will need to identify learning experiences to teach residents and have them demonstrate competency to these goals. Although there are various methods that can be used to accomplish this standard, the predominant one is to integrate a pharmacy administration learning experience into the residency. The pharmacy administrator or members of their leadership team traditionally lead these rotations with a balance of discussion topics, observations, and projects. The rotations can be 1 month in duration or a longitudinal learning experience.

Due to the requirement for pharmacy administrators to precept and lead administrative learning experiences, they will need to develop competent precepting skills for the rotation, which include integrating teaching on certain topics and providing observational experiences within a pharmacy department. This should be done while demonstrating the connection of all functions to the patient and delivery of care services, and communicating the excitement of working at a broader level to advance the medication-use system.

PHARMACY ADMINISTRATION LEADERSHIP PRINCIPLES

Besides activities that are embedded in a pharmacy administration experience, there are also leadership topics that can be discussed such as how to lead a business meeting, how to be professional in all forms of communication, and how to engage with your areas of responsibility. To be successful, administrators must do more than write business plans; they need to project an image of a leader, be an effective communicator, and have confidence in their leadership skills.

Administrative, leadership, or management-focused rotations are excellent learning situations for developing the ability to view pharmacy from a high level, learn operations, and build the skills necessary to become a practice leader. Yet these skills can be cultivated from any practice experience in any setting. Many pharmacy clinicians already possess a strong administrative skill set that has established them as informal leaders and will further enable them to become formal leaders within the organization later in their careers. Integration of administrative concepts in many rotations often occurs organically, and exposure to this variety of topics through a systematic process can aid the learner in developing a bigger picture view of pharmacy practice.

Leadership

Leadership is a universal skill that preceptors model, often without realizing it, on a daily basis. In John Maxwell's book, the *21 Irrefutable Laws of Leadership: Follow Them and People Will Follow You*, he states, "You can find smart, talented, people who are able to go only so far because of the limitations of their leadership."[5] This is why it is important for us to model leadership skills in everything we do. The opportunity to teach leadership skills in all types of experiential rotations exists in all learning experiences, not just administrative rotations. Further, as preceptors incorporate leadership into their formal or informal syllabi, this teaching enhances their own leadership ability.

Many resources exist for developing and learning leadership. Leadership is taught through didactic learning and group discussions, and then integrated through practice-based experience with leadership situations and opportunities that can be designed and created. For the *didactic component*, preceptors can use the wide array of books, published articles, and on-line references to cover that

component, or even assign the learner to research leadership and present back to the preceptor or a group. For learners with a significant understanding of *leadership,* placing them in situations where they practice this skill may be most appropriate. Leadership opportunities include assigning the learner to facilitate change by implementing a project, leading a staff meeting or a topic discussion, facilitating a daily huddle within a department, learning about crucial conversations, and teaching leadership skills to others.

The *layered learning practice model*—where experienced clinicians teach PGY2 residents who teach PGY1 residents who teach a variety of students—not only promotes delegation of responsibility and teaching to others, but it is also an excellent opportunity to refine leadership skills. Consider applying this model in any practice setting from administration to clinical experiences.

PRECEPTOR PEARLS

The layered learning practice model can be used in pharmacy administration rotations in order to increase understanding of the topic in the learner and develop teaching and leadership skills.

Management

The study of management can broadly begin with managing one's self and one's time. Managing self before managing others can be a useful concept for all learners, as can discussions about success through personal productivity. Books such as Stephen Covey's *Seven Habits of Highly Effective People* and David Allen's *Getting Things Done* are among the most popular in an already favored category of self-improvement books.[6,7]

Contrasting leadership and management is a useful tool in differentiating these important skills as well as describing why they are both crucial. With roots in the industrial revolution, management techniques and philosophies have evolved considerably over time. Focusing discussions and experiences around management competencies is one approach to teaching and building this skill set within learners. There are many unique management competencies, but organizations often filter and prioritize based on the values and culture of an organization or even a department. Management competencies that may be useful in the pharmacy setting include but are not limited to:

- Accurate self-insight
- Achieving results
- Building business relationships
- Building and developing talent and trust
- Coaching
- Continuous learning
- Customer focus
- Delegating to others
- Driving for results
- Establishing strategic direction
- Executive presence
- Facilitating change
- Innovating
- Managing conflict
- Quality management
- Process improvement

The above examples for management competencies can be a foundation for management discussions, facilitated learning, assessing the strength of the department and management team, and evaluating the learner's strengths and weaknesses. The experience gained though projects and management-related activities is one way to develop management competencies. Projects and activities are covered later in this chapter.

AREAS OF EXPOSURE IN A DEPARTMENT OF PHARMACY

It is difficult to lead or manage if one does not understand. Understanding the day-to-day operations, workflow, procedures, and major challenges encountered in various areas of a pharmacy are fundamental to the learner's assessment or decision about an area. Once general knowledge of the practice area has been gained, then the learner can utilize the knowledge for greater insight and complete activities that can impact the department.

Acute Care/Inpatient

If learners have minimal to no experience in the acute care setting, they need to learn workflow, procedures, pharmacy automation, staffing patterns, delivery practices, and communication methods to form an important foundation before beginning administrative activities. Embedding the learner in the inpatient setting with an experienced pharmacist or technician is a commonly used approach to bridge this information gap.

Sterile Products

Sterile compounding is an important area of pharmacy practice that deserves special attention. Learners with short rotations might not always compound medications for patient use, but for learners with longer experiences or rotations with a focus on sterile compounding, it may be an excellent experience. In an institutional setting, for compliance with United States Pharmacopeia (USP) Chapter <797> guidelines, it is critical that learners go through the pre-established, facility-mandated training and competency procedures before compounding a medication for patient use. Learners also provide valuable feedback for process improvement with their questions about why certain procedures are required or by sharing best practices observed at other sites.

Clinical Programs

Learners will benefit not only from the experience and knowledge they gain on clinical rotations, but also from discussion and awareness of why clinical programs exist and how they are periodically justified. The challenges of healthcare reform and constant pressure to reduce the costs to deliver high-quality healthcare will require practicing clinicians and leaders alike to justify programs through the collection of data. Programs that reduce cost, increase quality, and improve patient satisfaction may not only survive but also thrive. Discussion of the calculation of productivity for clinical team members, successes in improving quality, patient satisfaction, reducing readmissions, and decreasing length of stay through the work of pharmacists or pharmacy technicians will add big-picture perspective to the learner's viewpoint.

Other important discussions include pharmacy practice models and benefits and drawbacks of the various models, scope of services, prioritization of clinical activities, use of pharmacy technicians and student pharmacists to advance patient care, and benefits associated with board certification and PGY2 residencies.

Delegation of traditional clinical programs such as conversion of intravenous to oral dosage forms, renal dosing, pharmacokinetic dosing, medication-taking histories, discharge counseling, and others are common to clinical experiences. With more pharmacist clinicians documenting interventions in the electronic health record, the learner's orientation should also include these same skills as well as expectations for co-signature and population health management and quality monitoring. The administrative challenge is to ensure the quality, integrity, and consistency of the clinical notes and increase the quantity of the clinicians' documentation.

PRECEPTOR PEARLS

Have learners participate actively in clinical documentation to not only teach them how to do it but to increase documented events, notes, or other important activities.

Ensure the learner understands the reasons behind monitoring quality outcomes and financial impacts of all services offered.

Ambulatory

Ambulatory care pharmacy practice (i.e., clinic-based) is a growing segment of health-system pharmacy and a well-established area outside of the hospital setting. Similar to administrative-focused acute care clinical objectives, understanding the role that ambulatory pharmacy fills in an organization beyond traditional retail pharmacy is vital. For the purposes of this categorization, ambulatory pharmacy can be broken down into medication therapy management, chronic disease state management, and comprehensive medication management. The significance of these activities can impact patient satisfaction, readmission reduction, enhanced access to quality improvement initiatives, or assistance with patients' financial barriers. Reviewing the financial model of each ambulatory program as well as current threats to its success is an important part of learning. Students on ambulatory rotations or administrative-focused rotations can assist with program marketing through the development of new marketing techniques, materials, websites, and physician or nurse education to increase referrals. Learners can generate and analyze reports to discover top referring physicians, patients who need assistance with compliance, or even medications that are not profitable.

Business of Pharmacy

Separate from ambulatory care (clinic-based), as described above, is the business of pharmacy. This expanding realm includes traditional retail pharmacy, specialty pharmacy, infusion pharmacy, 503B compounding pharmacy, compliance packaging, pharmacy benefits management functions, and involvement in at-risk contracting whether that is in a self-insured employee health plan or through external insurance contracts. This area is different from the acute care side in that it tends to generate recognized revenue for the health system. Although there is a charge generated and revenue posted for acute care dispensations, the reimbursement is based on fixed payments for the diagnosis-related group (DRG) and not how much the revenue is.

The real revenue-generating part of the pharmacy department arises from the retail pharmacy operations. Success in this space requires entrepreneurial skills that are different than the cost-containment and quality improvement activities utilized in acute care pharmacy.

Specialty pharmacy consists of high-cost, high-touch medications with access that is often restricted through limited distribution networks to accredited pharmacies capable of clinically managing and educating patients as well as conducting extensive prior authorizations to access these medications. Specialty pharmacy has seen dramatic growth in recent years, and it is expected to continue. Learners with exposure to this unique area of pharmacy practice will benefit from understanding the process required to gain access to these medications, analysis of outcomes data from patients, reimbursement models and challenges, quality assurance programs, patient monitoring techniques involving telepharmacy, and more. Opportunities for learners in this area range from becoming trained in an established specialty pharmacy to building

a business plan to implementing a new service. It is critical that learners observe the leadership skills necessary to manage a constantly changing competitive business, including assessing the data within the electronic health record and evaluating patient outcomes from these services. Other activities that a learner can be exposed to within the business of pharmacy include formulary management, step therapy, prior authorization, co-payment incentives, compliance packaging, and at-risk contracting.

The leadership skills and agility that comes from understanding and responding to changing incentives is a critical success factor for pharmacy leaders and is invaluable for learners to observe.

Purchasing/Supply Chain

Pharmacy purchasing and supply chain maintenance are becoming their own specialty areas for pharmacists and pharmacy technicians alike. Learners on administrative or general pharmacy practice rotations must understand the complexity of ordering and managing drug shortages. In many facilities, drug ordering and inventory control no longer focus on looking at shelves, but more on managing complex information systems and setting reordering thresholds. Although learners may not have the time or ability to perform this task, exposure to computer-assisted ordering will broaden their understanding of operations. Similarly, the management of drug shortages and ordering from a multitude of drug companies directly rather than just the wholesaler is yet another opportunity for the learner to gain experience.

Learners can assist with shortages by calling manufacturers, wholesalers, or other facilities in an attempt to procure critical medications. The preceptor should stress proactive management as well as clear communication about stock levels and contingency plans with therapeutic substitutions. Learners can draft appropriate communications to pharmacy staff, physicians, or other appropriate departments. Discussion opportunities include topics about grey market vendors, preventing and detecting counterfeit drugs, and management of vendor access and relationships. Other topics include understanding of wholesalers, buying groups, and the various models used to purchase medications and structure contracts.

Formulary Management

Formulary management presents an opportunity for discussion and application of a health-system formulary to be a good steward of financial resources. In many hospitals, the drug budget represents roughly 80% of the total department budget; thus, formulary savings justifies existing and occasionally additional staff. Preceptors must ensure that learners have knowledge of what the formulary is as well as a mechanism for tracking interventions that yield cost savings. From a broader formulary standpoint, assign medication class reviews on drug information or management rotations to evaluate opportunities for reducing costs while maintaining high-quality patient care. More aggressive institutions are evaluating some topical, oral, or intravenous medications that lack documented clinical benefit in the short term and are removing them from formulary or restricting their access for a period of time. Learners are at the forefront of analyzing and presenting these efforts. Learners can also attend pharmacy and therapeutics committee meetings and understand what goes into preparing an agenda and leading the meeting.

Finance

Learners may find themselves on administrative rotations during a season of budget preparation, although any month can provide an opportunity to review department performance to expected budget. Assisting with variance analysis, contingency planning, or defending a variance are all opportunities to involve learners. Discussion of a departmental budget also presents the opportunity

to discuss personal financial planning with the learners. Budgeting or related topics may be completely new to learners, especially those who had limited lectures in pharmacy school. Opportunities for discussion about budgeting and a wide array of financial topics that benefit learners include:

- Capital expenses versus operating expenses
- Research of a budget variance
- Explanation of the budget variance versus revenue
- Inpatient medication billing and DRG billing
- Outpatient billing and Medicare J codes
- Bundled payments
- Uncompensated and charity care
- Contractual service adjustments for insurance companies
- Full time equivalents (FTEs) and their calculation
- Ways productivity is measured and calculated

Strategic Planning

Similar to budgets, there is often a predefined time of year reserved for strategic planning, but the process and the current plan can be discussed at any time of the year. This will present an opportunity to review department performance to this plan or assign new projects to learners to achieve strategic planning objectives. In preparation for strategic planning, learners should access ASHP's Pharmacy Forecast, which is a valuable tool to assess trends over the next several years.[8] They might also reach out to other hospitals to benchmark an area of interest against what others are doing. Strategic planning offers an opportunity to discuss the broader healthcare market and trends in technology, consumer preference, and new reimbursement models with learners.

Value-Based Purchasing and Patient Satisfaction

The Centers for Medicare & Medicaid Services (CMS) program *value-based purchasing* is an initiative to increase quality and patient satisfaction while driving down healthcare costs. Patient satisfaction, patient outcomes, processes of care, and efficiency are all metrics that comprise the reimbursement program, and each dimension represents a unique opportunity for the department of pharmacy to improve these outcomes. Alignment of pharmacy strategy with these initiatives is an opportunity for learners to either directly participate in improving scores or observe the strategy involved in using clinical pharmacy to improve hospital quality and revenue. The value-based purchasing program offers a unique paradigm shift from quantity of care (fee-for-service) to quality of care (fee-for-value), and ASHP's Pharmacy Forecast consistently outlines this as a key opportunity for pharmacy involvement.[8]

Patient satisfaction opportunities for learner involvement are growing. Pharmacy team members and learners can improve patient satisfaction with medication education (e.g., what the medication is for, side effects), pain management, and understanding of the purpose of each medication prior to leaving the hospital. Learners can directly educate patients and recommend more appropriate pain therapies. Using learners to educate nurses about medication adverse effects, relative potency of narcotic analgesics, and the importance of these patient satisfaction metrics are another team-based approach where they can offer significant contribution.

PRECEPTOR PEARLS

Use learners to engage with the patient as a great learning opportunity and to improve patient satisfaction scores and other key quality metrics, which assists your facility with achieving value-based purchasing outcomes.

Integration of value-based purchasing goals into learner orientation can help to achieve alignment and emphasize the importance of pharmacy involvement.

Corporate Health Systems

As previously discussed, most hospitals today are part of multihospital health systems. Generally, this organizational model requires a corporate structure that centralizes certain functions for efficiency and efficacy both within pharmacy and for the rest of the health system.[9]

Learner observation of system-level meetings presents a unique view into how to navigate the politics, relationships, meeting structure, approval, and financial processes successfully of large and often geographically disparate organizations. Creating a high-functioning system pharmacy enterprise—including formulary, automation and informatics, clinical services, regulatory, process improvement, finance, safety, and pharmacy business services—is critical to an organization's financial and quality success. Including learners in strategy discussions, business plan development, and approval meetings for new services, such as requesting capital, gives them tremendous insights into how to succeed in complex environments.

340B Program

The Health Resources and Services Administration's 340B drug-pricing program is a widely used program to save on the cost of medications for eligible healthcare facilities. Learners at a facility with this program in place can learn about program structure and financial value to the organization and its patients as well as the complex nature of compliance with this evolving program. Facilitated discussions may cover topics such as the impact on ordering consistency to meet national drug code (NDC) match requirements, third-party resources and advisors for 340B, and the pharmaceutical industry's enforcement of this standard. Although a discussion about 340B is a starting point, learners can become actively involved through program audits or assist with managing a data accumulator for virtual inventories.

Data Analytics and Revenue Cycle

In administrative rotations in particular, one can discuss the pharmacy revenue cycle and its impact on pharmacy operations. Learners may become actively involved in this process through billing and auditing activities to decrease billing cycle time. The ability to analyze data is a complementary skill often covered on administrative rotations and usually involves basic instruction on common spreadsheet or database software. Learners can assist pharmacy administration in the identification of billing issues and may help detect insufficiently reimbursed or erroneously unbilled medications.

Pharmacy Information Systems

Information systems are playing a greater role in pharmacy practice by facilitating therapeutic interchanges, allowing pharmacists to document in the patient's medical record, and detecting or preventing common drug–drug interactions, drug–allergy issues, and more. Due to the importance of electronic systems, unplanned downtimes often become a crisis. Other important topics include consistency of naming medications within the various information systems, difficulty and importance of having all data-

bases matching each other, and the linkage of billing to drug set-up. Learners typically use information systems or observe them on general hospital or other clinical rotations. Pharmacy information system experiences offer learners a more in-depth opportunity to use, design, and improve the system.

Pharmacy Practice Advancement and Pharmacy Organizations

Pharmacy and health-system administrators are frequently involved at many levels with local, state, and national organizations. These organizations are increasingly welcoming learners onto committees to build engagement for future pharmacists. Discussion opportunities include:

- Limitations on pharmacy practice imposed by boards of pharmacy, and partnering with the board to revise rules or with pharmacy organizations to advocate for legislative change
- Building of a peer network as a factor for future success
- Basics of networking at pharmacy meetings and events
- Ways to give back to the profession by volunteering for pharmacy organizations, reviewing papers, publishing, etc.

Involve learners in pharmacy organization meeting attendance, committees, project work, and other activities that promote pharmacy practice advancement. Involvement with organizations not only sets the stage for future interactions, but also allows the learner to build a larger network for mastering best practices or even for career opportunities in the future.

PRECEPTOR PEARLS

Involve learners in pharmacy department leadership meetings, committees, and projects, and share why involvement in professional organizations is so important.

LEARNING EXPERIENCE ACTIVITIES

It is important to ensure that the learning experience is more than observational. Various activities can be done to reinforce pharmacy administration during the rotation. Not only will that improve the experience for the learner, but it will also provide useful material for the preceptor and pharmacy department.

Business Plans

Be sure to involve learners on administrative rotations and other rotations with development of business plans, as this can be a great tool to learn about administration and provide value to the department. There remains variation among colleges of pharmacy and their requirements for involving student pharmacists with business plans, yet business plans allow pharmacists to expand practice, create jobs, and advance patient care. Ideally, learners should be assigned to real business plan projects that have a chance of viability.

Learners will generally need a template for the business plan, which is often organization-specific in its format. After presentation of the template, a discussion should follow covering the basics of business planning such as generating revenue; quantifying all expenses; performing a strengths, weaknesses, opportunities, and threats (SWOT) analysis; optimizing return on investment; selling the plan to senior administration; and having an exit strategy. Learners can also present the business plan to a group of pharmacy leaders for feedback on content as well as presentation style. Learners, especially residents, with a long-term presence at the facility may then have the opportunity to implement the plan and lead the effort.

Competencies

Pharmacist and pharmacy technician competencies can be created by learners to assist leadership in developing tools to assess

understanding in an area regularly. Through researching and designing a competency, learners can further hone skills in a particular subject area and the learner can gain leadership skills, communication skills, and confidence by leading the effort and reviewing the competencies with staff. Align competencies with business plans so that if a learner implements a business plan to offer a new service, he or she can be responsible for developing the applicable competencies. In larger health systems, competencies may be a system-wide effort that offers learners the opportunity for large-scale impact. Multihospital competencies challenge learners by considering every hospital's unique perspective and may even require travel to different facilities to validate practices, observe workflow, or perform the education about the competency.

Policies and Procedures

Policies and procedures offer yet another complementary project to business plans or competency development, but they are often stand-alone tasks. Learners come to a facility with fresh perspective and may find weaknesses or areas to strengthen with a process from an operational or accreditation standpoint. Regardless of the need for the new policy, writing a policy or procedure is not a task that learners are initially well prepared to undertake and repetition will improve their ability. A situation, background, assessment, and recommendation (SBAR) approach to creating or revising a new policy offers a structured format for the discussion. Learners are often unaware of the reason or situation requiring the policy, so providing the situation and background should allow them to review pertinent literature and form an assessment and recommendation for the new or revised policy.

Audits

Although audits are not usually an activity that a learner wants to participate in, preceptors can make them exciting by driving for results and uncovering the unexpected. Audits are opportunities for learners to develop a deeper understanding of processes and process failure. While learners often provide the bulk of the labor to collect and analyze data for the audit, it is ideal to involve the learner in the design of the audit as well as presentation of the results. Audits can become an unexpected opportunity for poster or platform presentations for learners at state or national pharmacy conferences. Different types of audits that learners may be well suited for include:

- Potential narcotic theft or diversion
- Charge reconciliation between a financial and clinical system
- Performance between two groups with medication reconciliation accuracy
- Completeness of medication histories
- Intervention documentation of pharmacy team members
- Compliance to a specific policy or procedure
- USP Chapters <800>, <797>, or <795> documentation compliance

Furthermore, audits offer an opportunity for a learner to develop business plans, competencies, or policies and procedures to address deficiencies with compliance and facilitate change.

Quality Improvement and LEAN Methodology

Exposure to quality improvement and LEAN projects will benefit learners as the national focus on quality and affordable healthcare continues. Organizations looking to reduce costs and improve efficiencies are frequently turning to methods such as LEAN and Six Sigma. Involve learners in new or ongoing quality improvement projects or assign them a mini-improvement project after a brief introduction to LEAN or Six Sigma tools.

EXPOSING LEARNERS TO LEADERSHIP

To embed leadership throughout the learning experience and to demonstrate how pharmacy administrators are able to provide leadership, various functions and activities should be discussed:

- *Leading a department through strategic planning.* The *strategic plan* demonstrates the direction of the pharmacy enterprise over the next few years. Understanding the process that the department uses to develop its strategic plan, items contained within the plan, and the process for monitoring its progress is a great discussion topic. This plan sets the activities of many people over its period of existence and is a tool for a leader to give consensus and set direction.
- *Leading through communication.* The different methods of verbal and written communication one uses for effectiveness need to be discussed. Interactions include communications with pharmacy technicians, pharmacists, managers, your supervisor, the executives of the organization (C-suite), and the medical staff. Different strategies can be used for effective communication, and each one should be discussed for each type of individual and position.

  Executive presence is an important strategy for nonverbal communication that also needs to be discussed with learners. How one dresses, where they sit at meetings, and how they hold themselves can all send different messages, sometimes unintended. Not understanding the different dynamics of executive presence may result in ineffectiveness of communicating a message or gaining support for an initiative.
- *Leading through crisis*. Preparing and responding to the rising costs of medications, ongoing drug shortages, and unannounced accreditation site visits may create crisis situations in which the pharmacy administrator needs to make quick decisions and confidently communicate a plan of action. The pressures of the anticipation and decision-making needed for these events may test the leadership skills of the administrator. These situations may provide a great opportunity to share with the learner how to prepare for these crises. They are all valuable topics about strategies on how to best handle situations that cannot be anticipated.
- *Leading without the title.* Although these learning experiences are usually with individuals who have formal leadership titles within the organization, there are many influential leaders within the department who have no formal titles. Having topic discussions on how to lead with influence will demonstrate the impact one can have no matter the role within the enterprise or the title.

REASONS FOR A PHARMACY ADMINISTRATION ROTATION

Besides satisfying the accreditation requirements of ACPE and ASHP and completing various projects, there are additional benefits when precepting an experience in pharmacy administration.

Organization

Many health-system pharmacies are scrambling to increase the number of learners that they educate, as they become important extensions of the clinicians for increasing the quantity of care provided at a reasonable cost to the organization. Administrative learners offer the opportunity to progress more rapidly on strategic projects and use low- or no-cost labor to conduct quality and performance improvement projects. Learners in this arena also offer a potential candidate pool for open clinical and distribution-based positions, as well as residencies. The orga-

nization benefits by bringing in learners who are from the area, as it demonstrates a commitment to the school of pharmacy and the community as well as presents the possibilities of finding future employees.

Preceptor

Administrative preceptors often have to put in significant effort at the beginning to teach the learner about the organization, processes, and fundamental leadership and management topics. In return, the preceptor receives a highly skilled learner who functions as an assistant in implementing strategies to achieve the organizational goals. Preceptors who bring learners to high-level meetings often face a slight risk that the learner could say or do something inappropriate, yet the preceptor may be viewed in a new and elevated light for being an administrator/leader who is proficient enough to teach and mentor others.

Learner

Benefits to the learners should not be overlooked, although some might find it hard to quantify if they are interested in other facets of pharmacy. Learners on administrative rotations gain access to high-level decision makers who can either directly employ the learner in the future or recommend the learner to peers. Students on advanced pharmacy practice experiences in administrative areas gain visibility with individuals who either currently offer administrative residencies or know peers who do. In many ways, all pharmacists are leaders and many may go on to supervise others in some capacity during their careers. The experiences gained on administrative rotations are some that are not easy to teach such as dealing with conflict, holding others accountable, and facilitating change. Learners who carefully observe and become involved on the administrative rotation may learn skills they never expected, but ones that will last throughout their career.

Careers in Administration

Pharmacy students should be educated on pathways for careers in administration. Unfortunately, this is not often done during pharmacy school, either because faculty are not aware or the student did not know of his or her interest until they were on an administrative residency. Just like there are clinical residencies, there are 2-year ASHP-accredited residencies in health-system pharmacy administration and leadership. They can be combined with a master's degree or just offered as a standalone residency. It is important for the student to recognize that even if they choose not to pursue a pharmacy administration residency, they can still be successful pharmacy leaders and managers of an organization. Identifying, encouraging, and communicating with individuals who have passion, talent, and leadership skills is very important.

SUMMARY

This chapter summarizes the rationale for precepting learners in pharmacy administration, methods to expose them to leadership, and strategies to optimize the experience. Pharmacy administration is an exciting place to work, with multiple areas in which to specialize. Demonstrating this to learners will aid in increasing the number of individuals who might find this as the goal of their future professional practice.

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9

Precepting in New Practice Models

Sunny B. Bhakta, Sandra Leal, and Jill True Robke

> Knowledge is of no value unless you put it into practice.
>
> *Anton Chekov*

PRACTICE ADVANCEMENT INITIATIVE

A pharmacy practice model reflects how people, processes, technology, and products are deployed to ensure the ideal use of medications and optimal patient outcomes. The goal of the 2010 Pharmacy Practice Model Initiative (PPMI) was to improve patient health by developing and disseminating pharmacy practice models that maximize the use of pharmacists as direct patient care providers.[1] The Summit recommended that all patients deserve the services of a pharmacist, and every pharmacy department should develop a plan to divert pharmacist resources away from activities that well-trained pharmacy technicians can perform and toward medication management services. Furthermore, the Summit's proceedings stated that in optimal practice models, pharmacists accept responsibility for both clinical and distributive activities. Likewise, an ambulatory care summit held in 2014 sought to establish innovative practice models embedding pharmacists as integral members of ambulatory patient care teams.[2] As pharmacy practice progresses to include services and practice sites across the continuum of patient care, ASHP rebranded the PPMI as the Practice Advancement Initiative (PAI) in 2015.[3]

The goal of the PAI is "to significantly advance patient health by developing and disseminating futuristic practice recommendations that support pharmacists' roles as direct patient care providers." There are five pillars of PAI (see **Box 9-1**). It is critical that we prepare learners to take

LEARNING OBJECTIVES

- Identify key recommendations from the ASHP Practice Advancement Initiative related to learners.
- Identify strategies and incentives for expanding the patient care responsibilities of learners.
- Review tactics for successful and efficient integration of learners into your practice model.
- Describe expanded patient care activities that learners successfully performed.
- Explain best practices related to the management of learners in various practice settings.

Note: The authors would like to acknowledge Kristy Brittain and Samaneh T. Wilkinson for their foundational contributions to this chapter.

their place as members of the integrated healthcare team and accept the responsibility for medication outcomes that comes with it. Therefore, experiential and residency training should mirror the site's practice model in pursuit of PAI goals.

BOX 9-1. Five Pillars of PAI

1. Care Team Integration
2. Leveraging Pharmacy Technicians
3. Pharmacist Credentialing and Training
4. Technology
5. Leadership in Medication Use

MAKING RESIDENTS AND STUDENTS "WORK" AT WORK

Health systems are under increasing pressure to improve quality of care while simultaneously reducing costs. Pharmacy departments are pressured to do more to show value with existing resources. Students and residents can be an important new source of labor in these challenging times, helping complete projects that support health-system and department goals that simultaneously meet educational objectives. A barrier to accomplishing this work may be either their mindset or that of their preceptors. Preceptors may need to rethink their teaching methods and, likewise, students may need to develop self-directed learning skills. Experiential learning should be an active rather than a passive activity. Pharmacy departments can ill afford to offer unproductive shadowing experiences or have preceptor time taken away from patient care activities. Ensuring optimal medication outcomes for patients must be the primary goal for pharmacists as well as their students and residents. Center discussions and learning activities around actual patients rather than a list of esoteric topics on a rotation description. The test for assessing the necessity of student projects is asking the question "If I didn't have a student to complete this project, would it still need to be done?"

PRECEPTOR PEARLS

Pharmacy departments that treat students and residents as important customers can enhance their motivation.

The value of the work produced by learners engaged in direct patient care cannot be overstated. Pushing learners out of their comfort zones offers incentives well beyond the knowledge gained. Projects may be presented internally to Pharmacy and Therapeutics (P&T) or quality improvement committees or externally as posters, clinical pearls, or platform presentations at regional or national meetings contributing to the profession's body of knowledge. High-quality projects allow preceptors to provide references for students that speak to their involvement in patient care activities. Mentoring relationships are established that continue beyond the experiential training period.

Organizations providing pharmacists the opportunity to precept students and residents may offer their staff benefits well beyond the personal satisfaction of giving back to the profession. The presence of an experiential training program may be an important factor in recruiting and retaining talented pharmacists. *Bidirectional learning* occurs as learners stimulate the professional growth of their preceptors.[4] Patient care activities performed by students and residents may provide preceptors valuable time to work on other projects that improve patient care. The preceptor's clinical expertise and penchant for teaching and mentoring may lead to preferential practice site assignments and scheduling. In organizations with career development plans, work done with learners may help pharmacists build their portfolios for advancement. Finally, stipends paid by schools of pharmacy to departments hosting

pharmacy students may be used preferentially to support registration and travel to professional meetings, board certification, or other professional development activities for preceptors.

Well-trained and oriented pharmacy students can provide healthcare organizations with a wide range of routine but very important patient care services. These services may include medication reconciliation, patient education,[5] new drug–drug class evaluations,[6] medication-use evaluations, antimicrobial stewardship, immunization screening/administration,[7,8] anticoagulation management,[9] intravenous (IV)-to-oral (PO) conversion,[10] and drug dosing based on kidney function. Relying on students and residents to provide these services on a consistent basis necessitates having a constant supply of highly motivated learners. Pharmacy departments that honor and treat students as important customers can enhance learner motivation. Offering an exceptional learning environment is an excellent first step toward attracting this type of talented student. Consider these students potential recruits for the organization's residency program, if one exists. See residents as individuals auditioning for roles as future colleagues. Most schools of pharmacy provide practice sites, some feedback about the site, and/or preceptor performance. However, other organizations may elect to conduct customer satisfaction surveys of students independent of their schools to ensure they meet the needs of learners (see **Appendix 9-1**).

Finally, marketing the unique opportunities afforded students in your practice model can also help attract highly motivated students and differentiate your practice site from other organizations. Many schools of pharmacy now offer preceptor showcases, which allow students the chance to learn more about experiential learning sites. Create marketing tools (e.g., brochures, flyers, a website) with information about your health system, practice model, teaching philosophy, rotation offerings, and preceptor credentials. If no showcase is offered, look for other opportunities to interact with students face-to-face at state or local pharmacy meetings or residency showcases/clubs. Shadowing experiences over the summer or holiday break may be another alternative. View any opportunity to interact with students as a chance to generate interest and demand for your practice site.

LEARNERS AS INDISPENSABLE PHARMACIST-EXTENDERS

The rapid expansion of pharmacy schools over the last decade has caused great angst about meeting the demand for experiential training sites, especially in hospitals and health systems. In his 2011 Harvey A. K. Whitney lecture, Dr. Ashby highlighted the approach taken by Wayne State University College of Pharmacy "to make pharmacy students indispensable to the training site."[11] He highlighted common elements of successful programs (see **Box 9-2**). Unfortunately, seeing students as indispensable may remain a novel idea. Pharmacy departments may be reluctant to expand the number of rotations offered because their pharmacists are too busy with larger, more complex patient loads without the perceived additional burden of teaching and evaluating students and residents. The belief that students and residents must learn to take care of patients through time-consuming topic discussions, readings, and extensive modeling persists. In contrast, the view that the act of taking care of patients effectively stimulates learning, exposes knowledge deficits, and potentiates the desire to learn is growing.[12] This is not to say that topic discussions have no place in experiential learning; however, the primary goal of each day should be to accomplish all necessary patient care activities. Finally, concerns about taking time away from patient care activities to complete student orientation and training may increase reluctance to taking on more students.

BOX 9-2. Common Elements of Successful Experiential Training Programs

- Strong commitment from the program to match the students' interest with the scheduled experiential experience
- Support for students to make career decisions earlier in the educational process
- Availability of educational tracks for experiential training that match the students' desired career path
- Availability of a traditional track for students who have not yet identified a career path and desire a variety of experiences to support their career goals and objectives
- Extended rotational experiences within the desired career track for students at a single site

Source: Excerpts used with permission from Ashby DM. Harvey A.K. Whitney lecture. *Am J Health-Syst Pharm*. 2011;68:1497–1504.

Block Scheduling

Making students an integral part of your practice model makes excellent orientation and training essential. This on-boarding process will almost certainly require more resources than when students move nomadically from site to site each month. In an effort to decrease administrative burden, many healthcare organizations are now scheduling students for two or more rotations. This is referred to as *block scheduling* and *longitudinal* or *sequential experiential training*.[13-15] Core elements of traditional orientation, such as obtaining computer access, name badges, completing necessary competency assessments, safety and privacy training, collecting intern licenses and immunization records, and guided tours of the hospital and department remain a given. Because of students' extended engagement, particular attention must be devoted to providing them the direct patient care skills for which they will be responsible. Making sure student pharmacists know the organization's drug use policies and procedures (e.g., therapeutic interchange, collaborative drug therapy management, IV-to-PO), patient monitoring processes, and institutional review board (IRB) training as well as being introduced to key staff members can quickly make them an effective part of the department and patient care team. The goal should be to weave student pharmacists into the fabric of the department's workflow just as you would a newly hired pharmacist.

The pharmacy department of the Cleveland Clinic has offered sequential advanced pharmacy practice experiences (SAEs) since 2008 of 4- or 5-month duration in addition to traditional month-long rotations.[14] Advantages of this approach reported by preceptors included less time spent orienting students (up to 16 hours less per month) and attracting more motivated and residency-bound students. Students also reported less training and orientation time, which represented approximately an additional 1-2 weeks of rotation time gained over a 4- or 5-month SAE. Other benefits noted by students included more time spent with pharmacy residents, the ability to work on more in-depth projects, and relationships formed with preceptors and other care team members.

PRECEPTOR PEARLS

Teams of learners will act symbiotically in caring for more patients, expand care, and effectively decrease practitioner-to-patient ratios.

Layered Learning Practice Models

Incorporating students and residents into a site's practice model is recognized as an ASHP best practice.[17] *Layered learning practice model (LLPM)* is the term used to describe an educational approach where a supervising

or attending pharmacist oversees a patient care team composed of resident practitioners and student pharmacists also known as pharmacist-extenders. *Extenders* are defined as individuals whose work is delegated and overseen by a pharmacist, which allows the pharmacist to accomplish work that otherwise would not be possible.[16] Many health systems believe that teams of learners will act symbiotically in caring for more patients, expand care, and effectively decrease practitioner-to-patient ratios. In an LLPM, all team members are responsible for precepting learners in the level below them.[18] For these teams to work efficiently, it is necessary to clearly define the roles and delegate tasks in a way that is congruent with each level of learners' abilities to ensure all are practicing progressively at the top of their licenses.

Saint Luke's Health System (SLHS) of Kansas City has established a patient-centered, integrated pharmacy practice model.[19] There are four SLHS hospitals in the Kansas City Metro area with experiential and/or residency training programs, the largest being Saint Luke's Hospital and three community hospitals: Saint Luke's North, South, and East, respectively. A representative from each site serves on a System Pharmacy Education Team (SPET) co-chaired by two preceptors. The mission of the SPET team is to provide challenging educational opportunities to meet both patient care needs and learner educational objectives by consistently integrating student pharmacists into the SLHS pharmacy practice model and care team (see **Appendix 9-2**).

SLHS preceptors include clinical generalists and specialists who provide patient care on days, evenings, and weekends. SLHS hosts 8–12 advanced pharmacy practice experience (APPE) students and up to 12 introductory pharmacy practice experience (IPPE) students per month from five schools of pharmacy. SLHS offers five blocks of 2-month APPE rotations (see **Table 9-1**). Student rotations may occur at one or more of the campuses. A mandatory 2-day orientation and training session occurs the first 2 business days of each block for all pharmacy students. The training is a shared and rotating responsibility of the SPET team. After completing orientation once, students are required to complete at least two and up to five rotations within the health system. Originally, APPE students worked Monday through Friday day shifts. Common student complaints were that they did not have enough time with their preceptor because the preceptor worked an evening shift or was off after a weekend shift. SPET altered the APPE student schedule to reflect the integrated practice model and included 12-hour shifts and one weekend shift per 4-week rotation. Students received 1 day off for every two 12-hour shifts worked and 1 day for each weekend shift. Compensatory days off were subject to approval by their primary preceptor. This approach not only allowed preceptors' and learners' schedules to be in sync but also expanded the department's capacity to provide patient care services such as medication teaching and medication reconciliation on evenings and weekends. This position is referred to as the *clinical student intern* or *CSI*. Employee interns share responsibility for staffing CSI shifts and work with the APPE interns to develop the evening and weekend schedule. Third- and fourth-year employee interns participate in training and orientation by leading facility tours and teaching core skills, such as documentation of medication teaching, as part of their professional development plan (see **Figure 9-1**). SLHS gained an equivalent of a full-time employee utilizing experiential students as CSIs.

Additional benefits of block scheduling and sharing students among campuses is the ability to perform medication-use evaluations across the health system and standardizing pharmacy practices and protocols. Expanding the experiential training program reinforces the pharmacy department culture of working as a pharmacy system rather than individual departments.

TABLE 9-1. Saint Luke's Health System Sample APPE Student Schedule

		Student 1	Student 2	Student 3	Student 4	Student 5
	May	XXX	XXX	XXX	XXX	XXX
Block 1	June-O/T**		NSICU			ED
	July		ASP			MSTICU
Block 2	Aug- O/T**			RENAL		SLE
	Sept			SLH OPRX		ADMIN
Block 3	Oct- O/T**	GEN CARD			IM/PULM	
	Nov	NICU		SLH CLIN MN	SLS	
	Dec	XXX	XXX	XXX	XXX	XXX
Block 4	Jan- O/T**					
	Feb				ONC	
Block 5	March- OT**		CVICU			
	Apr		SLN			SLS-OPRX

** O/T mandatory 2 day first 2 business days of the month
SLH = Saint Luke's Hospital in KCMO
SLN = Saint Luke's Northland Hospital in NKC- acute care/general hospital rotation
SLS = Saint Luke's South Hospital in Overland Park, KS acute care/general hospital rotation
SLE = Saint Luke's East in Lee's Summit, MO acute care/general hospital rotation
AmCare = Ambulatory Care
SLS OPRX = Saint Luke's South Outpatient Pharmacy
SLN OPRX = Saint Luke's North Outpatient Pharmacy
SLH OPRX = Saint Luke's Hospital Outpatient Pharmacy
ONC = ONCOLOGY

SLH Advanced Hospital Rotations

NSICU = Neurosurgical Intensive Care Unit
CVICU = Cardiovascular surgery Intensive Care Unit
RENAL = Nephrology and Renal Transplant
MSTICU = Medical/Surgical/trauma Intensive Care Unit
NICU = Neonatal Intensive Care Unit
CICU = Cardiac Intensive Care Unit
IM/Pulm = Internal Medicine/Pulmonology
ED = Emergency Department
GEN CARD = General Cardiology
HF/TX = Heart failure/Heart transplant
SLH CLIN MN- 7P-7AM = Overnights
SPECIALTY/INF = Saint Luke's Advanced Care specialty infusion center
ADMIN = Pharmacy Administration
ASP = Antibiotic Stewardship Program

Source: Courtesy of Saint Luke's Hospital of Kansas City, Kansas City, Missouri.

Houston Methodist Hospital (HMH) is a teaching affiliate for several top-ranked universities and colleges of pharmacy. *U.S. News & World Report* ranked HMH in eight specialties nationally and the No. 1 hospital in Texas and Gulf Coast for the 6th year in a row. HMH employs over 200 pharmacy staff members, including 20 pharmacy residents. The practice model at HMH has shifted from a predominately clinical-specialist centered model to a patient-centered integrated practice model.[19] The HMH Department of Pharmacy offers APPE and IPPE to over 250 pharmacy student learners annually, including international colleges of pharmacy. HMH's approach to layered learning in a newer, non-university owned health system is best described through specialized rotation experiences and longitudinal learning experiences depicted in **Figure 9-2.**

Two rotations where a modified method of layered learning was instituted included the acute care cardiology and drug information service rotations. Examples of activities performed in the layered learning approach are depicted in **Figures 9-3** and **9-4**, respectively. Other programs instituted at HMH were the Longitudinal APPE (LAPPE) and Methodist Intern Longitudinal Experiential (MILE) programs, which allowed more longitudinal exposure and experience for both the learner and the organization.

The Houston Methodist Hospital LAPPE program is a longitudinal experiential opportunity for fourth-year professional

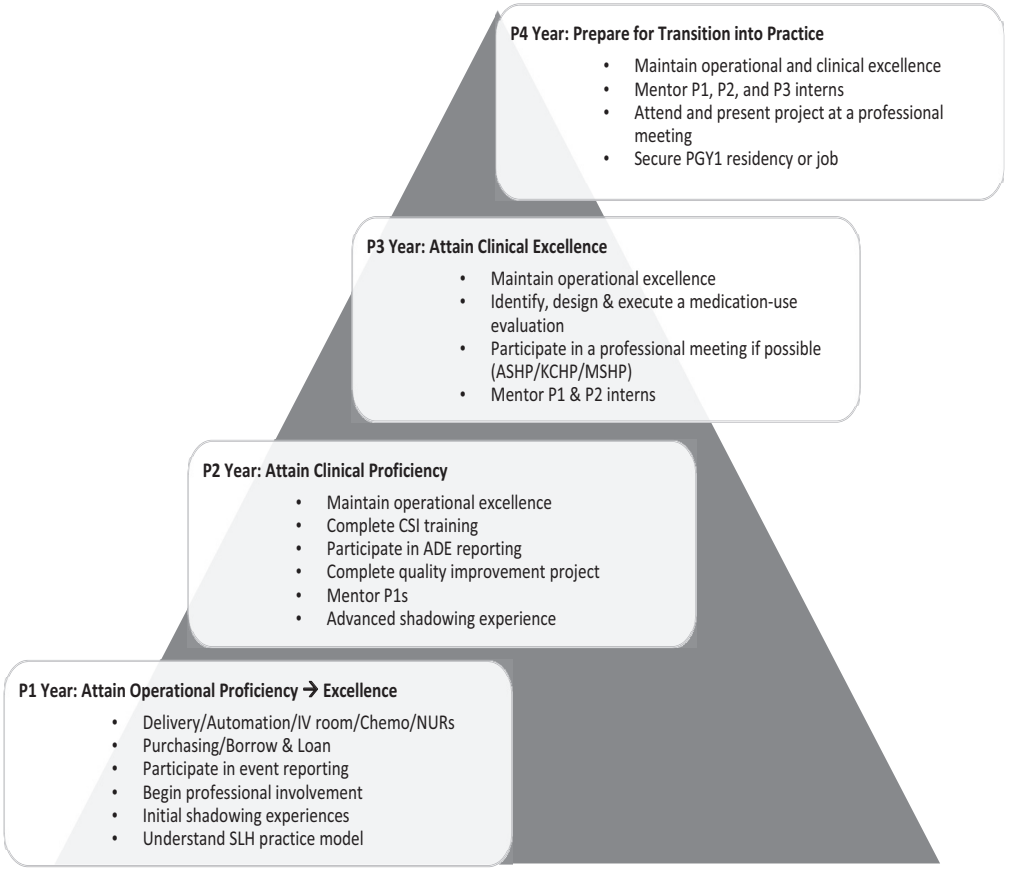


FIGURE 9-1. Saint Luke's Health System pharmacy intern professional development plan.

ADE = adverse drug event; CSI = clinical student intern; IV = intravenous; KCHP = Kansas Council of Health-System Pharmacy; MSHP = Missouri Society of Health-System Pharmacy; NURs = nursing unit reviews; PGY1 = postgraduate year 1; P1 = professional year 1; P2 = professional year 2

Rotation Experiences
◆ Acute Care Cardiology
◆ Drug Information Center Service (DIC)
Longitudinal Learning Experiences
◆ Longitudinal APPE Program (HMH LAPPE Program)
◆ Methodist Intern Longitudinal Experiential Program (MILE Program)

FIGURE 9-2. Houston Methodist Hospital (HMH) Department of Pharmacy layered learning experiences.

Source: Courtesy of Houston Methodist Hospital Department of Pharmacy, Houston, Texas.

Preceptor
◆ Is a facilitator of optimal therapy on physican consult service
◆ Leads focused topic discussions and journal clubs
Pharmacy Resident
◆ Assists in precepting student learner
◆ Validates patient education notes by student learners
◆ Manages all pharmacy consults for unit patients
Student Learner
◆ Serves as lead on daily medication education
◆ Focused rounding days and patient care activities

FIGURE 9-3. Example of acute care cardiology at HMH.

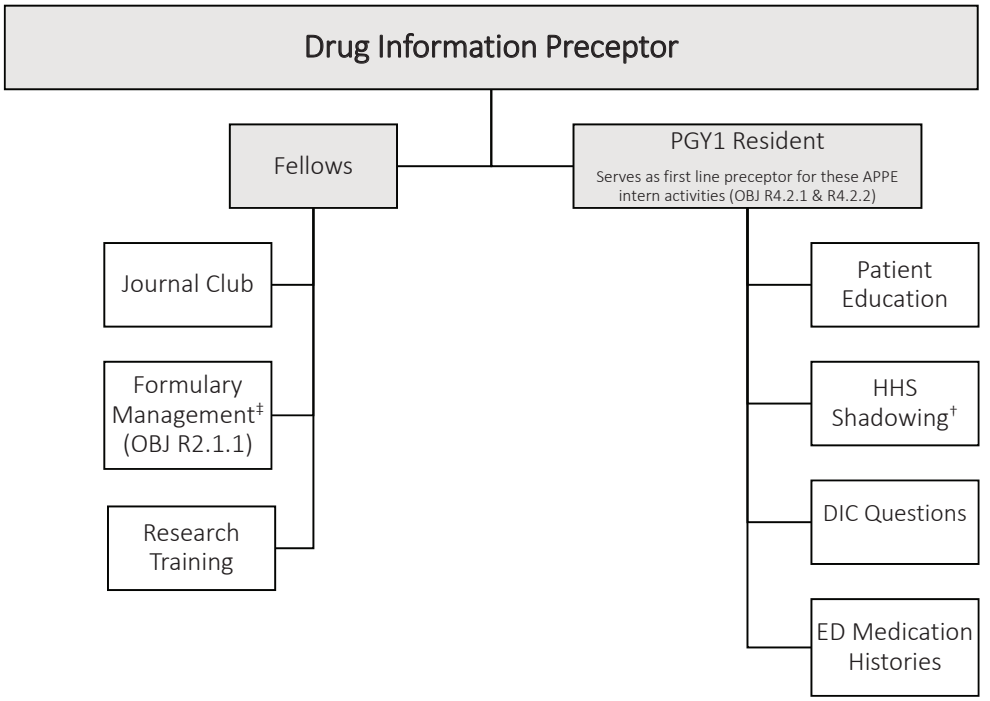
Source: Courtesy of Houston Methodist Hospital Department of Pharmacy, Houston, Texas.

pharmacy students. The LAPPE program is designed for highly motivated students to maximize students' experiential education and develop students' interprofessional skills. This program aims to prepare students for the residency application process and enable students to obtain their desired postgraduate pharmacy position upon graduation. The LAPPE program goal is to train student pharmacists through a robust longitudinal training program, which integrates clinical experiences with scholarship and professional service that will ultimately improve the provision of health-system pharmacy services once these student pharmacists enter the workforce. Similar to the previously mentioned block scheduling, the LAPPE experience allows four to five clinical and administrative rotations to be completed at the flagship campus of the health system. Benefits realized through this training initiative include:

- Reduction in orientation time
- Longer timelines for greater productivity, resulting in more effective layers
- Improved preceptor satisfaction
- Greater internal residency recruitment opportunities

The program was initially established in 2015 and started with five LAPPE student learners from various Texas schools of pharmacy. The program flourished over the years with greater retention into the Houston Methodist postgraduate year 1 (PGY1) residency as well as increased the number of applications and experienced a subsequent expansion of the program to eight LAPPE students annually.

The other significant longitudinal learning experience at HMH included the MILE program in which the organization employed the pharmacy students. They are recruited during the second semester of the first professional year (P1). The program is structured to allow the employed student interns to serve in pharmacist-extender roles over the employment period of P2 to P4. During the P2 year, interns learn the foundational aspects of distributive pharmacy services; they meet minimum staffing requirements in the medical center's pharmacy distribution operations. During the



APPE, advanced pharmacy practice experience; DIC, drug information center; ED, emergency department; HHS, hospital-health system; OBJ, American Society of Health-System Pharmacists Residency Training Objectives

‡Resident will prepare a drug monograph, class review, treatment guideline, protocol, Pharmacy and Therapeutics Newsletter, or order set

†International interns only

FIGURE 9-4. Example of drug information service rotation at HMH.

Source: Courtesy of Houston Methodist Hospital Department of Pharmacy, Houston, Texas.

P3 year, students work remotely in the emergency center and on patient care units to acquire medication histories that assist clinicians and pharmacist residents in patient care efforts. In addition to those activities, the students are also involved in conducting a research or continuous quality improvement project with the pharmacy administrative resident serving as a project preceptor. The P4 year consists of advanced clinical protocol management, medication education services for anticoagulant therapy, and discharge counseling under clinician/resident oversight. P4 interns are also expected to complete a research or continuous quality improvement project with the administrative resident serving as the project preceptor.

The interns conduct longitudinal projects such as supporting the controlled substance monitoring program managed by the administrative residents and serve as data collection/interpretation resources for report generation. The layered nature of this program is nestled in the reporting structure. The two second-year health-system pharmacy administration residents serve as the MILE program coordinators who oversee the daily operations and responsibilities of the internship program, such as establishing work schedules, vetting of research and longitudinal projects, topic discussions, mentorship, and annual performance reviews. The residents and interns both report to the health-system pharmacy residency program director in the human resources management system.

Challenges noted with these models to further expand the role of pharmacist-

extenders included the perception that entry-level activities are not always thought of as engaging, the thin line between providing engaging learning experiences and focusing solely on productivity, external stakeholder buy-in, and learner turnover. Efforts to incorporate more service lines and practice areas into these layered approaches will serve to create opportunities for preceptors to practice in the newer practice model, and allow learners to gain experience as pharmacist-extenders during their training.

Layered Learning Impact on Patient Care

Cleveland Clinic Florida (CCF), a 155-bed academic medical center with 36 pharmacy staff members, including two PGY1 residents, implemented a layered learning model with the goal of providing comprehensive pharmacy services to all patients in a cost-neutral manner.[20] Over a 3-year period, CCF more than doubled the number of APPE students from 98 to 226 by increasing the number of affiliation agreements they had with pharmacy schools from two to five. A primary focus was on obtaining medication histories and providing discharge counseling to all patients. After a 1-day orientation, students were assigned a set number of patient beds daily. The supervising pharmacist modeled the patient care activities and then facilitated and coached each student in the behaviors. After demonstrating proficiency, students were allowed to work on their own with intermittent preceptor evaluation. Assessments included direct observation or patient interviews to appraise medication understanding after counseling. The preceptor or attending pharmacist reviewed and cosigned all students' notes and interventions. CCF noted improvements in their Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) score in the "communication of medication" domain that correlated with implementation of the practice model change. Patient care loads decreased from 30:1 to 7:1, and pharmacists' interventions increased 58% using students as pharmacist-extenders.

Soric and colleagues demonstrated how learners can improve economic and patient satisfaction outcomes in a small (<200 bed), non-teaching community hospital.[21] An LLM established in 2011 included a shared faculty member, two PGY-1 residents, and APPE students (24 rotation months per year). They demonstrated significant improvement in medication-related HCAHPS survey data as well as decreased total medication cost per discharge pre- and post-LLM implementation. They concluded that establishing an LLM is a feasible way for smaller institutions to realize the PAI recommendation, "All patients should have the right to the care of a pharmacist."

PRECEPTOR PEARLS

Learners can provide a meaningful impact on patient care through the creation of new or enhanced services.

Evidence exists that learners, particularly student pharmacists, can provide a meaningful impact on patient care in community and outpatient pharmacy settings through creation of new or enhanced services and transitional care services.[22-26] As mentioned previously, when learners are exposed to a new practice site, quality learning time can be consumed with orientation to the site and rotation.

Studies have shown that the usefulness of learners at a site is dependent on their knowledge of and comfort level with the pharmacy's workflow and technology. Students should be oriented to the pharmacy's process related to prescription processing, evaluation, dispensing, and counseling.[23] This process can take a significant amount of time for both the preceptor and learner and, therefore, a streamlined process should be considered to utilize time more efficiently.

Similar to block scheduling of learners as discussed earlier, learners may benefit from longer pharmacy practice experiences, particularly in a community or outpatient setting where services are being implemented. Kassam and colleagues[23] identified that a longer (8 weeks versus 4 weeks), structured enhanced community APPE within a grocery store pharmacy setting at the same site (versus multiple sites within the same chain) showed a significant increase in the number of interventions that learners identified–including a significant increase in the number of drug-related problems identified, the amount of follow-up care provided, and an increase in the resolution or prevention of drug-related problems. In addition, preceptors participating in the enhanced APPE saw greater benefit to both their patients and the overall pharmacy's progress in offering patient care services. Preceptors also documented improved satisfaction of participating in the APPE.[23]

At The Ohio State University, the Partner for Promotion (PFP) program was started to create active learning experiences for APPE students to enhance their knowledge and skills in developing and implementing patient care services within community pharmacies. The intent of the PFP was also to increase the quality of community APPE sites for The Ohio State University College of Pharmacy. The PFP paired community pharmacy faculty with community pharmacy preceptors and provided a formalized training program to expose students to the creation of a patient care service. The program had an impact not only on the student participants but on the pharmacy preceptors through training and mentoring. The program's long-term goals are to further develop the implemented patient care services and provide community pharmacy experiences for students rich in patient care activities.[26]

Walker and colleagues[24] from the University of Michigan College of Pharmacy utilized an APPE in transitional care to improve the productivity of a transitional care planning program at University Hospital. University Hospital of the University of Michigan is a 550-bed tertiary care academic teaching hospital where four general medicine services participated in transitional care planning and involved a clinical pharmacist preceptor and students. The team that involved the student increased productivity from assessment and interviews of approximately 10 patients per day to 15-20 patients per day, depending on the service covered. Although an economic assessment was not conducted, other studies related to contributions of students have shown both reduced patient readmissions and emergency department visits.[24]

In particular, APPE students and their preceptors have a documented impact on cost avoidance in both inpatient and outpatient pharmacy settings. Researchers at Northeastern University found that APPE students and their preceptors saved over $900,000 through the course of one APPE cycle.[27] Per post-rotation assessments, students were evaluated and effectively conducted the medication-related transitional care activities at discharge. Based on this information, academic medical centers can consider the role of students in the discharge process, including the transition of care to outpatient pharmacies.[25]

Opportunities for student participation in community and outpatient pharmacy medication therapy management (MTM) programs have grown since the introduction of formalized MTM programs in the United States.[28] In addition, curricular enhancements within colleges of pharmacy have provided formalized training of learners who are more prepared to deliver MTM within the community setting.[29,30] Hata and colleagues[22] at Western University of Health Sciences implemented a MTM project for APPE students to provide MTM services in collaboration with supervising preceptors at community pharmacy practice sites. Learners involved in the MTM project practiced and enhanced the skills learned in the pharmacy

curriculum. Students were able to demonstrate the effectiveness of a MTM program, even if the preceptors were not currently offering the service. Student recommendations were forwarded to the patient's primary care provider. Of those recommendations, 75% sent to the prescribing provider were accepted, which promotes interprofessional collaboration with the community pharmacist.

Students' involvement in the MTM process at community and outpatient pharmacies would be dependent on state regulations regarding intern pharmacists. Students participating in MTM services would require direct supervision and oversight by a licensed preceptor.[22] MTM programs can provide a rich learning environment for students, allowing them to incorporate drug knowledge, patient interviewing skills, communication skills, patient assessment, development and implementation of a plan, follow-up, and monitoring. Students are also afforded the opportunity to interact with the prescribing provider to make recommendations utilizing evidence-based medicine. Outpatient pharmacies affiliated with a medical center can provide an enhanced learning opportunity for students, especially if they have access to multiple sources of health information, including laboratory data, recent visit notes, and hospitalization information. This information allows students to conduct a much more thorough assessment of patients.

Layered Learning in Telehealth

SinfoníaRx, a national provider of MTM, and their association with colleges of pharmacy uses an LLM where the learners—starting in their first year of pharmacy school—are immersed in real-world application of medication management in complex patients with multiple chronic conditions. Learners not only review the signs, symptoms, and therapeutic approaches of common disease states, but they also gain the important skills needed to interact with individual patients as well as ways to gain their trust and provide meaningful services. As students advance in their didactic course work, their role expands to include more advanced clinical interventions that align with their progress and their work at the Medication Management Center. Learners are constantly working with patients with multiple conditions, health disparities, social determinants of health, and everything else that comes with patient interactions in real-world scenarios. Working alongside other pharmacy students, pharmacy technicians, postgraduate pharmacist residents, nurses, clinical instructors, and faculty in this uniquely challenging environment enriches their pharmacy education.

Live patient counseling is approached using a tiered model that aligns with academic curriculum based on a 3- or 4-year pharmacy program. Learners are taught soft skills such as patient counseling techniques, motivational interviewing using open-ended questions, and active listening. These learners are required to attain the clinical knowledge to recognize the top 200 medications, including brand versus generic nomenclature. An essential skill that is enhanced for learners in this environment is communication skills among healthcare professionals, whether collaborating with internal colleagues and/or other healthcare providers to gather information during provider outreach via telephone; written language when creating a subjective, objective, assessment, and plan (SOAP) note; or face-to-face in clinic settings.

As a part of this practice site, learners primarily use telephonic or telehealth services to engage patients. Delivering telepharmacy services brings unique considerations to be effective in engaging patients. The skills that are of critical importance are those of communication. Learners are trained to focus on introducing the service, building trust in a very short window of time, speaking clearly and slowly, picking up clues from a conversation without body language, and eliminating as many distractions as possible for the intervention to be successful. Learners work with specific standardized clinical algorithms to ensure nothing is missed during that inter-

vention, especially as it relates to addressing important care gaps in the patient's care or safety concerns. Teach-back education is an effective tool to assess if the encounter was clear enough to ensure that the patient understood the conversation.

All learners are trained on the basics of core disease states such as diabetes, hypertension, cardiovascular disease, heart failure, asthma, and chronic obstructive pulmonary disease. Learners are taught using different methods such as enhanced counseling surveys, which help learners determine how to prioritize and target clinical discussions. In P1 and P2, the learners focus on extracting basic information regarding assessment of conditions. In P3 and P4, the learner's responsibilities expand to include additional responsibilities and clinical assessment competencies for gaps in care, medication interactions, and safety concerns. Learners become more familiar with clinical guidelines and become adept at applying evidence-based medicine as they are providing MTM.

The onboarding protocol for these learners emphasizes a wide range of clinical training, especially as learners are transitioning to higher level clinical skills throughout their curriculum. Learners are exposed to such clinical skills through escalated calls to answer questions that correlated to their curriculum. Learners also assist with call-backs to patients and/or providers to address questions or concerns related to specific patient cases. Additionally, monthly best practices meetings are utilized to advance professional and clinical skill sets. Learners are also engaged in interprofessional training modules, which rely on their pharmacy background to participate in meaningful discussions with pre-health, dietetic, and nursing interns.

This unique practice model provides a learning experience for externs, interns, and pharmacy residents. All learners are provided a custom experience based on the objectives of their stage in training. As learners ascend, preceptors use direct instruction, modeling, coaching, and ultimately facilitation so that more advanced learners are becoming the preceptors with time and experience while being supported by their main preceptor. Additionally, the exposure to novel technological solutions aids the learners in assisting with a diverse range of demographics and populations. This exposure provides a unique skill set that is becoming a necessity as providers, payers, and health systems are focusing on innovative, sustainable, and efficient ways of allocating limited resources.

PRECEPTOR PEARLS

Utilizing learners as pharmacist-extenders can assist in meeting PAI goals.

Numerous studies have indicated that pharmacists' active involvement in patient care and the medication-use process benefits outcomes in health systems and the community.[31,32] Utilizing learners in the appropriate capacity as pharmacist-extenders can assist in meeting PAI goals, such as moving pharmacists closer to patients and developing a plan to allocate student time to drug therapy management services.[1] When learners are encouraged to address drug-related problems actively rather than passively observing preceptors, they accomplish high-level interventions.

PERFORMANCE MANAGEMENT STRATEGIES FOR PRECEPTORS AND LEARNERS

Experiential training programs that host learners from multiple schools of pharmacy often note substantial variations in both student abilities and almost certainly in course evaluations. The American Association of Colleges of Pharmacy (AACP) was tasked with identifying core entrustable activities for pharmacy graduates.[33] *Entrustable professional activities (EPAs)* describe units of work that

consumers, patients, society, and employers trust professionals to competently perform.[34] Fifteen core EPAs set the foundation for what is expected of pharmacy practitioners, regardless of setting. As more schools move to EPA-based assessments of entrustability, it is important for preceptors to identify the daily essential activities in their practice site that allow students to exhibit competence in each EPA. As the learners progress through their training, their level of "entrustability" (see **Box 9-3**)[35] should also progress until they are practice-ready.

BOX 9-3. Levels of Entrustability in Professional Activities

1. ***Observe Only:*** Learner is permitted to observe only, even with direct supervision.
2. ***Direct Supervision:*** Learner is entrusted to perform the activity or task with direct, proactive supervision.
3. ***Reactive Supervision:*** Learner is entrusted to perform the activity or task with indirect and reactive supervision (i.e., on request and quickly available).
4. ***Intermittent Supervision:*** Learner is entrusted to perform the activity or task with supervision at a distance and/or post hoc.
5. ***General Direction:*** Learner is entrusted to decide independently what activities and tasks need to be performed and can direct and supervise the activities of others.

Utilizing residents as preceptors can be an effective way to create new service lines and simultaneously meet PGY1 residency objective, R5.1.3, which requires the resident to demonstrate skill in the four preceptor roles employed in practice-based teaching: direct instruction, modeling, coaching, and facilitating.[36] A recent survey[37] found that over 70% of residency programs did not offer a formal precepting rotation, while 78% of programs devoted 10 hours or less per month to preceptor development and 33% provide less than 5 hours. However, the majority of programs conceded their graduates often sought or accepted positions that required precepting.

A Delphi expert panel identified key strategies for efficient and effective preceptors.[38] The panel agreed that many teaching activities can be delegated to appropriately trained residents, including rounding, case presentations, didactic discussions, teaching critical thinking, orientation, student projects, and providing feedback to students as well as assisting with evaluations. In addition to being effective preceptors in training, use of residents is appealing when expanding services for many reasons:

- They are licensed to independently perform patient care functions.
- Their salaries are lower than other pharmacists, and PGY1 salaries can be further mitigated by pass-through funding from the Centers for Medicare & Medicaid Services.[39]

Some questions to consider when developing or expanding learner rotations include:

- What pharmacist responsibilities can be entrusted to learners so that all team members practice at the top of their license?
- What service lines need additional support?
- What outcomes can be measured to demonstrate value (e.g., orders verified, pharmacy consults, patient counseling sessions)?
- What patient populations are underserved?

Although the majority of hospitals in the United States are not academic medical centers, community, rural, and critical access hospitals can still tap into the potential of using learners as pharmacist-extenders. No matter the type of practice setting, learners should have opportunities for independent management and some level of autonomy as they will quickly transition into the role

of pharmacist on graduation. These newly entrusted professionals can take their transferable skill set honed during their experiential training and become levers to nudge pharmacy practice initiatives forward at their future places of employment.

SUMMARY

Students and residents become indispensable to your pharmacy practice model when they are enabled to work as pharmacist-extenders. Evidence supports the value of learners providing essential patient care. Effective, efficient training and orientation are crucial for successful integration of the learner into your department. Block or sequential experiential training as well as extended duration rotations are useful in minimizing the on-boarding processes. Transforming learners into valued customers as opposed to unnecessary burdens will ensure demand for your practice site and a reliable supply of pharmacist-extenders.

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APPENDIX 9-1. SLHS Pharmacy Student Education Satisfaction Survey

1. Rotation Site (choose all that apply)
   a. Saint Luke's Hospital of Kansas City (Plaza)
   b. Saint Luke's Northland
   c. Saint Luke's South
   d. Saint Luke's East
   e. Outpatient Retail - All Locations
   f. Outpatient Oncology - All Locations
   g. Saint Luke's Advanced Care Pharmacy (Specialty)
   h. Other (please specify)
2. What is your student category?
   a. APPE
   b. IPPE
3. What would you change about orientation?
   a. Open-ended response box
4. Please comment on any Saint Luke's employee that you would like to recognize for helping you achieve your educational goals and/or provide constructive feedback to improve the rotation?
   a. Open-ended response box
5. My SLHS rotation met my educational needs.
   a. Strongly agree
   b. Agree
   c. Neither agree nor disagree
   d. Disagree
   e. Strongly disagree
6. I would recommend SLHS as a training site.
   a. Strongly agree
   b. Agree
   c. Neither agree nor disagree
   d. Disagree
   e. Strongly disagree
7. Please provide comments if you answered "d" or "e" to questions 5 or 6.
   a. Open-ended response box

Source: Courtesy of Saint Luke's Hospital of Kansas City, Kansas City, Missouri.

APPENDIX 9-2. Saint Luke's Health System Pharmacy Education Team (SPET) Charter

VISION

Utilize student pharmacists as pharmacist-extenders to expand patient care to ensure the best possible medication-related outcomes.

MISSION STATEMENT

Provide challenging educational opportunities to meet both patient care needs and learner educational objectives by consistently integrating student pharmacists into the Saint Luke's Health System (SLHS) pharmacy practice model and care team.

SCOPE

Serve pharmacy preceptors, system pharmacy leadership, system clinical pharmacy user group (CPUG), student pharmacists, and pharmacy schools in the schedule.

GOALS

1. Be a preferred experiential rotation site for students.
2. Standardize student activities throughout SLHS experiential rotations.
    a. Provide standardized on-boarding process.
    b. Define clear expectations throughout rotations within SLHS and within each specific rotation site.
    c. Ensure students are performing at the top of their licenses while contributing to the pharmacy department within SLHS.
3. Provide and develop preceptor resources.
    a. Set clearly defined expectations of preceptors within the SLHS.
    b. Improve communication from the SPET to preceptors and improve communication from preceptor to preceptor.
    c. Provide opportunities for preceptor development.
    d. Recognize preceptors for positively impacting student experience.
4. Develop and make recommendations on integrating students in current pharmacy workflow to ensure students are working at the top of their licenses while providing benefit for SLHS.
    a. Support implementation of new clinical services.
    b. Develop clinical metrics to quantify the value to the pharmacy department and SLHS.

Source: Courtesy of Saint Luke's Hospital of Kansas City, Kansas City, Missouri.

10

Legal and Regulatory Aspects of Practice

Alexis A. Ertle, Robyn I. James, and Diane B. Ginsburg

Those who know, do. Those that understand, teach.

Aristotle

The curriculum in pharmacy education today is divided almost evenly between didactic and experiential learning. Learners must devote many hours toward hands-on learning to achieve their pharmacy degree. Pharmacy preceptors willing to train and teach learners must adhere to specific guidelines to supervise pharmacist interns. This chapter will review requirements for preceptors by state and pharmacy program.

PHARMACY RULES AND REGULATIONS: STATE BOARD OF PHARMACY REQUIREMENTS FOR PRECEPTORS

A preceptor plays a significant role in the training and development of future pharmacist practitioners. Most states mandate that hours worked in a pharmacy must be under the direct supervision of a pharmacist who is certified as a preceptor, if those hours are to be counted toward graduating from a college or school of pharmacy. This requirement does not necessarily apply to hours that learners must complete to satisfy degree requirements of their respective academic program. It is not uncommon for pharmacist interns to complete a rotation during their experiential program and be supervised by a physician or other healthcare provider.

LEARNING OBJECTIVES

- Describe each of the six common requirements for pharmacists to become preceptors within their respective states.
- Describe the difference in experiential education requirements among pharmacy programs.
- Describe the interprofessional education elements incorporated in pharmacy programs
- Discuss liability issues for preceptors.
- Define the Health Insurance Portability and Accountability Act (HIPAA) and describe how it applies to experiential training programs.

PRECEPTOR PEARL

States vary widely in their requirements for preceptors, but they usually include some combination of the following: predetermined length of practice, application, approval or certification, a training seminar, and good legal standing.

For certification as a preceptor, most states require that a pharmacist be licensed and have at least 1 year of experience in his or her respective practice setting. Some states recognize pharmacy residency program training and allow pharmacy residents to apply for preceptor certification during their residency.

Only a few states require some form of preceptor education as part of the initial certification process. To maintain preceptor status, preceptors are required to complete additional hours of preceptor-specific education to maintain their certification. In some states, this continuing education is tied to the licensure renewal cycle. Some colleges and schools require that preceptors complete continuing education specific to their program prior to their certification as preceptors. Many colleges and schools offer annual preceptor education conferences as well as partnering with state professional associations to provide preceptor training.

Each state has its own requirements regarding the ratio of preceptors to interns. Most states limit this ratio to one-to-one when providing direct patient care activities. In some states, colleges and schools of pharmacy may apply for an exemption to this rule to allow for an expansion of this ratio. This exemption may be necessary in nontraditional practice settings or in situations where the hours completed by an intern are for satisfying degree requirements rather than for licensure.

The supervision and teaching of future practitioners is a large responsibility for preceptors. The purpose of the internship program is for learners to grasp the proper way to practice pharmacy while abiding by all laws and rules that govern pharmacy practice. Licenses must be in good standing in order for pharmacists to supervise pharmacy learners. Unfortunately, things can happen in a pharmacy that can result in disciplinary action against the pharmacy or pharmacist's license even if he or she was not directly responsible. Even though there may not have been any malicious intent on the part of the pharmacist preceptor, a pharmacy and pharmacist who are the subjects of a board-imposed penalty should not precept learners until the disciplinary action has been resolved and the licenses have been returned to good standing. Some states allow pharmacists to petition the board to have their preceptor certification reinstated at an earlier time. In this case, it is up to the individual board of pharmacy to render this decision. Pharmacy board requirements for preceptors by state are listed in **Appendix 10-1**.

Licensure

Although pharmacists are required to be licensed by the board or regulatory agent of the particular state in which they are serving as preceptors, Appendix 10-1 highlights the different internship hour requirements between states. Every state has deemed pharmacists to be preceptors because they are licensed pharmacists and have met the other requirements. Most often it is noted that the pharmacist must be in good standing. Some states do not require preceptors in the areas of drug research within a pharmacy school or industry to be licensed pharmacists. An exception to this would be pharmacists practicing in federal facilities who are required only to have a current license in at least one state. Pharmacists practicing in any of the military branches, the Veterans Administration, or the Bureau of Prisons are required to be licensed only in one state and may practice pharmacy in any facility regardless

of location. Federal laws, not individual state laws, have jurisdiction in these facilities.

Length of Practice

Only 24 states require that a pharmacist has practiced for a specific length of time before he or she can precept learners, and the length of practice is typically 1–2 years immediately before becoming a preceptor. Some states specify a number of years (e.g., in Alabama, 2 years), but others require a certain number of hours practicing (e.g., in Minnesota, 4000 hours with 2000 of the 4000 hours within the state).

Complete Application

Fifteen states require pharmacists to complete an application before they can be considered preceptors. These forms are typically located on the website of the board or regulatory agent. This application usually registers pharmacists as preceptors for the particular state in which they are applying.

Approval and Certification

The board of pharmacy or regulatory agent of a state will grant preceptor approval to pharmacists who meet the requirements needed to precept learners. Nineteen states require either certification or approval to become preceptors, whereas Texas requires pharmacists to be both approved and certified. It is common for preceptors to be certified for a specified number of years, after which they must apply for recertification, which sometimes involves an exam and fees. Many of the states that require certification also require that the certificate be displayed in a noticeable location.

Training Seminar

Very few states (i.e., Alabama, Minnesota, Montana, Texas, Washington) have a required, board-approved preceptor training seminar for applicants. These seminars are required for initial approval and then as often as the state deems necessary to meet requirements, ranging from 2-5 years. Attendance at this training program must be completed again when pharmacists' current licenses are to be renewed.

Legal Standing

Twenty-seven state boards of pharmacy and regulatory agents cite good legal standing as a requirement for preceptor applicants. This means that they must be in compliance with the law and must not have violated any laws or statutes related to the practice of pharmacy. Most states list "good standing with the Board" after licensure requirements, and this can often be interpreted as good legal compliance with the rules and regulations of the state's pharmacy laws. However, it is best to give an exact legal compliance time frame, so that expectations are clearly projected. *Legal standing* refers to either the specific time period of law observance or if law observance was noted for a particular state. States might require that pharmacists have an unrestricted pharmacist's license or apply for and receive special permission to become a preceptor if they are involved in any legal issues.

The requirements for pharmacists to become preceptors vary widely from state to state, with some states having unique requirements (see **Box 10-1**). Appendix 10-1 makes it apparent that some states have highly structured procedures that are expected of pharmacists wanting to become preceptors. It is important to research the requirements of your state fully to ensure you follow all necessary procedures.

BOX 10-1. Examples of Unique State Requirements

- The Arkansas State Board of Pharmacy requires that a pharmacist must "be a pharmacist employed in a pharmacy which currently holds a Class A rating indicated by the Inspection Sheet for pharmacies as outlined by the State Board of Pharmacy." The pharmacist must also complete a preceptor requirements

test that was developed and administered by the board or board representatives. It is required that one preceptor from an intern site be a member of an "appropriate" national pharmaceutical organization. Each individual preceptor is required to be a member of a professional state organization and attend one professional meeting during the previous calendar year. Regulation 01-00-0007 specifies fees that are required during the renewal process, which takes place every 2 years and requires a new application.

- In Colorado, the school of pharmacy establishes preceptor requirements.
- In the District of Columbia, pharmacists wanting to be preceptors must take the "Oath of Preceptor," which is as follows: "I submit that I shall answer all questions concerning the training of a pharmacy intern under my supervision truthfully to the best of my knowledge and belief and that the training I provide will be predominantly related to the practice of pharmacy as required by law."
- To be preceptors in Kentucky, pharmacists must submit a written request.
- Texas will allow a pharmacist who has been in an ASHP-accredited residency for at least 6 months to serve as a preceptor if all other requirements are met.
- In Ohio, a preceptor can be a pharmacist or a "person who is of good moral character and is qualified to direct the approved experience in the area approved by the director of internship pursuant to paragraph (D) of rule 4729 3 05 of the Administrative Code."
- Oklahoma requires pharmacists to take a preceptor examination that is prepared by the board and pay a fee.
- In Oregon, non-pharmacist preceptors can be designated to supervise interns with the board's approval.

PRECEPTOR PEARLS

It is important to know your state's requirements to become a preceptor. You can find this information in Appendix 10-1 or by searching your respective board's website for preceptor requirements.

PHARMACY PROGRAM EXPERIENTIAL REQUIREMENTS

The Accreditation Council for Pharmacy Education (ACPE) sets standards for pharmacy programs to achieve accredited status.[1] For example, the 2016 ACPE Standards dictate that introductory pharmacy practice experiences (IPPEs) total no less than 300 clock hours of experience, with a minimum of 150 hours to be balanced between community and institutional health-system settings. However, beyond those 150 hours, pharmacy programs are at liberty to decide what other experiences are worthwhile to a learner's education. Similarly, the advanced pharmacy practice experiences (APPEs) are mandated to be no less than 36 weeks (1440 hours) and must occur in four required practice settings (community pharmacy, ambulatory patient care, hospital/health-system pharmacy, and inpatient general medicine patient care) as well as elective practice settings chosen by the learner.

Appendix 10-2 lists the different IPPE and APPE requirements among pharmacy programs in the United States. Typical variations include number of rotations, length of rotations, total hours required, and units used to signify credit. Although there are vast differences between pharmacy program requirements, to be an ACPE-accredited institution, the program must strictly adhere to the aforementioned practice experiences.

Beyond ACPE accreditation standards, individual programs may decide to require additional experiences beyond what is mandated. Examples of these additional experiences are courses strictly devoted to interprofessional education (IPE) and pre-IPPE/pre-APPE courses. Under ACPE Standards, colleges and schools of pharmacy will be increasing the number of IPE experiences in didactic and experiential components of the curriculum.

PHARMACY PROGRAM INTERPROFESSIONAL EDUCATION

With increasing drive for healthcare professionals to work in collaborative teams, pharmacy programs are working to increase IPE among students of all disciplines. However, IPE has not been implemented consistently among all pharmacy programs. Some programs offer structured coursework for credit and others simulations. For programs to implement IPE requirements, it is important to understand the definition of this experience.

> Interprofessional education involves educators and learners from 2 or more health professions and their foundational disciplines who jointly create and foster a collaborative learning environment. The goal of these efforts is to develop knowledge, skills and attitudes that result in interprofessional team behaviors and competence. Ideally, interprofessional education is incorporated throughout the entire curriculum in a vertically and horizontally integrated fashion.[2]

Interprofessional education is a way to create learning and care models that promote improvement in healthcare through discipline-specific and collaborative education. IPE, while not implemented in every pharmacy program, is anticipated to increase as the need becomes more apparent and as an accreditation requirement. All healthcare professionals should deliver patient-centered care as a member of an interprofessional team, using evidence-based practice and quality improvement. IPE can provide fundamental skills to be successful for future interactions in the healthcare system, including teamwork, leadership, collaboration, and the ability to achieve optimal patient care. As programs work to develop and implement IPE in their programs, preceptors will need to educate learners on being an integrated member of the healthcare team. Appendix 10-2 displays the Interprofessional Education requirements by pharmacy program.

LIABILITY ISSUES FOR PRECEPTORS

The training of future pharmacists is a rewarding experience for most preceptors. Learners are eager after many years of training to function as licensed practitioners and provide direct patient care. Many learners, when they enter the final year of their program, are very mature and appear ready to undertake the responsibilities of licensed pharmacists. The important thing to remember is that, although they may seem ready to function as licensed practitioners, they are not licensed. *The responsibility of all learner actions rests with the preceptor's license.*

PRECEPTOR PEARLS

Remind learners that you, as their preceptor, are* ultimately responsible *for everything they do and that your license could be disciplined for failure to be in compliance with appropriate laws and rules.

Most colleges of pharmacy understand the major responsibility that preceptors have when they are supervising learners. Preceptors not only have to worry about their actions (and in some cases, the actions of their staff if they are the pharmacist-in-

charge or in another supervisory role), but they also have to worry about their learners' actions. Most learners do not intentionally try to make an error; however, the nature of their learning process lends itself to the fact that learners are going to make mistakes. Preceptors are ultimately responsible for any errors learners make. This reinforces the importance of checking all work completed by learners.

Most programs require that learners purchase liability insurance prior to starting their rotations. These policies, which range between $10 and $20, only cover activities that the learners perform during college or school-based practice experiences. These policies are not the same as the malpractice insurance that most licensed pharmacists carry.

PATIENT CONFIDENTIALITY AND HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT

The issue of patient confidentiality was heightened as a result of privacy laws enacted by the federal government. The Health Insurance Portability and Accountability Act (HIPAA) increased the level of due diligence that healthcare providers must exercise to ensure confidentiality of patient-protected health information (PHI). Pharmacies and all healthcare institutions have implemented safeguards and protective measures, including training staff, to ensure PHI protection.

Most colleges and schools of pharmacy have incorporated HIPAA information in pharmacy jurisprudence courses as part of their discussion of federal and state privacy laws. In addition, HIPAA and privacy issues are discussed prior to the beginning of experiential training for most programs and included in course syllabi for the internship. This does not preclude the HIPAA training requirements of the individual practice site. Students may be expected to complete HIPAA training for each rotation if they are completed at different institutions. A review of HIPAA and privacy rules should be included as part of the orientation to the practice site and conducted during the beginning of the rotation experience.

SUMMARY

Precepting learners can be a very rewarding experience for pharmacists. Good preceptors must balance the needs of their practice and patients while teaching learners. Preceptors must follow and adhere to all applicable laws and regulations when precepting learners. By following these procedures, the preceptor establishes him or herself as an effective role model.

REFERENCES

1. Accreditation Council for Pharmacy Education. Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. https://www.acpe-accredit.org/pharmd-program-accreditation/. Accessed May 23, 2019.
2. The American Journal of Pharmaceutical Education. Interprofessional Education: Definitions, Student Competencies, and Guidelines for Implementation. https://www.ajpe.org/doi/full/10.5688/aj730459. Accessed May 23, 2019.

APPENDIX 10-1. Board of Pharmacy Requirements for Preceptors

State	Length of Practice	Complete Application	Approval/ Certification	Training Seminar	Legal Standing
Alabama[1]	2 years	Yes	Approval	Yes	No
Alaska[2]	n/a	No	n/a	No	No
Arizona[3]	n/a	No	n/a	No	No
Arkansas[4]	1 year	Yes	Certification	No	Yes
California[5]	n/a	No	n/a	No	Yes
Colorado[6]	2 years	Yes	Approval	No	Yes
Connecticut[7]	n/a	No	n/a	No	No
Delaware[8]	2 years	No	n/a	No	No
District of Columbia[9]	2 years	No	Approval	No	Yes
Florida[10]	1 year	No	n/a	No	Yes
Georgia[11]	n/a	No	Approval	No	No
Hawaii[12]	n/a	No	n/a	No	No
Idaho[13]	n/a	No	n/a	No	Yes
Illinois[14]	n/a	No	n/a	No	Yes
Indiana[15]	n/a	No	n/a	No	No
Iowa[16]	n/a	No	n/a	No	Yes
Kansas[17]	2 years	No	Approval	No	No
Kentucky[18]	1 year	No	Approval	No	Yes
Louisiana[19]	2 years	No	n/a	No	Yes
Maine[20]	2 years	No	n/a	No	No
Maryland[21]	n/a	No	n/a	No	No
Massachusetts[22]	1 year	No	n/a	No	Yes
Michigan[23]	1 year	Yes	Approval	No	5 years
Minnesota[24]	4,000 hours	Yes	Approval	Yes	Yes
Mississippi[25]	n/a	No	n/a	No	No
Missouri[26]	n/a	No	Approval	No	Yes
Montana[27]	1 year	Yes	Approval	Yes	3 years
Nebraska[28]	n/a	No	n/a	No	Yes
Nevada[29]	n/a	No	n/a	No	No
New Hampshire[30]	n/a	No	n/a	No	No
New Jersey[31]	2 years	Yes	Approval	No	Yes
New Mexico[32]	1 year	Yes	Certification	No	3 years
New York[33]	1 year	No	n/a	No	No
North Carolina[34]	n/a	No	n/a	No	Yes
North Dakota[35]	n/a	No	Approval	No	Yes
Ohio[36]	n/a	No	n/a	No	Yes
Oklahoma[37]	1 year	Yes	Certification	No	Yes
Oregon[38]	1 year	Yes	Approval	No	No

APPENDIX 10-1. (cont'd)

State	Length of Practice	Complete Application	Approval/ Certification	Training Seminar	Legal Standing
Pennsylvania[39]	n/a	Yes	n/a	No	Yes
Rhode Island[40]	n/a	No	n/a	No	No
South Carolina[41]	n/a	No	n/a	No	No
South Dakota[42]	n/a	Yes	n/a	No	No
Tennessee[43]	n/a	No	n/a	No	No
Texas[44]	1 year	Yes	Both	Yes	3 years
Utah[45]	2 years	No	n/a	No	Yes
Vermont[46]	2,000 hours	No	Approval	No	Yes
Virginia[47]	n/a	No	n/a	No	No
Washington[48]	1 year	Yes	Certification	Yes	Yes
West Virginia[49]	n/a	No	n/a	No	No
Wisconsin[50]	n/a	No	n/a	No	No
Wyoming[51]	2 years	Yes	Certification	No	No

[1]Alabama: http://www.albop.com/

[2]Alaska: https://www.commerce.alaska.gov/web/cbpl/professionallicensing/boardofpharmacy.aspx

[3]Arizona: https://pharmacy.az.gov/perceptor-registration

[4]Arkansas: https://pharmacyboard.arkansas.gov/Websites/pharmacy/images/rules/Merged%20Lawbook%202019%20Jan%202.pdf

[5]California: http://www.pharmacy.ca.gov/laws_regs/pharmacy_lawbook.shtml

[6]Colorado: https://webcache.googleusercontent.com/search?q=cache:zgCvGXpii8IJ:https://www.sos.state.co.us/CCR/Upload/AGORequest/AdoptedRules02009-01091.RTF+&cd=3&hl=en&ct=clnk&gl=us&client=safari

[7]Connecticut: http://www.ct.gov/dcp/cwp/view.asp?a=1620&q=512954

[8]Delaware: http://regulations.delaware.gov/AdminCode/title24/2500.shtml

[9]D.C.: https://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/chapter_65__pharmacist_2012.pdf

[10]Florida: https://webcache.googleusercontent.com/search?q=cache:chhE4px5ztcJ:https://www.flrules.org/gateway/readFile.asp%3Fsid%3D0%26tid%3D0%26cno%3D64B16-26%26caid%3D765541%26type%3D4%26file%3D64B16-26.doc+&cd=3&hl=en&ct=clnk&gl=us&client=safari

[11]Georgia: http://rules.sos.state.ga.us/cgi-bin/page.cgi?g=GEORGIA_STATE_BOARD_OF_PHARMACY%2FLICENSURE_AS_A_PHARMACIST%2Findex.html&d=1

[12]Hawaii: http://cca.hawaii.gov/pvl/boards/pharmacy/statute_rules/

[13]Idaho: http://bop.idaho.gov/code_rules/

[14]Illinois: http://www.ilga.gov/commission/jcar/admincode/068/068013300C03000R.html

[15]Indiana: http://www.in.gov/pla/2965.htm

[16]Iowa: https://pharmacy.iowa.gov/licensureregistration/pharmacists/preceptor

[17]Kansas: http://www.pharmacy.ks.gov/licensing-registration/pharmacy-interns

[18]Kentucky: https://apps.legislature.ky.gov/law/kar/201/002/040.pdf

[19]Louisiana: http://www.pharmacy.la.gov/assets/docs/Laws/LB_2018-0101-S.pdf

[20]Maine: https://www.maine.gov/sos/cec/rules/02/392/392-all.doc

[21]Maryland: https://health.maryland.gov/pharmacy/Pages/index.aspx

[22]Massachusetts: https://www.mass.gov/files/documents/2017/10/03/247cmr2.pdf

[23]Michigan: https://www.michigan.gov/documents/lara/lara_pharm_preceptor_app_0314_450209_7.pdf. https://dmbinternet.state.mi.us/DMB/ORRDocs/AdminCode/1823_2018-039lr_AdminCode.pdf

[24]Minnesota: https://www.revisor.mn.gov/rules/?id=6800.5350

[25]Mississippi: http://www.mbp.state.ms.us/mbop/Pharmacy.nsf/webpages/RegulationsLN_regdb?OpenDocument

[26]Missouri: http://www.sos.mo.gov/adrules/csr/current/20csr/20csr.asp#20-2220

[27]Montana: http://bsd.dli.mt.gov/license/bsd_boards/pha_board/board_page.asp

[28]Nebraska: http://dhhs.ne.gov/licensure/Pages/Pharmacist.aspx

[29]Nevada: http://bop.nv.gov/services/newapps/Pharmacist/Intern/

[30]New Hampshire: https://www.oplc.nh.gov/pharmacy/

[31]New Jersey: https://www.njconsumeraffairs.gov/phar/Pages/default.aspx

[32]New Mexico: http://www.rld.state.nm.us/boards/Pharmacy_Forms_and_Applications.aspx

[33]New York: http://www.op.nysed.gov/prof/pharm/part63.htm

[34]North Carolina: http://www.ncbop.org/lawandrules.htm

[35]North Dakota: https://www.nodakpharmacy.com/laws-rules.asp

[36]Ohio: https://www.pharmacy.ohio.gov/Licensing/Pharmacist.aspx

[37]Oklahoma: https://www.ok.gov/pharmacy/

[38]Oregon: http://arcweb.sos.state.or.us/pages/rules/oars_800/oar_855/855_031.html

[39]Pennsylvania: http://www.pacode.com/secure/data/049/chapter27/s27.26.html

[40]Rhode Island: http://health.ri.gov/licenses/detail.php?id=275/#

[41]South Carolina: http://www.llr.state.sc.us/POL/Pharmacy/index.asp?file=LIC2.HTM

[42]South Dakota: http://doh.sd.gov/boards/pharmacy/intern.aspx.

http://doh.sd.gov/boards/pharmacy/pharmacist.aspx

[43]Tennessee: https://www.tn.gov/health/health-program-areas/health-professional-boards/pharmacy-board.html

[44]Texas: http://www.pharmacy.texas.gov/infocist/Exam_intro.asp.

http://www.pharmacy.texas.gov/infocist/preceptor.asp

[45]Utah: http://www.dopl.utah.gov/licensing/pharmacy.html

[46]Vermont: https://www.sec.state.vt.us/professional-regulation/list-of-professions/pharmacy/forms-instructions.aspx

[47]Virginia: http://www.dhp.virginia.gov/pharmacy/pharmacy_laws_regs.htm

[48]Washington: http://app.leg.wa.gov/wac/default.aspx?cite=246-858

http://www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/Pharmacist/ApplicationsandForms

[49]West Virginia: https://www.wvbop.com/practitioners/resources.asp

[50]Wisconsin: http://dsps.wi.gov/Boards-Councils/Administrative-Rules-and-Statutes/Pharmacy-Administrative-Rules-and-Statutes/

[51]Wyoming: http://pharmacyboard.state.wy.us/laws.aspx

APPENDIX 10-2. Experiential Requirements

Institution	IPPE	APPE	IPE
Alabama			
Auburn University: Harrison School of Pharmacy	6 IPPEs—12 credits	8 APPEs—40 credits, 5-week rotations	Throughout curriculum
Samford University: McWhorter School of Pharmacy	6 IPPEs—9 credits, 120 contact hours	8 APPEs—40 credits, 5-week rotations	n/a
Arizona			
Midwestern University College of Pharmacy–Glendale	3 IPPEs—13 credits	6 APPEs—54 credits, 6-week rotations	6 courses, 4.5 credits
University of Arizona College of Pharmacy	3 IPPEs—7 credits	7 APPEs—35 credits, 6-week rotations, 232 hours	n/a
Arkansas			
Harding University College of Pharmacy	8 IPPEs—1 credit (only one course counted for credit)	9 APPEs—36 credits	Throughout curriculum
University of Arkansas for Medical Sciences College of Pharmacy	3 IPPEs—8 credits, 320 hours	10 APPEs—40 credits, 4-week rotations, 1600 hours	7 activities, 19.5—27.5 hours
California			
California Health Sciences University College of Pharmacy	3 IPPEs—3 credits, 300 contact hours	7 APPEs—42 credits	Throughout curriculum
California Northstate University College of Pharmacy	3 IPPEs—8 credits	6 APPEs—36 credits	n/a
Chapman University School of Pharmacy	4 IPPEs—8 credits	6 APPEs—36 credits, 6-week rotations	n/a
Keck Graduate Institute College of Pharmacy	4 IPPEs—8 credits, 328 contact hours	7 APPEs—42 credits, 6-week rotations, 1680 hours	n/a
Loma Linda University School of Pharmacy	4 IPPEs—8 credits	6 APPEs—36 credits	n/a
Marshall B. Ketchum University College of Pharmacy	4 IPPEs—8 credits	6 APPEs—36 credits	Throughout curriculum
Touro University College of Pharmacy	2 IPPEs—10 credits	9 APPEs—54 credits, 6-week rotations	Throughout curriculum
University of California–San Diego: Skaggs School of Pharmacy and Pharmaceutical Sciences	300 hours	7 APPEs	n/a

APPE = advanced pharmacy practice experience; IPE = interprofessional eduction; IPPE = introductory pharmacy practice experience

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
University of California–San Francisco School of Pharmacy	*P1:* Community pharmacy, 8 hours/week *P2:* Concentrated Health systems, 40 hours/week for 2 weeks; Longitudinal Health Systems, 8 hours/week	8 APPEs—6-week rotations	n/a
University of the Pacific: Thomas J. Long School of Pharmacy and Health Sciences	6 IPPEs—8 credits, 300 contact hours	6 APPEs—36 credits, 1440 hours	n/a
University of Southern California School of Pharmacy	3 IPPEs—18 credits	6 APPEs—33 to 36 credits, 6-week rotations	Throughout curriculum
West Coast University School of Pharmacy	3 IPPEs—9 credits	6 APPEs—36 credits	2 courses, 2 credits
Western University of Health Sciences	3 IPPEs—8 credits	6 APPEs—48 credits	4 credits
Colorado			
Regis University: Rueckert-Hartman College for Health Professions	5 IPPEs—10 credits	8 APPEs—48 credits	n/a
University of Colorado Anschutz Medical Campus: Skaggs School of Pharmacy and Pharmaceutical Sciences	3 IPPEs—10 credits, 400 contact hours	6 APPEs—6-week rotations	2 credits
Connecticut			
University of Connecticut School of Pharmacy	6 IPPEs—9 credits, 300 contact hours	9 APPEs—36 credits, 4-week rotations	n/a
University of Saint Joseph School of Pharmacy	5 IPPEs—8 credits	6 APPEs—36 credits	n/a
District of Columbia			
Howard University College of Pharmacy	2 IPPEs	8 APPEs—30 credits, 5-week rotations	Annual conference
Florida			
Florida A&M College of Pharmacy and Pharmaceutical Sciences	2 IPPEs—320 contact hours	7 APPEs—42 credits, 6-week rotations	2 courses, 5 credits
Lake Erie College of Osteopathic Medicine School of Pharmacy–Bradenton Campus https://lecom.edu/academics/school-of-pharmacy/pharmacy-pathways/pharmacy-four-year-pathway-bradenton/	2 IPPEs	6 APPEs—6-week rotations	n/a
Larkin University College of Pharmacy	2 IPPEs—8 credits	7 APPEs—42 credits	Throughout curriculum
Nova Southeastern University College of Pharmacy	2 IPPEs—8 credits	8 APPEs—48 credits, 6-week rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
Palm Beach Atlantic University: Lloyd L. Gregory School of Pharmacy	3 IPPEs—6 credits	9 APPEs—36 credits	n/a
University of Florida College of Pharmacy	4 IPPEs—7 credits	7 APPEs—36 credits	n/a
University of South Florida College of Pharmacy	5 IPPEs—5 credits	6 APPEs—36 credits	n/a
For International			
Lebanese American University School of Pharmacy	6 IPPEs—30 credits	9 APPEs—27 credits, 1440 hours	Throughout curriculum
Georgia			
Mercer University College of Pharmacy	6 IPPEs—6 credits	8 APPEs—40 credits, 5-week rotations	n/a
Philadelphia College of Osteopathic Medicine School of Pharmacy	3 IPPEs	8 APPEs—32 credits, 5-week rotations	9 courses
South University School of Pharmacy	9 IPPEs—19 credits	7 APPEs—56 credits	n/a
University of Georgia College of Pharmacy	2 IPPEs—6 credits, 317 contact hours	8 APPEs—40 credits	Throughout curriculum
Hawaii			
University of Hawaii–Hilo: Daniel K. Inouye College of Pharmacy	8 IPPEs—8 credits, 300 contact hours	6 APPEs—36 credits, 1440 hours	n/a
Idaho			
Idaho State University College of Pharmacy	4 IPPEs, 300 contact hours	8 APPEs—42 credits, 6-week rotations	20 hours
Illinois			
Chicago State University College of Pharmacy	5 IPPEs—9 credits	7 APPEs—35 credits	n/a
Midwestern University Chicago College of Pharmacy	9 IPPEs—22.5 credits	6 APPEs—54 credits, 6-week rotations	2 courses, 2 credits
Roosevelt University College of Pharmacy	4 IPPEs—8 credits, 320 contact hours	6 APPEs—4 credits, 6-week rotations, 1440 hours	Throughout curriculum
Rosalind Franklin University of Medicine and Science College of Pharmacy	9 IPPEs—11 credits	6 APPEs—54 credits	5 courses, 5 credits
Southern Illinois University–Edwardsville School of Pharmacy	200 hours	7 APPEs—42 credits, 5-week rotations	Throughout curriculum
University of Illinois at Chicago College of Pharmacy	5 IPPEs—12 credits, 440 hours	7 APPEs—28 credits, 6-week rotations	Throughout curriculum

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
Indiana			
Butler University College of Pharmacy and Health Sciences	2 IPPEs—320 contact hours	10 APPEs—40 credits, 4-week rotations	Throughout curriculum
Manchester University College of Pharmacy	3 IPPEs—9 credits	10 APPEs—40 credits, 4-week rotations	Throughout curriculum
Purdue University College of Pharmacy	8 IPPEs—11 credits	10 APPEs—40 credits, 4-week rotations	Throughout curriculum
Iowa			
Drake University College of Pharmacy and Health Sciences	8 IPPEs—280 contact hours	8 APPEs—40 credits, 5-week rotations, 1600 hours	20 hours
University of Iowa College of Pharmacy	4 IPPEs—7 credits, 318 contact hours	8 APPEs—48 credits, 1600 hours	n/a
Kansas			
University of Kansas School of Pharmacy	2 IPPEs—8 credits	9 APPEs—36 credits	3 courses
Kentucky			
Sullivan University College of Pharmacy	5 IPPEs—8 credits	7 APPEs—42 credits	n/a
University of Kentucky College of Pharmacy	6 IPPEs—320 contact hours	7 APPEs—6-week rotations	n/a
Louisiana			
University of Louisiana at Monroe School of Pharmacy	4 IPPEs—8 credits	7 APPEs—42 credits, 6-week rotations	3 courses
Xavier University of Louisiana College of Pharmacy	4 IPPEs—6 credits, 300 contact hours	7 APPEs—6-week rotations	1 course
Maine			
Husson University School of Pharmacy	4 IPPEs—9 credits	6 APPEs—36 credits, 6-week rotations	n/a
University of New England College of Pharmacy	3 IPPEs—8 credits	6 APPEs—36 credits, 6-week rotations	1 course, 3 credits
Maryland			
Notre Dame of Maryland University School of Pharmacy	2 IPPEs—6 credits	7 APPEs—35 credits, 5-week rotations	n/a
University of Maryland School of Pharmacy	3 IPPEs—7 credits, 280 contact hours	9 APPEs—45 credits, 5-week rotations, 1800 hours	n/a
University of Maryland–Eastern Shore School of Pharmacy	4 IPPEs—14 credits	8 APPEs—40 credits, 5-week rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
Massachusetts			
Massachusetts College of Pharmacy and Health Sciences University–Boston	2 IPPEs—3 credits	6 APPEs—36 credits, 6-week rotations	n/a
Massachusetts College of Pharmacy and Health Sciences University–Worcester (Accelerated PharmD)	2 IPPEs—8 credits	6 APPEs—36 credits, 6-week rotations	n/a
Northeastern University Bouve College of Health Sciences School of Pharmacy	Up to 3 IPPE rotations lasting 4 months each of paid, per diem internships	6 APPEs—6-week rotations	n/a
Western New England University College of Pharmacy	6 IPPEs—12 credits	6 APPEs—36 credits	n/a
Michigan			
Ferris State University College of Pharmacy	6 IPPEs—6 credits, 300 contact hours	6 APPEs—35 credits, 6-week rotations	n/a
University of Michigan College of Pharmacy	4 IPPEs—5.5 credits	8 APPEs—32 credits, 5-week rotations	n/a
Wayne State University College of Pharmacy and Health Sciences	5 IPPEs—7 credits	7 APPEs—28 credits	n/a
Minnesota			
University of Minnesota College of Pharmacy	2 IPPEs—credits	7 APPEs—42 credits	n/a
Mississippi			
University of Mississippi School of Pharmacy	4 IPPEs—5 credits	10 APPEs—4-week rotations	1 course, 1 credit
William Casey University School of Pharmacy	2 IPPEs—10 credits	6 APPEs—36 credits, 1440 hours	1 course, 1 credit
Missouri			
St. Louis College of Pharmacy	9 credits, 300 contact hours	8 APPEs—40 credits, 5-week rotations, 1600 hours	Throughout curriculum
University of Missouri–Kansas City School of Pharmacy	5 IPPEs—7 credits	36 credits	n/a
Montana			
University of Montana: Skaggs School of Pharmacy	2 IPPEs—6 credits	8 APPEs—36 credits	n/a
Nebraska			
Creighton University School of Pharmacy and Health Professions	300 contact hours	8 APPEs—5-week rotations	0.5 credits, 8 hours
University of Nebraska Medical Center College of Pharmacy	7.5 credits, 300 contact hours	10 APPEs—40 credits, 4-week rotations	Interprofessional conference
Nevada			
Roseman University of Health Sciences College of Pharmacy	512 hours	1440 hours, 6-week rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
New Hampshire			
Massachusetts College of Pharmacy and Health Sciences University–Manchester (Accelerated PharmD)	2 IPPEs—8 semester hours	6 APPEs—36 credits, 6-week rotations	n/a
New Jersey			
Fairleigh Dickinson University School of Pharmacy	2 IPPEs—8 credits	8 APPEs—5-week rotations	n/a
Rutgers University: Ernest Mario School of Pharmacy	2 IPPEs—4 credits	9 APPEs—40 credits, 5-week rotations	n/a
New Mexico			
University of New Mexico College of Pharmacy	2 IPPEs—6 credits	9 APPEs—1440 hours	n/a
New York			
Albany College of Pharmacy and Health Sciences–Albany Campus	3 IPPEs—8 credits, 320 contact hours	7 APPEs—42 credits, 6-week rotations	1 week of interprofessional education during IPPE rotation
Binghamton University State University of New York School of Pharmacy and Pharmaceutical Sciences	4 IPPEs—12 credits, 320 contact hours	7 APPEs—42 credits, 1680 hours	n/a
D'Youville College School of Pharmacy	10 IPPEs—12 credits, 344 contact hours	6 APPEs—36 credits, 1440 hours	IPE simulation center
Long Island University Pharmacy: The Arnold and Marie Schwartz College of Pharmacy and Health Sciences	4 IPPEs—11.5 credits	8 APPEs—40 credits, 5-week rotations	n/a
St. John Fisher: Wegman's College School of Pharmacy	4 IPPEs—320 contact hours	7 APPEs—1680 hours, 6-week rotations	n/a
St. John's University College of Pharmacy and Health Sciences	No information available	No information available	n/a
Touro College of Pharmacy	2 IPPEs—10 credits	9 APPEs—54 credits	1 course
University at Buffalo School of Pharmacy and Pharmaceutical Sciences	8 IPPEs—300 contact hours	6 APPEs—36 credits, 6-week rotations	n/a
North Carolina			
Campbell University College of Pharmacy and Health Sciences	2 IPPEs—2 credits	9 APPEs—36 credits	n/a
High Point University Fred Wilson School of Pharmacy	2 IPPEs—8 credits	9 APPEs—36 credits	2 courses, 2 credits
University of North Carolina at Chapel Hill: Eshelman School of Pharmacy	3 IPPEs—24 credits	9 APPEs—4-week rotations	n/a
Wingate University School of Pharmacy	2 IPPEs—4 credits	9 APPEs—5-week rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
North Dakota			
North Dakota State University College of Health Professions School of Pharmacy	2 IPPEs—6 credits	3 APPEs—40 credits	n/a
Ohio			
Cedarville University School of Pharmacy	6 IPPEs—6 credits	9 APPEs—36 credits, 4-week rotations	IPE initiative: cases + opportunities
Northeast Ohio Medical University College of Pharmacy	11 practice sites—444 contact hours	8 APPEs—two 8-week rotations + six 4-week rotations	6 courses
Ohio Northern University: Rabbe College of Pharmacy	2 IPPEs	9 APPEs—4-week rotations, 1740 hours	IPE committee
The Ohio State University College of Pharmacy	6 IPPEs—300 hours	8 APPEs	4 courses
University of Cincinnati: James L. Winkle College of Pharmacy	4 IPPEs—6 credits	9 APPEs—4-week rotations	n/a
University of Findlay College of Pharmacy	6 IPPEs—6 credits	6 APPEs—36 credits, three 8-week rotations + three 4-week rotations	n/a
University of Toledo College of Pharmacy and Pharmaceutical Sciences	5 IPPEs—5 credits	8 APPEs—32 credits	n/a
Oklahoma			
Southwestern Oklahoma State University College of Pharmacy	2 IPPEs—6 credits	9 APPEs—4-week rotations	n/a
University of Oklahoma College of Pharmacy	6 IPPEs—16 credits	9 APPEs—4-week rotations	n/a
Oregon			
Oregon State University College of Pharmacy	8 IPPEs—26 credits	7 APPEs—56 credits, 6-week rotations	1 course, 1 credit
Pacific University School of Pharmacy	4 IPPEs—13 credits	7 APPEs—42 credits	n/a
Pennsylvania			
Duquesne University: Mylan School of Pharmacy	3 IPPEs—2 credits	7 APPEs—28 credits	n/a
Lake Erie College of Osteopathic Medicine School of Pharmacy–Erie Campus	3 year program: 2 IPPEs—8 credits Distance pathway: 2 IPPEs—8 credits	3 year program: 6 APPEs—36 credits Distance pathway: 6 APPEs—36 credits	n/a
Temple University School of Pharmacy	3 IPPEs—6 credits, 300 hours	6 APPEs—36 credits	Workshops included in IPPEs
Thomas Jefferson University: Jefferson School of Pharmacy	6 IPPEs—8 credits	6 APPEs—36 credits, 6-week rotations	n/a
University of Pittsburgh School of Pharmacy	6 IPPEs—6 units	7 APPEs—5-unit rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
University of the Sciences–Philadelphia College of Pharmacy	4 IPPEs	36 credits, 1440 hours	n/a
Wilkes University School of Pharmacy	5 IPPEs—6 credits	7 APPEs—35 credits, first rotation is 6 weeks + rotations 2-7 are 5 weeks	n/a
Puerto Rico			
University of Puerto Rico Medical Sciences Campus School of Pharmacy	6 IPPEs—12.5 credits, 450 contact hours	8 APPEs—37 credits, 1480 hours	n/a
Rhode Island			
University of Rhode Island College of Pharmacy	3 IPPEs—4 credits, 252 contact hours	6 APPEs—36 credits, 1440 hours	n/a
South Carolina			
Medical University South Carolina College of Pharmacy	2 IPPEs—8 credits, 300 contact hours	9 APPEs—36 credits, 4-week rotations, 1440 hours	n/a
Presbyterian College School of Pharmacy	5 IPPEs—7 credits	9 APPEs—36 credits, 4-week rotations	courses + volunteer opportunities
South Carolina College of Pharmacy	2 IPPEs—8 credits, 300 contact hours	9 APPEs—36 credits, 4-week rotations, 1440 hours	n/a
South University School of Pharmacy	2 IPPEs—16 credits	7 APPEs—56 credits	n/a
South Dakota			
South Dakota State University College of Pharmacy	2 IPPEs—6 credits	8 APPEs—40 credits	n/a
Tennessee			
Belmont University College of Pharmacy	5 IPPEs—8 credits	10 APPEs—40 credits	n/a
East Tennessee State University: Bill Gatton College of Pharmacy	6 IPPEs—8 credits	9 APPEs—36 credits	n/a
Lipscomb University College of Pharmacy	4 IPPEs—4 experiences in three 5-week blocks	10 APPEs—40 credits	n/a
South College School of Pharmacy	4 IPPEs—10 credits	9 APPEs—36 credits	n/a
Union University School of Pharmacy	3 IPPEs—6 credits	10 APPEs—40 credits	5 courses, 5 credits
University of Tennessee Health Science Center College of Pharmacy	2 IPPEs—300 contact hours	11 APPEs—4-week rotations	n/a
Texas			
Texas A&M Health Science Center: Irma Lerma Rangel College of Pharmacy	4 IPPEs—4 credits	6 APPEs—36 credits	n/a
Texas Southern University College of Pharmacy and Health Sciences	4 IPPEs—6 credits	8 APPEs—48 credits	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
Texas Tech University Health Science Center School of Pharmacy	2 IPPE courses + 4 IPPE rotations- 10 credits	8 APPEs—48 credits	Throughout curriculum
University of Houston College of Pharmacy	2 IPPEs—8 credits	7 APPEs—42 credits	n/a
University of North Texas Health Science Center College of Pharmacy	8 IPPEs—10 credits	7 APPEs—42 credits	Throughout curriculum
University of Texas at Austin College of Pharmacy	300 contact hours	7 APPEs—42 credits	Throughout curriculum
University of Texas at El Paso School of Pharmacy	2 IPPEs—4 credits	7 APPEs—42 credits, 6-week rotations	IPE thread
University of Texas at Tyler: Ben and Maytee Fisch College of Pharmacy	6 IPPEs—8 credits, 300 contact hours	7 APPEs—6-week rotations, 1440 hours	1 course, 1 credit
University of the Incarnate Word: Feik School of Pharmacy	2 IPPEs—6 credits	6 APPEs—36 credits	1 course, 1 credit
Utah			
Roseman University of Health Sciences College of Pharmacy	4 IPPEs—512 contact hours	6 APPEs—6-week rotations, 1440 hours	n/a
University of Utah College of Pharmacy	2 IPPE clerkships—8 credits	7 APPEs—42 credits, 6-week rotations	3 courses
Virginia			
Appalachian College of Pharmacy	5 IPPEs—10 credits	6 APPEs—36 credits	n/a
Hampton University School of Pharmacy	3 IPPEs—3 credits, 360 contact hours	8 APPEs—32 credits	n/a
Shenandoah University: Bernard J. Dunn School of Pharmacy	3 IPPEs—7 credits	8 APPEs—40 credits, 5-week rotations	n/a
Virginia Commonwealth University School of Pharmacy	3 IPPEs—7.5 credits, 300 contact hours	8 APPEs—40 credits, 5-week rotations	n/a
Washington			
University of Washington School of Pharmacy	8 IPPEs—8 credits	54 credits	2 courses, 2 credits
Washington State University College of Pharmacy	2 IPPEs—300 contact hours	6 APPEs—6-week rotations, 36 credits	IPE work in 3rd professional year
West Virginia			
Marshall University School of Pharmacy	7 IPPEs—7 credits	8 APPEs—40 credits, 5-week rotations	n/a
University of Charleston School of Pharmacy	4 IPPEs—8 credits	8 APPEs—40 credits, 5-week rotations	n/a
West Virginia University School of Pharmacy	4 IPPEs—336 contact hours + 6 simulations hours	8 APPEs—40 credits, 5-week rotations	n/a
Wisconsin			
Concordia University School of Pharmacy	4 IPPEs—10 credits	7 APPEs—42 credits, 6-week rotations	n/a

APPENDIX 10-2. (cont'd)

Institution	IPPE	APPE	IPE
Medical College of Wisconsin School of Pharmacy	7 IPPEs—560 hours	7 APPEs—6-week rotations, 1680 hours	1 course
University of Wisconsin–Madison School of Pharmacy	6 IPPEs—6 credits	7-8 APPEs—42 credits	n/a
Wyoming			
University of Wyoming School of Pharmacy	2 IPPEs—8 credits	10 APPEs—40 credits	n/a

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11

Sociological Attributes of Pharmacy Practice

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> We need to help students… cherish and preserve the ethnic and cultural diversity that nourishes and strengthens this community – and this nation.
>
> *Cesar Chavez*

Culture is a "pattern of learned beliefs, values, and behavior that are shared within a group; it includes language, styles of communication, practices, customs, and views on roles and relationships."[1,2] Culture extends beyond race, ethnicity, or country of origin. Therefore, each of us belongs to more than one culture. For example, we may define our culture by our family role, our religious identity, profession, or gender identity, among various other methods of self-defining one's culture. Culture shapes the way we approach our world and affects interactions between patients and clinicians.[1,2]

As preceptors, we can facilitate learning by role modeling and guiding students to develop knowledge and skills to provide services for diverse patient populations. Each time we encounter patients from diverse backgrounds, we nuance our skills in communication and assessment to provide more culturally competent care. Cultural competency is a journey where even a seasoned preceptor must continue to learn and maintain cultural competency skills.

This chapter will give preceptors the tools to explore social and economic issues relating to healthcare including a diversity of cultures, access to care and transitions of care, health literacy, and cultural competency. This information will provide guidance for preceptors to enhance learners' understanding, knowledge, and skills relating to the influence of cultural, social, and economic factors that impact safe and effective healthcare. The goal is to provide tools for preceptors to guide a new generation of pharmacists—

LEARNING OBJECTIVES

- Define terms related to *culture* and *cultural competency* while explaining the importance of providing culturally appropriate care.
- Identify patients at risk and factors associated with health disparities.
- Provide guidance for conducting a socioeconomic assessment.
- Explain how culture can shape a person's attitude toward health and healing.
- Identify behavior indicators and specific interventions

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LEARNING OBJECTIVES (cont'd)

to improve medication and health understanding related to low health literacy.

- Identify assessment tools to identify patients with low health literacy skills.
- Identify vulnerable patient populations and recognize challenges pharmacists may encounter in dealing with ethnically and culturally diverse patients including low literacy; the LGBTQ community; and persons with physical, cognitive, or behavioral health issues.
- Provide examples of how preceptors can facilitate learning about cultures across healthcare settings and during transitions of care.

with increased capacity to integrate patient cultural nuances into pharmacy practice—to improve patient understanding of medication therapy, increase medication adherence, and augment positive health outcomes in patients.

THE LANGUAGE OF DIVERSITY

As preceptors incorporate the language of diversity into day-to-day interaction with learning, a common vocabulary is a mechanism to speak a similar language of diversity.[2]

Culture—the belief systems and value orientations that influence customs, norms, practices, and behaviors.

Race—a way that has been used to categorize persons on the basis of physical characteristics.[2] Race has been used as a way to separate or categorize what is ultimately one race, the human race, with 99.9% of the genetic code identical. In the United States Census, individuals are able to self-define the societal construct (or category) of race they belong to as: 1) American Indian or Alaska Native, 2) Asian, 3) Black or African American, 4) Native Hawaiian or other Pacific Islander, 5) White, and/or 6) two or more races.[3] Individuals may define themselves to be of any race and further self-identify as having a Hispanic origin (e.g., Mexican, Puerto Rican, Central American, Spanish).

Ethnicity—a person's identification with a group of people often based on a similar heritage, language, shared history, religion, or customs. [2]

Stereotype—characteristics or traits, usually negative, that are assigned to a group of people or cultures.[4]

PRECEPTOR PEARLS

- ***Prior to discussing culture and cultural competency, ask learners to review definitions about prejudice and racism (Georgetown National Center for Cultural Competence: https://nccc.georgetown.edu/curricula/awareness/D17.html).***
- ***Hold a candid conversation about challenges that can inhibit 1) a quality healthcare working environment and 2) optimal patient care when healthcare providers bring previous negative biases into healthcare. What opportunities does the healthcare team have to create an environment without judgment?***
- ***To explore the diversity of your communities, ask learners to navigate through U.S. Census data at different geographic clusters. For example, select five diverse zip codes in the town/city where the health system or pharmacy is located and contrast information found for these zip codes with city, county, state, and national data. Compare various demographic data such as race/ethnicity (%), median age (years), age 65 years and older (%), persons***

with a disability (%), persons at or below poverty level (%), educational attainment (%), and average household income ($). Discuss findings in a constructive way (avoiding stereotypes) to help approach patient care. Is the patient population similar to the demographics? Why or why not? How does this information help students understand the socioeconomic background of communities served? Discuss how learners are using the "collect" of the Pharmacist's Patient Care Process (https://jcpp.net/wp-content/uploads/2016/03/PatientCareProcess-with-supporting-organizations.pdf) where pharmacists collect subjective (e.g., patient's point of view, lifestyle habits, social history) as well as objective (e.g, socioeconomic data from the neighborhood and community) information relevant to the patient.

Culturally and Linguistically Appropriate Services Standards

The 2012 Culturally and Linguistically Appropriate Services (CLAS) Standards provide national guidance and a framework to improve care and promote health equity across cultures.[5] These standards include an overarching principle standard to:

> "provide effective, equitable, understandable and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs."[5]

The remaining 14 standards are linked to 1) how healthcare-related organizations and their staff are governed and led, 2) four federal mandates about language assistance and communication, and 3) how organizations involve communities, are accountable to stakeholders, and conduct quality improvement.

The four federal mandates that affect organizations receiving federal funding (e.g., Medicare, Part D Medication Therapy Management) impact pharmacies. These mandates require pharmacies to:

- At no cost, offer persons with limited English proficiency (LEP) or other communication requirements assistance in their language.
- Communicate clearly in writing and orally that services for language assistance are available.
- Have a system or process to be sure that competence exists for language assistance (and not use untrained interpreters or family).
- Have easy-to-understand signs, printed materials, and/or other media in the languages of patients commonly served.

PRECEPTOR PEARLS

Assign students to review the CLAS standards at the start of a rotation (https://www.thinkculturalhealth.hhs.gov/). Evaluate the four mandates and how they are implemented in the pharmacy and/or healthcare setting. If the mandates are not implemented, then have students brainstorm specific ideas on how the organization can improve.

HEALTH DISPARITIES: UNDERSTANDING AND CLOSING THE GAPS

The terms *health disparities* and *health inequalities* have been used to delineate differences in health and health-related outcomes in population subgroups. The Institute of Medicine (IOM) has defined *health disparities* as "racial or ethnic differences in the quality of health care that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention."[6] The IOM report concluded that people from racial and

ethnic minority backgrounds have received a lower quality of healthcare than non-minorities, even when access-related factors (e.g., insurance status, income) are controlled. Factors contributing to health disparities are complex and extend beyond racial or ethnic differences. The U.S. Department of Health and Human Services (HHS) *Healthy People 2020* objectives expand the definition of disparities as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage."[7]

Race, ethnicity, income, or socioeconomic status are strongly linked to poorer health outcomes. More recently, the development of new goals for *Healthy People 2030* is underway to continue the efforts started in *Healthy People 2020* and to continue to address those areas that are still lagging.[8] **Table 11-1** outlines the overall goals for the upcoming *Healthy People 2030*. Although much progress has been made, the United States lags behind other developed countries around the world on major key measures of health and well-being despite spending the highest percentage of its gross domestic product on health services. A challenge for *Healthy People 2030* is to finally eliminate health disparities and inequities while achieving the population potential for health and well-being.

The goal for both initiatives is to eliminate all unjust and avoidable differences in health, health-related outcomes, and healthcare, also referred to as *health equality* or *health equity*. The *Healthy People 2020* recommendations define health equity as "attainment of the highest level of health for all people."[7]

The relationship between health disparities and health inequalities are inseparable. What populations are at risk of health disparities? The Office of Minority Health and Health Equity has identified racial and ethnic minority populations as American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and Other Pacific Islander.[9] In addition, populations with disabilities

TABLE 11-1. Overarching Goals for *Healthy People 2030*

"Attain healthy, thriving lives and well-being, free of preventable disease, disability, injury, and premature death."
"Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all."
"Create social, physical, and economic environments that promote attaining full potential for health and well-being for all."
"Promote healthy development, healthy behaviors, and well-being across all life stages."
"Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all."

Source: Reprinted in part from the Office of Disease Prevention and Health Promotion. Healthy People 2030 Framework. US Department of Health and Human Services. Washington, DC. Updated: April 12, 2019. https://www.healthypeople.gov/2020/About-Healthy-People/Development-Healthy-People-2030/Framework.

and sexual or gender orientation preference (lesbian-gay-bisexual-transgender and questioning [LGBTQ]) groups are at risk and have been underrepresented in surveillance and research on disparities in health and healthcare. Factors that contribute to health disparities are numerous, multifaceted, and generally include:[10]

- Biologic—race, age, sex assigned at birth
- Socioeconomic—education, income
- Sexual orientation or gender identity
- Disability—cognitive, sensory, or physical
- Religion or ethnicity
- Mental health status
- Environmental—geographic location
- Individual behaviors—tobacco, alcohol use, nutrition habits, exercise
- History or experience linked to discrimination—research in vulnerable populations or less developed areas

The World Health Organization (WHO) uses the term *social determinants of health* as contributing factors to health inequalities. Social determinants of health have been

defined as the social and economic conditions and circumstances in which people are "born, grow, live, work, and age."[11,12] These conditions are then responsible for health equities and inequities that can lead to similarities or variances in health. The social environment is such a large contributor to health inequities and health disparities that organizations have placed it as a top priority item to address. In addition to WHO, HHS initiatives aim at reducing and eliminating heath inequities and health disparities.

Social determinants of health directly correlate with quality of life and affect health outcomes. To better serve the diverse public, healthcare professionals should be educated to identify and recognize the role of the following in the health of individuals, families, and communities: built environment and community infrastructures as well as access to primary and acute care, healthy foods, public safety, transportation, religious and community organizations, pollutant-free air, and housing. The *National Healthcare Disparities Report* on the state of health disparities concluded that healthcare quality and access for minority and low-income groups is suboptimal.[13]

National efforts to increase public awareness of chronic conditions that require screening and prevention have been effective and can be used as a model to close gaps in health disparities. One such example is diabetes screening. Although diabetes' prevalence continues to be higher among ethnic minority and lower household income populations, public initiatives aimed at increasing awareness have resulted in significant improvements in diabetes screening among those at highest risk. Preceptors should engage learners in opportunities to participate in disease screening and prevention campaigns while understanding the ethical challenges of making appropriate referrals to care.

Disease prevalence also disproportionately affects select populations. Significant gaps in mortality continue to be seen among groups of populations. Cardiovascular disease is the leading cause of death in the United States overall, but compared to non-Hispanic Whites, non-Hispanic Blacks are 50% more likely to die of a premature cardiovascular event before the age of 75 years. Examples of access disparities are listed in **Table 11-2**.[14-16]

Preceptors have the opportunity to not only increase student awareness of health disparities among the population for which they are serving but also to contribute to the available research data among minority populations. Ethnicity is under-reported and under-evaluated within the pharmacy literature. Preceptors can assist junior pharmacy researchers in evaluating the impact of pharmacy services on health-related outcomes to contribute further to narrowing the gap.

CASE EXAMPLE

A pharmacy student organization wants to conduct diabetes screenings at a community health fair. Explore the ethical challenges and opportunities that occur when screening for chronic conditions. *Do national guidelines support screenings?* Sample documents:

- American Association of Diabetes Educators. Recommendations for Community-Based Screening for Prediabetes and Diabetes. AADE White Paper. December 1, 2014. **https://www.diabeteseducator.org/docs/default-source/practice/practice-resources/white-papers_test/community_screening_position_statement_final.pdf?sfvrsn=2**. Accessed May 27, 2019.
- See "Community Screening" in 2019 Section 2. Classification and Diagnosis of Diabetes: *Standards of Medical Care in Diabetes—2019* by the American Diabetes Association. **http://care.diabetesjournals.org/content/42/Supplement_1/S13**. Accessed May 27, 2019.

TABLE 11-2. Examples of Health Disparities in Subpopulations

Population	Example of Disparity
Hispanics/Latinos and those without a college degree	Experienced more "physically and mentally unhealthy days" compared with non-Hispanic Blacks and American Indian/Alaska natives.[14]
American Indian/Alaskan Native (AI/AN) females age 15–29 years	*Homicide rates:* Higher among AI/AN females (aged 15–29 years) compared to non-Hispanic Whites.[14]
Special health care needs among 10–17-year-old children	*Obesity:* 20% obese compared to 15% of same-aged children who do not have special healthcare needs.[15]
Rural living among racial and ethnic minorities	*Having multiple chronic health conditions:* Non-Hispanic Blacks and AI/ANs (40.3%) compared to non-Hispanic Whites (36%).[16]

PRECEPTOR PEARLS

- ***Preceptors can assist pharmacy learners to recognize health disparities, its origin, and approaches that students can take to work toward eliminating them.***
- ***Encourage students to collect information systematically on the patient's cultural beliefs as part of their history-taking processes.***
- ***Encourage learners to assess patients' communication gaps and utilize appropriate health literacy materials as well as use of professional interpreters if a patient requires it.***
- ***Encourage students to explore the* cultural framework *of their patients and understand their* cultural context *that might impact care and treatment, including:***
  - » ***Distrust of medical system***
  - » ***Issues of belonging and identity***
  - » ***Immigration status and fear of deportation***
  - » ***Use of alternative treatments and herbal therapies***
  - » ***Distrust of Western medicine***
  - » ***Fear of hospitals or medical facilities***
  - » ***Preferences for certain medication formulations (i.e., injectable versus orals, rectal versus oral, IV versus oral)***
  - » ***Comfort with healthcare providers of different genders***

Socioeconomic status influences medication use.[17] Individuals at the lowest poverty level were five times more likely to not receive a medication because of cost. Despite insurance coverage, poverty was a significant factor in receiving a prescription medication. Ethnicity may also reduce access and eligibility to receive medication therapy management (MTM) services. Pharmacists may be unable to provide MTM services to populations who are most likely to benefit from this service to lower prescription drug costs, improve adherence, and control conditions. Preceptors can serve as role models to learners in assessing a patient's ability to afford medications and providing assistance regardless of socioeconomic status or ethnicity.

Pharmacy clinicians frequently carry and maintain lists of $4 or $5 per 30-day supplies of generics available at local pharmacies to make appropriate therapeutic substitution recommendations for patients with little or no financial resources. In addition, providing information and assisting patients in seeking manufacturers/drug company patient assistance programs are also helpful. Pharmacists can improve access to healthcare and reduce health risks for their patients by providing

warm, friendly greetings as well as visual observation and active listening to perceive commonalities and health concerns. Preceptors can teach learners by demonstrating how ascertaining and enhancing the patient and family's knowledge and use of available resources provides the patient with an indispensable support system for successful self-management of his or her disease or acute or chronic condition (see **Box 11-1**).

BOX 11-1. Expand the Patient and Family's Use of Available Resources

- Assist in advising patients about the costs and advantages of the treatment options.
- Obtain competent, nonbiased trained interpretive services to increase patient participation and satisfaction as well as confidence, adherence, and positive outcomes.
- Assist patients in obtaining information and access to programs, such as Medicaid and Children's Health Insurance Program, to assist poor and low-income children or adults with healthcare expenses that are accessed through state agencies.
- Ensure patients understand the benefits provided through the Medicaid programs such as transportation services to medical appointments and to pick up prescription medications, case management teams, and incentive programs to increase compliance.
- Direct patients to drug company patient assistance Internet sites, such as **www.rxassist.org**; **www.rxhope.com**; **www.needymeds.com**; **www.rxoutreach.org**; **medicineassistancetool.org**; **www.medicare.gov/drug-coverage-part-d/how-to-get-drug-coverage**.
- Guide patients to access and use the Medicare website (**www.Medicare.gov**) to learn more about Medicare services and select Part D programs.
- Inform patients that individuals with terminal illness or severe disability expected to last 12 months or more may be eligible for Social Security Disability Income (may eventually receive Medicare benefits with this) or supplemental Security Income and Medicaid benefits from the Social Security Administration (1-800-772-1213 or **www.ssa.gov/disability/**).
- Provide patients with information about financial counseling services such as Money Management International (**www.moneymanagement.org**), a nonprofit agency that helps consumers budget for expenditures and negotiate reasonable payment arrangements.
- Encourage patients to become familiar with their county and state departments of health and their services and also programs to receive free services such as immunizations, chronic disease management services, or health education on chronic diseases.

PRECEPTOR PEARLS

- ***As a learning activity, ask students to review the website at your institution and conduct interviews with appropriate departments to gather a listing of available resources for cultural diverse patients (e.g., interpreters), educational programs, and support to access services at low cost or free of charge; create a resource page for the pharmacy department and others.***
- ***Ask students to conduct a review of the local and state departments of health and identify resources for patients of different cultures and minority groups as well as patients with disabilities.***

SOCIOECONOMIC AND RACIAL INEQUALITY AND ACCESS TO HEALTHCARE

Rising healthcare costs burden the U.S. economy and its people. Despite implementation of the Affordable Care Act (ACA) of 2010, nearly 13% of the population under 65 years of age did not have health insurance coverage in 2017.[18] This access may be limited by income, education level, health literacy, perceptions of receiving or not receiving quality care in the setting, among other concerns. The U.S. population continues to face challenges with healthcare access. Across the United States, poverty affects approximately 12% of the population.[19] Gaps in income are wider; the incomes of the top 1% rise, while the incomes of the bottom 99% remain the same or fall.[20]

This income inequality has been associated with disparities and inferiority in population health, lower life expectancy, higher infant mortality, and more preventable deaths.[21] Research performed using national Medicare data found that although Black patients lived within closer proximity to higher quality hospitals than White patients, Black patients were 25% to 58% more likely to receive surgery at low-quality hospitals. In addition, compared to White patients, Black patients living in racial segregation were 41% to 96% more likely to undergo surgery at a hospital of lower quality. Comparative quality measures could potentially guide patients and physicians to high-quality hospitals, while improvement efforts could concentrate on enhancing hospitals that serve Black patients. Unfortunately, disparities may worsen as pay-for-performance, bundled payments, and nonpayment for adverse events is diverted to high-quality hospitals.[21]

Performing a Social Assessment

When preceptors guide learners to use the Pharmacists' Patient Care Process (PPCP), the first steps are to *collect* and *assess* the patient's health and environment, which could also be called a *social assessment*. Accrediting bodies such as The Joint Commission have coordinated with the national CLAS Standards to provide guidance for evaluating cultural and religious backgrounds as well as identify other social characteristics that can affect patient learning and acquisition of healthcare and medication. Preceptors can guide learners to feel more comfortable asking questions in an empathetic and professional manner to determine factors that may impact adherence and ability to take medications. Gathering

PRECEPTOR PEARLS

Social Assessment (Subjective)

Include the following information as students collect information from patients. Learners can document this information in the Subjective or the social history portion of a SOAP (subjective, objective, assessment, plan) note:

- ***Identity: race/ethnicity, gender identity, marital status, familial roles***
- ***Home: status of living situation (own/rent, temporary, public housing, homeless), persons living in the home with them, number of generations in the home***
- ***Access to community services***
- ***Language and literacy: language spoken, preferred language for health information, ability to read and write, educational attainment, learning preferences (e.g., watching, reading, hearing, doing)***
- ***Financial: current/past employment, retirement benefits, financial barriers***
- ***Religion and upbringing: place of birth, religious affiliation, childhood/family customs***
- ***Overall perception of patient's general satisfaction with life and activities they enjoy***

information about patients' background and family support as well as recognizing language or cultural barriers that may affect perceptions and response to disease and treatment are imperative. The goal of the social assessment is to distinguish the patient's social situations and understand how these influence their complaint.[22]

Often, the reason why the patient is hospitalized may have nothing to do with the admitting diagnosis. For example, a family without the resources to take care of the patient may leave him or her at the emergency department. Other patients may not take their medications because they cannot afford them; others may be unable to care for themselves in their current living circumstance. Therefore, the clinical scenario must not only be matched with the social evaluation but also the financial assessment. Understanding patients' insurance coverage (or lack of coverage), qualification for Medicaid or Medicare, need for assistance in obtaining medications or other resources, and referral to the hospital's financial assistance department are central in helping patients meet optimal health outcomes.

Medicare and Medicaid

Medicare is a U.S. social insurance program providing health insurance for Americans aged 65 years and older who have contributed to the system throughout their working years. Younger patients with disabilities, end-stage renal disease, and other conditions are also eligible for this health insurance (see **Box 11-2**). Medicare is funded at a national level.

Medicaid is a social program for persons with low income that is often coordinated at a state level.[23] Recipients of Medicaid must be U.S. citizens or legal permanent residents with low income. Persons with certain disabilities are also eligible. Before Medicaid, only a small percentage of people living in poverty had health insurance.

BOX 11-2. Understanding Medicare[23]

- **Part A: Hospital/Hospice Insurance**
  Covers inpatient hospital care, including rehabilitation, skilled nursing facilities, hospice, and home health services.
- **Part B: Medical Insurance**
  Covers doctor and clinical laboratory services; outpatient and preventive care; screenings and supplies; and physical and occupational therapy.
- **Part C: Medicare Advantage Plans**
  Combines Part A and Part B plans together in one plan. These plans can also be combined with Part D prescription drug coverage, and may be offered by private companies.
- **Part D: Prescription Drug Plans**
  Can be a stand-alone plan or combined with a Medicare Advantage Plan.

Patient Protection and Affordable Care Act

Regardless of coverage with Medicare and Medicaid, the percentage of the population without health insurance has persisted. Access to healthcare services is an essential tool for improving health outcomes.[24] Since inception, ACA has resulted in coverage of millions of people. Before ACA, many with preexisting disorders paid high premiums, were rejected from insurance coverage, or had yearly or lifetime limits on their coverage. The current law eliminates these norms and prices insurance premiums without regard to claims, health status, or individual patient characteristics.

Although ACA improved health insurance coverage, an increasing number (over 27 million) of people in 2017 did not have insurance.[25] Persons who remain at risk for being uninsured or underinsured are highlighted in **Box 11-3**. Some negative consequences from delaying healthcare result in worsening of chronic conditions.

BOX 11-3. Individuals Remaining at Risk for Being Uninsured or Underinsured[25]

- Over 85% are in working families with low incomes
- Living in the South or West of the U.S. geography
- Nearly 60% are racial and/or ethnic minorities (non-White)
- Unauthorized immigrants
- People who are eligible but not enrolled in Medicaid
- People who choose to remain without insurance

Federally Qualified Health Centers

Even though federally qualified health centers (FQHCs) or community health centers have been accessible since 1965, ACA resulted in increased federal funding to FQHCs to aid in meeting the anticipated healthcare demand from the millions who would gain healthcare coverage. FQHCs must serve an underserved area or population; offer a sliding fee scale; provide comprehensive services such as primary care, dental care, mental healthcare, and specialty services; have an ongoing quality assurance program; and include a governing board of directors. Medicaid patients who receive care at FQHCs have a 24% lower total cost of care compared to those who do not utilize FQHCs.[26]

Patient-Centered Medical Home

The patient-centered medical home (PCMH) program is based on the primary care providers supported by an interdisciplinary team delivering primary and preventive care. The core functions and attributes must include accessibility; high quality; safety; and patient-centered, comprehensive, coordinated, and improved access to care with shorter waiting times. Studies have demonstrated that patients participating in medical homes are associated with improved health, better access to preventive care, improved glycated hemoglobin control, decreased use of the emergency department, and improved patient satisfaction.[27,28] As a result of these positive outcomes, providers that achieve PCMH status receive incentive payments from Medicare and Medicaid.

Health Homes

Another care model designed to achieve ACA goals is the health home model. A *health home* is not an actual location but rather coordinated care by providers who aim to provide primary care, behavioral healthcare, and substance abuse services. The goal of the health home model is to provide high-risk patients with a primary care provider to avoid unnecessary utilization of resources such as the emergency department. Outreach workers attempt to find the most vulnerable patients and enroll them in the health home.[29]

Community Health Workers

Community health workers (CHWs) are used throughout the United States and the world to help promote health and wellness in neighborhoods and communities.[30] In Latino/Hispanic communities, these lay leaders are often called *Promotores de Salud* (promoters of health). Frequently, promotores are community residents and leaders and serve as liaisons between their community, health professionals, and social service organizations. In some states, community health workers must be licensed. Furthermore, some organizations support the development of these important lay leaders. Opportunities exist for pharmacies to integrate CHWs into disease prevention and health promotion programs.

Prevention through the Affordable Care Act

In general, the emphasis of the U.S. health system has been on treatment rather than prevention. The ACA responded to the lack of preventive health services by placing emphasis on new initiatives and funding

for disease prevention. It provides access to clinical preventive services and removes cost as a barrier.

With an increasing number of community pharmacists providing screenings and wellness events, learners have the opportunity to provide education and referral for patients. Pharmacy preceptor–learner teams may expand to include providing medication information to primary care extenders with chronic disease management and preventive care responsibilities.

CULTURAL COMPETENCY IN MODERN HEALTHCARE

The National Center for Cultural Competence (NCCC) states that there are numerous reasons to justify the need for cultural competence in healthcare at the patient–provider level.[31] The rationales include the following:

- The perception of illness/disease and their causes varies by culture.
- Diverse belief systems exist related to health, healing, and wellness.
- Culture influences health-seeking behaviors and attitudes toward healthcare providers.
- Individual preferences affect traditional and nontraditional approaches to healthcare.
- Patients must overcome personal experiences of biases within healthcare systems.
- Health providers from culturally and linguistically diverse groups are underrepresented in the current service delivery system.

According to the NCCC, there are five key reasons for healthcare systems and organization policy to incorporate cultural competence:[32]

1. Responding to demographic changes in the United States.
2. Eliminating healthcare disparities that have been found in diverse populations (e.g., race, ethnicity, culture).
3. Improving the quality of health services and outcomes.
4. Responding to governing mandates (e.g., legislatives, regulatory, accreditation).
5. Improving rates of liability/malpractice claims by addressing culture and safety challenges.

Assessing Cultural Competency

The HHS Office of Minority Health defines *cultural competency* as the ability of the healthcare providers and organizations to understand, respect, and respond effectively to the cultural and linguistic needs brought by patients to the healthcare setting. In addition, *culturally and linguistically* appropriate services are those that are respectful of and responsive to the health beliefs, practices, and needs of diverse patients.[5] Nationally, the percentage of Americans who are racial and ethnic minorities and who speak a primary language other than English continues to grow rapidly, creating a need to develop high-quality services and care that meets their needs.

The NCCC articulates evidence that by tailoring services to an individual's culture and language preference, health professionals can help bring about positive health outcomes for diverse populations.[5]

Pharmacy students must learn how to communicate with and provide direct patient care services to patients of varying cultures, disabilities, gender, and healthcare preferences. Learners and preceptors should demonstrate respect and understanding for patients with differing health beliefs and health-seeking behaviors and practices, thereby demonstrating cultural proficiency. Preceptors and learners must appreciate their patients' cultural beliefs; this is critical in the delivery of optimal care.

In addition, both preceptors and students should be aware of their own level of cultural competence as well as their implicit/unconscious biases. *Implicit/unconscious bias*

is defined as social stereotypes about certain groups of people that individuals form outside their own conscious awareness.[33] We all hold unconscious beliefs about various social and identity groups, which can stem from our own experiences and tendencies to organize social worlds by categorizing individuals in groups. Certain scenarios can activate unconscious attitudes and beliefs that could influence the way we provide care to groups of individuals. Many articles in the medical literature have described the impact that implicit/unconscious bias can have in treatment and patient outcomes.[33]

PRECEPTOR PEARLS

The way a patient expresses pain can vary significantly between cultures as well as between men and women. In some cultures, stoicism is expected.

The U.S. Bureau of the Census, Population Estimates Program is updated annually (see https://www.census.gov/quickfacts/fact/table/US#). In accordance with Office of Management and Budget (OMB) guidelines, the Census Bureau collects race data based on self-identification. The racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and is not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of race include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture, such as American Indian and White. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

Population estimates use the race categories mandated by OMB's 1997 standards: White, Black or African American, American Indian and Alaska Native, Asian, and Native Hawaiian and Other Pacific Islander. These race categories differ from those used in Census 2010 in one important respect. Census 2010 also allowed respondents to select the category, Some Other Race. The following definitions were used:[34]

- *White.* "A person having origins in any of the original peoples of Europe, the Middle East, or North Africa."
- *Black or African American.* "A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as 'Black, African American, or Negro.'"
- *American Indian and Alaska Native.* "A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment."
- *Asian.* "A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent."
- *Native Hawaiian and Other Pacific Islander.* "A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands."
- *Two or more races.* "People may have chosen to provide two or more races either by checking two or more race response check boxes, by providing multiple responses, or by some combination of check boxes and other responses."
- *The concept of race is separate from the concept of Hispanic origin, Non-Hispanic White alone persons.* Individuals may have responded "No, not Spanish/Hispanic/Latino" and who reported "White" as their only entry in the race question.

Asian Americans represent a wide variety of languages, dialects, and cultures. They are as different from one another as individuals from non-Asian cultures.[35]

In 2017, there were approximately 22.2 million (about 9% of the population) individuals of Asian descent in the United States.[36]

An estimated 5.5 million were of Chinese descent (except Taiwanese) in the United States in 2017. Chinese (except Taiwanese) are the largest Asian group, followed by Asian Indian (4.4 million), Filipino (4.0 million), Vietnamese (2.1 million), Korean (1.9 million), and Japanese (1.5 million). These estimates represent the number of people who reported a specific detailed Asian group alone, as well as people who reported that detailed Asian group in combination with one or more other detailed Asian groups or another race(s) in data gathered by the Census.[36] In addition, there are an estimated 1.6 million Native Hawaiian and Other Pacific Islander (alone or in combination) residents of the United States reported by the Census in 2017.[36]

Hispanics are the largest minority in the United States reaching approximately 57.5 million (about 18% of the population) in 2017 estimates.[36] Hispanic origins are not races but considered to be a separate concept from race. Latinos/Hispanics come from different nations and cultures. Although Cuban Americans are often classified as Hispanics or Latinos, their customs and traditions differ from Mexican American, Central American, or South American. In 2012, Mexicans, Puerto Ricans, and Central Americans together comprised over 80% of all Hispanics living in the United States with over half residing in just three states: California, Texas, and Florida.[37]At home, an estimated 73% of Hispanics report that they speak a language other than English.[37]

The most recent Census showed that out of the total U.S. population, 38.9 million people or 13% identified themselves as Black or African American alone.[19] In addition, 1% reported Black in combination with one or more other races. From all census respondents, 55% lived in the South, 18% in the Midwest, 17% in the Northeast, and 10% in the West. The Black population represented over 50% of the total population in the District of Columbia and over 25% of the total population in six southern states: Mississippi 38%, Louisiana 33%, Georgia 32%, Maryland 31%, South Carolina 29%, and Alabama 27%. The places with the largest Black population were New York, Los Angeles, Chicago, Houston, and Philadelphia.

PRECEPTOR PEARLS

About one in six persons living in the United States is Hispanic or Latino. Hispanics are heterogeneous with many cultural health behaviors depending on country of origin.

Partnering with lay community health workers (promotores de salud) can be helpful to achieve therapeutic outcomes. Develop health education materials tailored to the patients' preferred language. Be aware many Hispanic patients are not able to read in English or Spanish. Access to culturally appropriate healthcare services and preventive care is essential; consider referrals to community health centers.

Cultural competence has evolved from making assumptions about patients on the basis of their background to the implementation of the principles of patient-centered care, including exploration, empathy, and responsiveness to patients' needs, values, and preferences. It is important not to stereotype patients broadly based on their ethnicity or culture. Unfortunately, this frequently happens when our care is based on textbook methods of addressing patients within the same cultural population, such as Hispanics, Asians, or African Americans. There is no one way to treat any racial or ethnic group.

Aspects of cultural competence that we should teach our students include fundamental knowledge (e.g., concepts of race, culture, ethnicity, family structure, gender roles, religion, death, differing communication styles) and principles of disease management as they relate to certain cultures. Preceptors can demonstrate and teach effective

communication skills, relationship building, language proficiency or effective use of interpreters, ability to differentiate varying views of illness and healing, and ways to recognize culture-related problems. We can teach learners how to integrate the patients' beliefs into the overall treatment strategy or plan.

PRECEPTOR PEARLS

To perform a cultural assessment, identify or assess the following:

- ***The patient's level of ethnic identity (e.g., first- vs. third-generation)***
- ***Language or communication barriers***
- ***Influence of religion, spiritual beliefs, or supernatural effects on the patient's health belief system***
- ***Ability to write and read in English and native language***
- ***Concerns about racial or ethnic discrimination or bias***
- ***Education and literacy, including health literacy levels***
- ***Current economic status***
- ***Cultural health beliefs and practices***
- ***Influence of family in compliance to prescribed treatment plan and medical decision-making process***

Using an Interpreter

For patients who have LEP or use sign language, the safest route for communication is to use a trained interpreter.[38] Many healthcare providers rely on family members and coworkers to serve as interpreters. However, use a skilled interpreter who is competent to interpret and translate medical-related issues. Coworkers or staff may overestimate their own skills and abilities, especially when a patient wishes to expand the discussion or requests additional information. Even patients who are bilingual may choose to communicate in their first language when the issues are emotional or involve their health.

PRECEPTOR PEARLS

- ***Review mandated CLAS standards related to communication and language.***
- ***Have students review guidelines for using an interpreter (both language and sign).***
  - » ***International Medical Interpreters Association*** *https://www.imiaweb.org/uploads/pages/102.pdf*
  - » ***Association of American Medical Colleges*** *https://www.aamc.org/download/70338/data/interpreterguidelines.pdf*
  - » ***10 Tips for Using a Sign Language Interpreter***[39] *https://www.edi.nih.gov/blog/communities/10-tips-using-sign-language-interpreter*
- ***Discuss with students how to look for nonverbal cues that a communication problem exists.***
- ***Provide students with the opportunity to accompany an interpreter during a patient visit (even if not pharmacy-related) to gain perspective on the challenges and opportunities of using an interpreter.***

Complementary and Integrative Medicine

The National Center for Complementary and Integrative Health defines complementary medicine as a non-mainstream practice that is used *together with* conventional medicine and alternative medicine as a non-mainstream practice is used *in place of* conventional medicine.[40]

According to the Center, the term *integrative health care* often brings conventional and complementary approaches together in a coordinated way. It is aimed at creating a holistic, patient-focused approach to healthcare and wellness—often including mental, emotional, functional, spiritual, social, and community aspects—and treating the whole person.

In the United States, the use of integrative approaches to health and wellness has expanded within care settings and presents a useful approach to meet the needs of our ethnic and diverse cultures.

Some complementary and alternative practices that patients utilize include the use of acupuncture, herbs, homeopathy, therapeutic massage, and traditional Oriental medicine to promote well-being or treat health conditions. Many of these therapies are called *holistic,* which generally means they consider the whole person (e.g., physical, mental, and spiritual aspects) as promoted by integrative healthcare.

PRECEPTOR PEARLS

- ***Ask students to identify what home remedies or beliefs they used in their homes.***
- ***Ask patients if they are taking any home remedies (e.g., herbs, teas) or if they have sought advice for their condition from others, including family, friends, or alternative healers (e.g., abuela, sobrador, curandero).***

Cultural Competence: A Continuing Learning Process

One of the most important traits that a preceptor can model for learners is respect and understanding of their patients. Addressing our patients with the appropriate salutation or title can be extremely important and effective when communicating with patients from diverse backgrounds. For example, in Mexico and throughout Latin America, professionals with a doctoral degree in any field, medical or nonmedical, are addressed as "doctor." Although many assimilate to the mainstream culture in the United States, many Latin Americans tend to retain their language and cultural identity. Simple gestures such as using the appropriate salutation (e.g., Mr., Mrs., Señor, Señora), asking permission before touching the patient (e.g., to take a blood pressure), honoring elders, and demonstrating respect for patients' culture can go a long way in establishing a positive patient–provider relationship. Learn how to demonstrate respect in various cultural contexts through cultural sensitivity (see **Box 11-4**).[41]

BOX 11-4. Cultural Sensitivity: Behaviors That May Cause Cultural Offense

- Calling a patient by first name instead of title and surname
- Touching a patient without asking permission
- Making (or expecting the patient to make) direct eye contact
- Getting right to business (e.g., taking a medical history) before establishing a personal connection
- Taking a blood or urine sample
- Patting a child on the head
- Crossing one's legs; showing the bottom of one's shoes
- Examining a patient of the opposite gender
- Making American hand gestures ("okay" sign, or thumbs-up gestures)
- Asking a spouse to wait in the waiting room
- Limiting visiting hours in the hospital

PRECEPTOR PEARLS

Ask patients what language they prefer when discussing their medical care and in what language they prefer to receive any written healthcare information.

When first interacting with patients who were born in another country, it is generally best to address them as Mr. or Mrs. and use their last name when addressing them.

Do not be insulted if a patient does not look directly in your eye or fails to ask questions. In many cultures, it is not respectful to look at another person, especially someone in authority or highly respected (e.g., a healthcare provider).

The following examples illustrate some of the challenges that pharmacists and learners may encounter in dealing with ethnically and culturally diverse patients.

CASE EXAMPLE

A 65-year-old Hispanic woman presents to the emergency department complaining of "nervios" and "stomach pain." She has recently immigrated to the United States to live with her son. She is seeking help with her symptoms but has limited English skills and is mostly communicating through the use of hand gestures. Using this example, discuss with the student how to approach a patient with limited English skills and the use of trained interpreters. In addition, have the student explore the term "nervios" and its cultural context in the Hispanic population. It is important to address access to care and medications in this patient who recently immigrated to the United States.

CASE EXAMPLE

A person from Russia who is deaf presents to the pharmacy seeking information about her new medication to treat her hypertension. She is asking for information about side effects. Using this case, ask the student to explore the patient's ability to understand and read English as well as state their language of preference. In addition, explore approaches to work with individuals who are deaf and potential methods of communication with the patient such as using written materials and sign language.

CASE EXAMPLE

An 80-year-old Native American patient with diabetes is referred to your diabetes education program due to nonadherence. The patient refuses to start insulin treatment and go to the hospital to get his blood glucose level and A1c drawn. He insists that he can control his disease with traditional remedies and herbs. His physician is very frustrated and is seeking the pharmacist's help to address the adherence issue. *What approaches would you suggest?*

PRECEPTOR PEARLS

Consider applying Kleinman's eight questions to explore the following concepts about how patients might explain their illness. The first step is to work with the patient to identify what they call their illness. For example, a patient may say that they have "sugar" instead of diabetes.[42]

How or what does the patient…

1. ***…describe the cause of the illness***
2. ***…understand when the illness began and why it began***

3. ***…believe the illness does to the body***
4. ***…describe severity of the illness and how long it will last***
5. ***…understand what type(s) of treatment the patient should have***
6. ***…expect to happen as a result of the treatment***
7. ***….feel the consequences or problems are that have been caused by experiencing the illness***
8. ***…describe their own fears and concerns about the illness***

Religion

If we teach learners the importance of insightfully asking patients about the religious beliefs that impact their care, our students will learn to provide appropriate recommendations suitable for their patients' beliefs. This will foster a trusting and respectful environment between the practitioner and the patient.

Learners will invariably encounter patients of various religious backgrounds, regardless of their practice settings. Patients' religious beliefs are an important component to consider in a social assessment because they can impact the patient's healthcare. It is essential that we teach students how to assess their patients' beliefs to ensure adequate care while being sensitive to their religious practices.

The followers of some religions prohibit use of the content of some legend (prescription) and over-the-counter medications. This is essential knowledge that must be documented appropriately in the patient record and considered when recommending medication therapy, therapeutic changes, or dispensing medications, and in counseling patients. For instance, many Jehovah's Witness followers do not believe in taking any medications that contain human components. Thus, a discussion about individual beliefs of patients is important before prescribing or dispensing certain medications, such as forms of epoetin and albumin.

Some followers of Hinduism, Buddhism, Islam, and Judaism have beliefs that incorporate dietary restrictions on meat products or taking medications during fasting periods. A discussion is also important before prescribing many capsule formulations that include gelatin. In many instances, it may be possible to use noncapsule dosage forms or using capsules made with kosher gelatin, which some followers of Judaism and Islam would feel comfortable taking.

During Ramadan, adult Muslims are required to refrain from taking any food, beverages, or oral drugs between dawn and sunset.[43] Because Ramadan can occur in any of the four seasons, the hours spent fasting can vary from 11 to 18 hours per day. The first meal is usually taken immediately after sunset and the second might be taken shortly before dawn. Many Muslim patients with chronic diseases insist on fasting even though they do not have to do so.

These patients may choose to change the time and dosing of their medications without seeking advice from their physician or pharmacist. Learners should inform their Muslim patients about when they should take their medication with regard to their altered food intake (i.e., before, with food, or after). In addition, patient education concerning how to monitor symptoms indicative of uncontrolled chronic diseases is also important, enabling the patient to know when medical advice is needed. A thorough patient history, including religious beliefs, will allow the student to recommend and design a medication regimen that will be medically effective but sensitive to the patient's beliefs.

Role of Family and Faith in Healthcare

Many cultural communities, such as Mexican and Mexican American families, place value on having family members live close by, providing one another with mutual aid. Students should expect several family members to accompany a loved one to an

appointment in a physician's office, pharmacy, or clinic. This is particularly true following a hospital admission, when family members eagerly await the outcome of the medical team's assessment or a surgical procedure.

No matter the social status or economic standing, caring for the elderly is considered the sole responsibility of the family in many cultures. As such, caregiving of the elderly, sick, and poor is a socially recognized responsibility of the family, including members of the extended family.

Knowledge of the role of family in healthcare allows the learner to incorporate family members as partners in the therapeutic plan, monitoring, and follow-up.

PRECEPTOR PEARLS

Families can play an important role in healthcare. In many cultures, religion is closely tied to health beliefs surrounding treatment choices and patients' beliefs of cure of illnesses. On occasion, patients may wish to have a religious symbol such as a rosary or other special amulet on or near them during medical treatment. Learners may encounter a patient bringing personal articles to various departments throughout a clinic or hospital that have a special meaning, such as ensuring the success of an examination or procedure. It is important to embrace our patient's beliefs and preferences in a nonjudgmental manner. It is critical to make the patient comfortable sharing with us their beliefs and preferences to strengthen the patient–provider relationship.

Personal Space

Personal space is both an individual and cultural matter.[4] As a general rule, patients tend to be very conservative about their personal space and modest about exposing their bodies to others—including health professionals. For example, Latin Americans may be hesitant to have pelvic examinations or even complete physicals. Students conducting a physical assessment should be aware of modesty concerns for both female and male patients.

Communication and Support

Patients not familiar with the American healthcare system should be reassured and provided with appropriate information in a language they understand about what is happening and what is going to happen regarding their medical care. For many patients, support is most appropriately provided by family members. Preceptors should encourage learners to consider incorporating family members and allowing them to be present whenever possible.

Rather than objecting to something, Mexican Americans may be silent. A patient may appear to agree because of the cultural value of courtesy and respect.[4] Therefore, it is critical that students validate that a patient understands what is being communicated and provide an opportunity for open dialogue. Communicating respect is very important across cultures when meeting someone, especially a healthcare professional. Learners should be cognizant of the tone of voice used, as well as eye contact, when communicating respect.

Preceptors need to educate learners how to thoughtfully assess their patients' health beliefs, health-seeking behaviors, and general health knowledge. Coach them in the skill of gathering important patient information without being judgmental. Be quick to apologize, and accept responsibility for cultural missteps (e.g., calling a woman by her husband's last name—it is common for a woman to change her last name after marriage in the United States, but not commonly practiced outside the United States). Encourage students to read and learn more about the history and culture of the patients they are serving.

PROVIDING CULTURALLY COMPETENT CARE FOR LGBTQ PERSONS

LGBTQ Background Information and Healthcare

The LGBTQ community is one group that has been recognized as needing culturally competent care. However, many healthcare institutions and providers have still not been informed and trained on how to provide that culturally competent care. In fact, LGBTQ persons may still face discrimination in receiving healthcare despite significant recent strides in gaining safeguards from discrimination. LGBTQ persons may be refused care or experience care appointments that are best described as awkward or insensitive. All patients, including LGBTQ persons, should have the same access to healthcare and be treated respectfully and with dignity at all times. The pharmacist and student will have the opportunity to provide culturally competent care to all of their patients, who may include LGBTQ persons. Training and awareness of LGBTQ care issues will provide additional confidence to the pharmacist and student in providing that care. Confidentiality may be especially important to the LGBTQ patient as they weigh and consider their fears for discrimination, either perceived or real. Care providers need to be sensitive to those confidentiality concerns (see Case #1).

Demographics

The LGBTQ community is often discussed as a single entity in various discussions ranging from sociopolitical issues to healthcare. However, it is important to recognize that from a demographic analytics perspective, there are four primary subgroups that comprise the LGBTQ community: lesbian, gay, bisexual, and transgender persons. Although LGBTQ persons reside in nearly every community, town, city, and county in the country, there are some areas of the United States where the LGBTQ population concentrates. It is difficult to determine numbers of LGBTQ persons in the United States as this information is not collected by the U.S. Census Bureau. In 2017, estimates from the Williams Institute of these subgroups included the following data:

- The LGBTQ community represents 4.5% of the U.S. population.[44]
- The gender makeup of this LGBTQ community is 42% male and 58% female.
- A significant increase was reported in the LGBTQ population percentage versus 4.1% in 2016 and 3.5% in 2012 as provided by earlier Gallup surveys.[45]

Barriers to Patient-Centered Care, Risks, and Disparities

There are many potential barriers for LGBTQ persons in receiving healthcare, which include social stigma, discrimination, denial of rights, insurance challenges, and even possible refusal by providers to provide care. While many health issues experienced by the LGBTQ population are the same as those of the general population, barriers to care may cause health problems to happen earlier in life and at higher rates accentuating disparities. Conversely, LGBTQ individuals may postpone seeking medical care simply because of the barriers and stigma. Additionally, some mistrust of the healthcare system is common among members of this community.[46] Healthcare challenges within the LGBTQ community include substance abuse, violence, mental health, chronic disease, and HIV/AIDS.[47] There has been relatively limited data collection on this specific community for needed research and to optimize the provision of care. Providers may lack knowledge of recommended approaches, community resources, and medication treatment regimens involving transgender medical care. LGBTQ patients from minority groups (e.g., racial, religious, ethnic) may experience even greater healthcare disparities from potentially overlapping prejudices and discrimination. An

example might be a Black transgendered patient seeking care in the local community.

Making the Case for LGBTQ Culturally Competent Care

Lambda Legal has reported survey results that 73% of transgender respondents and 29% of lesbian, gay, bisexual respondents reported that they believed they would be treated differently by medical personnel because of their LGBTQ status.[48] Further, 52% of transgender respondents and 9% of lesbian, gay, bisexual respondents reported that they believed they would be refused medical services because of their LGBTQ status.[48] The call for cultural competence safeguards for the LGBTQ community has been implemented via legislative and regulatory support. As an example, the Washington DC Department of Health now mandates 2 hours of LGBTQ cultural competence training continuing education (CE) credits during every 2-year renewal cycle for healthcare providers in the District of Columbia.[49] This was mandated in 2017, and has now been fully implemented for pharmacists in their first pharmacist license CE renewal cycle since the new requirement was issued. The Joint Commission (TJC) has issued a standard that requires accredited facilities to include sexual orientation and gender identity in their non-discrimination policies, thus extending vital protection to LGBTQ patients.[50] In another positive step toward LGBTQ equality in healthcare, both TJC and the federal Centers for Medicare & Medicaid Services now require that facilities allow visitation without regard to sexual orientation or gender identity[50,51] (see Case #2). Additionally, Section 1557 of the ACA prohibits sex discrimination in any hospital or health program that receives federal funds. The U.S. court system and the HHS's Office for Civil Rights have indicated that this prohibition extends to claims of discrimination based on gender identity and sex stereotyping.[52] The CLAS Standards have incorporated LGBTQ into their framework of culturally and linguistically appropriate services.[53]

Organizational Support on the Upswing

Many hospitals and healthcare organizations are taking strong actions to ensure patient-centered care for their LGBTQ patients. Via their mission statements and strategic planning efforts, they are incorporating LGBTQ nondiscrimination language, addressing employee training, and assessing patient satisfaction with this particular patient group in mind. The Healthcare Equality Index (HEI) was created by the Human Rights Campaign (HRC) as a tool to advance healthcare equity for LGBTQ patients. The HRC is a gay advocacy organization with a goal for the HEI of recognizing organizational performance with respect to inclusive patient nondiscrimination policies, cultural competency training, visitation policies, and employment policies. It has been published annually for more than 10 years. It surveys organizations on a number of criteria and assesses organizational support for the LGBTQ community. In the HEI 11th edition, more than 600 hospitals and healthcare facilities participated in their survey and more than 97% of facilities demonstrated that they have fully LGBTQ-inclusive patient and employment nondiscrimination policies and equal visitation policies.[54] The HEI can also be used to guide organizations that desire assistance with training and among organizations as a forum for best practice sharing of action steps already in place.

Transgender Subpopulation

Additional needs and concerns for the transgender population should be addressed. Challenges are heightened with transgender patients due to additional discrimination, potential harassment, and refusal of care in the medical setting. Lack of provider awareness and knowledge is widespread in caring for this small patient population. Efforts should be made to collect sexual orientation

and gender identity data for patient-centered care and research. A positive note specifically for the transgender community is the number of centers for transgender care that have opened in the United States including ones in California, Maryland, New York, Oregon, and Washington, DC. These centers provide important transgender patient care treatment information that can be shared among providers nationwide. One method of gaining sexual orientation and gender identity information while working with patients is to ask for *pronoun preference* (see Case #3). Insurance issues when trying to align gender and type of therapy are also prevalent and often require prior authorization clarification by the pharmacist (see Case #4).

Actions for Pharmacists and Pharmacy Students

Pharmacy providers must secure a comfort level in working with LGBTQ persons. The same top quality of care provided to other patients must be offered to the LGBTQ patients (see Case #5). Pharmacy providers should provide medication therapy management and offer health interventions as needed. There may be pharmacokinetic and pharmacodynamic issues to consider in managing patients' therapies. Opportunities may exist for pharmacists to educate their medical staff and other healthcare colleagues on drug therapy regimens specific to the transgender population. Pharmacists must understand their own explicit and implicit biases and help students to evaluate their own biases and to understand how bias can impact patient care. Pharmacists and students can create an inclusive environment by using patient intake/information collection forms that are flexible for multiple genders and sexual orientation. LGBTQ patients and family members will take note of signage in the patient care area with a mission statement of inclusivity. Advocacy and insurance intervention may be required to help gain insurance coverage for LGBTQ patients and provide needed information for insurance challenges where gender and indication need additional clarification. Another positive action step is to promote LGBTQ cultural competency training and advance it to be required for all providers and staff.

Terms and Definitions:

- *LGBTQ*—Lesbian, Gay, Bisexual, Transgender, Questioning
- *Lesbian*—a woman who is a homosexual
- *Gay*—homosexual, especially a homosexual male
- *Bisexual*—characterized by sexual or romantic attraction to members of both sexes
- *Transgender*—a person whose gender identity differs from the sex the person had or was identified as having at birth
- *Cisgender*—a person whose gender identity corresponds with the sex the person had or was identified as having at birth
- *Intersex*—condition of having both male and female gonadal tissue in one individual or of having the gonads of one sex and external genitalia that is of the other sex or is ambiguous
- *Queer*—sexually attracted to members of the same sex (often disparaging, offensive; however, if used by homosexuals may not be disparaging)
- *Pansexual*—characterized by sexual desire or attraction that is not limited to people of a particular gender identity or sexual orientation
- *Heteronormativity*—based on the attitude that heterosexuality is the only normal and natural expression of sexuality
- *Gender dysphoria*—a distressed state arising from conflict between a person's gender identity and the sex the person has or was identified as having at birth
- *Gender neutral*—not referring to either sex but only to people in general

PRECEPTOR PEARLS

- ***Treat every patient with dignity and respect, including LGBTQ patients. Be aware of nonconforming family members and family care providers.***
- ***Remember that patients may feel vulnerable in a patient-provider setting. It may be especially accentuated for an LGBTQ patient in a first meeting with a provider.***
- ***Have an understanding of the terminology used in discussing the LGBTQ population (e.g., lesbian, gay, bisexual, transgender, cisgender).***
- ***Introduce yourself and model the use of pronouns when meeting a new patient. Do not use gender-specific salutations (e.g., Mr., Miss, Ms.) when addressing patients.***
- ***Do not assume a patient's gender or sexual orientation based solely on the patient's appearance.***
- ***Be aware of barriers to care and healthcare disparities faced by the LGBTQ community.***
- ***Gather full sexual orientation and gender identity information and data to be able to provide optimal patient care and advance research.***
- ***Include preferred pronouns on your business card as a demonstration of inclusiveness and welcoming to your practice site.***

CASE STUDIES

Case #1. Confidentiality. Debbie is a lesbian receiving inpatient care at her community hospital. Debbie confides in the staff that she is a lesbian and that Carla is her wife. Carla's employer learns of this information and terminates Carla's employment in this state without employment protections for LGBTQ persons.

Case #2. Patient visitation. Alan is a gay man who is currently a patient in an intensive care unit (ICU) unit. His partner, David, is visiting Alan in the ICU. When approached by nursing staff, he is informed that only immediate family is allowed for extended time in the ICU and asks if David is his brother. When David responds that he is his Alan's partner, he is asked to leave.

Case #3. Pronoun preference. Frank, a pharmacist, meets a new patient, Rory, in the outpatient clinic. Frank introduces himself as the pharmacist and with pronoun preferences for he, him, and his. Rory indicates pronoun preferences for she, her, and hers.

Case #4. Insurance/medication/gender lack of alignment. A patient, Johnnie, is undergoing gender reassignment therapy to change from a man to a woman. Johnnie has female genitalia and requires vaginal medication therapy.

Case #5. Value judgments. Edgar identifies as a gay male person and is currently taking PrEP (Pre-exposure Prophylaxis) therapy to provide safeguards from becoming infected with HIV during sex with HIV positive partners. He arrives at the pharmacy to request a refill. The pharmacist is uncomfortable with this patient and prefers not to dispense PrEP therapy.

PROVIDING PATIENT-CENTERED CARE FOR PERSONS WITH PHYSICAL, COGNITIVE, AND DEVELOPMENTAL DISABILITIES

Most of us will experience disability sometime in our lives, whether our own or that of a family member. Understanding the culture of disability makes it easier for the pharmacist and learner to recognize barriers, make changes in the physical work environment, communicate, and access education style and prevent secondary conditions/medication adherence issues in our patients with disabilities.

Recent U.S. Disability Statistics from the Census Bureau[55]

People with a disability are defined as a person having a physical or mental impairment that affects one or more major life activities, such as walking, bathing, dressing, or eating. The Americans with Disabilities Act of 1990 definition is an inclusive definition that tends to capture both the largest and broadest estimate of people with disabilities. It describes a disability as a condition that limits a person's ability to function in major life activities—including communication, walking, and self-care (e.g., feeding and dressing oneself)—and that is likely to continue indefinitely, resulting in the need for supportive services.

Population Distribution

In 2010, 56.7 million people in the United States had a disability. People with disabilities represented 19% of the civilian, noninstitutionalized population. Persons with a disability have a physical or mental impairment that affects one or more major life activities, such as walking, bathing, dressing, eating, preparing meals, going outside the home, or doing housework. A disability can occur at birth or at any point in a person's life.

PRECEPTOR PEARL

The preceptor can ask the learner to review the current statistics on persons with disabilities. This will assist the student and/or resident to learn about how common specific disabilities are with attention to age, gender, type of disability, access to care, etc.

Learners may access the following resources for specific information (see Box 11-5).

PRECEPTOR PEARLS

When interacting with a person with a disability:[56]

- ***Identify yourself as a pharmacist/student and explain your role or purpose for the interaction.***
- ***Let the individual ask for assistance; do not assume the need, generalize, or make assumptions without appropriate information.***
- ***Plan extra time for appointments when a patient uses an augmentative communication device.***
- ***Identify physically accessible rooms or facilities, with space to maneuver a wheelchair or scooter or containing an adjustable examination table or chair.***
- ***Always address the individual (patient), not any other person or persons accompanying the patient, unless required because of cognition issues or problems.***
- ***If the patient is cognitively impaired, it is important that you validate the patient's understanding by having him or her re-state the information you have provided. Also minimize noise or other distractions in the area or surrounding environment to allow for better patient comprehension.***

- ***Maintain and access community resources; develop educational information designed for persons with learning disabilities or sensory (visual, hearing, speech) impairments. Provide important educational materials (e.g., disease management) in written form; consider using a larger font, Braille, or an electronic format so a visually impaired person using a screen reader can access it.***
- ***Learn how to use a text telephone or teletypewriter.***
- ***Provide disability-specific in-service education; keep abreast of the continuing advances in assistive technology and supportive equipment for people with disabilities.***

According to the American Association on Health and Disability,[56] for the millions of people with disabilities, health maintenance and promotion often gets lost in the healthcare system quagmire. People with disabilities are:

- Less likely to receive wellness screening
- Less likely to have access to specialists and follow-up care
- More likely to be obese and heavy smokers
- Less likely to participate in an exercise program

PRECEPTOR PEARL

When working with persons with developmental disabilities:[56]

- ***Speak in clear sentences using simple words; do not use baby talk or talk down to a person who has a developmental disability.***
- ***Remember that the person is an adult; unless you are informed otherwise, they can make their own decisions.***
- ***Remember, persons with developmental disabilities often rely on routine and on the familiar to manage work and daily living; a change in routine may require a period of adjustment.***
- ***Be aware that it may be difficult for a person with a developmental disability to make a quick decision; be patient and give them time to make the decision.***

PRECEPTOR PEARL

While interacting with persons with learning disabilities:[56]

- ***Remember, persons with dyslexia or other reading disabilities have trouble reading written information. Give them verbal explanations and allow extra time for reading.***
- ***Ask the person how you can best relay information. Be direct in your communication.***
- ***Be aware that it may be easier for the person to function in a quiet environment without distractions, such as people moving around or a radio playing in the background.***

PRECEPTOR PEARL

When working with persons with traumatic (or acquired) brain injury:[56]

- ***Remember that persons with traumatic brain injury may not be able to sign their name or document even though they can move their hand.***
- ***Be aware that a person with a brain injury may have poor impulse control. They may make***

inappropriate comments and may not understand social cues. These behaviors arise as a result of the injury.

- ***Remember, the person may have trouble concentrating or organizing their thoughts, especially in an overstimulating environment. Be patient and chose a quiet location for communication.***
- ***Be aware that if you are not sure the person understands you, ask if they would like you to write down the information.***

Persons with disabilities are individuals who have shared experiences and healthcare needs. Pharmacists and students should be familiar with their patients' limitations whether they are physical, sensory (vision or hearing), cognitive (following brain injury), or mental, to provide optimal care (see **Box 11-5)**.

BOX 11-5. Resources for More Information on Disabilities

- Americans with Disabilities: 2010 **https://www.census.gov/library/publications/2012/demo/p70-131.html**
- 2012 American Community Survey, Table R1810 **https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk**
- Disability Employment Tabulation, from 2008-2010 American Community Survey **https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t**
- Disability Characteristics of Income-Based Government Assistance Recipients in the United States: 2011 (from American Community Survey) **https://www2.census.gov/library/publications/2013/acs/acsbr11-12.pdf**

IMPORTANCE OF HEALTH LITERACY IN HEALTHCARE OUTCOMES

Health literacy is the degree to which individuals can "obtain, process, and understand the basic health information and services they need to make appropriate health decisions." Health or "medication" literacy skills needed for patients to successfully use medications include:

- *Document literacy* (the ability to read, understand, locate, and interpret text) in documents such as prescription labels, nutrition fact labels, medication calendars
- *Numeracy* (the ability to use quantitative information) as needed to measure liquid medication or determine when to take medication
- *Prose literacy* (the ability to read information in prose or paragraph format) as often found in patient education materials[57]

Who is at risk for poor health literacy? Everyone is at risk. An estimated 9 out of 10 individuals have health literacy that is "less than proficient."[58] Therefore, a person can possess a doctorate degree but have poor health literacy. Health literacy skills are a stronger predictor of health status than age, income, employment status, education level, and race.

The link of health status to basic literacy and numeracy skills is still strong. The Program for the International Assessment of Adult Competencies (PIAAC) assessed basic competencies in over 20 countries. Among older U.S. adults between 66 to 74 years of age, the PIAAC found that a larger percentage who had reported having "fair" health also performed in the lowest literacy proficiency levels compared to older adults reporting "good" to "excellent" health status.[59] As the world becomes more technology savvy, the interplay of literacy combined with technology literacy may have increasing roles in health and quality of life.[60]

Preceptors should encourage learners to approach patients with "universal precaution" or the assumption that they are at risk of limited health literacy unless otherwise determined during a patient counseling or education encounter. Various skills are necessary to navigate the complexities of managing health (individual factors) and the healthcare system (system factors); see **Table 11-3**. One-third of those individuals aged 65 or older had below basic health literacy skills. Adults who received Medicare, Medicaid, or did not have insurance had higher rates of below basic health literacy. [61]

In 2003, the U.S. Department of Education, National Center for Education Statistics, conducted the first National Assessment of Adult Literacy (NAAL)[61] survey, which included a section on health literacy. Adults were asked to use printed health information to perform tasks, such as directions for taking medication and preventive healthcare. A sample question from the survey asks the participant to answer the question, "The patient forgot to take this medication before lunch at noon. What is the earliest time he or she can take it in the afternoon?" The question is based on a prescription label with the instructions to take one tablet on an empty stomach before a meal or 2–3 hours after a meal. This assessment was conducted in over 19,000 adults residing in 38 states plus the District of Columbia. The levels of health literacy were grouped into the categories listed and described below. Population rates within each category were estimated based on the adult population size when the survey was conducted (see **Table 11-4**).

When using medication, *numeracy skills* can be particularly important. Consider all the ways in which patients must understand, use, and interpret numbers to make informed decisions about their medications and overall health. The ability to measure insulin and dose an infant's acetaminophen require a comprehension of numbers. The misunderstanding of numbers can have devastating results, leading to subtherapeutic or toxic regimens. The effects of low numeracy include misleading perceptions of risks and benefits of screening, lower rates of medication adherence, impaired access to treatments, impeded communication, and adverse medical outcomes.[63] With the shift to patient-centered healthcare, patients are responsible for medical decision-making and disease management. With low numeracy skills, patients have a difficult time making informed decisions about their health.

The pharmacist's role is to state the risks and benefits of a medication in a way that is easily interpreted. For example, the use of frequencies and simple terms (e.g., 10 out of 100 patients may have muscle pain) could be easier for some patients to understand rather than percentages and technical terms (e.g., 10% of the patients experience myalgia). For measuring liquids, pharmacists can label prescriptions and counsel patients to use milliliters for precise dosing and avoid confusion that may arise between the terms *tablespoon* and *teaspoon*. Preceptors have the opportunity to demonstrate the power of numbers and simple terminology when making informed decisions about medications.

TABLE 11-3. Health Literacy—Individual and System Factors[57,58]

Individual Factors Related to Limited Health Literacy Skills	System Factors Complicating Health Literacy
Not having solid English language skills	Understanding medical terminology
Level of education less than high school or GED	Interpreting complex forms
Low income at or below poverty level	Uncertainty of access to care
Cultural norms for medication use	Insurance coverage and co-pays
Age 65 years and older	Provider bias
Disabilities	Ease of accessing the healthcare environment
Burden of illness	

GED = general education diploma

TABLE 11-4. Levels of Health Literacy[62]

Health Literacy Level	Tasks Associated with this Level	Percentage of the Population
Below basic (poor/ limited)	Circle date of appointment on an appointment slip. Read a set of short instructions and identify what is permissible to drink before a procedure.	14%
Basic (marginal)	Locate one piece of information on a short document. Read a pamphlet and give two reasons a person with no symptoms should be tested for a disease.	21%
Intermediate (adequate)	Determine health weight on a BMI chart. Read instructions on a prescription label and determine what time a person can take the medication.	53%
Proficient	Using a table, calculate an employee's share of health insurance costs for a year. Read a complex document and find information required to define a medical term.	12%

BMI = body mass index

Source: America's Health Literacy: Why We Need Accessible Health Information. An Issue Brief from the U.S. Department of Health and Human Services; 2008. http://www.health.gov/communication/literacy/issuebrief.

Patients with low health literacy have poorer health-related outcomes. Evidence shows that patients with low health literacy have the following adverse consequences:[64]

- Use of healthcare services
  - Increased hospitalization rates
  - Increased emergency department visits
  - Reduced influenza vaccination rates
- Health outcomes
  - Greater mortality risk for older patients
  - Poor overall health status for older patients
- Skills to use medication
  - Poor ability to demonstrate taking medication appropriately
  - Poor ability to interpret medication labels and health messages

Preceptors can guide students to understand the signs and risks of low health literacy as well as ways to overcome challenges. When a patient has limited health literacy, having consistent social support of family or friends can provide the needed assistance to ensure safer medication use. Having a trusting relationship with the pharmacist may improve adherence and/or ability to understand medications as patients may take time to listen and learn how to appropriately use medications.

PRECEPTOR PEARLS

- ***When performing a medication reconciliation with a patient, ask students to review the patient profile in advance to identify potential risks for low health literacy.***
- ***When addressing adherence, encourage learners to also inquire about support at home for using medications, accessing transportation, and performing activities of daily living.***

Performing an Assessment

Identifying a patient who is at risk for limited health literacy may be conducted informally or formally. An informal assessment includes behavioral indications or impaired skills that may indicate a patient has lower health literacy. Learners should be educated to be

on the lookout for these "red flags." Pharmacists are often the most accessible and utilized healthcare professionals to patients. They may be the first healthcare provider to recognize that a patient is having health literacy problems. By increasing awareness of the impact of health literacy, learners will recognize patients at risk and employ effective counseling and intervention techniques described further in the chapter. Behavior indications of low health literacy include the following:[65]

- Chronic pattern of nonadherence
- Frequent errors in medications or self-care instructions
- Inability to name medications (especially a medication the patient has taken for a long time)
- Inability to explain a medication's purpose
- Inability to keep appointments
- Making excuses (e.g., "I forgot my glasses")
- Postponing decision making (e.g., "May I take the instructions home? I'll read through this when I get home")
- Not completing forms, possibly only providing name
- Failing to look at printed material (or failing to turn it right side up)
- Handing written materials to a relative or other person accompanying the patient

Indications of impaired skills resulting from low health literacy include the following:

- Inability to self-demonstrate medical device technique
- Inability to obtain appropriate dose from a pill bottle or syringe
- Inability to proactively request refills when needed

PRECEPTOR PEARLS

Brief informal strategies can be taught to learners to recognize low health literacy risk in an unsuspecting manner:

- ***Hand the patient a document (educational pamphlet or current list of medications) upside down.***
- ***See if the patient automatically flips it right side up to read it. If not, ask a question pertaining to the document; for example, "Did I include the new insulin dose on your current medication list?" When reviewing the patient's medication list, state a medication they are currently not prescribed or invent a medication name to see if the patient identifies it as incorrect.***

Assessment Tools

A patient's health literacy can be measured formally using assessment tools (see **Table 11-5**). These instruments are used to identify patients at risk of low health literacy and determine the effect of targeted interventions. Preceptors should be familiar with these instruments and consider their application in research. When adequately trained, these instruments may be useful tools for learners in supplementing and contributing to research initiatives.

The Brief Health Literacy Screening (BHLS) tool is a brief screening tool to administer that is the most time-efficient and has a strong correlation to risk of inadequate health literacy.[72] This tool may be particularly useful as patients transition from a hospital to an outpatient setting. Three questions are asked of the participant with a corresponding Likert scale of five possible answers. The question that has been shown to be a good predictor of poor health literacy is "How confident are you filling out medical forms by yourself?"[73]

TABLE 11-5. Health Literacy Assessment Tools

Health Literacy Assessment Tool	Skill Tested	Time to Administer	Considerations
Test of Functional Health Literacy in Adults (TOFHLA)[66]	Reading comprehension and numeracy while using material that is health-related	20–25 minutes	Available in English and Spanish; estimates adequacy to both read and interpret health-related information; requires permission to use
Short Test of Functional Health Literacy in Adults (sTOFHLA)[67]	Reading comprehension by using medical-related information	7–10 minutes	Available in English and Spanish; estimates adequacy to both read and interpret health-related information; requires permission to use
Rapid Estimate of Adult Literacy Medicine (REALM)[68]	Medical word recognition pronunciation	5-6 minutes	Available in English and Spanish; estimates ability to read patient education materials
Rapid Estimate of Adult Literacy Medicine (REALM-SF) Short Form[69]	Medical word recognition pronunciation	2 minutes	Available in English and Spanish; correlates strongly with REALM
Short Assessment of Health Literacy–Spanish and English (SAHL-S&E)[70]	Medical term recognition, association, and pronunciation	2-3 minutes	Available in English and Spanish
Newest Vital Sign[71]	Numeracy and document literacy	3 minutes	Available in English and Spanish

REALM and SAHLS-A&E are available at https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy/index.html.

Interventions Related to Health Literacy

Evidence shows consistently that a multimodal and multidisciplinary approach to promote self-efficacy for management of chronic conditions is effective. Strategies such as presenting essential information by itself, presenting essential information first, adding icon arrays to numerical presentations of treatment benefit, and adding video to verbal narratives demonstrated improvement in comprehension for populations with low health literacy.[74] Using the terms *morning, noon, evening,* and *bedtime* rather than once, twice, or three times daily may result in improved comprehension and adherence. This approach aligns with recommendations from the *United States Pharmacopeia* on standard universal patient-centered prescription labeling, the Institute for Safe Medication Practices principles of designing a medication label, and the Agency of Healthcare Research and Quality universal medication schedule.

PRECEPTOR PEARLS

The Agency for Healthcare Research and Quality provides tools for pharmacists to evaluate their capacity to provide materials across literacy levels. Preceptors can guide students to review the website and conduct a health literacy assessment of the pharmacy; https://www.ahrq.gov/professionals/quality-patient-safety/pharmhealthlit/tools.html.

Effective Communication to Enhance Health Literacy

The use of "brown bag" or medication reviews with patients can be helpful ways to identify and address problems with health literacy.

Be alert to patients who have difficulty expressing medical concerns or have no questions. Create an environment where patients are not embarrassed to ask questions or express their concerns. The most successful interventions for promoting medication adherence include the use of both written and verbal communication. Often using visual tools or pictures helps patients understand the recommended action or behavior. Students should be taught to choose words that are no higher than a sixth-grade level and that show respect for a patient's culture. The communication should emphasize the desired behavior rather than medical or medication facts. Using the "teach-back" or "show me" approach with patients are reliable methods to determine the extent of patients' understanding instructions for taking their medication.

Be a role model to students and show them patient-centered communication skills. Demonstrate to learners how to encourage patients to ask questions. Speak slowly and start with the most important information or message first. Use repetition and demonstrate when needed. Recognize when follow-up phone calls may be helpful. Teach them, when appropriate, to give instructions not only to patients but also to family members or other caregivers. Most importantly, students should listen actively to their patients so they can learn about and address their patients' concerns.

Students must learn to tailor the medication schedule to fit a patient's daily routine. The use of colors as codes or the use of pictures, such as the sun or the moon, can be used to indicate morning and night. Likewise, the use of charts, calendars, and picture books may also be helpful.

PRECEPTOR PEARLS

- ***Ask students to evaluate and edit written material from the pharmacy. By reviewing the materials for patient-friendly language, large font, pictures, and short and simple phrases or sentences, students will gain insight into the challenges patients may have.***
- ***To verify readability statistics, use the readability statistics function in Microsoft Word as an option within the grammar/spell check feature. The results will give a Flesch reading ease score and Flesch-Kincaid grade level score (the goal Flesch score is 90–100; the goal Flesch-Kincaid score is 5.0–6.0).***

When preparing written materials, make sure they are easy to read and written at a fifth- or sixth-grade reading level. Make the document or information look easy to read with bullet points, short sentences, and plenty of white space. For elderly patients, print or use a larger font (12- to 16-point size) for written materials. Keep a patient's culture in mind when developing written patient information. For example, in some cultures, a patient may adhere to prescribed therapy if we say something is *important* rather than *helpful*. If the patient has difficulty understanding written or verbal directions, a good approach may be to say "*Many people have trouble reading and remembering these instructions. How can I help you?*" Students should learn to deliver short, concise messages. Patients usually remember less than 50% of the information provided during each encounter. Teach students to use common, everyday language when speaking to their patients.

PRECEPTOR PEARLS

Being familiar with communication techniques such as the Indian Health Service, Teach Back, and Ask Me 3 can help facilitate individualized medication-related education and maximize patient comprehension.

When talking to patients whose primary language is not English, speak clearly and slowly using a caring tone of voice. When possible, use pictures to help patients understand; repeat the message if necessary to ensure understanding.

In summary, a person with good health literacy skills should be able to do the following:

- Understand diagnosis or condition.
- Understand medication instructions (e.g., take on an empty stomach, take twice a day).
- Repeat back healthcare information and demonstrate the ability to utilize tools to manage chronic conditions, such as a glucometer.
- Understand consent forms and accurately complete standard screening forms.
- Initiate questions with health providers.
- Understand how to effectively use insurance.

The first impression we make on our patients can make a big difference. Demonstrate an attitude of helpfulness, caring, and respect, and put patients at ease so that they feel comfortable in asking questions.

IMPLEMENTING BEST PRACTICES ACROSS HEALTHCARE SETTINGS

Transitions of care refers to moving patients between settings as their condition and need for care change, such as admission to a hospital or facility, transitioning between levels of care within the same hospital, discharge from one facility to another other than home, discharge from hospital to home, and transitions within the ambulatory care setting. For example, a patient receiving care from a specialist in the ambulatory care setting may be transitioned to an inpatient admission with a hospital physician before moving on to a skilled nursing facility or other post-acute care service or facility.

Inadequate care transitions place patients at increased risk of medication errors, misunderstanding about the care plan, inadvertent gaps in treatment, and increased resource utilization. Several studies have investigated the impact of fragmented care transitions, such as medication errors and adverse events after discharge.[75,76] In addition to experiencing financial barriers in obtaining medications due to cost and access to transportation after discharge, the added layer of low health literacy level, culture, and language make for a larger gap in care. The study results demonstrated that inefficient care transitions compromise patient safety and place difficulty on patients, their families, and caregivers.[77]

Recently, transitions of care have taken top priority among many agencies and organizations. The National Transitions of Care Coalition (NTOCC) made several recommendations to improve transitions between settings.[78] Two proposals were the implementation of payment systems that align incentives and the development of performance measures. A key recommendation was an improvement in communication with well-timed and accurate information as patients transition across different settings. Increased accountability and communication among the patient, providers, and caregivers was noted as essential to achieve positive outcomes. Effective and timely communication to the healthcare team and patient could prevent medication errors and associated misadventures.

Communication is essential to patients understanding their medical condition, their medications, and reasons that they must have better adherence. Taking into account culture, literacy levels, and language when developing a patient-friendly plan of action can help improve communication. Preceptors can guide learners in using the LEARN model[79]—listen, explain, acknowledge, recommend, and negotiate to improve patient's health outcomes (see **Table 11-6**).

The NTOCC also recommends the use of case management and professional care coordination in addition to the expanded role of pharmacists in transitions of care.[78] A new role for pharmacists encompasses not only medication reconciliation and the detection of medication-related problems as well as contributions to preventive care (e.g., immunizations, health education classes) but also expansion into the discharge process. Pharmacists are increasingly being integrated into the interdisciplinary team to assist with patient care coordination among multiple healthcare sites. Activities considered imperative to pharmacist-provided drug therapy management, as it relates to discharge pharmacy services, include the following:

- Pharmacists should facilitate medication-related continuity of care.
- Medication reconciliation should take place in the emergency department, at admission, inter-hospital transfer, and discharge, and in the ambulatory care setting.
- Pharmacists should establish processes to ensure medication-related continuity of care for discharged patients.
- Pharmacists should provide medication-related education at discharge.[80]

Recently, the Accreditation Council for Pharmacy Education (ACPE) standards included the assurance of quality care by advanced pharmacy practice experience (APPE) students as patients transition between healthcare settings.[81] To ensure medication safety and quality as stated in

CASE EXAMPLE

The following case illustrates challenges pharmacists may encounter in dealing with ethnically and culturally diverse patients with low literacy. An elderly woman from Mexico was recently discharged from the county hospital with a diagnosis of a stroke and with a past medical history of hypertension, hyperlipidemia, and chronic obstructive pulmonary disease (COPD). Her social history was positive for tobacco, one pack per day for 20 years; her education went up to the third year in primary school. She dominated Spanish verbally, but she could not read or write it and had broken English. During her post-discharge follow-up at her primary care provider's office, the pharmacist was collecting information to update her medications and note adherence in the clinic's electronic health record. The pharmacist found a handful of medication-related problems.

When the pharmacist was counseling the patient on her medications, the patient told the pharmacist, "I take all the medications that all my doctors prescribe. I do not miss a dose because I am an obedient patient." After further discussion, the pharmacist realized that the patient did not know what she was taking her medication for and found that she had duplicate therapy. Medications that were therapeutically substituted for statin and her blood pressure were continued, as well as being told to take all her home medications, which included an equivalent statin and an angiotensin-converting enzyme inhibitor (ACEI). The pharmacist discussed the medication-related problems with the patient's provider; the patient's hospital statin and ACEI were discontinued, and she resumed her home medication. The pharmacist spent more time to educate the patient on why she was taking each medication and to ensure proper use of each.

TABLE 11-6. LEARN Model[79]

LEARN Model	Description	How Utilized	Example for Learner
Listen	Listen, as a provider, with empathy and understanding.	Take into consideration patient's thoughts of the problem.	Have learner collect the reason why the patient was admitted to the hospital: "What do you feel may have caused you to go to the hospital?" "What do you think will improve or worsen the problem?"
Explain	Explain/educate in patient-friendly terms, the patient's illness, care plan, and self-care.	Educate/re-enforce reason for transition of care.	Have learner explain in patient-friendly terms (and in target language) the patient's diagnosis and the importance of the care coordination and medications to help with that diagnosis.
Acknowledge	Acknowledge patient's responses and comprehension of care plan.	To help promote patient engagement, discuss areas of differences and similarities. Highlight the similar areas and resolve those differences.	Have learner incorporate the patient suggestions when possible. This will give the patient a sense of empowerment and hand in their care.
Recommend	Recommend a plan that is tailored to the patient	The more active the patient is in the creation of the plan, the more invested they will be in the outcomes.	Have learner discuss patient concerns or problems and agree on solutions.
Negotiate	Negotiate action plan that works with the patient.	Incorporate the previous four steps along with observed patient perspectives and collected information.	Have learner discuss a stepwise plan that is created with the patient. Target medication adherence and specialist follow up. Care coordination is another area where your learner can assist with specialist follow-up.

the Standard, the reconciliation of medications is proposed when transitioning patients between settings as well as providing appropriate communication to pharmacy providers involved in patient care. Various publications have detailed the experience and positive contributions of APPE students in transitions of care activities, such as medication reconciliation.[82-84]

In addition to the ACPE standards, there are two domains in the Center for the Advancement of Pharmacy Education (CAPE) outcomes that encompass unique roles and core skills expected of pharmacists. Domain 2 is *Essentials for Practice and Care*; Domain 3 is *Approaches for Practice Care*. Several CAPE educational subdomains are applicable to transitions of care and so are patient-centered care, medication-use system, health and wellness, problem solving, education, patient advocacy, interprofessional collaboration, cultural sensitivity, and communication.[85] These skills help develop a pharmacist who can provide a holistic approach in patient care.

PRECEPTOR PEARLS

Ten steps toward comprehensive medication management:[86]

1. ***Identify patients who have not achieved optimal goals of medication therapy.***
2. ***Seek to understand the patient's personal medication experience/history and preferences/beliefs about medications and health.***
3. ***Identify use patterns of all medications including prescription, nonprescription, and herbal/complementary alternative therapies.***
4. ***Assess each medication for appropriateness, effectiveness, safety, and adherence, and focus on achievement of the clinical goals of each therapy.***
5. ***Identify all drug therapy problems such as duplicate therapies, supra-/sub-therapeutic doses, drug–drug/disease/herbal interactions, medication without an indication, indication without a medication, and allergy to medication.***
6. ***Develop a care plan to address steps recommended to achieve optimal outcomes.***
7. ***Ensure that patients agree with and understand the care plan, which is communicated to the prescriber/provider for their consent and support.***
8. ***Document all steps and current clinical status versus goals of therapy.***
9. ***Ensure that follow-up patient evaluations occur to determine the effects of changes, reassess actual outcomes, and recommend further therapeutic changes.***
10. ***Remember that comprehensive medical management is an iterative process; all team members must understand personalized goals of therapy.***

As stated in the ACPE standards, these activities should be integrated during clinical rotations as part of the APPEs. Although not mandated in the ACPE standards, students in their introductory pharmacy practice experiences (IPPEs) could be familiarized and exposed to transitions of care practices including medication reconciliation, cultural and linguistic barriers, and other challenges encountered during care transitions. Students should be encouraged to perform medication reconciliation and identify and resolve discrepancies as they occur. In addition, student participation in interdisciplinary teams is vital in preparing them to work successfully with other team members as they gain experience in providing smooth transitions for patients. In the near future, it may be routine practice for hospital pharmacists and students to communicate with community pharmacists as part of care transitions to the home as well as provide medication-related information to primary care extenders with chronic disease management and preventive care responsibilities. Provision of services during home visits for elderly persons or those with disabilities, where transportation may be problematic, may also be commonplace.

Similarly, the updated 2016 ASHP Accreditation Standard for Postgraduate Year 1 Pharmacy Residency Programs incorporated transitions of care as a means to ensure and support continuity of care in collaboration with other healthcare professionals.[87] It is imperative that residency programs promptly integrate the necessary criteria into rotation activities for the objective referring to managing transitions of care. **Table 11-7** lists the required criteria for managing transitions of care effectively.[88] Preceptors are appropriately positioned to help residents achieve these criteria to ensure continuity of care during patient transitions.

TABLE 11-7. Criteria to Manage Transitions of Care Effectively

Effectively participates in obtaining or validating a thorough and accurate medication history.
Participates in thorough medication reconciliation.
Follows up on all identified drug-related problems.
Participates effectively in medication education.
Provides accurate and timely follow-up information when patients transfer to another facility, level of care, pharmacist, or provider, as appropriate.
Follows up with patient in a timely and caring manner.
Provides additional effective monitoring and education, as appropriate.
Takes appropriate and effective steps to help avoid unnecessary hospital admissions or readmissions.

PRECEPTOR PEARLS

***Acknowledge with learners that cultural competency occurs at the organizational level. Assessing your healthcare organization and/or pharmacy can provide insight into the environment and support that exists for improving services to diverse populations.*[89]**

The Joint Commission has developed a roadmap for hospitals to advocate for patient and family-centered care across cultures.[90] Furthermore, this roadmap has been cross-referenced to the CLAS standards.[91] Assign learners to look up the checklist and assess their IPPE or APPE organization. These roadmap and crosswalk documents can be a guide for students to understand how a variety of healthcare settings can support culturally and linguistically appropriate services.

By enhancing communication and understanding of the cultural and linguistic barriers that may occur during transitions of care, quality of care and health outcomes will significantly improve. Pharmacists should seek to expand their roles during the discharge process while mentoring students and residents in these new roles and responsibilities.

SUMMARY

Understanding the social and cultural background of the patients served and the environment that they live in is critical to providing quality patient care services. Preceptors can guide learners to develop the skills to implement services that are accessible to and appropriate for diverse patient populations. It is important to demonstrate to students how culturally competent clinical encounters across the spectrum of healthcare environments can result in more favorable outcomes, increase the satisfaction of the patient, and enhance the patient–provider experience.

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12

Professionalism and Professional Socialization

Lea S. Eiland and Nishaminy Kasbekar

> You can easily judge the character of a man by how he treats those who can do nothing for him.
>
> *Malcolm S. Forbes*

The subject of professionalism emerged as a prevailing concern for the pharmacy profession in the 1990s; yet, interestingly, it has always been a core value of the profession. Professionalism curricula, tenets, assessments, and accreditation criteria are key components of today's pharmacy profession. Professionalism is not solely learned and developed in a classroom; rather, it is a longitudinal experience that includes experiential learning, interprofessional, and co-curricular activities as essential elements of a curriculum throughout pharmacy school. Professionalism is best described as a lifelong commitment as a professional to best interact with our patients, their caregivers, and other healthcare professionals.

LEARNING OBJECTIVES

- Define *profession, professional, professionalism,* and *professionalization.*
- Identify areas throughout pharmacy education where learners are exposed to professionalism.
- Compare and contrast appropriate and inappropriate uses of social media in the pharmacy profession.
- List strategies for handling a learner's lapse of professionalism.
- Describe opportunities for learners to engage in the community.
- Describe how a preceptor can assist learners in selecting professional organizations for membership.

PROFESSIONALISM

To understand the role of professionalism in pharmacy practice, it is important first to understand the meanings of *profession*, *professional*, *professionalism*, and *professionalization*. A *profession* is an occupation whose members share common characteristics, such as a body of knowledge, set of skills, specialized training, and licensure and certification.[1] A *professional* is a member engaged in a profession. *Professionalism* is the active demonstration of the traits of a professional, and *professionalization* (professional socialization) is the process of instilling the profession's attitudes, values, and behaviors so one learns to become professional.[1]

Developing professionalism in learners is an expected outcome in the curriculum standards for pharmacy education. Students should "exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society," and schools must be able to provide outcomes data of students' growth of professionalism.[2] In addition, schools must provide a culture of demonstrating and developing professionalism that includes the faculty, staff, affiliate preceptors, and students. The professionalization of students requires a variety of activities in a diverse set of environments (e.g., classroom, experiential, interprofessional, co-curricular, and extracurricular settings) that influence their professional perspectives and development. For example, professionalism commonly is discussed within new student orientation, and introduction of the specific commitments and responsibilities of a pharmacist often occurs at a White Coat Ceremony with the students reciting the Oath of a Pharmacist. This oath generally is repeated at graduation to re-instill the importance of these actions prior to the pharmacist practicing it independently for the first time. Most students join professional pharmacy organizations during school, participate in co-curricular and interprofessional activities, and are exposed to leaders and role models in various areas of practice. Throughout pharmacy school, students may have professionalism topics and activities embedded into classroom, experiential, interprofessional, and co-curricular experiences. Students may also be required to dress professionally for school or wear their white coats for specific courses or special events.

Learners are also exposed to a hidden curriculum where cynicism and some of the more negative aspects of healthcare delivery can erode professionalization methods.[3] Negative role models may create an unprofessional environment, resulting in a lack of development of professionalism in a learner. Realistically, all learners are exposed to positive and negative professional issues throughout their development. The negative influences can actually be a strong learning tool for positive outcomes. For example, respect may be taught by observing disrespect. These experiences may not only occur in real life but could be faced through stories of pharmacist encounters from family members or friends, social media posting, or a pharmacist's portrayal on a television show. It is important that positive professional socialization greatly outweigh the negative, and negative situations are discussed with learners so they can reflect and grow.

PRECEPTOR PEARLS

Observing negative behaviors can be a strong learning tool for positive outcomes. It is important to discuss both positive and negative aspects of professionalism, including the "why," with learners.

The ASHP Statement of Professionalism calls for pharmacists to "serve as mentors to students, residents, and colleagues in a manner that fosters the adoption of high professional aspirations for pharmacy practice, high personal standards of integrity and competence, a commitment to serving humanity, habits of analytical thinking and ethical reasoning, and a commitment to lifelong learning."[4] Faculty, staff, preceptors, and fellow learners are core influences in the professionalization process. However, other healthcare professionals such as physicians, nurses, social workers, and pharmacy technicians interact with pharmacy learners and may serve as role models, mentors, or teachers of professionalism. The verbal and nonverbal actions of preceptors toward others are watched by learners. Preceptors serve as role models in all situations from answering the phone and interacting with other health professionals, to counseling a patient. As attitudes, values, and beliefs are always being demonstrated, professionalism never escapes

evaluation by others, especially learners. It is important to model, discuss, and assess professionalism throughout a learner's education period as well as throughout one's career.[6] However, all learners are responsible for their own professionalization and self-development. Reflection and assessment of their own actions as well as role models' and others' performances promote growth as a professional.

As schools must adequately assess the knowledge, skills, and abilities of students for progression throughout a pharmacy curriculum, assessment of students' professionalism must also occur. Faculty and preceptors usually are asked to assess the professionalism of students periodically throughout the didactic and experiential curriculum. Some schools may also have "on-the-fly" professionalism assessments that can be reported at any time. It is important to understand when and how you will be asked to evaluate a learner's professionalism. Assessment of student professionalism may be through a faculty or preceptor assessment, a self-evaluation, or incorporated into various classroom or experiential evaluations, including simulation and interprofessional activities. Professionalism assessments can be focused to individuals or to groups of students who are working as a team. If the professionalism evaluation is in electronic form, it is also imperative to have a verbal discussion of the assessment with the student.

Many schools have developed their own tenets of professionalism, introducing them at orientation, incorporating them into teaching environments, and using them as a foundation for assessments. In 2009, the American College of Clinical Pharmacy (ACCP) published six tenets of professionalism for pharmacy students that include altruism, honesty and integrity, respect for others, professional presence, professional stewardship, and dedication and commitment to excellence.[5] These tenets provide a well-rounded core of professional attitudes and behaviors that can be used in development and assessment of professionalism. ACCP also published a white paper on the development of student professionalism using these tenets and identified five traits of professionalism as a foundation for student behaviors and actions.[6] These traits include care and compassion, commitment to excellence, honesty and integrity, respect for others, and responsibility. They also may be used as descriptors in professionalism assessments.

Professionalism assessment rubrics have been developed for pharmacy students. One school of pharmacy assesses appearance and dress code, appropriate communication skills with patients and providers, initiative, and timeliness of their experiential students.[7] Additionally, the Interprofessional Professionalism Collaborative (a group of 12 healthcare professions, including pharmacy) developed an interprofessional student professionalism assessment that encompasses six domains of professionalism: accountability, altruism and caring, communication, ethics, excellence, and respect.[8] Through the process of assessing a student's professionalism, an increase in the awareness of professional socialization and the significance of professionalism in healthcare can occur.

PRECEPTOR PEARLS

Preceptors are role models in all situations. The learner is always watching and observing verbal and nonverbal interactions.

PROFESSIONALISM AND SOCIAL MEDIA

Inappropriate Use

The increased adoption and influence of social media has changed how communication occurs around the world. Many

people rely on various forms of social media to gather knowledge, network, and stay connected to friends and family every day. Social media also allows users to reach out to large audiences in a relatively inexpensive way. There are multiple platforms of social media such as Facebook, Twitter, Instagram, Snapchat, Skype, and YouTube, and each user can customize the solution or application to fit his or her needs. It is also important to realize that social media can offer unidirectional information or opinions that at times may lead to information overload or potential bias to a situation. Examples include cyber bullying, racially or culturally insensitive posts, or simply, a lack of inhibition when posting comments that are harmful to individuals or groups. This type of communication can damage the reputations of the individuals posting as well as the individual or group that is the target of the posts due to the material being considered inappropriate. It is well known, for example, that many companies search social media websites for an individual's profile as well as complete an Internet search of individuals they are considering for hire, to use in decision-making. With the footprint of social media being almost perpetual, it is challenging to erase permanently past activity.

As sharing of information on these platforms often comes easily and without consideration of consequences, it is important to note the impact of social media on professionalism. Maintaining professional boundaries and privacy are essential for healthcare workers when posting or engaging in social media. Pharmacy students are not immune from limited insight into the implications of their postings,[9] and consequently many colleges and schools in all healthcare disciplines have developed policies or guidelines to guide the appropriate use of social media among their professional students. Some items in the policies are absolute, such as not posting Health Insurance Portability and Accountability Act (HIPAA) prohibited patient health information, whereas others are designed to make sure students are not posting pictures or comments that are simply unprofessional in nature and reflect badly on the individual and institution.

In general, guidelines or policies focus on how to 1) protect yourself, 2) protect the privacy of others, and 3) protect the institution's assets and reputation. No images may be posted with protected patient information, and universities and colleges generally require releases from the individuals depicted in images posted on their websites. Pharmacy fraternities also have developed policies to guide members in appropriate and inappropriate use of photographs and other postings on social media sites such as Facebook, Twitter, or Instagram to ensure that members always project a professional image and avoid harming the reputation of the organization. Examples of forbidden images in pictures where students can be identified as members of a fraternity (e.g., wearing fraternity gear, using the fraternity name, or on the chapter's website) include such things as presence of alcohol or intoxication, obscene gestures or attire, and racist or culturally insensitive images.

Research has demonstrated that when pharmacy students are presented with policies or presentations on professionalism related to social media, they tend to strengthen their online security and enhance use of the privacy features available (e.g., not having all information available to the public).[9,10] One study of pharmacy students from four public and private colleges found that about three-quarters of respondents believed they should edit their profiles on social media sites prior to graduation.[11] Another study found that 68.5% of 292 pharmacy students were not comfortable with a future or current employer or faculty member viewing their social media content.[12] These are indicators that these learners believe their past posts could potentially jeopardize career opportunities in the future as well as change current perceptions of their actions. Thus, it appears that pharmacy students do take note of the issues and the importance

of a more professional image associated with their presence on social media sites when education is provided.

Cleary and colleagues coined the term "e-professionalism" to promote appropriate electronic conduct when engaging in social media.[13] Pharmacy learners should routinely self-police their posts and social media content for appropriateness and professionalism.

PRECEPTOR PEARLS

Research shows that pharmacy students are not immune to using social media in ways that they later consider may jeopardize future career opportunities. Preceptors should discuss professionalism and social media uses with learners to help them better navigate the decisions on what is appropriate and inappropriate.

Appropriate Use

Although the opportunity to use social media inappropriately exists, there are also many potential benefits of social media use. Social media allows friends, family, and organizations to stay connected, providing up-to-date information on activities, and allows the spread of information quickly about important events. Social media platforms have also been utilized for educational purposes. A few studies have discussed the integration of social media platforms by pharmacy school faculty members in academic environments.[14-16] Cain[15] used Facebook as an informal way to connect external experts with students without requiring student participation in the postings. Results from a questionnaire showed students appreciated the exposure to experts using this approach. DiVall[14] and colleagues used Facebook as a way to facilitate discussions between students and faculty about course material in a disease management course. Students were over twice as likely to post comments on the Facebook page compared to discussions on the course management system (Blackboard), and more than half indicated they would miss the opportunity to use Facebook in this manner if not provided in future courses. It is important to realize the integration of social media in healthcare continues to evolve. Conversely, Kukreja[17] and colleagues conducted a survey of 326 APPE preceptors in a college of pharmacy and found the majority were not interested in using social media in pharmacy practice. Pharmacy schools and institutions should collaborate and continue to create dialogue regarding social media engagement, education, and opportunities to assist in education and professional development of learners and pharmacists. Benetoli[18] and colleagues conducted a systematic review and found descriptive information but not clinical trials for the impact of social media in pharmacy practice and education. As this area continues to evolve, being creative and innovative may assist in using this technology to advance pharmacy practice.

PRECEPTOR PEARLS

With appropriate safeguards, social media postings can be a way to communicate quickly with learners about important issues and events occurring at the training site as well as connecting learners with experts in given areas. Discussing in advance the appropriate use and appropriate responses to posts is recommended.

Recommendations

Although many health science profession colleges and schools have developed policies

for students, faculty, and staff on appropriate and inappropriate use of social media, legal and ethical issues need to be considered when creating and enforcing these policies. Cain and Fink[19] published a useful review of these issues.

Preceptors need to be aware of the policies and issues on social media and posting of images of their own institution and of the school of pharmacy (i.e., when a student is the learner). Expectations regarding these issues and policies should be discussed at the beginning of a learner's rotation. Such orientation is particularly critical if the institution's policies are more stringent than those of the school of pharmacy, as learners may not pay attention to policy differences unless they are specifically highlighted. It is always worth stressing and reminding students that discussion of individual patients is prohibited in any place where those not involved in the patient's care may overhear or see the information. It is particularly important that such information is never posted on social media.

Preceptors may find out that learners are posting items on social media sites that may be viewed as questionable or unprofessional, or that they are posting images of individuals who have not given their permission or consent. This information should be discussed with the school of pharmacy personnel rather than attempting to make sole personal decisions on whether the posting is inappropriate. The school will have support of attorneys and human resources personnel who can assist in determining outcomes. As an example, there may be a fine dividing line between expressing a point of view (freedom of speech) and expressing thoughts forbidden by policy.

Preceptors may wish to take advantage of the use of social media for their learners. Announcements of upcoming activities and deadlines, links to specific education sites, podcasts, or patient care apps as well as other uses may add value to the educational experience of the rotation.

Finally, preceptors must also consider their own use of social media. Although a preceptor may decide personally not to "friend" or "follow" learners, the preceptor may be "friends" with another colleague who allows learners to access his or her social media applications. Thus, the preceptor's posts may be seen by learners through other's posts or vice versa, and the student's post may be seen through a friend's account by a preceptor. One study found that 85.3% of students were not aware of security settings within social media platforms.[12] Preceptors and students must be aware of current security and privacy settings of their social media accounts and who has access to visibility.

ADDRESSING LAPSES IN PROFESSIONALISM

Professional behaviors and attitudes are expected from our learners as well as from those involved in professionalizing learners. Unfortunately, a learner sometimes demonstrates a lapse of professionalism and that behavior must be documented and discussed. *Unprofessional behavior* encompasses the behavior itself as well as the frequency of the behavior.[20] Examples of poor professional behavior noted in medical schools include lack of respect, inappropriate behaviors or language, poor relations with the healthcare team, unmet responsibilities, lack of timeliness/initiative, or poor rapport with patients or caregivers.[21,22] A systematic review of unprofessional behaviors of medical students identified the following four themes: dishonest behavior, disrespectful behavior, failure to engage, and poor self-awareness.[23] One medical school identified the following unprofessional behaviors or actions in the classroom setting: interruptions in class, unacceptable timing of requests for special needs with test taking, and inappropriate behaviors in small groups with peers and faculty.[24] A focus group of clinical faculty at a medical school in Canada identified two types of professionalism problems: 1) a minor behavior that is challenging

to define but potentially remediable, and 2) an easy-to-define behavior that is more likely to be irremediable.[25] Their hypothesized reasons for unprofessional behaviors included stress, poor role modeling, inexperience, and institutional tolerance.[25] It may be challenging and disappointing to witness such behaviors, but as a preceptor it is critical to assess and provide informal or formal corrective action in situations of learners' unacceptable actions. Challenges of identifying and providing formative feedback on such behaviors include cultural differences, false allegations, and various definitions of tenets of professionalism.[21] In addition, many scenarios may not be clear in terms of the degree of inappropriateness of the behavior. Assessment is imperative, but it may be meaningless unless it leads to improvement in behaviors and actions.[3]

Depending on the incident, corrective action may be warranted immediately or later—but should not be too much later. Time may be needed to gather information, evaluate the situation, and contemplate how to handle the discussion with the learner. As well, the learner may need time to reflect on what occurred and how he or she handled the situation. It is definitely helpful to be familiar with the school's or institution's professionalism policies, as they can assist in understanding violations and processes of corrective action. Depending on the incident, the director of experiential learning, course coordinator, dean of student affairs, or the practice site director or coordinator may need to be involved. As the identified event may or may not be the leaner's first issue with unprofessional behavior, it is important to provide feedback to the program. Schools must carefully balance privacy issues and notification of concerns to preceptors without resulting in perceived notions of behaviors to expect. If the appropriate action to take in resolving the situation is not clear, first contact the course coordinator if the situation occurred in the classroom or the director of experiential learning (or equivalent) if this occurred in the experiential setting. It is best to confront the issue in an appropriate time frame and to avoid only including or discussing the circumstance in a later evaluation. The course coordinator or director of experiential learning can provide help on handling the situation. Sometimes the same or a similar situation has previously occurred with this or another learner, and the coordinator or director can provide advice from experiences handling the unprofessional behavior. In addition, schools may have a professionalism committee, honor board, or something similar that handles initial and repeat professionalism issues of students. If a resident has demonstrated a lack of professionalism, discuss the situation with the residency program director. If this was not a first-time issue with professionalism, the program may already have a plan in place on what to do to confront the issue.

PRECEPTOR PEARLS

When a learner demonstrates a lack of professionalism, inform the supervisor, school, or institution of the issue and jointly develop a plan of action.

Binder and colleagues[21] recommend the following strategies for handling unprofessional behaviors: early intervention, counseling, and attempts at remediation. Informal or formal discussions with the learner about the behavior exhibited and potential consequences of the unprofessional actions should occur along with documentation of the incident. The goal of the meeting should be for the learner to understand why an assessment and report was submitted, to provide them with appropriate feedback on behavior and actions, and to help the learner improve in future interactions.[24] It may be worthwhile to state the goal of the discussion at the beginning of the meeting. Reviewing institutional policies or guidelines with the learner is also important during discussions.[21] We suggest having both the learner

and preceptor, and a witness (depending on the scenario), sign documentation that the issue occurred, was discussed, and a plan was agreed on. The learner may need to apologize to others involved in the incident in addition to working on modifying his or her behavior. Repercussions may be punitive or nonpunitive. Schools of pharmacy may have policies resulting in a grade deduction in classroom and experiential courses due to a student's lack of professionalism. Professionalism contracts may be developed for student progression in the curriculum. A professionalism mentor (e.g., faculty, staff, or preceptors) may be assigned to a student for mandatory periodic meetings to discuss professionalism issues. The learner may require or seek counseling to assist with developing permanent changes in attitude and behaviors. Generally, the school will assist with providing or educating on counseling opportunities. Cultural competency issues are challenging to solve, but multicultural awareness programs can assist with education on communication and work ethic differences.[21] Remediation can be challenging in that a learner may need to repeat activities to demonstrate competency; however, depending on the behavioral issue, there may not be a specific activity to repeat and only continued evaluation will be necessary.

A survey of 93 U.S. and Canadian medical schools found that approximately 80% of schools had specific policies and procedures for handling lapses in professionalism.[26] Directors of experiential learning and/or student affairs deans were responsible for these issues. Lack of responsibility including missed deadlines, tardiness, and unexcused absences was the most common unprofessional behavior cited. Relationship issues within the healthcare environment such as disrespectful written or personal communication, inappropriate social media use, and poor availability was the next most common offense. Lapse of self-improvement such as defensiveness to feedback and lack of self-awareness or initiative was noted less commonly. Professionalism issues with patients rarely were noted. Mandated mental health evaluations, remediation assignments (e.g., reflections, directed reading, attending ethics committee meetings) and professionalism mentoring were the top three actions implemented. Stress management counseling also was mandated when applicable. Interestingly, successful remediation criteria was not commonly defined by schools. However, it was noted that faculty at schools "play an integral role in identifying and addressing professionalism lapses in medical students."

CASE EXAMPLE

Kyle is a fourth-year pharmacy student doing an advanced pharmacy practice experience (APPE) in the emergency department at an academic medical center. As part of his rotation responsibility, he is required to meet with each patient that is admitted and conduct a medication reconciliation. He is also required to report any relevant information to his preceptor to optimize medication therapy.

During one of his shifts, a fellow pharmacy student and colleague, Isabelle, is admitted with alcohol intoxication. The night before, Kyle attended a party at his fraternity, and Isabelle was present. Kyle noticed her name on the admission board and went in to determine her issue. He then took a picture of her and posted the following on his Facebook page: "Look who drank too much at our fraternity party and now is my patient—some girls don't know how to quit." Later a fellow student conveyed the Facebook post, including the picture and sentiment, to another preceptor in the same institution. A medication reconciliation was not conducted, and Kyle conveyed the history of their interaction with his preceptor.

WHAT ISSUES EXIST IN THIS SCENARIO?

- The pharmacy student committed a HIPAA violation and breached

patient confidentiality. It is important for all students to be aware of policies associated with patient confidentiality and not to share information inappropriately.

- ❖ Sharing this type of information with another professional, in this case the preceptor, is unprofessional and demonstrates poor judgment.
- ❖ Kyle should have discussed the recognition of this patient's name with his preceptor and whether or not it was appropriate for him to enter the patient room.
- ❖ Kyle also made a biased assessment of the colleague's gender, which could lead to damage of an individual's professional image and be viewed as an attempt to discredit another professional.
- ❖ As a professional, Kyle did not perform his defined role with this patient and had a professional obligation to make sure the patient was treated equally to others.

HOW WOULD YOU HANDLE THE SCENARIO?

The student and scenario should immediately be reported to both the institution and college of pharmacy authorities as patient confidentiality and HIPAA have been breached. A recommendation must be made to immediately remove the Facebook post. The college along with the institution should discuss the legal and regulatory penalties of this violation and lack of professionalism to determine appropriate outcome and consequences.

Discussion of this scenario should also focus on attention to Kyle's errors in judgment when posting negative comments about colleagues and other professionals and about personal responsibility and accountability as a healthcare worker. Kyle also attended the same fraternity event so to question the motives of another individual when you were participating in the same activity could question one's motives and potentially lead to the discredit of a colleague. Kyle also inappropriately made a gender judgment that could be viewed as unprofessional and instituting bias of a colleague aired on social media. He should be required to read all policies and guidelines on the use of social media and have an in-depth discussion articulating the various lapses in professionalism exhibited by his posting.

A discussion of how this interaction could have been conducted differently with the preceptor and medical team should also occur. Moreover, Kyle should determine what the appropriate interaction should be with the student colleague, and an apology should be issued.

The student that reported Kyle's inappropriate posting should be commended to reinforce the importance of identifying and reporting lapses in professionalism as a healthcare worker's professional responsibility. Discussions regarding this issue should not use the reporting student's name, as maintaining anonymity of reporting with other students can reinforce the role of other professionals in reporting, reducing, or curbing poor behavior.

It is important to note that potential outcomes of this scenario are legal, regulatory, and disciplinary ramifications. Kyle could also face expulsion or other penalties from the college/school and financial penalties for negligence. Kyle could be banned from posting on any social media site of the college or institution and would need to receive training in professionalism. He may be removed from his APPE rotation and may be required to repeat the session if he is allowed to remain in school.

PRECEPTOR PEARLS

Specific details of the unprofessional behavior and actions should be provided to the learner so he or she has a clear understanding of the concern. A mutually acceptable improvement plan should be agreed upon and implemented for the learner to improve in future interactions.

It is not easy to report professionalism issues or to levy sanctions against someone else. Disincentives such as paperwork, time, and fear of repercussion are reasons that medical faculty may remain silent with unprofessionalism issues.[25] Other reasons include a perceived lack of power, inadequate feedback skills of their own, lack of confidence in their own judgment, and a lack of remediation or support network when the issue is identified. Directors of experiential learning can assist with conducting or scheduling training sessions on developing feedback skills. In addition, scholarly books, journal articles, podcasts, videos, and websites are available as resources. It should be considered a responsibility of the school and institution to provide preceptors with the support needed in citing and confronting professionalism issues. Asking the institution to provide guidance on how past violations were managed and the appropriate level of consequences can assist preceptors in learning about how to handle similar situations.

Best practices for addressing lapses in professionalism are lacking; thus, past experiences, current methods, and new approaches to consider should be shared among colleges, schools, and institutions. Ziring[26] and colleagues' survey results provide examples that may be used as a starting point for developing a remediation program. Addressing problems with repeat offenders is especially challenging, and successful management approaches should be shared to assist others in the profession.

ENGAGEMENT OF THE PHARMACIST

Community Involvement

Each year, consumers rate pharmacists as one of the nation's most honest and ethical professionals.[27] This designation is built on the trust generated in the patient–pharmacist relationship and the competence associated with providing medication-related information and attending to the healthcare needs of patients. It is also likely an indicator of how a pharmacist's role and influence expands beyond his or her place of employment and penetrates into the community.

As a large proportion of the population comes of advanced age and patients demonstrate better understanding of the morbidity and mortality of diseases, the role of population health becomes significantly more important and the opportunities for pharmacists to become more engaged in this role increases. *Population health* refers to the promotion of general wellness and positive healthcare practices in the community. It includes areas such as health screenings, vaccinations, and improvement of healthy behaviors that prevent disease.

Pharmacists are well suited to advance the health outcomes of our entire population. They have more points of interaction with patients than any other healthcare provider and function both in the acute care setting as well as the community. Pharmacists also tend to create lasting relationships that assist in educating and communicating about medication needs and issues in addition to promoting wellness for patients' diseases. Pharmacists can promote health and wellness through pharmacist-led patient support groups, disease education, and discussions on key pharmacy issues such as medication education and adherence, appropriate administration of medications,

reduction of polypharmacy, and appropriate disposal mechanisms for medication. Pharmacists can demonstrate professionalism, promote the profession, and enhance medication use by volunteering to speak at local schools, organizations, or other venues. Pharmacists can also help prevent disease and disability by providing vaccinations; by providing education on smoking cessation, weight reduction, or prescription and nonprescription drug abuse; and by participating in healthcare screenings such as blood pressure, diabetes glucose checks, and bone density evaluations.

CASE EXAMPLE

Lawson is a P4 student on an adult medicine APPE with another P4 student. Their preceptor, Dr. Jones, has them divide the patient list and work up their respective patients each day. During week two of the rotation, Dr. Jones notices Lawson not as engaged in patient rounds or discussions once the team has finished seeing his patients. Lawson tends to move to the back of the group and pull out his mobile phone. He seems to be scrolling or typing on the phone as the patient care team is walking through the halls and standing in patient rooms. When Dr. Jones asks about his behavior, Lawson responds that the team was not discussing his patients any more so he did not think he had to participate.

WHAT POTENTAL ISSUES EXIST IN THIS SCENARIO?

- ❖ Lawson not engaged in patient care
- ❖ Lawson using technology inappropriately
- ❖ Lawson not actively involved in his healthcare team

HOW WOULD YOU HANDLE THIS SCENARIO?

Although there may not be one best way to handle this situation, many options are available. Dr. Jones could ask him to put away his phone, pay attention to patient rounds, and speak to him further after rounds. Patient care should come first, but it may be important to step out of patient care for a moment, briefly address the situation, and then rejoin the patient care activities. Dr. Jones could also ask Lawson to leave patient rounds, reflect on his actions, and meet him at his office after rounds are over. This would give Lawson time to think about his actions and ponder how to improve them, if he is recognizing the unprofessional behaviors in himself. Dr. Jones could also take away Lawson's phone, ask him to pay attention to rounds, and then discuss the situation after rounds. *Which action do you think you would take if Lawson were your student?*

When they meet, Dr. Jones explains to Lawson the behaviors he witnessed on rounds and why they are unprofessional. This meeting is conducted in a private manner, so it does not embarrass Lawson in front of the team or the other APPE student. Lawson recognizes his actions were unprofessional. Understanding is confirmed as well as a mutually decided plan of how to not repeat them. This discussion and action plan is documented with Lawson and Dr. Jones signing the assessment. Dr. Jones contacts the school to notify them of the issue and plan. Dr. Jones could ask Lawson to apologize to the team the next day for his lack of engagement; however, actions may speak louder than words so Dr. Jones asks Lawson to demonstrate tomorrow that he fully is engaged throughout all patient care rounds. This will show others on the team that Lawson has corrected his behavior.

What if Lawson responded to Dr. Jones saying he was using his phone because he saw Dr. Jones on his phone and thought it was ok? Dr.

Jones would need to self-reflect on his actions and explain if they were appropriate (e.g., looking up a medication dose, answering a text to another pharmacist about a patient) or if he also was not engaged in rounds and demonstrating unprofessional behaviors. Students may model their preceptor's action, so Dr. Jones should be demonstrating professional behavior on patient care rounds as well.

An outcome of the scenario is that Lawson learned a lesson in professionalism—how others see his behaviors and patient care is a priority. He remains actively engaged on patient care rounds throughout this and future experiential experiences. Another outcome could be that Lawson improves his engagement for the remaining weeks on this experience but repeats his actions on another experience. This is a key reason why preceptors should involve or at least notify a director of experiential learning of the situation. This could have been a recurring issue from the classroom setting or prior experiential experiences for Lawson, and the school can assist with providing advice and developing a plan for Lawson to improve his behaviors. There could already be a professionalism remediation plan in place. Communication between the preceptor, student, and school is important.

By participating in their communities, pharmacists can find the experience to be exciting and rewarding and will gain unique insight into geographic or cultural differences that may assist in making our patients healthier. This can help foster better communication and provide a basis for discussion between pharmacists and community practitioners.

PRECEPTOR PEARLS

Preceptors can effectively teach learners in leading by example. Preceptors should engage in a community area they are passionate about and invite the learner to participate.

Many pharmacists engage in activities with community centers, shelters, church groups, and homeless clinics. Preceptors who actively engage in the community have great opportunities to mentor students in this type of professional behavior. Preceptors should emphasize that participating in our communities is a civic obligation as a healthcare provider, which allows us to use our clinical knowledge to give back to those less fortunate. Preceptors should seek opportunities for learners to join them in community engagements that can help them define and participate in the interaction and understand the value they can provide to patients and the society. Learners can then determine their service-related interests and create their own paths and personalized interactions. They can learn how acting responsibly and being accountable in community interactions will lead to professional and personal fulfillment.

Professional Organizations

During pharmacy school, students are provided opportunities to join professional organizations and must make decisions on those that will best suit their aspirations as professionals. At this time in their career, students often seek the assistance of a mentor, faculty member, or preceptor to learn more about the various organizations and help to make these decisions.

There are a number of pharmacy organizations to choose from at the local, regional, and national levels. The organizations vary in scope from those that seek to represent the entire profession or major portions of the profession to those that focus more on particular areas of pharmacy, such as managed care or specialty pharmacy. The organizations with more diverse focus may also have a local and regional influence by tying into state, regional, and school affiliates and may be more appropriate for students in the early years of pharmacy school. However, more-focused organizations may be appropriate for learners who plan to or already know that they will practice in a specific area. Overall, the goal of all pharmacy organizations is to provide a collective voice in advancing pharmacy practice, professional development, and public policy. Preceptors should have learners reference the ASHP Statement on Advocacy as a Professional Obligation and read the ASHP Statement on Professionalism, which discusses the importance of achieving goals through "collective efforts," more specifically described as having a common voice regarding practice advancements to our profession.[4,28]

In addition to the organizations focused on professional practice, students have the opportunity to pledge and join professional fraternities (e.g., Kappa Epsilon, Kappa Psi, Phi Delta Chi, Lambda Kappa Epsilon) and may be invited for membership in the leadership and honorary fraternities (e.g., Rho Chi, Phi Lambda Sigma). These organizations also offer opportunities to provide community service, philanthropic activities, and leadership development that help cultivate professionalism.

Benefits of belonging to a professional organization include allowing learners to network with peers and prominent members of the local and national pharmacy community. It broadens their horizons on topics and general issues facing pharmacy practice and allows learners to present their ideas and suggestions for advancing local practice or the profession. Most pharmacy organizations offer learners the ability to volunteer for committees, projects, and activities and serve in leadership positions. Large organizations also offer learners resources and tools that may be helpful as they near graduation such as curriculum vitae building and review, selection of the right residency, interview techniques, and potential employment opportunities. The benefits of joining pharmacy organizations also continue after learners graduate, and they should be encouraged to continue their membership throughout their careers.

A mentor or preceptor can assist greatly in helping learners select professional organizations that are right for them. Learners can be asked to define their short- and long-term professional goals, the practice setting(s) they are considering initially as a career, and benefits they are looking for in a professional organization. Recommending that learners attend a local or state chapter meeting as a guest of the preceptor is a good start. Reviewing organizational websites, resources, and tools with learners is helpful. Some organizations allow reduced fees for members to join and also allow learners to take on various leadership roles. Active involvement in professional organizations can help foster the development of future leaders, build and maintain professional networks, and instill a sense of pride in and obligation toward the profession. In the long term, preceptor and learner involvement in organizations can lead to a sense of professionalism, improved patient care, and enhancements to the pharmacy profession.

PRECEPTOR PEARLS

Preceptors and learners should engage in an active discussion describing the professional organizations a preceptor belongs to and how they have assisted in achieving his or her professional goals. Preceptors should invite learners along to local, state, and national meetings, when feasible.

SUMMARY

The professionalization of learners primarily occurs throughout their educational period, but professionalism continues throughout one's pharmacy career. Preceptors must discuss and assess professional traits with learners as well as positive and negative aspects of professionalism. In addition, in today's society, technology such as social media and smart phone use must be incorporated into professionalism discussions. Unfortunately, lapses in professionalism of learners occur, and these situations must be handled fittingly. As each situation differs, best practices should be shared within the pharmacy profession.

Preceptors are role models for learners, and their professionalism is always being evaluated. Preceptors can influence learners through community and professional organization activities. We challenge you to reflect about your professional footprint and how it can positively impact your learners' professionalization. Spend time with learners discussing professionalism and instilling that it is a lifelong commitment.

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In organizations, real power and energy is generated through relationships. The patterns of relationships and the capacities to form them are more important than tasks, functions, roles, and positions.

Margaret Wheatley

Our success has really been based on partnerships from the very beginning.

Bill Gates

Friendship is essentially a partnership.

Aristotle

13

Partnerships with Colleges and Schools

David F. Gregory, David D. Allen, and Diane B. Ginsburg

DEVELOPING PARTNERSHIPS: THE PRECEPTOR PERSPECTIVE

Importance of a Partnership

Developing a partnership between a facility/institution and a college or school of pharmacy is essential in advancing the future of pharmacy practice. As healthcare becomes increasingly complex and the role of the pharmacist shifts from dispensing to being a provider, developing this partnership can be beneficial to both the practice site and the college or school of pharmacy. Developing this partnership includes sharing resources, improving patient outcomes, growing the profession, and fostering a culture of continuous learning. By incorporating learners into various types of practice environments, benefits are seen with expansion of services, implementation of best practices, and quality improvements while enhancing patient safety and reducing costs. Benefits are observed when the site and academic institution work together to support education, strengthen the profession, and improve care for patients and the communities served.

The practice site and the college or school of pharmacy must develop a true and lasting partnership to ensure success of the experiential education program for all involved. These partnerships take time and resources from both the site and college or school; with good communication and planning, it can be a rewarding relationship. Both partners must spend time initially to learn the needs and expecta-

LEARNING OBJECTIVES

- Understand the rationale for colleges and schools of pharmacy and practice sites to enter into partnerships.
- Describe the benefits of educational affiliation agreements to each of the following: the preceptor, the college or school of pharmacy, and the practice site.
- Explain the process of and reasoning for continuous quality improvement once the experiential education begins for the learner.
- Recognize how a partnership agreement between a college or school of pharmacy and an affiliated practice site can enhance preceptor training and development.

continued on next page

LEARNING OBJECTIVES (cont'd)

- Establish a program and process to have a consistent preceptor development program in partnership with the practice site and the college or school.
- Identify how student learners and financial support can be advantageous in the creation of a partnership agreement.
- Understand how documenting positive outcomes can affirm the value of the partnership and provide justification for additional resources.
- Learn to develop precepting methods to excel as a clinical instructor, an evaluator, a role model, and a mentor.
- Discuss the primary and secondary components of written educational affiliation agreements.
- Develop activities that enhance preceptor advancement and student/resident learning.
- Describe the purpose of providing bidirectional feedback to the college or school and the practice site regarding learner preparedness, learner performance, and educational and clinical outcomes.
- Determine well-defined expectations for the learner, the practice site, and the college or school.
- Explain the importance of partnering with the college or school to address difficult or failing students.

tions of one another. It is often necessary to compare the needs and expectations of any existing relationships with other schools of pharmacy to promote standard practices for learner and preceptor. Standardizing learner experiences among all affiliated colleges and schools allows preceptors and sites to provide an organized and positive approach to learning. Consider establishing policies and procedures for precepting both students and residents to develop a consistent and standardized approach to training. It is also important to understand the operation and culture of both organizations. The chances of building a successful long-term partnership are much greater if the site's practice model and the college's or school's education and training program fit well together and the mission, vision, philosophy, and core values of both partners are in alignment.

A partnership may be defined by what is written in the formal educational affiliation agreement, but the success is determined by the relationships developed between key persons at the practice site and at the college or school of pharmacy. The site coordinator in charge of organizing the experiential education program at the site and the assistant/associate dean responsible for experiential education or his or her designee at the college or school need to work closely together and communicate often to ensure expectations are clear for both parties. This relationship is very important, as the school administrator will be the site coordinator's primary contact person and interface with the college or school. Having a good relationship is especially important when managing rotation schedules, preceptor responsibilities, and dealing with challenging learners. It is also of critical importance when staffing vacancies or emergencies occur within a practice site affecting the feasibility of student rotation schedules and preceptor availability. Maintaining an open dialogue is most important when dealing with challenges that arise for either the preceptor or individual learner in question. The overarching goal for both site and college or school is to successfully educate and mentor future generations of pharmacists who will give back to the profession.

Establishing the Partnership

Establishing a relationship and partnership between the site and college or school often starts with a face-to-face interaction. To observe students on rotation and ensure facilities are meeting program expectations,

colleges and schools will engage with preceptors and pharmacy staff with on-site visits. Visits can be impromptu in nature, in which college and school administrators will tour the facility and meet with preceptors and pharmacy leadership. More formally, college and school administrators may also request to meet with the preceptor group to provide an overview of the experiential program's objectives and college or school policies. Alternatively, practice sites may invite college and school administrators or faculty to highlight student and resident participation, preceptor involvement, and pharmacy services provided to patients. Preceptors and college and school administrators can exchange information about the training opportunities at the site and the experiential education program requirements. To credential preceptors, colleges and schools may require preceptors to submit a current curriculum vitae, provide documentation of their license, and complete information about their teaching philosophy and practice interests prior to providing any type of faculty appointment within the school. Typically, colleges and schools will provide rotation-specific experiential education manuals that contain the goals and objectives, required learning activities, and evaluation process. Often, the documentation, evaluations, and schedules are provided through an online module. In addition, preceptors and pharmacy leadership should formally meet to discuss departmental goals, staffing needs, and preceptor availability to best schedule student rotations. It is important to balance both preceptor responsibilities and learner needs. The potential types of rotations and the number of preceptors available should be discussed, as well as the site capacity for students, on a frequent and annual basis. The site and the college or school should agree on the optimal preceptor-to-learner ratio for each available rotation and confirm this with their respective state board of pharmacy or licensing agency for verification of supervised hours, if applicable. This will be important when the site coordinator and college or school administrator work on constructing a schedule for learner placement. Ultimately, a shared vision and plan for the future should be created. Then both site and college or school can budget for and allocate the necessary resources to accomplish mutual goals and objectives in a structured and timely manner. Future plans could include such things as slowly increasing the number of learners per month, developing additional elective rotations, hiring more pharmacists, recruiting and placing a faculty member(s) at the site, and incorporating the residency programs at the site.

PRECEPTOR PEARLS

Establishing and maintaining a good relationship with the college or school administrator will help solve problems relating to the pharmacy practice experience within the practice site more efficiently.

When these partnerships are in place, an affiliation agreement between the practice site and college or school should be initiated to outline the requirements for each partner. Although the educational affiliation agreement does not determine the success of the partnership, it is an important legal document that clearly defines policies and procedures necessary to train and host student pharmacists. An educational affiliation agreement should be in place before students begin experiential education at a practice site. This can be a time-consuming process, especially if changes to the school's standard educational affiliation agreement are proposed, either as a result of negotiation between the site coordinator and the college or school administrator or through review by the site's legal department. In the latter situation, the college's or school's administration must then review and receive approval from the university's legal department. Finally, representatives in each organization with

the power to authorize such a partnership must sign the agreement. Both the practice site and the school will retain a copy for their records. Like any business transaction involving a written contract, do not rely on verbal commitments. For example, if the college or school has offered financial support to the site for precepting services or to provide faculty appointments, textbooks, or additional library benefits beyond the required standard, the agreement should include this information either in the body of the text or in an appendix.[1] It is also important to note that some college or school affiliation agreements cover a specific period of time and must be renewed on expiration. Other affiliation agreements may continue indefinitely. Occasionally there may be a need to reassess the relationship if strategic priorities or expectations change with either the site or college or school.

Establishing the relationship between the practice site and program also depends on the success of the preceptor and learner relationship. A *contract* or *agreement* between the preceptor and the learner plays a role in setting clear expectations for the rotation. The site coordinator or preceptor should discuss the elements of the student contract during the orientation process. These contracts may contain policies on absences/tardiness, using social media resources, and confidentiality (see **Exhibit 13-1**). In addition, the preceptor should also construct a rotation-specific outline/syllabus of rotation activities and responsibilities to ensure the experience is rewarding for both the preceptor and learner. Having these elements in place at the practice site demonstrates a commitment to the success and growth of the college's or school's experiential learning program.

Incorporating preceptor development is also an essential part of the practice site and college or school relationship. Many experiential programs offer preceptor development programs on campus or offer online training modules for their faculty and preceptors. Online modules may be the only opportunity some preceptors will have to interact with the college or school administrator or other preceptors in a given region and especially in remote practice sites. Preceptor development should be ongoing and be made available in various formats to accommodate different learning styles, time commitments, and practice environments. It is important to note that preceptor development is not only essential for experiential programs but is a required element for ASHP-accredited residency programs. ASHP's Commission on Credentialing requires all accredited programs to establish and maintain a robust preceptor development program. Preceptor development can include valuable tools to train all types of learners. Most importantly, preceptor development is needed to create and support a highly trained preceptor pool committed to the ever-expanding number of pharmacy student and resident graduates.

Benefits for Preceptors

The demand for highly qualified preceptors will only increase over the next two decades with increasing numbers of students enrolling into doctor of pharmacy programs. Meeting the educational needs of students is a challenge for colleges and schools, institutions, and community practices. In 2011, Payakachat et al.[2] discussed how the demand for preceptors creates recruitment challenges for colleges and schools of pharmacy; however, knowledge of intangible benefits perceived by preceptors may prove helpful in recruitment efforts. They go on to say that "Teaching and mentoring others can bring greater satisfaction to one's work life and the opportunity to do so is one of the biggest draws of an academic career."[2] There are numerous benefits to precepting, both intrinsic and extrinsic in nature. Over the past decade, studies looking at job satisfaction among preceptors demonstrated that intrinsic rewards, such as the enjoyment of teaching, far outweigh the benefits of extrinsic rewards (e.g., financial compensation).[3,4] In 2003, as reported in the *Journal of the American Pharmacy Association,* Skrabal

EXHIBIT 13-1. Sample Student Contract

Name (*print*): _____

Preceptor and Site Expectations	Comments
1. Introduce yourself at all first encounters and greet patients and other healthcare professionals with a smile and/or positive inflection in your voice. Speak effectively (*e.g., not condescending, sarcastic, meek, or overly assertive*).	
2. Guard patient information from disclosure and seek permission to disclose information to other parties (*e.g., family, other healthcare professionals*).	
3. Be professional and respectful at all times. Apply knowledge, experience, and skills to the best of your ability.	
4. Demonstrate effective listening skills (*good eye contact, nonverbal cues*) and the willingness and flexibility to contribute to the well-being of others.	
5. Be well-groomed and dress with clothing that is professional in appearance (*e.g., appropriate to the culture of the institution/facility as defined by the preceptor, site dress code, and professional norms*). Minimize wearing of jewelry in patient care areas.	
6. Arrive each day prepared with equipment and assignments. Demonstrate a sense of duty and earnest desire to learn.	
7. Contact preceptor if you are to be physically absent (*e.g., sick*) from a rotation site. Submission of experiential education hour sheets indicating absences at the rotation site that are not reported to preceptor are subject to disciplinary actions.	
8. Notify preceptor if you must work at a job outside of your rotation for >16 hr/week.	
9. Actively participate in all rotational experiences (*e.g., patient rounds, meetings, discussions, counseling*) and complete all requested assignments on time without plagiarism. Demonstrate accountability without repeated reminders.	
10. Do more than you think you can on your rotational experiences (*e.g., request projects to avoid being idle*).	
11. Maintain your student portfolio and actively share with each student, preceptor, and potential employer.	
12. Be present and actively participate in all requested site meetings and presentations.	
13. Meet all requested site deadlines for submission of assignments and presentations.	
14. Submit complete experiential education paperwork at least 48 hours prior to the end of the rotation.	
15. Provide constructive feedback on each preceptor and site after each rotation (*good or bad*) by the deadline given.	
16. Be present for and pass all required student exams (*clinical, community, institutional*) on the assigned dates.	
17. Actively participate in professional organizations and community service.	
18. Investigate professional career options from preceptors, students and the community.	

I have received training on the above expectations and understand my responsibilities.

_____

Student Signature Date

et al.[5] found preceptors reported increases in their enjoyment of the practice of medicine (82%); time spent reviewing clinical medicine (66%); desire to keep up with recent developments in medicine (49%); and patients' perception of their stature (44%). Furthermore, these authors reported their own experiences in precepting pharmacy students during their advanced practice experiences, citing their expectations during the rotation and approach to teaching students.

It is important for schools to develop initiatives to recognize their preceptors. In a 1995 article, Zarowitz[6] describes pharmacy practitioners as having a "fundamental need to be noticed, to feel important, and to be recognized for excellence." Pharmacy practitioners voiced additional reasons for precepting, including enhancement of the practitioner's knowledge of the subject area as a direct result of learner questions, expansion of clinical services to reach more patients, and giving back to the profession.

The reasons for becoming a preceptor are unique to the individual and are usually multifactorial. **The reasons for precepting and its perceived benefits may be divided into two categories—*tangible* and *intangible*. Tangible benefits** include the following:

- *Preceptor development* (preceptor academies).
- *Access to drug information*. Preceptors are required to have access to library resources. Not all colleges or schools are in control of these offerings, but for pharmacists who have limited library offerings, this can provide an excellent resource.
- *Access to free continuing education programs*. Efforts to move the profession of pharmacy toward continuous professional development (CPD) increase the need for specific educational programs. Whether offered specifically for a practice site or as part of a college or school-specific program, continuing education programs can be fit into both the needs and goals of all parties.
- *Adjunct faculty appointments*. The awarding and designation of formal adjunct faculty appointments has been embraced by many colleges and schools of pharmacy and universities. In addition to these faculty appointments serving as a reward, they can also serve as an incentive for practitioners to become involved with and committed to the college or school through establishing new rotations or maintaining existing ones.
- *Awards* (e.g., Preceptor of the Year). Recognitions of this level are a source of pride for the individual preceptor and his or her practice site. It can also be used for advancement in the profession via salary increases or for earning recognition from pharmacy professional organizations, such as in conferment of fellow status.
- *Educational newsletters*. Not only do newsletters provide general college or school information, they can also be used to highlight and recognize activities of preceptors.
- *In-kind gifts*. These gifts may vary, but receiving a gift bearing the college's or school's name or emblem can be a source of pride for practitioners and give a sense of belonging and community.
- *Invitation to college events* (e.g., White Coat ceremonies, commencement ceremonies, receptions at national meetings). College or school events can generate a considerable amount of pride and sense of acceptance among practitioners as well as provide opportunities to reconnect with former colleagues and instructors.
- *Financial incentives and support for professional meetings.*
- *Support in research, grant writing, drug utilization reviews, and quality and performance improvement projects.* Learners can bring a level of energy and experience to these types of activities. In addition,

the college or school can benefit from research opportunities.

- *Technology support.*

PRECEPTOR PEARLS

Familiarize yourself with the benefits of your site's educational affiliation agreements and take advantage of every opportunity to help yourself become a better preceptor.

Intangible benefits:

- *Involvement in faculty committees and advisory boards*. Many people seek a way to give back to their profession. Invitations to participate at this level can provide that opportunity as well as reinforce the level of respect a college or school has for an individual by requesting input on these activities.
- *Networking opportunities with other practitioners*. Having a common tie to other practitioners can be very useful when questions arise in your pharmacy practice or while trying to develop new clinical services.
- *Cognitive opportunities.* Learners provide a different perspective and may ask questions you have never considered. Teaching is an excellent learning tool and improves your own level of expertise in the subject area.
- *Recognition.* Preceptors appreciate being recognized for their contribution to the education of future pharmacists. Recognition can be achieved through verbal acknowledgment at college or school events, certificates, awards, written acknowledgment in a preceptor section of college or school newsletter, and appreciation letters, among other ways.
- *Emotional benefits.* A thank-you note directly from a learner or from the college or school can convey the simple emotion of gratitude that many individuals appreciate.
- *Developing and maintaining clinical activities and services for patients.* Learners can be given the task to help develop a new clinical service, which is both educational and exciting for the learner, as well as valuable to the preceptor and the site.
- *Expanding medication therapy management (MTM) initiatives.* The progress toward improved patient outcomes has been limited by the ability to change patient behaviors. Additional counseling opportunities due to increased manpower (i.e., learner pharmacists) can help improve the lives of the patients, especially in the community setting.
- *Gaining new perspective on existing or new projects.* It is easy to get tunnel vision when working in the same facility or on the same project for an extended period of time. The learner can benefit the preceptor by asking new questions and by providing a new perspective because he or she does not already see the conclusion at the beginning of the project. Learners also bring an experience from their rotations that can provide unique and helpful perspectives. You can direct their experience to include a significant amount of time assigned to a specific project that gives them a quality learning experience and is beneficial to you.
- *Keeping abreast of current medications and treatment modalities.* Many practitioners quickly learn it is difficult to stay current after leaving the academic setting. Journal club presentations, case presentations, or frequent topic discussions can help keep the atmosphere of learning current.
- *Participating in the training of future pharmacists.*
- *Giving back to the profession.*
- *Participating in the evolution of the profession.*

There is never one universal answer to what motivates an individual or what is truly valued.

The list of ideas for ways to recognize and reward preceptors is not meant to be exhaustive; implementing some of these ideas along with other creative reward mechanisms can help build camaraderie, unity, communication, and respect between full-time faculty members and preceptors. More importantly, it will make preceptors feel good about themselves and the jobs they are doing.[7]

Boyle and colleagues[8] provided innovative suggestions to engage preceptors that included recognizing preceptors' excellence, developing preceptors' educational skills, and facilitating preceptors' networking opportunities. Colleges or schools should actively seek ways to benefit preceptors in consideration of the roles they play in learner education.

Preceptors should provide feedback concerning their role as a preceptor, whether solicited by the college or school or not. Similarly, preceptors should take a moment to consider the benefits they receive from their activities and recognize the impact precepting has on their own professional growth. Many pharmacists today have former preceptors to thank for inspiring them to pursue pharmacy to better the lives of patients. Not to mention witnessing a learner or resident successfully embark on their own journey in pharmacy can be one of the most rewarding aspects of precepting. The time and commitment necessary to prepare students and residents pays off in many ways for years to come. The important role preceptors play in all levels of the learner experience should be recognized and appreciated by institutions/facilities, academia, and the entire profession of pharmacy.

Maintaining a Partnership

After establishing an experiential education program at a practice site, the process of continuous quality improvement (CQI) must begin. There are always opportunities for improvement and lessons to learn to become a better preceptor and build a better experience. The preceptor should develop his or her own pre- and post-assessment tool for each rotation and determine the learner's learning preferences early in the rotation. Obtaining learner feedback on the preceptors and the practice site is critical to the CQI process. The college or school administrator should provide a summary of learner evaluations of the site and the preceptors on a regular basis. This may be on an annual or semiannual basis depending on the numbers of learners precepted during a given time period. It is important to ensure the integrity of the evaluation process and maintain anonymity of comments to obtain honest and useful information. In addition, the preceptor should obtain timely oral or written feedback from learners for the purposes of CQI during and at the end of the learning experience. This feedback, whether affirmative or critical, may help the preceptor restructure the rotation, revisit his or her teaching style, or validate the quality of preceptor instruction. Incorporating feedback into the learning experience benefits both the preceptor and the learner. Some practice sites have successfully developed and implemented a separate learner questionnaire (e.g., Survey Monkey) regarding the specific preceptor and rotation to provide more timely alterations as needed for optimal experiences on both ends. The college or school administrator will most likely make periodic site visits. This allows the site coordinator and other preceptors the opportunity to seek his or her advice and for the college or school administrator to share information on best practices observed in other sites. Preceptors can also tell the college or school administrator their personal observations regarding learner preparedness and assimilation of coursework and experiential competencies. In addition to incorporating feedback from the learner or program, CQI should also focus on providing quality experiences, expanding learner capacity, and enhancing preceptor skills.

PRECEPTOR PEARLS

Use your colleges and schools as a resource; have them connect you with preceptors in other facilities who have had similar struggles or found ways to use learners creatively.

Preceptors should also actively seek advice and share their ideas, successes, and failures with other preceptors at their practice site either with peer-to-peer discussions or more formally at preceptor committee meetings. Preceptors should also network with other preceptors in their region to share their experiences with teaching learners and residents and sharing ways to overcome challenges that often arise. Furthermore, they should be encouraged to share those innovations, success stories, and best practices with their peers by presenting at professional organizations at the local, state, and national level. Presenting posters and clinical pearls at regional or national preceptor conferences is both beneficial to fellow preceptors/educators and to preceptors themselves. Publishing articles in pharmacy journals or college or school and/or professional society newsletters is another opportunity for preceptors to tell their story. Sharing common experiences from both the site and college or school perspective is an excellent way to encourage others to consider the benefits and importance of precepting all types of learners. Developing, establishing, and maintaining relationships among preceptors, practice sites, and colleges or schools require frequent and ongoing communication, well-defined expectations, and a commitment to growing the profession of pharmacy and improving the lives of our patients.

DEVELOPING PARTNERSHIPS: THE SCHOOL PERSPECTIVE

The 2016 revisions and updates to the Accreditation Council for Pharmacy Education (ACPE) accreditation standards for the professional program in colleges and schools of pharmacy continue to emphasize the importance of experiential education in the training of student pharmacists.[9] Introductory pharmacy practice experiences (IPPEs) must be no less than 300 clock hours (Standard 12.6), and advanced pharmacy practice experiences (APPEs) must meet the minimum standard of 1440 hours (Standard 13.4). In sum, these experiences approximate nearly one-third of the Doctor of Pharmacy curriculum and are critical to the overall preparation of learners. Colleges and schools of pharmacy are keenly aware that experiential requirements of the curriculum cannot be resourced appropriately without the development of academic partnerships. The consideration of pharmacy colleges and schools to enter into partnerships with practice sites is based on many critical factors beyond accreditation and training requirements. The preeminent partnerships incorporate best practices, specific agreed-upon requirements for each party, legal and liability needs, policy, and financial parameters.

PRECEPTOR PEARLS

Reach out to the college or school to assess their particular rotation requirements prior to scheduling rotations. Some colleges and schools may need the site to handle more required rotations versus electives based on need.

Benefits to the College or School

Partnerships evolve because each individual or group perceives a benefit of working together instead of singularly. Win–win partnerships should always be the goal and provide the greatest benefit to each partner. These benefits should be articulated in writing during the early stages of discussion on forming a partnership for experien-

tial education. The primary benefits for the college or school include access to a quality practice site for learners, increased access to preceptor faculty to participate in didactic teaching, and the opportunity to gain additional recruiting advantages by sharing the partner's contacts or resources. Many sites also provide multiple opportunities for interprofessional education, which is required in the 2016 standards and critical for student learning.[10]

Some partnership agreements for experiential education may also include provisions for shared salary for clinical faculty based at the facility of the partner. These faculty salary relationships can take numerous forms, but one of the most common is that the faculty will be contracted to the partner practice site. Many sites have found that the highest functioning partnership is when both parties have some financial investment in the process. In this relationship, the benefit to the practice site is that the practitioners receive the services of an advanced trained practitioner for a reduced cost without accrued liability for retirement, vacation, or healthcare. The college or school of pharmacy retains the services of a faculty member but shares the cost of that faculty member's salary and benefits with the partner. A critical factor in making these types of arrangements successful is a detailed written agreement that provides clear definition on the amount of work that will be completed at the practice site as well as the college or school. Agreements that establish parameters at the beginning of the partnership and have frequent communication between the college or school and the practice site tend to be highly productive and successful. The site and the college or school should each have a designated individual to be responsible for ensuring the defined workload is appropriate and not exceeded. Overload and burnout can be easily avoided with this vigilant, proactive approach. **Exhibit 13-2** includes a sample of information to be included in co-funded faculty agreements.

These combination faculty support/affiliation arrangements are not without consequences should either party decide to cancel the contract for the experiential training affiliation or the clinical faculty support. Generally, legal counsel or the school business office will provide guidance on whether to bundle educational affiliation agreements and clinical faculty support contracts. In areas where practice sites take learners from multiple schools, specific details on faculty support functions as well as the number of learners to precept from the specific school will be beneficial to both parties. In addition, other benefits include manpower planning on behalf of the site as learners are incorporated into the patient care workload and the school can demonstrate experiential site capacity for ACPE accreditation.

The demand for experiential education partnerships will continue to increase as colleges and schools of pharmacy attempt to find progressive practice sites that are innovative and advance the profession. The increase in student volumes due to the growth in pharmacy education has placed some additional capacity needs in certain geographical areas of the country; however, comprehensive planning in the partnership agreement can overcome many of the challenges. For example, several institutions and schools utilize evening and night shift opportunities for IPPE experiences with positive learner feedback. These experiences provide sites with student involvement at all hours, which is important because patient care responsibilities are round-the-clock. The primary factor is for both the college or school and the practice site to work together for distinctive learner experiences that are beneficial to the students, college or school, and the practice site. The increase in partnership agreements has the added benefit of providing more options to learners when selecting practice sites for rotations. These affiliations increase opportunities for student learning in specialty practice areas that ordinarily might not be available to the college or school through its faculty. Software programs are available that auto-

EXHIBIT 13-2. Sample Co-Funded Faculty Agreement

CO-FUNDED FACULTY AGREEMENT

PROGRAM SUMMARY

This agreement is designed to provide Clinical Pharmacy education in the support of general medicine at the hospital to optimize pharmaceutical care for the general medicine patient population in addition to serving as a model for the safe and effective delivery of pharmaceutical care to all patients. Both the UNIVERSITY and the HEALTH SYSTEM agree that the services will be provided by a Clinical Pharmacist in Internal Medicine defined as someone who has completed an advanced professional practice degree and a minimum of one year of specialized training in Internal Medicine Pharmacy Practice (or equivalent experience), or secondarily by a PharmD student or a Pharmacy Practice Resident or Pharmacy Specialty Practice Resident in Internal Medicine who functions under the direct supervision of the Clinical Pharmacist.

PROGRAM GOALS

The goals of this program are to: (1) provide the highest quality of cost-effective pharmaceutical and medical care to patients treated in the HEALTH SYSTEM consistent with formulary and medication use guidelines established by the HEALTH SYSTEM, (2) establish a site for the training of pharmacy generalists, specialists, and all levels of students in the area of Internal Medicine and investigational drug development, (3) provide a resource to all health professionals concerning drug therapy and other drug information issues that arise in the care of the patient, (4) establish a site for collaborative and independent clinical research activities, and (5) develop a model for expanding clinical pharmacy services throughout the institution.

SERVICE ACTIVITIES

1. Provide clinical and educational support for the Internal Medicine Pharmacy Service.
2. Provide clinical pharmacy services that may include but are not limited to:
   a. Prospective monitoring for drug therapy correctness by evaluating drug selection, drug dosage in relationship to patient's weight and surface area, and laboratory data to minimize risk and ensure a positive patient outcome.
   b. Demonstrate leadership in the prevention, detection, monitoring, documentation, and reporting of adverse drug reactions and medication errors.
   c. Provide both verbal and written drug information to patients so as to ensure a better knowledge and comprehension of the beneficial and adverse effects of drug therapy.
   d. Provide pharmacokinetic monitoring and consultation.
   e. Provide nutritional support consultations for general medicine patients requiring total parenteral nutrition.
3. Assist with creation of policies, procedures, and guidelines concerning acquisition and usage of current and future drugs through participation on relevant HEALTH SYSTEM committees.
4. Develop and implement quality assurance and drug use evaluation programs to meet or exceed standards and guidelines of accrediting agencies (e.g. The Joint Commission, National Cancer Institute).
5. Serve as a resource for newly approved or soon-to-be approved drug products and assist the hospital in developing strategic plans for using these products in a safe and cost-effective manner.
6. Assist in the training of pharmacists, students and technicians working on the Internal Medicine Pharmacy Service.
7. Assist in the creation and maintenance of drug preparation and safe handling guidelines for the hospital that meet or exceed governmental regulations.
8. Assist in the management and control of investigational agents by monitoring adherence to protocol inclusion and exclusion criteria, verifying accuracy of drug dosage calculations and administration procedures, and validating adherence to protocol guidelines and sponsor (e.g., industry, government) regulations.

continued on next page

EXHIBIT 13-2. Sample Co-Funded Faculty Agreement (cont'd)

9. Provide continuing education and staff development programs for pharmacy, physicians, and nursing staff in the area of internal medicine pharmacotherapy.
10. Follows all HEALTH SYSTEM policies and procedures and maintains required departmental and HEALTH SYSTEM competencies.
11. Works on HEALTH SYSTEM campus approximately 50–60% of the time.
12. Reports to the Director of Pharmacy or designee.

TEACHING ACTIVITIES

1. Provide clerkship supervision for up to two students per clerkship for seven clerkship periods per academic year.
2. Provide didactic teaching on topics related to internal medicine as needed for Pharmacotherapeutics and Advanced Pharmacotherapeutics courses.
3. Supervise Patient Assessment and Advanced Pharmacotherapeutics Laboratories as needed.

mate the matching of learners with partners and their preceptors based on factors such as availability, educational requirements of the program, or individual training needs.

Preceptor Development from the School's Perspective

The development of partnerships for experiential education provides opportunities for the college or school to engage in preceptor development through traditional orientation programs, continuing education (CE), or CPD. Colleges and schools conduct orientation programs using a variety of formats, ranging from live presentation to streaming video and usually supplement these presentations with written information in a preceptor manual. Preceptor development can also be one-on-one when experiential education staff visit the site. These opportunities provide an opportunity for preceptors to be updated on new aspects of the experiential education program as well as receiving student feedback from prior rotations. If a college or school does not use a separate preceptor manual, an alternative is to include a standard section in each rotation manual describing essential elements such as the college's or school's mission, overview of the curriculum and purpose of experiential education, assessment methodologies, and grading philosophies.

Professional development offers the opportunity to more formally engage in the advancement of preceptors as essential members of the academy. ACPE mandates that the school foster the professional development of preceptors in relationship to the educational requirements of the program.[11] The American Association of Colleges of Pharmacy (AACP) focuses on facilitating preceptor success in programming available to colleges and schools. Master Preceptor Award winners are also afforded gratuitous short-term membership that can be beneficial to the college and school and the preceptor because of available resources.

An essential element of any partnership agreement for experiential education is the college's or school's ongoing evaluation of the site and preceptors. Site evaluation typically takes two forms: *periodic quality assurance evaluation* of the site to ensure that the program maintains the highest standards of patient care, and *preceptor evaluation and feedback* that are often a byproduct of learner evaluation of the preceptor's ability to provide instruction, engage learners as members of the patient care team, or serve as a role model for the profession. The periodic assessment should be defined in the partnership agreement as to how often and what type of situations can prompt an immediate review of the practice site, such as changes in

preceptor job function or changes in space and facilities.

A highly useful component of preceptor development is the *learner feedback process*. Well-structured and timely feedback allows both learners and preceptors to advance in their skills by identification of strengths and weaknesses and ways to improve their practice. Colleges and schools should have a policy that defines appropriate feedback and procedures by which adverse learner comments can be addressed with the preceptor or site management in a suitable manner. The partnership agreement should also include provisions for addressing a situation where the preceptor believes that the best interests of patient care or site policies and procedures have been compromised or violated. Feedback should be provided in a manner so current learners are not impacted. Preceptor feedback to the college or school is essential and facilitates effective two-way communication for sites with and without shared faculty.

Maintaining a Partnership

The educational programs of the college or school work best when integrated with the pharmacy services of their affiliated healthcare organizations. Routine visits by college and school administrators to practice sites can be valuable in helping to build relationships between colleges and schools and their preceptors. These interactions allow school representatives to better understand practice site dynamics and issues, heighten awareness and understanding of experiential rotations, and help the preceptors with continuous quality improvement of the experiential education. Learner issues regarding their progress, expectations, evaluations, etc., should be addressed at this time. The college or school should take every opportunity to establish, maintain, and improve good working relationships with both administrative and clinical staff at these sites. Colleges and schools that have learners in practice sites that are shared with other colleges and schools are encouraged to work together with the practice site and the pharmacy schools to develop identical learner assessment forms to reduce the complication of multiple evaluation forms being utilized. In some areas of the country (e.g., within states, or regions of the country among multiple states), colleges and schools work collaboratively to share site information such as shared grading forms, that are beneficial to both sites and colleges and schools. Rotation specific times and periods are shared as well. Sites and colleges and schools all benefit from these interactions.

Preceptors can give feedback to the college or school on training requirements and learner preparation as well as on the college's or school's organization and service provided to them. This is also a great opportunity for the college or school representatives to provide preceptors with periodic summaries of the learners' evaluations of the preceptor and site.

Colleges and schools should evaluate the performance of preceptors with established criteria, specifically evaluating individuals for the quality and effectiveness of their practice site, and for the quality of their teaching and mentoring. The evaluation process should consider and acknowledge efforts of preceptor faculty who contribute toward the advancement of the learners' professional development, such as academic and postgraduate advising, career pathway counseling, research, and mentoring activities. Such evaluation criteria should consider not only learner evaluations of the preceptor site, but also well-defined objective criteria for professional service, scholarship, and practice success. These criteria may vary from site to site, college to college, or school to school. Colleges and schools should keep this in mind, especially for sites where they precept students from more than one school. Colleges and schools and their respective partner institutions can consider developing these criteria as a team to bring continuity to faculty employed by the institution as well

as the college or school. Many colleges and schools include awards for preceptors that recognize excellence in experiential education as part of their awards day or graduation ceremonies.

Issues with Partnership Agreements: the College's or School's Perspective

Although the college or school may develop a very structured experiential program and engage in a thorough discovery and development process for its preceptors, there is no guarantee that the partnership relationship will not suffer problems because of poor communication, lack of commitment to experiential education beyond free labor, or issues of leniency with grades. If the practice site is significantly distant from the college or school, lack of specificity in the contract about learner support can also become an issue. As previously stated, clarity of expectations is critical to win–win partnerships.

Many colleges and schools of pharmacy have a long-standing tradition of not providing financial remuneration to preceptors or the site for educational services to learners. The colleges and schools argue that the cost to provide experiential education would exceed budgets if every site required compensation for the time invested by preceptors. Competition from other colleges or schools that provide compensation may complicate college-site or school-site relationships and should be considered on a case-by-case basis. Even in situations where the college or school policies provide compensation to sites or preceptors, some sites will not accept funding and/or are not permitted to accept monetary compensation (e.g., Veteran's Administration institutions). Some colleges and schools provide financial reimbursement to sites for taking a specified number of learners annually with additional funding for informatics or facilities usage. Regardless of the type of situation, the partnership agreement for experiential education should include within the agreement specific language that addresses all financial considerations, if any, involved in the agreement. This can be included as an attachment, exhibit, or a schedule.

ACPE standards and guidelines mandate the establishment of formal agreements between the college or school and practice partners.[11] Percent of sites without agreements must be reported as part of self-study when on-site accreditation teams arrive. Partnership agreements are built on trust, mutual interests, and the benefits of both parties working together. From the college's or school's perspective, the partnership provides learner practice opportunities that might not be available through full-time faculty. From the partner's perspective, the close relationship with a college or school of pharmacy is an opportunity to advance the practice site agenda and impact the educational outcomes of the professional program.

Expectations for the Partnership

Expectations of the Preceptor

As with any partnership or agreement between two or more parties, there are expectations and responsibilities that are required in order to be considered effective. The expectations of the preceptor on site can vary, but there are basic administrative and teaching responsibilities that all preceptors must fulfill. Administrative responsibilities are as follows:

- Orient learners to the rotation and training site. Clearly identify specific services, objectives, and personal expectations.
- Introduce learners to office and ancillary care staff, who will in turn be helpful and make learners feel a part of the team.
- Complete a formal written evaluation of learner performance during the rotation according to the college's or school's policy.
- Contact the responsible experiential program representative to discuss issues of concern and learner performance.

Teaching responsibilities are as follows:

- Serve as a mentor who assists learners in applying knowledge and building skills to perform assigned tasks and to problem-solve patient care.
- Provide appropriate training and supervision.
- Challenge learners with deliberate and thoughtful questions.
- Allow learners to participate in departmental or institutional activities.
- Provide written and verbal feedback to learners in a constructive and timely manner.
- Be available, on site, for assistance during assigned tasks, training, and patient care activities.
- Share learning resources (e.g., texts, computers, educational programs) sufficient to increase learner knowledge and productivity.
- Assign readings, literature searches, or medical information gathering pertinent to patient care.
- Integrate learner's didactic knowledge base into the designated or assigned pharmacy practice site.

Expectations of the Learner

Experiential education is designed to help learners become active participants in providing contemporary pharmacist patient care services. Under the direction of their preceptors, learners will integrate their knowledge of pharmacotherapy, diseases, dosage formulations, and pharmacokinetics in developing and assessing therapeutic plans and evaluating drug selection or optimization for patients. Each rotation should emphasize outcomes-oriented decision-making in clinical situations regarding drug therapy. The Pharmacists' Patient Care Process, adopted by the Joint Commission of Pharmacy Practitioners in 2014, provides a roadmap that learners and preceptors can both use to guide learning.[11]

Learners are expected to attend physician rounds, interprofessional team meetings, and conferences and discussions; monitor and present assigned patients; and interact with patients and healthcare professionals. Over the course of their experience, learners will develop recommendations and participate in decisions about drug therapy with regard to efficacy, toxicity, pharmacoeconomics, and unique methods of drug delivery. This is consistent with the World Health Organization's (WHO) definition of *interprofessional education* stated as "Learning from, with and about other professionals is critical to the learner's ability to interact effectively in an interprofessional manner."[12]

Although the list below is not all-inclusive, learners should be able to perform many of the following functions at the end of their rotations, depending on their level in their respective program:

- Understand the requirement for the pharmacist to accept responsibility and accountability for medication therapy outcomes.
- Dispense and compound prescriptions in accordance with all legal, ethical, and patient care standard practices.
- Prepare sterile and chemotherapeutic products in accordance with the accepted standard of practice.
- Apply case management skills to drug therapy selection, monitoring, and assessment.
- Develop a plan for continuity of care of patients for drug therapy as part of the healthcare team.
- Develop, implement, and document pharmacist patient care plans that manage patient care needs using drug monitoring and physical assessment skills.
- Identify barriers and propose solutions to manage common disease states in traditionally underserved populations with little or no access to the healthcare system.

- Use strategies to improve patient compliance with drug therapy regimens to enhance outcomes.
- Develop practice management skills relating to documentation and compensation issues, managed care, supervision of supportive or technical personnel, and administrative matters related to operations and patient outcomes.
- Demonstrate the ability to integrate distributive and clinical skills in providing pharmacist patient care.
- Actively participate in clinical process improvement activities and population-based therapeutic drug decision-making for targeted populations or groups of patients.
- Demonstrate professionalism behaviors and values that are consistent with the practice of pharmacy.[13]
- Actively participate in activities related to health promotion and disease prevention in a variety of settings.

In addition, learners will maximize their investment in education and the value of their experiential learning program by adhering to these guidelines:

- Contact the preceptor 10 to 14 days prior to the start of the rotation for the schedule, directions to the site, and any other pertinent information.
- Exhibit appropriate professional dress and behavior consistent with the practice site while on experiential learning assignments.
- Meet deadlines established by the experiential learning office, course masters, and preceptors.
- Demonstrate an eagerness to increase knowledge, skills, and abilities through experiential learning.
- Make up any time away from the site for any reason (i.e., illness, religious/school/government holidays, school or personal activities) during the scheduled rotation dates. Be proactive in communication of these needs with your preceptor and experiential education director.

BENEFITS FOR THE SITE AND ACADEMIC INSTITUTION

Pharmacy practice facilities choosing to engage in experiential education of learners in many cases gain as much as they give. Opportunities to incorporate learners into practice settings give numerous benefits to the site and allow additional clinical opportunities to improve patient care. Each site will identify these benefits in ways appropriate to the practice setting, and educational institutions will provide them based on their means. For colleges and schools engaging in partnerships with practice facilities, there are often many more benefits in these relationships. Importantly, student incorporation into the care process at the site can improve medication care processes and provide significant training for the student. Certainly, looking for the win for the practice site as well as the academic entity is the ultimate goal.

Defining the Role of Pharmacists

Faculty Preceptors

In some practice sites, the college or school of pharmacy will provide faculty preceptors. These faculty members can help the pharmacy site provide patient-centered and evidence-based care. Faculty members are clinical specialists who can often allow facilities to provide clinical pharmacy services in additional practice areas. Activities that could be provided include formal and informal medication consultations, patient care rounds, and more committee involvement. Faculty members make positive contributions to the practice site and have a positive effect on the workload. The agreement between the college or school and the institution must define the faculty member's role, including the functions and benefits to the practice site.

Non-Faculty Preceptors

Regardless of whether there are faculty preceptors, experiential learners have the ability to increase many clinical services provided in the institution. Learners on advanced experiential rotations could also assist with medication reconciliation, drug information, discharge counseling, and reporting of adverse medication events.[14] Learners can do pre-rounding and patient work-ups that can assist pharmacist preceptors in providing patient-centered care. Their cost-effective involvement could lead to improved patient care and safety.

Financial and Resource Implications

Benefits can be monetary, in kind, or nonmonetary. Monetary remuneration, in the form of payment for learner rotations, or partial or full salary for co-funded pharmacist staff/faculty preceptors, is a type of arrangement that can be made between the practice facility and the educational institution. Depending on the institution, the pharmacy department may be able to keep the monetary remuneration and use it to provide educational and conference opportunities for staff. In-kind benefits include access as mandated by the ACPE by the facility to university resources not otherwise available, such as advanced online libraries and databases, or access of the site to software, computers, reference books, continuing educational programming, and other resources at no cost to the practice site.[15] Nonprofit institutions also may be able to count education of pharmacy learners as a community benefit; contact your community benefit office to see if it qualifies.

Learners can demonstrate their value to a practice site in a variety of ways, including those pertinent to regulatory agencies, such as The Joint Commission. In the Pharmacy Practice Model Initiative**,** one of the characteristics of an optimal pharmacy practice model is using learners as pharmacist-extenders.[16] Learners are additional resources that can help provide services the pharmacy team is currently struggling to provide. They can monitor and document pharmacist patient care, including functions such as providing adverse drug event monitoring, performing drug usage evaluations, delivering patient education, presenting therapeutic alternatives (e.g., formulary cost savings), and reducing drug expenditures.[5,16,17] With the increased need for pharmacy resources related to transitions in care, learners can conduct medication reconciliations, provide discharge counseling, make follow-up phone calls, and assist in home visits, all of which can potentially decrease readmissions.[18]

Educational and Competence Implications

The informational resources from the college combined with the faculty's teaching skills contribute to continuing professional development for pharmacists and other healthcare professionals within the practice site. Learners also contribute to practice site learning by providing written drug information (often circulated within the pharmacy via a monthly newsletter), in-service presentations, and patient case presentations. Learner programs also give teaching opportunities to pharmacy residents, including opportunities to co-precept and facilitate topic discussions and journal clubs. The development of practice site competence comes from continual learning and the enhancement of critical thinking and problem-solving skills through practice, as provided by the college faculty and learners.[19]

Another benefit can be the development of preceptor training for the practice site by meaningful instruction from the college or school. The AACP has developed standards for exemplary pharmacy practice sites and preceptors to include preceptor and student responsibilities. AACP has a listing of available preceptor development programs created by the 2012 AACP Professional Development Committee.[20]

Personal and Professional Advancement Implications

Pharmacy administrators often define the nonmonetary, sometimes intrinsic, benefits to the practice site. The following perspectives have been noted by the authors as perspectives that pharmacy administrators have expressed:

- If the site has a residency program, the college or school may be able to assist in recruiting residents, or provide opportunities for residents, such as teaching certificate opportunities.
- If a site does not have a residency program, the site may support an environment for the college to provide resources or co-funding opportunities to start a program.
- Assists in recruiting future pharmacist employees. In geographic areas of critical shortage, this is described as one of the top advantages to hosting learners.
- Shortens training time for possible residents or future employees.
- Contributes to the educational mission of the facility.
- Increases pharmacy visibility in patient care areas of the facility.
- Provides professional development of staff preceptors.
- Exposes learners to the concept of advanced training within the practice site as postgraduate year 1 and 2 residencies or fellowships.
- Helps to maintain relationships with educational institutions in areas outside of the experiential education, such as research.
- Allows collaboration with colleges and schools for professional advancement through research endeavors and grant submission.
- Supplies creativity to rethink current pharmacy models and responsibilities.
- Allows opportunities for layered learning with pharmacists, residents, and students as well as interprofessional learning.
- Allows pharmacy to use more of the medical team–based model for providing patient centered care using "attending pharmacists" with residents and students.
- Gains personal satisfaction by serving as teachers and mentors to future pharmacists.
- Provides staff with learners who are a good resource for work on special projects for which pharmacy staff has limited time; similarly, learners often help distribute the workload of an individual preceptor so he or she can do more when learners are present in the facility.
- Educating learners keeps pharmacy staff current because learners are always asking questions. Learners prompt institutions to review practices that may need updating.

Therefore, within the array of tangible and intangible advantages described above, it should be possible to determine benefits to the site that either the facility can recognize on its own, or that can be provided by the college or school of pharmacy.

PRECEPTOR PEARLS

Remember that there are more benefits to precepting than just those listed in the formal partnership agreement. Other benefits come from working directly with the learners.

Benefits for College and School

Clinical rotations, whether advanced or introductory, are not just required but essential to professional education for pharmacy learners. Colleges and schools of pharmacy

greatly benefit from a diverse array of practice sites that allow learners to apply their knowledge skills with established clinicians who practice in these respective areas. Affiliations with practice environments also provide practice sites for their clinical faculty and an opportunity to develop relationships with non-faculty clinicians in the area.

A select group of school experiential education coordinators, questioned about the topic of partnerships with practice sites, has provided the following perspectives on the advantages:

- Allows site evaluations and learner feedback and often provides information about opportunities learners can be given at experiential sites, which can be shared with other practice sites.
- Preceptors can be used for presenters at preceptor development programs and classroom lectures.
- Practice sites that are also potential employers provide feedback on skills that would make newly graduated pharmacists desirable for employment (e.g., immunization skills, MTM certification).
- Sites can provide networking opportunities for potential residency or future employment for learners.
- For new pharmacy schools, relationships with mature sites can convey confidence in the program for current and incoming learners.
- The large diversity of sites has a positive reflection on pharmacy programs.
- Many schools have in their mission to provide CE opportunities for pharmacists in their regional area. The provision of CEs to preceptors can accomplish this mission.
- Allows exposure of pharmacy students to fellowships and residency programs.
- Provides practice sites for faculty and creates additional practice site rotations for learners, including specialized areas (e.g., cardiology, oncology, specialty drugs).

EDUCATIONAL AFFILIATION AGREEMENTS

Partnership or educational affiliation agreements for experiential programs have been in existence in some form since the beginnings of PharmD education. Educational affiliation agreements formalize the relationships between colleges and schools and practice sites to provide additional teaching and training resources beyond college- or school-based faculty. They should describe in detail the responsibilities of both the facility and the educational institution. This is critically important to the accreditation process for Colleges of Pharmacy with the 2016 ACPE Standards for assessments in professionalism, IPPEs and APPEs.

This agreement may originate with either party. If the college or school of pharmacy initiates an agreement and is part of a larger university or system of universities, the affiliation agreement may be standard for all healthcare-related schools and then further defined for each individual program (i.e., pharmacy) in an amendment to the original educational affiliation. In the case where a site originates the affiliation agreement, it could be a standard agreement based with the facility's parent company or owner or it could be specific for the individual institution.

The ACPE, through its accreditation standards for PharmD programs, encourages colleges or schools of pharmacy to develop partnerships that enhance the mission and goals of the program. Guideline 22.2 of the accreditation standards along with the 2016 Standards Guidance Document provides guidance on these agreements[21]:

- They are formal in that they are signed by representatives of the parties to the agreement.
- They define the nature and scope of the affiliation.

- They define the legal liability of the parties to the agreement.
- They define the financial arrangements between the parties of the agreement.
- They define the responsibilities and expectations for each party.
- They provide criteria for termination and sufficient notice of termination.
- They address malpractice provisions, learner disclosures, background checks, immunization policies, and professional conduct expectations.

Guideline 22.2 requires that colleges or schools secure formal affiliation agreements with practice sites used for their experiential learning experiences.[22]

The authors of this chapter reviewed a sampling of affiliation agreements from both large and small programs and found that areas of responsibility usually address much of the following:

- Complete identification of both the educational facility and the practice site (full name, location, type of practice, affiliated institutions, etc.)
- Reference to the need for any additional amending agreements
- Method(s) of conflict resolution
- Responsibilities of the facility, including but not limited to the following:
  - Compliance with all applicable state, federal, and municipal laws, rules, and regulations, and with all applicable requirements of accreditation authorities
  - Permission for a designated university representative to inspect the facilities for the purpose of the educational experience
  - Appropriate supervision of learners by a qualified practitioner and that practitioner's appointment or other recognition within the university (volunteer or adjunct) or articulation of the appointment of the school's faculty to the facility for the purpose of learner supervision
  - Designation of a liaison from the facility to the college or school of pharmacy
  - Provision of appropriate space for learner activities.
  - Provision of equipment, supplies, qualified personnel, and supervised access to patients required for educational activities
  - Maintenance of all required licenses
  - Provision of an orientation to the facility
  - Assumption of sole responsibility for patient care.
- Responsibilities of the educational institution, including but not limited to the following:
  - Provision to the facility with names of the learners assigned to the facility
  - Assignment to the facility of only those learners who have completed the prerequisites for participation
  - Designation of a university liaison to the facility
  - Development of criteria for learner evaluation and grading
  - Requirement that learners be covered by professional liability insurance
  - Assurance that learners have complied with all necessary immunizations and medical releases
  - Removal of a learner from the facility when the learner has engaged in professional misconduct as defined within the agreement (e.g., learner compromises patient safety or discloses confidential patient information) or has compromised patient care
  - Compliance with accreditation standards
  - Periodic review of the program

- Assurance that learners are registered, if appropriate, under state law, as interns
- Assurance that learners have complied with any criminal background history checks and drug screens required by the facility
- Preceptor requirements and a preceptor development plan
  - Terms and termination of agreement and effective date
  - Indemnification of either party
- General provisions, including but not limited to the following:
  - Statement that learners in the pharmacy program are not employees of the facility
  - The number of learners on site during a rotation as well as the number of learners assigned to a preceptor
  - Learner responsibility for transportation and meals
  - Nondiscrimination clause
  - Privacy statement(s)

For residency programs, Memorandums of Understanding (MOUs) are established to delineate the responsibilities of the institution and affiliated college or school of pharmacy. Like co-funded faculty positions, some colleges and schools of pharmacy may contribute to the funding and/or solely support the funding for pharmacy residents; however, the institution may provide the stipend for the resident. The residency program is affiliated with the college or school, but the funding for the resident is provided by the institution. **Exhibit 13-3** is a sample of a residency MOU.

Language that requires the educational institution to guarantee good mental and physical health for the learner is controversial with many universities because of learner privacy and disability issues. In addition, educational institutions cannot guarantee that learners will behave professionally or be highly motivated; however, it is imperative to articulate in writing the sequence of events within both the site and the college or school that are necessitated to address issues of unprofessional conduct. The same learner privacy laws that protect certain learner information (e.g., Family Educational Rights and Privacy Act of 1974, or FERPA) also may, based on legal interpretation on a particular campus, affect the campus policies on learner background checks and drug screens. In addition to these items, agreement regarding reimbursement to the facility or preceptor for learner rotations may be included. Some facilities/sites choose to have agreements that are set up as a separate type of contract when direct payments to preceptors are involved instead of payment to an institution. Although multiple avenues can exist for reimbursement, the overarching requirement is for the process to be clearly defined.

Agreements initiated by the college or school may also define for the site, at a minimum, the expectations for handling behavior issues, how to conduct learning activities, and how to counsel learners who are not meeting expectations. In addition, the practice partner should be expected to complete learner evaluation forms within the time prescribed by the college or school, to deliver the instruction as defined by the college or school or as described in a rotation manual, and to participate in program planning activities.

The process of establishing and maintaining affiliation agreements can be cumbersome for both the healthcare facility and the educational program. Corporations, facilities, or universities need to include language in all formal written agreements that works, to the extent possible, to avoid litigation from other parties. Further complicating the issue are the multiple groups within an organization that may be involved in the review of contracts. All of these combined factors result in agreements that take months to even years to finalize between contractual parties. This can ultimately delay the assign-

EXHIBIT 13-3. Residency MOU Template

PHARMACY RESIDENCY PROGRAM MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM of UNDERSTANDING ("Memorandum"), effective the ____ day of _____, is between The University College of Pharmacy ("College"), and Health-System ("Facility"), a hospital system operating acute care hospitals with pharmacy services in and near (specify location), effective as of _____, 2019 ("Effective Date").

WHEREAS, Facility provides residency training programs with respect to pharmacy education and periodically desires to provide residents in such residencies ("Residents") with training experience by utilizing appropriate facilities and faculty of the College ("Program"); and

WHEREAS, Facility desires to cooperate with College to establish and implement from time to time one or more Programs involving the Residents and personnel of University and the facilities and personnel of Facility.

NOW, THEREFORE, in consideration of the mutual promises herein, College and Facility agree that any Program established and implemented by Facility and College during the term of this Memorandum shall be covered by and subject to the following terms and conditions:

1. RESPONSIBILITY OF FACILITY

Except for acts to be performed by College pursuant to the provisions of this Memorandum, Facility will furnish the premises, personnel, services, and all other items necessary for the residency experience specified herein. In connection with such Program, Facility will:

a. Ensure, based upon information that College will provide, upon which Facility is permitted to rely, that all Residents selected for participation in Program have satisfactorily completed an accredited degree program that is prerequisite for participation in the Program.

b. Develop criteria for the evaluation of the performance of Residents and provide those criteria, with appropriate reporting forms, to the Facility personnel and College personnel who are responsible for supervising those trainees.

c. Inform all Residents and personnel participating in the Program that they are required to comply with the rules and regulations of Facility while on premises of Facility and to comply with the requirements of federal and state laws and regulations regarding the confidentiality of information in records maintained by Facility.

d. Provide information requested by College related to Residents unless prohibited by federal or state law.

e. Provide a pharmacist staff member to direct and manage the Program ("Residency Director"), and to perform various Program-related duties as mutually agreed by the parties. If College expresses concerns about the Residency Director, Facility will acknowledge those concerns and act in good faith to address them.

2. RESPONSIBILITY OF COLLEGE

a. College will aid in promotion and recruitment of Residents.

3. JOINT OBLIGATIONS

a. Selection of Residents. Facility shall be responsible for the ultimate selection of Residents, but Facility may offer the College the opportunity to interview prospective Residents and provide feedback prior to Facility's selection of Residents.

b. Resident Qualifications. As a condition to qualifying as a Resident, and to the extent allowed legally by The University Board of Regents Rules, each Resident shall be licensed to practice pharmacy in (state) or shall be eligible within sixty (60) days of beginning the Program.

c. Employment of Residents. The Resident may be an employee of Facility or the College. Each Resident shall also have an appointment with the College and full staff privileges at Facility and will be integrated into Facility's operations to the extent a pharmacist employed by Facility would be so integrated. Facility may suspend the privileges of any Resident upon a

EXHIBIT 13-3. Residency MOU Template (cont'd)

determination, in its sole reasonable discretion, that such Resident is a danger to employees or patients of Facility or has failed to meet the ethical or professional standards of a licensed pharmacist in the community. In addition, the College can cancel the faculty appointment if the Resident violates any policies of the College of Pharmacy or the University.

d. Preceptors. Facility shall appoint and fund preceptors ("Preceptors") to be directly responsible for Residents' clinical training at Facility. College will require Faculty members of the College who use the Facility as practice site to serve as Preceptors.

5. GENERAL PROVISIONS

a. Residents and University personnel will be responsible for their own transportation, meals, and healthcare while participating in the Program. Each Resident shall be responsible for all expenses and costs of healthcare treatment related to any exposure, injury, illness or disease occurring as a result of or during the Resident's participation in the Program.

b. This Memorandum of Understanding constitutes the entire memorandum between the parties with respect to the subject matter addressed in this memorandum and no prior or contemporaneous memorandum, written or oral, will be effective to vary the terms of this Memorandum. No amendment to this Memorandum of Understanding shall be effective unless reduced to writing and signed by an authorized representative of each party.

c. College and Facility will comply with all applicable federal, state, and local laws, ordinances, and regulations in the performance of this Memorandum of Understanding.

d. The Program and all related activities shall be conducted in a manner that does not discriminate against any person on a basis prohibited by applicable law, including but not limited to: race, color, national origin, religion, sex, age, veteran status, or disability.

e. It is mutually understood and agreed that Facility and College are, at all times, acting and performing under this Memorandum as independent contractors. Notwithstanding the authority granted to Facility and College herein, the parties agree that each Resident shall retain the authority to act in the full scope of his or her licensure and to direct the professional and ethical aspects of his or her pharmacy practice.

f. All information provided to University or Residents by Facility shall be regarded as confidential and shall not otherwise be disclosed by University or Residents. "Confidential Information" shall mean all information obtained by or disclosed to University, University's employees or Residents, which relates to Facility research, development, business information and/or business activities, including, but not limited to, customer and supplier lists, customer or patient information, pricing, policies, procedures, products, methods of manufacture, processes, and/or other trade secrets, confidential information or trade secret information of third parties in possession of Facility employee names, addresses, and telephone numbers, all personnel/employee information, and/or the results of service or work by University or Resident for or on behalf of Facility. Confidential information shall not include information that is previously known to or is independently developed by University with no resources of Facility, information that is publicly disclosed either prior to or subsequent to University's receipt of such information through no fault of University, or is required to be disclosed pursuant to judicial or administrative process or other requirements of law, including State Government Code Chapter XXX (the State Public Information Act). Except with the prior written consent of Facility, University and Resident shall hold all such Confidential Information in confidence for Facility, and agrees not to disclose such information to anyone outside Facility, or use such information for the benefit of anyone other than Facility, during or after the term of this Memorandum.

6. NOTICES

All notices under this Memorandum shall be in writing and delivered either by personal delivery or by United States certified mail, return receipt requested, to the address shown at the signature line of this Memorandum for the respective parties intended to receive them. Such notices shall be deemed given when received by such party's designated representative.

continued on next page

EXHIBIT 13-3. Residency MOU Template (cont'd)

7. ORAL REPRESENTATIONS

No oral representations of any officer, agent, or employee of Facility, University, or System shall affect or modify any obligations of either party under this Memorandum or any Program Memorandum.

8. AMENDMENT TO MEMORANDUM

No amendment to this Memorandum shall be valid unless reduced to writing, signed by an authorized representative of each party.

9. ASSIGNMENT

This Memorandum may not be assigned by either party without prior written approval of the other party.

10. PERFORMANCE

A delay in or failure of performance of either party that is caused by occurrences beyond the control of either party shall not constitute default hereunder, or give rise to any claim for damages.

11. TERM AND EFFECTIVE DATE:

This Memorandum shall continue in effect for an initial period ending one (1) year after the Effective Date ("Term"). After such initial Term, this Memorandum shall continue from year to year unless one party gives the other party one hundred eighty (180) days prior written notice of intention to terminate, but the Term will not exceed ten (10) years. If such notice is given, this Memorandum shall terminate (a) at the end of such one hundred eighty (180) days; or (b) when all Residents enrolled in the Program at the time such notice is given have completed their respective courses of study under the Program, whichever event occurs last.

12. APPLICABLE LAW

The validity, interpretation, performance, and enforcement of this Memorandum and any Program Memorandum shall be governed by the laws of the State.

13. HIPAA

The parties agree that:

a. the Facility is a covered entity for purposes of the Health Insurance Portability and Accountability Act (HIPAA) and subject to 45 CFR Parts 160 and 164 ("the HIPAA Privacy Regulation");

b. to the extent that College Residents are participating in the Program and College faculty members are providing supervision at the Facility as part of the Program, such Residents and faculty members shall:

   1. be considered part of the Facility's workforce for HIPAA compliance purposes in accordance with 45 CFR §164.103, but shall not be construed to be employees of the Facility;
   2. receive training by the Facility on, and subject to compliance with, all of Facility's privacy policies adopted pursuant to the Regulations; and
   3. not disclose any Protected Health Information, as that term is defined by 45 CFR §160.103, to College which a Resident accessed through Program participation or a faculty member accessed through the provision of supervision at the Facility that has not first been de-identified as provided in 42 CFR §164.514(a);

c. College will never access or request to access any Protected Health Information held or collected by or on behalf of the Facility, from a Resident or faculty member who is acting as a part of the Facility's workforce as set forth in Section 15(b) of this Memorandum or any other source, that has not first been de-identified as provided in 45 CFR §164.514(a); and

d. no services are being provided to the Facility by the College pursuant to this Memorandum and therefore this Memorandum does not create a "business associate" relationship as that term is defined in 45 CFR §160.103.

ment of learners to a facility. It is incumbent on both parties to search for mechanisms to facilitate this process to the extent possible.

Partnerships are voluntary agreements based on trust that each partner will fulfill the roles that the agreement defines. A successful partnership is more than a contractual agreement—it requires that both partners feel that their interests are equally represented.

Ways to Become a Better Preceptor

An excellent opportunity for nurturing a successful partnership exists between colleges and schools of pharmacy and clerkship preceptors. Colleges and schools provide critical support and training to preceptors to maximize the experiential component for learners. Precepting is an iterative process that enhances clinical and teaching skills for the preceptor who is fully committed to self-improvement and takes full advantage of school-sponsored training. Unlike classroom teaching, the one-on-one preceptor–learner relationship demands that the preceptor tailor the teaching method to meet the learner's needs. This individualization allows the acquisition of new skills and builds confidence for the preceptor.

Preparation

The didactic information provided to pharmacy learners by college- or school-based faculty comes to life in clinical settings under the guidance of strong preceptors. The ACPE requires colleges and schools of pharmacy to provide training programs for their preceptor colleagues.[21] It is important to take full advantage of the training programs provided by professional educators who offer excellent teaching tips and techniques. Be willing and prepared to share precepting challenges and success stories during these sessions, to contribute to the collective group learning process and individual goals of improving precepting skills. In addition, having a written individualized preceptor development plan will assist the practitioner in elevating his or her skills. ASHP has a wealth of resources to incorporate into a preceptor plan such as documented improvements to practice, formal recognition by peers, committee service, and active service.[22] Although ASHP is focused on health-system practice, the preceptor development ideas can be applied across all practice settings. Preceptors can learn how to be more efficient and effective by tailoring their teaching to the learner's needs, sharing their teaching responsibilities, and broadening the learner's responsibilities.[23]

Ideally, the learner should contact the preceptor prior to their experiential education start date to prepare both the learner and the preceptor for the most successful outcome. The partnership between the preceptor and the learner is critical to the learner's achievement. Important questions to ask include the following:

- What are the learner's professional goals and objectives?
- How much and what type of previous experience has he or she had?
- What did the learner like and dislike about previous experiences?
- How best does the learner learn (e.g., reading, observing, doing, teaching)?
- Why did the learner choose your clinical rotation (if he or she had a choice)?
- What are the learner's goals and objectives for the clinical rotation?
- What does the learner expect from you during the rotation?

The learner needs to know where and when to meet you on the first day, but also what to expect during the experiential rotation with you. Although understanding expectations is important for the learner, it is also essential for the preceptor to understand what the learner needs. Open lines of communication between the learner and preceptor throughout the experiential rotation will provide the necessary feedback needed to create a valuable learning experience for the learner, assist you in making

sure you are meeting the learner's needs, and improve your own preceptor skills.

PRECEPTOR PEARLS

Use different colleges' or schools' rotation schedules to your advantage by having current learners help with orientation and training of new learners.

Getting Started

From the beginning of the rotation, provide daily feedback on the learner's progress. Cite specific successes each day and offer coaching in areas that need improvement. It is helpful to role-play with the learner to practice communicating clinical recommendations before meeting with other healthcare providers, especially if it is early in the rotation experience.

Use these opportunities to fine-tune your own teaching skills. Remind the learner that it is a symbiotic relationship and a trusted partnership in which he or she has the responsibility to provide specific feedback on your role as their mentor. Ask the learner if you are meeting the specific educational needs and whether there are any suggestions for improving your precepting.

Be patient and persistent. Some learners are not comfortable, initially, being direct with preceptors but will gain confidence over time. Constructive feedback is the greatest gift learners can give to you. Creating an environment in which the learner feels comfortable providing feedback to the preceptor is critical to obtaining the information needed to improve your precepting skills. Utilize active listening techniques and ask clarifying questions.

Evaluation

Regardless of the college's or school of pharmacy's evaluation schedule, take the time to provide the learner with a formal progress evaluation each week. This provides an opportunity for the learner to alter his or her participation to meet expectations and reduces your frustration with underperforming learners. Consider having learners write a weekly reflection about what they have done and learned that week, to which you respond. During this evaluation, set aside time for the learner to evaluate you. Together, you can plan improvements for each of you to sustain a positive rotation experience.

Formal evaluation requires time and thoughtful preparation. Keep track of specific examples you can use to illustrate both achievements and challenges for your learner. Ask the learner to discuss your strengths and opportunities for growth as his or her preceptor. Specifically inquire about his or her favorite and least favorite parts of the rotation and listen carefully to discover hints about your skills as a preceptor.

Finally, make sure you receive feedback through the college or school of pharmacy's formal evaluation process. Although academic institutions rules vary, most preceptors receive some type of evaluation that can be very useful in self-improvement activities. Ideally, organizations and preceptors should partner with the colleges and schools to create the most useful evaluation and feedback tool for learners, preceptors, and the college or school. This collaboration leads to continuous improvement for the clerkship programs and preceptors. Evaluations generally focus on the following:

- The preceptor's preparation for the learner
- The preceptor's accessibility and willingness to answer questions
- The preceptor's attitude toward the learner and toward the clinical experience
- The quality and quantity of feedback
- The independence granted to the learner
- The preceptor's ability as a role model

Preceptors and colleges and schools of pharmacy rely on each other's unique contributions to produce the highest quality pharmacist graduates. Nurturing this partnership ensures that learners receive a balanced education that integrates didactics with practice. The additional professional benefit from precepting pharmacy learners is the opportunity to "pay it forward." In turn, learners will keep you on your toes and encourage your development as a better pharmacist and preceptor by providing challenges. Building your precepting skills ensures that your learners are well prepared to meet the professional demands they will face and ensures the future of pharmacy.

PROVIDING FEEDBACK TO COLLEGES AND SCHOOLS TO IMPROVE LEARNER COMPETENCIES

There is nothing unique about the important elements of a good working relationship with a college or school. As in most relationships, good communication and clear expectations are critical. Other chapters discuss the ways of developing effective communication and effective evaluations. Hopefully, you—as the preceptor—will be giving only positive feedback to the college or school, but it is just as important to be honest about problems and issues. An important element preceptors bring to the learner evaluation process is the opportunity to observe their abilities and skills on a one-on-one basis in clinical practice. This is not always possible during didactic learning settings.

PRECEPTOR PEARLS

As soon as you feel there might be challenges with a learner, document concerns and notify the college or school. The more time you have for the learner to improve during the rotation, the better.

Establishing Relationships with Colleges and Schools

The first step in this process is to establish the appropriate contacts and the best methods for communicating with those individuals. There are generally several ways to identify these individuals. The best practice is to obtain an updated contact list from each college or school that your organization has an established affiliation agreement. Another option is to consider asking other preceptors who their contacts are, or if you are new to an area, to check the college or school websites and send an inquiry e-mail to site coordinators. Different colleges and schools will have different organization structures, so it is important to determine which college or school personnel handle specific issues (e.g., scheduling the learners, handling performance issues). Contact these individuals before there are any issues to help establish a relationship that can be useful in problem solving.

Encourage regular site visits from the main college or school contacts. These visits allow the college or school to see what type of rotation the learner is experiencing. They also allow the college or school to provide feedback to preceptors and outline resources they have available. In an ideal partnership, the academic institution would be in contact with the site on a routine basis and visit the location regularly. The number of visits to the site depends on the experience of the preceptor, the feedback from the learner, and the college's or school's ability to ensure that the practice site is ideal for their students.

Another important area is the process required to document learner performance. Colleges and schools are required to maintain adequate evaluation records to meet accreditation and regulatory standards. It is very important to have clear documentation on a learner's performance throughout the rotation and not just at the end of the time together. High-performing rotations consist of daily feedback and documentation throughout a rotation.

Beyond just the direct feedback to the college or school about performance, feedback on scheduling is important. College or school coordinators must work with many different sites to coordinate schedules for often hundreds of different learners at one time. Help colleges and schools plan their schedules by advising them of the dates you will not be available at your work site. Many colleges and schools have availability forms to complete. Please make sure to complete this on time and to indicate times you will not be able to take learners. Keep in mind annual vacations and times where precepting resources might be less (i.e., when a new resident class is starting or during major projects in the department). It is useful for the college or school to know if the learner is going to have to be in different locations due to a preceptor's vacation or other scheduling conflict. This information allows the college or school to relocate the learner if needed. As soon as you are aware of workflow or staffing changes that will affect your site's ability to take learners, you should let the college or school know. Schedules change, but advance notice will allow the college or school to find alternative sites or adjust times. If you change your work site, inform the college or school of this as well. Developing a good relationship with quality preceptors can be difficult. Many colleges or schools want to maintain the relationship not only with the site, but also with the individual. Open communication is critical for a successful relationship between the site and college or school of pharmacy.

PRECEPTOR PEARLS

Work with your college or school to see if having "block" rotations, or having a learner for more than one rotation, is a possibility.

Establishing Expectations of the College or School

At the same time you establish your relationships, you should establish your expectations of the college or school. Tell them how far in advance you need a schedule of learners. Explain the onboarding process for learners at your site. Let them know if your site requires any specific paperwork to be completed before learners arrive on site and how far in advance you need it. Let them know if there are times that you are not able to take learners due to vacations or workload. Tell them the best way to contact you.

In establishing your expectations with the college or school, ask whether you will be getting learner feedback on your activities as a preceptor and how you will receive that feedback. The college or school must work to balance the need for honest feedback from the learner with the need for preceptor feedback, taking into account the learner perceptions of possible negative repercussions if providing critical comments. It is, however, appropriate to ask how and if this feedback might be available.

The college or school should provide basic goals for rotations. You can use these as a baseline for creating your expectations of the learners. Communicate these to the learners and use them as a basis of your evaluation. Establishing your expectations with the learners may help avoid misunderstandings and give them specific goals to work toward. If you find that the goals for a rotation need updating or improvement, also communicate that with the college or school. This allows for improving future rotations. Remember that, because you work one-on-one with the learners, if problems arise, you should also share your expectations with the college or school so they can understand your point of reference.

PRECEPTOR PEARLS

It is critical to establish expectations with the learners, but it will also benefit the partnership if you communicate your expectations to the college or school.

Sharing Evaluations

The next level of communication should include honest evaluations about learner performance. You should try to be as objective as possible and limit the influence of personality differences. It can be helpful to review the specific goals of the rotation and relate comments back to these. Likert scales on learner skills may be an efficient manner of evaluation, but written comments make it possible to develop a full picture of strengths and weaknesses. Be specific and cite examples in your written evaluation. Written comments not only improve learner understanding of strengths, but also help the college or school compare activities and skills between rotations.

As with most effective relationships, the communication between colleges or schools and preceptors should start early and occur often. If you are having problems with a learner, notify the appropriate individuals as early in the rotation as possible.

If, in the first weeks of a rotation, a learner is not meeting expectations, express your concerns to the school no later than the midpoint of the rotation. This allows time to address specific problems and create a plan to improve the learner's outcome. If learners need to improve in a particular area clinically or professionally, it is important that it is addressed early so they can improve.

If a learner cannot improve his or her performance to successfully complete the rotation, and it is necessary to give a failing grade, the college or school is now also prepared to make additional plans. Informing the college or school of the problems you experience with a learner allows the college or school to put together the entire picture if the learner appeals the grade. If a learner is having difficulty in the experience, consider the following issues:

- Is there a problem integrating knowledge with clinical decisions?
- Is it a communication problem?
- Is there difficulty working effectively with physicians, nurses, or other healthcare providers?
- Does the learner lack confidence in his or her clinical skills?

These issues can be difficult to overcome, but it is essential for college and schools to know about these crucial skills. If a learner is having problems with these issues with you as a preceptor, these same problems may continue on other rotations if they are not addressed.

PRECEPTOR PEARLS

Be sure to address problems as they arise, and communicate them to the college or school as appropriate.

Working with Problem Learners

Preceptors and colleges or schools should undertake all efforts possible to identify any barriers to learner success. The first step is, of course, to discuss these issues with learners while keeping the college or school aware of your concerns. The next step is to get the college or school involved in problem solving. When working with a learner who does not meet the minimum requirement, work with the college or school to develop a plan for improvement. This plan could include moving the learner off site until issues can be resolved, assigning additional reading, or providing additional time on a rotation.[24] If these interventions still do not

allow the learner to progress, and failing the learner is necessary, document the actions you took to help the learner. The college or school also needs specific details on how the learner failed to meet expectations because the learner can appeal that decision. The college or school cannot accurately represent its side without details. Documentation of all details is important, including concerns about work problems, such as tardiness.

When examining the barriers to success, consider personality issues, cultural issues, personal issues, and lack of knowledge. These problems can make for a difficult preceptor–learner relationship, but by specifically addressing them, it may be possible for the learner to succeed in the experience. Colleges and schools often have experience resolving these issues and can serve as a resource for preceptors as well as a resource for learners to find outside help if needed.

PRECEPTOR PEARLS

Do not be afraid to fail a learner; you just might do him or her a favor. Be sure to fully document your reasons, however, so as to ensure you do not act unjustifiably.

Issues such as personality differences or cultural influences may not be able to be resolved, but a working relationship is still possible. Although it would be nice to be friends with your learner, your primary goal and responsibility is to facilitate learning. Let the college or school know if you need help addressing these issues or finding ways to create workable solutions.

Failing Students

The college or school is using you to help teach their students, but it is unreasonable to expect them to have a solution to make each student perform exactly the same way, or to assume the college or school can solve all problems. Difficult students cannot always be moved from the site. School faculty struggle with how to motivate students just as preceptors do. The colleges or schools should be viewed and treated as a partner in developing students into practitioners.

You also should not assume that the college or school will take care of a problem you do not want to address. If you do not fairly evaluate a student because you do not want to deal with the emotional side of failing a student, the college or school has no grounds on which to fail a student. Failing a student is, hopefully, a rare event, but you should always consider the impact the student will have on the profession and future patients. The decision to fail a student should not be taken lightly and will never be an easy experience. Failing a student may ultimately give that person the opportunity to become a better practitioner. Remember, if the student does not meet expectations, it is the student who caused the failure, not you. This relates back to the importance of establishing your expectations early and using these as the focus of your evaluation. Expectations are ideally shared on day one of the rotation in a written format such as a syllabus for the rotation. Most colleges and schools require a syllabus for a practice experience and including all the expectations in this document is considered "best practice."

Make sure to document all steps you take to address deficiencies. Let the college or school know you are intending to fail a student and provide them with documentation as a basis for your decision. Explain to the student how you reached this decision and how he or she can avoid it in the future.[25]

Assimilation of Learning: From Classroom to Patient Room

Finally, if a learner has knowledge deficits, it may be possible to assign additional readings or tutorial time. Consider requesting the learner to review his or her college or school notes with you so you can draw parallels from the learning experiences. If you have

discovered a significant knowledge deficit that affects a learner's performance, the college or school may have resources to help address the problems as well.[26]

There are many theories on effective teaching styles. Within healthcare education, colleges are moving away from what is known as *passive learning* (e.g., a professor who serves in the role of expert, verbalizing information to the learner or student) to more active styles of *small group and problem-solving styles*.[16] However, when the learner's reasoning and decisions are going to directly affect a patient, the impact on the learner can be significantly different. It is important to emphasize problem solving rather than memorization and discuss the differences in clinical decisions. It is also important to discuss why guessing, even correctly, can result in unnecessary risk to the patient. If the learner recommends an unusual or nontraditional treatment plan or does not fully understand the reasoning behind his or her choice, suggest that he or she present evidence from the literature to support the plan. Discuss why it is inappropriate to defend a treatment option with such unsupported statements as, "They say," or "That's what my professor told us." This emphasizes the importance of evidence-based medicine and develops the habit of lifelong learning.

It is also very important for preceptors to provide information to colleges and schools of trends they see from their learners. These trends such as poor drug literature skills, lack of particular drug knowledge, or lack of recognition of generic drug names, if identified, can be opportunities for colleges and schools to adjust curriculum to make sure it meets the needs of learners.

SUMMARY

The activity of precepting can be equally rewarding and challenging, but remember that there are resources and tools available. Preceptors should work to access and utilize the tools the colleges and schools of pharmacy offer and view them as partners in the student learning experience. If preceptors become aware of tools that are beneficial to them but not offered by the college or school, sharing that information with the college or school may benefit all preceptors with whom the college or school works. Experiential training is just as essential as all other formalized training pharmacy learners complete. Colleges and schools of pharmacy strive to improve didactic teaching techniques and experiences, but this is only one step in the overall assessment process. They also try to find the best instructors for all aspects of experiential education across the entirety of their curriculum—the preceptors. Preceptors help turn classroom learning into hands-on skills. As such, the colleges and schools depend on the preceptors to provide truthful evaluations of learner skills and judge their ability to be pharmacy practitioners. Preceptors have a unique opportunity to work one-on-one with learners and thoroughly evaluate their skills. The colleges and schools are dependent on preceptors to share this information with learners and the colleges and schools for the benefit of all.

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14

Career Advising

Michael D. Sanborn and Kristine K. Gullickson

> What is the recipe for successful achievement? To my mind there are just four essential ingredients: Choose a career you love, give it the best there is in you, seize your opportunities, and be a member of the team.
>
> *Benjamin F. Fairless*

Career advising is an important element of the preceptor–learner interface. Preceptors have the ability to make an immeasurable impact on a learner's career path and long-term career satisfaction. The enthusiastic preceptor who models professional pharmacy practice behavior and strives for excellence can ignite the learner's passion for the profession. Oftentimes, the preceptor's interaction with a student is the first experience the student has had in that particular pharmacy environment.

The doctor of pharmacy student who crosses the threshold of your pharmacy is not a blank slate, but is a complex mixture of a multitude of life experiences that you may or may not share. In that context, the preceptor has the unique opportunity to make a difference in partnering with the learner to provide a positive and enlightening rotational experience while introducing new career possibilities. For preceptors, helping students explore and plan different career paths is imperative, regardless of the field or stage a preceptor or student is either entering or is in currently. The goal of this chapter is to assist the preceptor in expanding and guiding the learner's knowledge regarding various pharmacy careers and helping them navigate the path to obtain the experience and skills required on the journey toward their future career goals.

CHARTING A COURSE

It is never too early (or too late) to start the process of charting a career plan, and preceptors can play a key role

LEARNING OBJECTIVES

- Describe the imperative for preceptors to engage with learners in developing their career plan.
- Identify tactics for preceptors and learners to participate effectively in the career path planning process during and after rotations.
- Identify, contrast, and be able to discuss the majority of different career path opportunities available for pharmacists.
- Define and describe the benefits of postgraduate residency and fellowship programs to further pharmacy practice training.

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LEARNING OBJECTIVES (cont'd)

- Describe pharmacy practice opportunities that may require additional training, education, and additional credentials based on clinical competencies.
- Review other helpful methods to assist learners in the career planning process.

in engaging learners to help them navigate this process. Although it seems natural for a preceptor to guide students and residents toward a particular career path relative to his or her own choices and views, it is imperative to avoid this bias. Students and residents should be encouraged to define their own unique passions, be proactive in exploring new opportunities, and be open-minded through all of their rotations so that they can make informed decisions about their future career paths. The preceptor can contribute to this process by providing an overview of pharmacy practice settings and roles to help with career path decisions. Helping the learner understand the advantages and disadvantages of various career choices is also important. Although there is a wide variety of contemporary pharmacy practice settings available to the learner, the two most common settings are:

1. Health-system practice, offering hospital, community, or ambulatory practice settings.
2. Community based care, including independent, compounding, and chain pharmacies.

Health-system and community-based practice settings may also include exposure to practice environments such as specialty pharmacy, post-acute, home care and home infusion pharmacy, hospice and palliative care, and managed care. These practice settings offer pharmacists the opportunity to work within healthcare teams, provide direct patient care, and be accountable to helping patients achieve optimal medication outcomes across the continuum of care. Learners should be encouraged to pursue opportunities to see as many of these settings as possible and be open to the commitment (e.g., commute, gas mileage) it may take to make it happen. Pharmacy practice models reach across the continuum of care to allow pharmacists to be involved in everything from direct patient care and collaboration—to ensure safe care transitions between settings—to decision-making for insurance plan benefit programs administered by managed care organizations (MCOs), including pharmacy benefit managers (PBMs).

Pharmacists may have once considered technology a threat, but it has ultimately led to expanded career opportunities for them. For example, the electronic health record (EHR) with electronic prescribing has automated traditional order review with clinical decision support to process formulary changes, drug interactions and dose checking. Drug distribution technology has revolutionized traditional dispensing with advancements in robotics and automation. Telehealth pharmacy services allow for remote dispensing and supervision of technicians as well as expanded patient access to pharmacists to perform services such as medication therapy management, medication reconciliation, and patient counseling. Over time, all of these technological advancements have systematically liberated the pharmacist to spend more time in direct patient care roles.

A preceptor can tailor the rotational experience to facilitate career planning in several ways. For example, you may tailor the experience to the student's interests and expand the student's knowledge base of those areas while continuously pointing out career paths that match student interest. Alternatively, the rotations could be tailored to cover gaps in the students' knowledge with exposure to new practice environments. Examples include introducing him or her to an ambulatory care clinic, shadowing in

the microbiology laboratory, providing the opportunity to participate in a leadership project, or inviting the learner to accompany the preceptor at a networking event or professional organizational meeting. These experiences enrich the learner's existing knowledge and may provide a window to new career options that would have otherwise been unknown. For students and residents, it is important to help set the expectation early that they may not achieve their ideal dream job or practice setting right out of college or residency. Learners should be encouraged to embrace the journey, including the people they work with and the experiences they will gain along the way, to achieve career success and personal fulfillment.

CAREER PLANNING: THE PRECEPTOR'S ROLE

The role of the preceptor is paramount in preparing learners to provide medication-related care to patients, but it is equally important that the preceptor contribute to preparing learners for informed decision-making about their future career in pharmacy and contributions to the profession. The preceptor can make a huge impact on the learner by introducing him or her to the wide breadth of pharmacy practice opportunities and by encouraging the student to be open-minded in exploring these options through rotations and other relevant experiences. Additionally, the preceptor can help the learner understand other vital components to career success such as professional networking, continuous professional development, the value of working in a healthcare team, and work–life integration.

According to ASHP's accreditation standards for postgraduate year 1 (PGY1) pharmacy residency programs:

- "Preceptors must demonstrate a desire and an aptitude for teaching that includes mastery of the four preceptor roles fulfilled when teaching clinical problem solving (instructing, modelling, coaching, and facilitating)."[1]
- "Preceptors must be committed to providing effective training of residents and being exemplary role models for residents."[1]

The first step in assisting learners in developing their career plan is to role model professionalism and to demonstrate a genuine interest in supporting the learner through the process. The preceptor should assess the learner's understanding of the pharmacy profession, determine the learner's own career goals, and engage them in discussions on broad leadership topics. It is important to ask the learner about the different pharmacy practice environments he or she has experienced either on rotation or through previous employment. The learner may overlook certain career opportunities because he or she has decided that a certain area is not a good fit, even though their direct experience in that particular practice specialty is lacking. In this situation, it is helpful to discuss focusing on encouragement and openness to new experiences, finding ways to tailor the rotation to fit career goals, and providing the student with possible unique rotation options. After reviewing the available options, the student should reflect on these options and formulate an action plan to achieve their unique goals. The key is to listen. Be a sounding board for the student, who may rarely have the opportunity to share his or her ideas and plans with an experienced pharmacist.

Preceptors should always provide learners with feedback regarding their ideas about their career plan in a timely, constructive, and positive manner. Throughout the rotation, preceptors can discuss and review various rotation experiences as they relate to career options. Effective methods of impacting the learner's career choices include the following:

- Discuss alternative career options the student may not have considered.
- Expose the student to additional experiences within or outside of his or her desired area of practice.

- Review career path enhancements such as residencies, fellowships, additional degrees, and board certifications.
- Continuously coach learners regarding next steps as they move toward a desired career path.
- Review career resources that are available to the learner.
- Instill the idea that student and residency programs are effectively also job interviews. Therefore, trainees should always demonstrate their best performance to receive quality references and/or future employment opportunities.
- Assist the learners in building their professional network by helping arrange meetings among students, residents, practitioners, and leaders in areas of interest.
- Expose learners to healthcare teams and share positive examples of intra-professional collegiality within and outside the department of pharmacy.
- Reinforce the importance of professionalism and professional organizational involvement early and often.
- Have candid conversations with the learners about work–life integration and let them ask you questions about your experience as they formulate their own work–life plan.

PRECEPTOR PEARLS

Start a conversation with the learner about career planning. Consider using the following questions during your dialogue:

- ***Have you thought about an immediate post-graduation plan? A 3- to 5-year plan?***
- ***What areas of pharmacy practice do you have the greatest passion for? Ask them to share an example as they explore why this area ignited their passion over other areas.***
- ***What patient care experiences or practice activities did you like doing the most on your rotations? What did you enjoy doing the least?***
- ***Is there an example of a project or patient experience that you are most proud of?***
- ***What are the most important things to you in relation to a pharmacy career (i.e., patient care, working as part of a team, money, challenge, work–life balance)?***
- ***Describe the best team experience you had while on a rotation or at work.***
- ***Are there areas of pharmacy practice to which you have not been exposed?***

The last pearl highlights one of the most important aspects of developing an informed career plan. The preceptor can be invaluable in encouraging the learner to develop a critical appraisal of possible career options. Ask the learner to begin identifying the advantages and disadvantages of various career options from his or her point of view. Remember that although you may find a particular aspect of a career as positive, your student or resident may not see things the same way. For example, some students may initially be intimidated by rounding with physicians and other healthcare professionals as part of the healthcare team or interviewing a patient to obtain a medication history. The preceptor should continue to work with the student to build confidence in these types of skills but can also help the student recognize that not all roles require these aspects of patient care. It is important to help him or her understand the distinction between disinterest and lack of confidence or experience. An astute preceptor should be able to assist the learner to maneuver the fine line between the two.

The preceptor can also serve as a mentor to the learner by being open to sharing his or her personal background and experiences

that have helped shape their career path. An effective mentor should highlight both positive and negative experiences and provide examples of career successes as well as opportunities that might still be pursued. Engage learners by asking them to share their own experiences to date and identify why that particular experience did or did not work out as expected. Preceptors should be open, approachable, and vulnerable to sharing their own stories, and in turn learners will understand they are a priority during this critical point of their training. This experience will build trust and respect as well as demonstrate support to the learner through the next career step, whether that is finding employment or seeking advanced training opportunities.

Mentorship can be either a lifelong relationship or a time-delineated professional experience. According to the ASHP Pharmacy Student Forum's mentor match program, the "mentor and mentee should agree on mutual expectations about time commitment and communication at the start" of and throughout the relationship.[2] A decision to discontinue the mentor relationship is perfectly acceptable when both parties feel that the full benefit of the relationship has been achieved. This might be at the end of a learning experience rotation or could extend further. The preceptor–learner bond you build during your experience with students and residents could turn into a mutually beneficial relationship that may last for years. Never underestimate the impact the preceptor can have on learners, and always strive to be the role model that learners deserve as they embark on their new careers in pharmacy.

CAREER PLANNING: GENERATING INTEREST FROM LEARNERS

There are some unique ways to increase the learner's interest and participation in career planning. Preceptors can help students start their career planning efforts by asking them to visualize the end of their careers. Some mentors may ask students for their short- or long-term goals or use another unique method, which may include asking the student to develop an obituary, a personal mission statement, or principles of practice statement. Fred Eckel, a pharmacy professor at the University of North Carolina, has assisted many health-system leaders using this future reflection process. Students and residents who participate in this type of activity often walk away with a more detailed career plan that they can visualize, and it motivates them for the future. They can then begin to implement and revise this plan throughout their lives. This process is analogous to the visualization techniques that premier athletes use to create a mental image of success, such as returning a punt for a touchdown or running a record time in the quarter-mile. Decision-making becomes clearer and easier when the learner has a more detailed vision of the future. When working to generate interest in career planning with the learner, the preceptor should take the opportunity to introduce the concepts of career ladders (i.e., starting somewhere and working your way up the ladder). Postgraduate residency training (e.g., PGY1, PGY2), board certification, and participation in leadership opportunities can often enhance advancement opportunities and may help set the learner apart from their peers. It is important to stress that these advanced training opportunities have almost become a prerequisite for a number of entry-level health-system pharmacy positions; if they are part of the learner's career plan, they should be planned early and navigated with mentor support along the way.

Another way for preceptors to generate interest in career planning is to encourage the learner to become involved in professional organizations outside of work. Learners need exposure to potential opportunities that will be available to them in the future.[3] This experience is an important way for students to develop a professional network of contacts and leaders, to push

themselves out of their comfort zone by volunteering to get involved, and to expose themselves to expanded career opportunities. Learners should be introduced to volunteer opportunities in local, state, and national organizations throughout their training as this experience will also help them develop skills needed for future roles.

CAREERS IN PHARMACY

The plentitude of diverse pharmacy career opportunities available today signify a robust opportunity for pharmacists to choose thoughtfully between practice settings. The learner should be encouraged to consider their own unique goals, talents, interests, and skills as well as weigh personal and professional life goals (e.g., work–life balance, preference for location). The variety of practice choices today, versus the more historical and limited choices of the past, has created greater opportunities for practicing professionals (and employers of pharmacists) to create work environments that take advantage of and reflect both educational achievement and growing generational diversity.

Pharmacist roles have expanded well beyond the more traditional product-based dispensing, distribution, supervision of technicians, and delivery of medications. Pharmacists are seeking practice settings that more fully utilize their skills and abilities, yet also allow for growth in their careers. These settings present pharmacists with almost limitless opportunities to impact patient care. In fact, many of these newer nontraditional practice settings have been the driving force behind the changing pharmacy practice roles seen today.

Although it is true that diverse practice settings and career opportunities for pharmacists have never been greater, it is the remarkable advancement of the profession that allows for pharmacists to work at the top of their license to impact patient care outcomes along the healthcare continuum. Faculty, preceptors, mentors, and residency program directors must be as familiar as possible with the many practice opportunities available to provide guidance to learners as they try to find a match between their own personal goals, skills, and objectives with a practice setting that will allow them to flourish.

As a preceptor, learners will look to you for insight concerning possible pharmacy career opportunities. It is important for you to have some background on different pharmacy career options, so you can assist the student in learning more about a particular practice type. It is also important to be aware of each student's strengths as well as areas to improve and what role these attributes may play in their future pharmacy career options. Your particular insight about pharmacy careers should stimulate learners to investigate on their own what may be best for them, knowing this will likely change based on multiple contributing factors in their lifetimes.

As a preceptor, you may be able to utilize your own network of colleagues. You may assist the student in making a connection with a colleague in a particular pharmacy practice setting to allow the student greater insight into that career option. It is important to note that as preceptors we should allow our enthusiasm for the profession to engulf the student and to be supportive of their pharmacy career choice, whatever that may be.

It is impossible to develop a comprehensive outline of all current practice settings available to pharmacists, and the opportunities will continue to expand given the ever-changing U.S. healthcare landscape. This fact is a positive testament to the flexibility and adaptability of the profession. The following information outlines many of the current, broader practice settings available to pharmacists, and covers the expanding opportunities relative to the changing dynamics of healthcare today.

Box 14-1 summarizes some of the careers currently available to pharmacists. In almost all of these settings, pharmacists

serve as the medication-use expert, collaborating with physicians, nurses, and other healthcare professionals to improve patient medication outcomes in all care settings. A detailed discussion of some common types of practice settings follows, and sharing this information with students can be valuable as they continue to develop their own career path.

Health-System Pharmacy

There are a plethora of rewarding opportunities in patient care for pharmacists in health systems including practice in hospitals, ambulatory care, and community settings. Pharmacists also provide care in extended settings as patients' transition through care settings including the health system. Some examples of extended settings include transitional care, nursing homes, extended care facilities, neighborhood health centers, accountable care organizations (ACOs), medical homes, home care, and hospice. Health-system pharmacist practice includes provision of clinical services to ensure safe, effective, and cost appropriate medication use; oversight of efficient drug distribution systems; medication safety; and regulatory components. Pharmacist clinical services may include medication order review, rounding with the healthcare team, collaborative practice to dose and modify selected drug therapy (e.g., warfarin, vancomycin), management of medications during code blue, participation in medication reconciliation, and opiate and antibiotic stewardship. Health-system pharmacists can be generalists covering multiple areas, or they can specialize in areas such as infectious disease, emergency medicine, and many more. **Box 14-2** provides a more complete listing of specialty areas.

The emphasis on patient education, as measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, provides new opportunities for pharmacist counseling prior to discharge. The HCAHPS survey measures

BOX 14-1. List of Common Career Opportunities for Pharmacists

- Academia
- Accountable care organizations and medical homes
- Ambulatory care pharmacy
- Civic and political leadership
- Clinical specialist (e.g., oncology, infectious disease, cardiology, transplant)
- Community pharmacy
- Consultant pharmacy
- Contract research organizations
- Drug information
- Employee benefit consulting
- Government practice
- Group purchasing organizations
- Healthcare information technology
- Health-system pharmacy
- Home infusion pharmacy
- Long-term care pharmacy
- Managed care pharmacy
- Medical marketing, editorial, and communication organizations
- Medication safety officer or patient safety officer
- Military service
- Nuclear pharmacy
- Nutrition support
- Oncology and pediatric medical homes
- Organizational leadership (e.g., hospital operations)
- Palliative and hospice care
- Pediatric pharmacist
- Pharmaceutical industry
- Poison control
- Post-acute care
- Professional associations
- Regulatory affairs
- Research
- Specialty pharmacy
- Transitional care
- Veterinary pharmacist

hospitals' communication about medications during the acute care stay and at care transitions such as discharge. Hospitals are publically ranked based on quality and patient experience measures, and pharmacists can play a key role in improving these outcomes. Health-system pharmacists contribute to health-system committees by collaborating to develop protocols, order sets, drug use policy, and oversight of medication safety across the organization. The pharmacy and therapeutics committee is an important collaborative committee between pharmacists and the medical staff to oversee medication quality, safety, policy, and formulary process. Pharmacists play a key role in this committee preparing medication-use evaluations, trending safety reports and action plans, and preparing drug monograph and therapeutic class review recommendations for formulary status. Pharmacists also contribute to the health-system organization's performance improvement activities, such as collaborating to reduce hospital-acquired infections through improving appropriate use of antibiotics or reducing preventable readmissions through medication reconciliation and patient education. Pharmacists serve as preceptors for student and residency programs across the continuum of care and also as adjunct faculty and educators at pharmacy, nursing, and medical schools, especially in academic centers.

The imperative to reduce medical errors as evidenced by the Institute of Medicine report, *To Err Is Human: Building a Safer Health System*,[4] has enabled pharmacists to become involved in organization- or enterprise-wide safety teams. Pharmacists may lead or participate in interdisciplinary medication and patient safety teams. These teams collaborate to implement high reliability practices and improve complex safety systems, including use of artificial intelligence (AI) and technology such as computerized provider order entry, barcode scanning, and other clinical decision support tools..

Health-system pharmacist roles in team-based care require pharmacists to be the medication-use expert able to contribute unique skills and knowledge to the team as they care for patients. These roles also demand that pharmacists possess additional competencies such as excellent communication skills, influence and persuasion capabilities, negotiation skills, and critical-thinking/problem-solving skills.

Box 14-2 identifies some of the unique areas in which pharmacists in health-systems, as well as other practice settings, may expand into specialty practice. Note that these areas often require additional training or specialty residency such as PGY2 or specialty area board certification.

BOX 14-2. Areas of Specialization

- Administration and leadership
- Cardiology
- Critical care
- Drug information
- Emergency department medicine
- Geriatrics
- Infectious diseases/antibiotic stewardship
- Informatics
- Internal medicine
- Investigational drug service
- Nephrology
- Neurology
- Nuclear pharmacy
- Nutrition support
- Oncology
- Operating room pharmacist
- Pain management/opiate stewardship
- Pediatrics
- Pharmacogenomics & and precision medicine
- Poison control
- Primary care
- Psychiatry
- Solid organ transplant

Many pharmacists also choose to pursue leadership positions within health-system pharmacy practice. Roles include management of clinical services, operations, specialty pharmacy, community pharmacy, regulatory, quality, medication safety, residency program director, revenue cycle, and purchasing and supply chain. Administrative positions at the director or chief pharmacy officer level offer an even more expansive level of responsibility in the areas of finance, drug use policy, personnel management, and setting the department's overall strategic direction. These positions may also require additional educational training, such as a PGY2 health-system administrative residency combined with a master's degree. Some pharmacists even chose healthcare leadership roles that reach beyond pharmacy in hospital administration, corporate entities, and academia.

Ambulatory Care Pharmacy

The pharmacist is an integral member of the ambulatory care interprofessional team. Ambulatory care pharmacy practice is defined as

> the provision of integrated, accessible healthcare services by pharmacists who are accountable for addressing medication needs, developing sustained partnerships with patients, and practicing in the context of family and community. Pharmacists practicing in ambulatory care provide direct patient care and medication management, coordination of care, patient advocacy, wellness and health promotion, triage and referral, and patient education and self-management.[5]

Pharmacists practice under collaborative practice agreements (CPAs) authorized by their state scope of practice to perform disease state and medication management services. The ambulatory care pharmacist may work in a health-system or community-based clinic; however, these pharmacists also collaborate regularly with pharmacists and other healthcare providers across all settings to provide safe care transitions.

Community Pharmacy

Community practice is probably the most familiar type of pharmacy practice to the American public. It employs a large number of pharmacists and, in fact, 58% of pharmacists provide care to patients in a community setting.[6] Pharmacists in a community setting provide information and advice on health, provide medications and associated clinical services, and refer patients to other sources of care when necessary. Many community pharmacies have developed further specialties in specialty pharmacy, medication therapy management, immunization administration, durable medical equipment, and customized compounding. There are multiple types of community pharmacies, including private independent businesses, retail chains, pharmacies incorporated into grocery and retail stores, and community pharmacies affiliated with a hospital or health system.

Community pharmacists also assist patients in understanding their prescription benefit program and may provide disease and care management in a variety of areas, including immunizations, diabetes, asthma, hypertension, and hyperlipidemia. Many pharmacists achieve specialty certifications in these key disease areas to better educate and assist patients in managing their healthcare. Unfortunately, many community pharmacy practice settings continue to use pharmacists in a more traditional dispensing role rather than incorporate these other activities into their operational and business model.

Significant management and entrepreneurial opportunities also exist for those with interest and abilities in this area. Supervising a retail pharmacy, owning or operating a private compounding pharmacy, or serving as a district manager for a large retail chain are examples of such leadership opportunities. Although many of the skills and competencies required for such roles can be achieved through experience or on-the-job training, additional instruction in areas of business, process engineering, quality tools, and leadership can be valuable in achieving these types of positions.

Long-Term Care Pharmacy

Pharmacists practicing in long-term care and post-acute practice settings are responsible for drug information, education, and drug therapy management of a growing segment of our population. Many, but certainly not all of these patients are older and often have complex drug regimens. This area of pharmacy is practiced in home care agencies, skilled nursing facilities, adult day-care centers, hospices, memory centers, and other long-term care facilities.

These patients often require drug utilization reviews (DURs) and dose adjustments to drug therapy due to diminished hepatic and renal function and the quantity of medications this population often uses. Given the increased medication use and longer life expectancies in general, along with the Baby Boomer population accessing more and more health services, specialization in geriatric pharmacy is expected to grow rapidly.

Managed Care Pharmacy

Managed care pharmacy practice has grown dramatically within the last decade due to the need to manage the increase in healthcare expenditures. For example, it is estimated that "the cost of employer-sponsored healthcare benefits is expected to reach $15,000 per employee by 2019."[7] Further, the Centers for Medicare & Medicaid Services (CMS) projects a 6.1% growth in prescription drug spending per year on average from 2020–2027.[8] It has become increasingly more costly to provide a prescription drug program as an employer or other payer benefit despite the recognition of the importance of providing access to prescription drugs. Many payers (e.g., government, employers) contract with managed care organizations (MCOs), including health plans and pharmacy benefit managers (PBMs), to help manage the quality, cost, and access of a prescription drug benefit. The primary goal is to ensure that what is spent on prescription drugs is appropriate, effective, and safe, and that medications are properly used. According to the Academy of Managed Care Pharmacy, "there are over 18,000 pharmacists working for health plans and PBM companies."[9]

Managed care pharmacists are responsible for plan design; clinical program development; clinical management; pharmacoeconomic analysis; outcomes research; communication and education of patients, prescribers, and pharmacists; and drug distribution and dispensing, as well as performing the clinical interventions to support the DUR, formulary management, and disease management of the populations the MCO serves.[9] Pharmacists are also becoming more involved in the development, administration, and management of the pharmacy provider networks that provide care to patients, as well as in the performance and quality monitoring, reporting, auditing, and contracting of the network and services.

Another area within a health plan or PBM where a pharmacist's unique skills are valued is in the pharmaceutical contracting group. In that setting, pharmacists monitor manufacturers' drug pipelines and develop forecasting models to determine the impact of that drug on a payer's program. In addition, they are often responsible for clinically assessing and evaluating the product, negotiating the purchase or use of contracts, developing and implementing the programs designed to maximize the formulary, recommending formulary decisions, and administration.

Several large employers and insurers have recognized the value and expertise of pharmacists in designing and managing drug programs and have hired them as a part of their managed medical team, many taking on roles of chief pharmacy officer—similar to the chief medical officer—within the management team. The integration of pharmacy into the medical strategy is very important in achieving the goals of quality, cost effectiveness, and patient access.

Many MCOs use mail order or online services as a management tool within the benefit. This creates opportunities for pharmacists as managers of operations (e.g.,

pharmacies owned and operated by the MCO or contracted entities), as well as specialists in key areas like targeted DUR programs, formulary management (e.g., generic and therapeutic substitution), and disease management programs.

Specialty Pharmacy

Managing biotechnology and self-administered injectables is a growing area of concern for many health systems, MCOs, and pharmaceutical manufacturers due to the complexity of the drug therapy, need for specific patient education/management, avoidance of adverse events, and unique product storage requirements. Furthermore, the cost of these drugs is usually high; therefore, ensuring proper clinical use, compliance, administration, storage, and management is essential and required by payers.

Historically, these self-administered drugs had been paid for as part of the medical benefit and have not been managed as unique products requiring additional services. More recently, the growing trend is to carve out the management of these drug products, usually through the PBM or health plan. As a result, there are more specialty pharmacy organizations that focus only on the management of these drug therapies. This growth is directly related to the cost of these therapies and complex care coordination services required for these patients.

It has been estimated that "by 2020 specialty pharmaceuticals will represent 50% of all U.S. drug expenditures for only 2%-4% of the population."[10] Additionally, specialty medications constitute more than 37% of the prescription spending for employers, for only ~2% of the population covered.[7] This opportunity provides pharmacists with an expanded area of specialty practice focused on supporting patients living with complex chronic health conditions. Specialty pharmacist practice may include "provision of pharmacist initiation of therapy, clinical assessment and adherence monitoring; reimbursement assistance; patient care coordination, patient training and education and ongoing monitoring."[11] See **Box 14-3** for examples of complicated disease states in which pharmacists play a critical role in improving patient outcomes.

BOX 14-3. Complicated Disease States

- Acromegaly
- Asthma
- Crohn's disease and ulcerative colitis
- Chronic granulomatous disease
- Cystic fibrosis
- Gaucher disease
- Growth hormone disorders
- Hemophilia and bleeding disorders
- Hepatitis
- HIV/AIDS and other immune deficiencies
- Infertility
- Multiple sclerosis
- Oncology-related conditions
- Other autoimmune disorders
- Psoriasis and psoriatic arthritis
- Rheumatoid arthritis
- Solid organ transplant
- Viral hepatitis

With the growing number of biotechnology products available and in the pipeline, this is certainly an exciting time for pharmacists who want to pursue this field to utilize their clinical and business management skills.

Home Infusion Pharmacy

The demand for home infusion pharmacy has never been greater as the acuity of hospitalized patients continues to increase. Payers are expecting patients to be cared for in the highest quality and lowest cost setting, which often is their own home or an alternative care setting after discharge from the hospital. In some cases, home infusion therapy can

prevent hospitalization altogether. Home infusion pharmacy provides a vital service supplying injectable drug therapy, parenteral and enteral nutrition therapy, and other products for patient care administered through home care services. In addition, home infusion pharmacists provide clinical patient monitoring and medication therapy consultation to optimize patient care.[12]

Pharmaceutical Industry

The pharmaceutical industry provides many career opportunities for pharmacists. It is not only broad in its offerings, but it continues to evolve. In this industry, pharmacists hold positions in sales, training and education, clinical research, product development, marketing, outcomes research, pharmacoeconomics, regulatory affairs, epidemiology, clinical trials, and administration. Many pharmacists involved in pharmaceutical companies go on to obtain postgraduate degrees, such as a master's in business administration, to meet the technical demands and scientific duties required in pharmaceutical manufacturing and general business management.[5]

Pharmacists with an interest in sales and administration can combine their clinical expertise in positions such as medical service representatives/liaisons or clinical educators. Another growth opportunity within the pharmaceutical industry is the medical information group, which is responsible for answering off-label drug information questions and the preparation of the product dossier. One major drawback for industry pharmacists is that they typically do not have patient contact; however, they can impact patient care by partnering with pharmacists and physicians to improve care on a larger scale.

Academia and Research

Another rewarding career opportunity for pharmacists is serving in either a part- or full-time capacity within a college of pharmacy. In this role, pharmacists are responsible for the teaching and education of the future members of the profession or in graduate programs for existing pharmacists. Many faculty members hold administrative and management positions within the university or college, or they teach in other health sciences areas. They are also involved in research; public service; and consulting to local, state, national, and international organizations. Becoming a member of the faculty at a college of pharmacy may require a postgraduate degree or training beyond the Doctor of Pharmacy degree, for example, a PhD, PGY1/PGY2 residency and/or fellowship training.

In addition to teaching and research, many pharmacy practice faculty have active patient care responsibilities and precept students during internships and clerkships (e.g., experiential rotations). Pharmacists can also hold faculty positions in pharmaceutical sciences research, in which an expertise in study design, methodology, and analytics is required to solve complex problems of drug utilization management healthcare delivery, marketing, management, and other practice issues.[5]

Consulting Pharmacy

Consultant pharmacists provide expert advice on individuals' or institutions' use of medications, or on the provision of pharmacy services to institutions. The phrase *consultant pharmacist*, first used by George F. Archambault, who is considered the founding father of consultant pharmacy, originated in the nursing home environment, when a group of innovative pharmacists focused on improving the use of medications in these facilities. However, consultant pharmacists are found today in many other settings, including sub-acute care and assisted-living facilities, psychiatric hospitals, hospice programs, and in-home and community-based care.[13]

In addition to the more traditional definition and description above, there are consultant roles for experienced pharmacists

in various areas of expertise including supply chain, productivity and benchmarks, drug utilization, pharmaceutical development, managed care, and specialty disease areas or populations. Many pharmacists work for consulting companies providing expertise and advice associated with different areas of pharmacy practice such as health information technology (IT) optimization, regulatory compliance, and healthcare management. It is important to note that some states do require specialized licensure for consulting pharmacists (e.g., Florida).

Government

The government at the federal level (e.g., Public Health Service, Indian Health Service, Veterans Health Administration, the U.S. Food and Drug Administration, the U.S. Armed Services) employs pharmacists in both staff and supervisory positions. At the state and local levels, they are employed by regulatory, health, and social service agencies, including agencies charged with regulating the practice of pharmacy to preserve and protect the public health (e.g., boards of pharmacy). As some state health agencies are consolidating their purchases, pharmacists are also engaged in procuring pharmaceuticals and supplies for the entire state. Some positions provide commissioned officer status, whereas others are under civil service. Other pharmacists hold positions within state Medicaid programs, including roles on state DUR boards to screen prescription drug claims for clinical problems or to identify patterns of fraud or abuse.[14] Federal government agencies such as the CMS may employ pharmacists to serve as experts and committee leaders in organizations such as the National Committee on Vital and Health Statistics and the National Quality Forum. Finally, some pharmacists have been elected to political office at the local, state, and national levels.

Professional Associations

Pharmacists also have career opportunities in state and national professional associations. Currently, pharmacists hold positions in many national pharmacy and healthcare professional associations. These pharmacists have expertise and skills needed to succeed in leading organizational development, including educational programming and services, meeting planning and management, writing, project management, research, legislative advocacy, and fundraising. Some of the largest and most well-known pharmacy practice associations are:

- ASHP—American Society of Health-System Pharmacists
- APhA—American Pharmacists Association
- AMCP—Academy of Managed Care Pharmacy
- ASCP—American Society of Consultant Pharmacists
- ACCP—American College of Clinical Pharmacy
- FIP—International Pharmaceutical Federation

These organizations are a small sampling of pharmacist organizations created to represent large groups of pharmacists, and they are instrumental in shaping practice trends and advocating for advancement of the profession.

Employee Benefit Consulting

As mentioned in the managed care section, payers are facing a significant challenge in providing a healthcare benefit, and there is an increased focus on the prescription drug program. Typically employers do not have the clinical expertise or resources needed in-house, and they may choose to utilize one of many available benefit consultants to help with plan design and benefit management, including selecting a PBM. Some chose to continue to use these organizations on an ongoing basis to manage the PBM relationship. Pharmacists with managed care and business experience find rewarding careers in these benefit consultant organizations in roles such as clinical program managers,

account or client service managers, and in-house experts in developing and reviewing PBM services and contracts.

Contract Research Organizations

Contract research organizations (CROs) design, manage, monitor, and analyze preclinical and clinical trials. These services are provided to the pharmaceutical industry and are increasingly valuable because the clinical trials are the basis for determining the safety and efficacy of pharmaceuticals, biologics, and medical devices. These organizations have experienced increased popularity and growth over the last several years as the rigor and complexity of medication research continues to increase. CROs will continue to provide career opportunities for pharmacists, especially in the Phase IV clinical trials required by the U.S. Food and Drug Administration (FDA).

Medical Marketing and Communication Organizations

Many pharmacists who excel at written and verbal communication skills have found exciting careers at medical communications companies, which develop clinical content for educational and promotional programs and publications for clinical and management professionals. Positions can be either staff or supervisory and typically focus on the following areas: medical writing, program development, project management, clinical education, meeting planning and management, strategy, facilitation, business development, and account management.

Pharmaceutical and Healthcare Distributors

Distributors are an essential part of the pharmaceutical supply chain, and their chief role is to simplify and consolidate the purchasing process. Pharmacists in these organizations ensure that the medications and other healthcare products needed to diagnose, prevent, and treat illnesses are distributed to the appropriate locations. In addition to the delivery of these products, many pharmaceutical and healthcare distributors have expanded their service offerings to include information management, 340B program management, automation, program development, consulting, and other tools to improve their customer's efficiency and effectiveness. Further, many distributors are entering the specialty pharmacy market as discussed previously.

Pharmacists play a valuable role in all of these expanded services from designing and developing the programs to the implementation and delivery of them. An important function of pharmaceutical and healthcare distributors is protecting the quality and security of the products distributed. They also provide economies of scale to reduce distribution expenses, manage inventories to ensure product availability, and simplify distribution to ensure vital medication is available where and when it is needed.

Group Purchasing Organizations

Group purchasing organizations (GPOs) primarily provide contracting services to hospitals, clinics, and health systems. Pharmacists employed in this area assist with contract management and vendor evaluation for pharmaceuticals and other products, and may also be involved in the development and provision of other services such as clinical drug utilization and other data analysis, prescription assistance programs, education, and consulting.

Healthcare Information Technology

Most students and new practitioners are proficient with healthcare technology. In fact, online resource use has surpassed traditional printed sources of information over the past decade. As technology continues to evolve, many pharmacists are interested in health IT careers that combine clinical pharmacy expertise with technology to deliver more integrated, efficient, and safe healthcare outcomes. Health analytics and clinical informatics offer data analytics opportuni-

ties to pharmacists to improve medication use in population health and acute care environments, as well as opportunities to develop and optimize software to better integrate medication use workflows across the continuum of care.

A principal goal of the healthcare industry is to enhance patient safety by accelerating the adoption of IT. The federal government has incentivized implementation of EHRs throughout the healthcare continuum in hospitals, physician offices, and other patient care locations by offsetting payments under the Meaningful Use Medicare and Medicaid EHR Incentive Programs. Pharmacists can play a significant role in helping to design, develop, and implement prescribing standards and platforms within information technology companies. They can also play an important role in bringing together healthcare providers and professionals in achieving this goal.

Accountable Care Organizations and Medical Homes

The lines between traditional community pharmacy practice and health-system pharmacy practice blur somewhat when considering pharmacist responsibilities in accountable care organizations (ACOs) and medical homes. These new models of healthcare focus on a more holistic approach to patient care across the healthcare continuum versus emphasis only on the single acute-care episode. The ACO model focuses on improving health and disease prevention and treatment as well as providing care coordination to prevent adverse health events, such as unnecessary hospital admissions. Payment models have restructured to reward better health outcomes and disease prevention. Pharmacists play an integral role in these healthcare models, helping identify medication problems, improve medication adherence and patient understanding of their medication, and reduce costly adverse drug events and readmissions to the hospital. The pharmacist collaborates with all members of the interdisciplinary care team to achieve the triple aim of improving the patient experience, increasing patient quality of care, and decreasing healthcare costs.[15]

The opportunities for pharmacists to provide collaborative medication therapy management as well as coordination of care between sites of care transitions are extensive and can dramatically improve patient outcomes. Pharmacists can also be integral in providing ongoing patient education, facilitating medication access, compliance monitoring, reducing adverse drug events, and reducing costs. Further details on pharmacist opportunities in ACOs and medical homes are provided in a publication entitled "Report of the 2012 ASHP Task Force on Accountable Care Organizations."[16]

ADVANCED PHARMACY TRAINING

As the complexity of pharmacy practice continues to grow, advanced postgraduate training becomes increasingly important. Graduating with a Doctor of Pharmacy degree provides pharmacists with a broad scope of knowledge in a variety of settings. However, practicing pharmacists—especially those in direct patient care roles—often need to attain advanced practice knowledge and enhance their clinical skills. In addition to clinical practice, pharmacists are accountable for assuming professional and legal responsibility for all medication-use activities. These responsibilities are clearly outlined in professional standards, statutes, regulations, and internal and external quality standards. Postgraduate training not only equips pharmacists with additional clinical, operations, legal, regulatory, and quality experience, but importantly also exposes new practitioners to expanded leadership opportunities and interdisciplinary team collaboration to build a solid foundation for the future.

Clinical career ladders are structured programs that provide levels of advancement within an organization through recognition of clinical knowledge, competency, achieve-

ment, training, or certifications. This section describes several advanced pharmacy training opportunities that can be used to begin constructing a personalized clinical career ladder. However, it must be stressed that each organization has different regulations regarding advancement, and learners should be advised to ask organization-specific questions when planning their career path. This section should be used to explore potential advanced training opportunities (e.g., qualifying for promotion or a new position) and their potential benefits weighed against the learners' practice interests.

Pharmacy Residencies

In preparing themselves for future opportunities and leadership positions, students should be encouraged to complete a pharmacy residency program. ACCP and ASHP have both adopted positions requiring all new college of pharmacy graduates to complete PGY1 residency training if they plan to provide direct patient care.[17,18]

Increasingly, employers are requiring completion of an accredited residency program for most entry-level pharmacist positions, especially in the health-system and academia. Residency programs contribute to the development of critical thinking and clinical maturity skills of new practitioners. New pharmacy graduates may have a broad scope of knowledge, but they may not have the confidence to apply that knowledge to optimize drug therapy for their patients. The pharmacy residency experience gives residents the opportunity to enhance their confidence, improve their skills, and collaborate with patient care teams to ensure patient care is optimized. In addition, a residency helps the new practitioner improve on his or her own interpersonal skills. Often residents find themselves in challenging positions that may be uncomfortable for them, but the residency experience provides a safe, supportive environment necessary for learning.

Pharmacy residencies are critical in producing clinicians, managers, and leaders for the pharmacy profession. The role of residency training has been heightened by changes in the delivery of healthcare and in the opportunities afforded to pharmacists for drug therapy management, health promotion, and disease prevention activities. These focus areas have resulted in a redistribution of patient care from the inpatient to the outpatient setting, which has increased the acuity level of patients in both settings. Pharmacists with more specialized knowledge and training are needed to manage these very complex patients.

New standards for PGY1 residency programs were released in September 2016 and PGY2 residency programs in April 2017.[1,19] The specific definitions of PGY1 and PGY2 residencies are listed in **Box 14-4**.

Pharmacy Fellowships

Pharmacy fellowships are another postgraduate training path that pharmacists may choose to pursue. Unlike a residency, fellowships are designed to prepare the participant to become an independent researcher. Fellowships are typically 2 years in duration and are based in pharmacy schools or academic health centers. The ACCP defines fellowships as a minimum of 3000 hours over 2 years that is devoted to research activities. ACCP lists 24 different categories for fellowship training in 63 different locations in 2015.[20] There is also a voluntary peer review process among these fellowship programs aimed at improving the preceptors and research programs. See **Box 14-5** for additional resources on residencies and fellowships.

The Case for Additional Credentials

Students with both short- and long-term career plans should consider the types of education, training, and credentials that will be required to help position them for desired future opportunities. Professional growth and development, lifelong learning, and career advancement necessitate continuous

BOX 14-4. Summary Explanation of Residency Types

PGY1 Residency

"PGY1 pharmacy residency programs build on Doctor of Pharmacy (PharmD) education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions, eligible for board certification, and eligible for postgraduate year two (PGY2) pharmacy residency training."[1]

PGY2 Residency

"PGY2 pharmacy residency programs build on Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care or other advanced practice settings. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification, if available."[19]

BOX 14-5. Resources on Residencies and Fellowships

Residencies

- Visit the ASHP website (www.ashp.org). The site includes definitions, accreditation standards, a directory of accredited programs, the resident matching program, the Residency Showcase, links to the regional residency conference websites, and federal funding.
- Managed care pharmacy residencies: visit the AMCP website (www.amcp.org).
- Community pharmacy residencies: visit the APhA website (www.aphanet.org).

Fellowships

- Visit the ACCP website (www.accp.com). The site includes a listing of fellowships and residencies.

pursuit of new knowledge and skills. This may go beyond what is acquired through attending routine continuing education programs and engaging in self-directed, independent study. Medical and pharmaceutical information is increasing at an exponential rate. The practice of pharmacy is changing and adapting based on new professional and patient needs. Fortunately, there are many options available for working pharmacists to obtain additional education, training, and credentials, including focused education courses, advanced degrees, skills-based training workshops, and certifications.

The long-range vision for pharmacy practice is vested in strong clinical practice with pharmacy practitioners providing advanced patient care services. The 2019 ASHP forecast recommends emphasis on pharmacist practice in ambulatory care settings to improve outcomes and reduce healthcare costs through population health initiatives.[21] The forecast further asserts that pharmacists must practice at the "top of their current license, taking responsibility for independently managing patients, thus freeing physicians up to care for more patients."[21]

Advanced Education

Focused education courses are typically offered by a university or by a university working in partnership with a professional society or healthcare organization (e.g., employer). The most visible examples are executive management and leadership courses. These vary in length from intensive

week-long courses to full semester courses. These options may benefit pharmacists who want education in a specific area but do not want to invest the time, money, and effort into completing an entire degree program. The week-long courses do not provide college credit, but the full semester courses usually do, and this credit may possibly be applied to a future degree.

Master's and doctoral degree programs are offered in a variety of fields that may be of benefit to practicing pharmacists, and many universities have master's and doctoral degree programs targeted toward working adults. These programs can be provided via distance education either online or through a variety of media or campus-based programs offered during the evenings or on the weekends. Pharmacists commonly obtain master's degrees in hospital pharmacy administration (MS), business administration (MBA), healthcare administration (MHA), and public health (MPH). These credentials may be important when pursuing administrative positions in hospitals and other healthcare organizations.

Some pharmacists may even decide to obtain a doctoral degree in one of these areas (e.g., Doctor of Philosophy [PhD], Doctorate in Health Administration [DHA], or Doctor of Public Health [DrPH]), especially if they work in an academic health center and are heavily involved in teaching students, residents, and fellows. In academia, some pharmacists may also choose to obtain a Master of Education (MEd) or a Doctor of Education (EdD, PhD) degree. This education is particularly useful when the pharmacist is responsible for curriculum development and outcomes assessment, faculty development, distance education programs, and experiential education programs. Of course, some Bachelor-trained pharmacists may also choose to obtain a nontraditional Doctor of Pharmacy degree. These programs have been important for pharmacists transitioning from a drug distribution role to a more clinical patient care role. Finally, pharmacists may choose to go back to graduate school full-time to obtain a doctoral degree in one of the pharmaceutical sciences and pursue a research-oriented career track in academia or the pharmaceutical industry. Keep in mind that some employers may pay for their employees to complete master's or doctoral programs if it will better prepare them for their current position or for a future position with the organization.

Skills-based workshops are offered in a variety of clinical areas (e.g., basic clinical skills, physical assessment, anticoagulation, asthma, diabetes, immunizations, herbals). Skills-based workshops are usually developed by pharmacy professional organizations and pharmacy schools. These skills-based workshops are typically 1 or 2 days in length and provide continuing education approved by the Accreditation Council for Pharmacy Education (ACPE). Some of these workshops are linked to certification programs. This option may be good for pharmacists who want focused training in a specific area, especially those looking to expand the scope of their practice. Also, various healthcare organizations offer skills-based certification courses in basic life support (BLS) and advanced cardiac life support (ACLS). These certifications can be useful for anyone in general, especially BLS, and they are of particular importance in institutions where pharmacists serve as members of the code team.

Competencies and Credentials

A *credential* is simply any formally documented evidence of qualifications. The credentials needed to enter pharmacy practice for new practitioners include the following:

- Graduation from an ACPE-accredited PharmD training program
- Successfully passing the National Association of Boards of Pharmacy License Examination

- Fulfillment of any additional state board of pharmacy licensure requirements (e.g., state law exam, internship hours)

Pharmacists with the above credentials can independently and legally practice pharmacy. However, a pharmacist may seek additional credentials to further their training and experience as they fulfill practice needs in advanced patient settings.

Pharmacists develop proficiency through both formal training and practice experience. For example, during PharmD degree training programs, students are exposed to broad disease training and experiences promoting general therapeutic principles. Competency statements are provided by colleges of pharmacy for all aspects of training and education. ACPE doctor of pharmacy accreditation curricular standards state that "graduates must possess the basic knowledge, skills, and abilities to practice pharmacy independently, at the time of graduation."[22]

There are a variety of credentials that pharmacists voluntarily earn to document their advanced or specialized knowledge and skills.[22] These credentials are earned when pharmacists complete competencies that are beyond those earned in PharmD programs. As discussed, PGY1 residency programs are designed around competency statements that offer the pharmacist additional training beyond those learned in PharmD programs and deepen a pharmacist's knowledge as well as promote the development of better patient care skills, problem solving, and clinical judgment. Although preferred, PGY1 residencies are not the only way to develop this higher level of knowledge, skill, and ability, but are probably the shortest way to achieving the desired competencies. In addition, when residency programs are accredited by a national accrediting body such as the ASHP Commission on Credentialing, the public, healthcare providers, and the profession can be ensured that programs and graduates will meet certain minimum standards.

We have also discussed PGY2 residency programs which allow residents to develop even more in-depth knowledge and skills by working in specialized or differentiated areas of practice. Educators tell us that repetition is essential in the development of any practice skill; therefore, the level of performance of a pharmacist depends on the amount of patient care practice time devoted to develop that skill. Correctly developing these important skills can be most effectively completed under the supervision of an experienced practitioner who can prepare and mentor the learner for more complex problem solving, decision making, and independence. Although a practitioner's competency is not automatically ensured after completion of competencies and educational programs, continuous learning is a key factor in developing competence and enhancing critical thinking and problem-solving skills.

Quality Assurance and Improvement

Many efforts are underway to improve the quality of healthcare in the United States. Activities that contribute to defining, assessing, monitoring, and improving the quality of patient care are referred to as *quality assurance*.[23] *Quality improvement* is a method of planning and implementing continuous improvements in systems or processes to provide quality healthcare reflected by improved patient outcomes. Credentials of healthcare providers are used by healthcare quality assurance organizations such as The Joint Commission and the National Committee for Quality Assurance as indicators of competence and qualifications to provide certain levels of patient care service. These organizations are promoting rules that determine which providers can provide certain types of services to provide the highest levels of patient care.[24]

The *process of credentialing* is to "document and demonstrate that the healthcare professional has attained the credentials and qualifications to provide the scope of care expected for patient care services in a

particular setting."[25] The *privileging process* is to "assure stakeholders that the healthcare professional being considered for certain privileges has the specific competencies and experience for specific services provided by the organization."[25] Credentialing and privileging are determined by the bylaws or policies of a healthcare organization. Credentialing is required for many types of healthcare professionals to be hired in a health system and determines the scope of patient care services the practitioner can provide.[25] As discussed, credentials in the pharmacy profession can be obtained through various mechanisms. For example, in addition to the credentials that we have already listed, pharmacists may complete a lengthy and targeted disease education program or become board certified in a pharmacy specialty.

Certification programs are defined by ACPE as "structured and systematic postgraduate continuing education experiences for pharmacists that are generally smaller in magnitude and shorter in time than degree programs, and that impart knowledge, skills, attitudes, and performance behaviors designed to meet specific pharmacy practice objectives."[26] Certification programs should not be confused with *continuing education (CE)*, which includes a number of required education hours that must be completed to renew licensure. Compared to CE, certification programs are designed to expand practice competencies, usually in a specific area (e.g., sterile compounding, smoking cessation, diabetes education, immunization).

Pharmacy Board Certification

Certification is defined as a "voluntary process by which a nongovernmental agency or an association grants recognition to an individual who has met certain predetermined qualifications specified by that organization."[25] This formal recognition is granted to "designate to the public that the individual has attained the requisite level of knowledge, skill, or experience in a well-defined, often specialized, area and requires initial assessment and periodic reassessment."[25] Certification can be a useful credential for pharmacists in either a clinical or a management career track.

Certification is a credential granted to pharmacists and other health professionals who have demonstrated a level of competence in a specific and relatively narrow area of practice that exceeds the minimum requirements for licensure. Certification is granted on the basis of successful completion of rigorously developed eligibility criteria that may include didactic learning modules, a written examination and, in some cases, an experiential component. The pharmacist board certification process is administered by the Board of Pharmaceutical Specialties (BPS) with accreditation from the National Commission for Certifying Agencies (NCCA) and the Commission on Certification in Geriatric Pharmacy (CCGP).[27]

In 1976, APhA established the BPS to grant specialty certification to qualified pharmacists. Currently, 12 specialties are offered in support of the BPS core mission, which is to improve patient care by promoting the recognition and value of specialized training, knowledge, and skills in pharmacy and specialty board certification of pharmacists.[27] According to BPS, two new certifications in emergency medicine and solid organ transplantation are expected by 2020. The 12 recognized board certifications are listed in **Box 14-6**.

The value of certification is evident on many levels. Although the fundamental intent of certification has been to enhance patient care, current board-certified pharmacists have reported both personal and professional benefits. Board-certified practitioners have reported increased marketability and acceptance by other healthcare professionals and improved feelings of self-worth, which differentiates them from general practice pharmacists.[27] Some board-certified pharmacists have received financial rewards, including salary increases, job promotion, bonus pay, and direct compensation for

BOX 14-6. Currently Recognized Pharmacy Board Specialties[27]

- **Ambulatory Care Pharmacy**
  Designated board-certified ambulatory care pharmacist (BCACP)
- **Cardiology Pharmacy**
  Designated board-certified cardiology pharmacist (BCCP)
- **Compounded Sterile Preparations Pharmacy**
  Designated board-certified sterile compounding pharmacist (BCSCP)
- **Critical Care Pharmacy**
  Designated board-certified critical care pharmacist (BCCCP)
- **Geriatrics Pharmacy**
  Designated board-certified geriatrics pharmacist (BCGP)
- **Infectious Diseases Pharmacy**
  Designated board-certified infectious diseases pharmacist (BCIDP)
- **Nuclear Pharmacy**
  Designated board-certified nuclear pharmacist (BCNP)
- **Nutrition Support Pharmacy**
  Designated board-certified nutrition support pharmacist (BCNSP)
- **Oncology Pharmacy**
  Designated board-certified oncology pharmacist (BCOP)
- **Pediatric Pharmacy**
  Designated board-certified pediatric pharmacist specialist (BCPPS)
- **Pharmacotherapy**
  Designated board-certified pharmacotherapy specialist (BCPS)
- **Psychiatric Pharmacy**
  Designated board-certified psychiatric pharmacist (BCPP)

Additional information can be located on the BPS website at https://www.bpsweb.org/.

services. Board certification is a respected and accepted credential that is listed on credentialing, privileging, and collaborative drug therapy management applications to allow for care in advanced practice areas.

It has been suggested that board certification of clinical pharmacy practitioners should be used as a marker of quality because it is an indicator of an individual's knowledge at a predefined level that has been rigorously validated.[28] To further strengthen the case for board certification, academic recommendations for pharmacists involved in precepting students also urge pharmacy practice faculty to pursue board certification and suggest that faculty with patient care responsibilities be board certified.[29] Further, it has been suggested that the minimum hiring qualifications for clinical faculty should include 2 years of residency training, 3 years of experience in a progressive clinical practice, or board certification.[30] In addition, the ASHP Accreditation Standard for PGY2 residency programs requires that the residency program director have demonstrated expertise, including board certification when certification is offered in the specialty advanced area of practice.[19]

In addition to BPS certification, other organizations offer healthcare-focused certifications. For example, ASHP offers professional certification programs in the following focus areas: sterile product preparation, informatics, pharmacogenomics, pain management, and medication safety as well as a teaching certificate and a certification in advanced 340B operations in conjunction with Apexus.[31]

Another focused certification example is the Fellowship credential with the American College of Healthcare Executives (www.ache.org). Many pharmacists in leadership positions have pursued this credential because it is widely recognized by healthcare leaders outside of pharmacy. This credential requires the successful completion of a certification exam in healthcare management and finance

after the other pre-requisites for membership, education, and community service are met.

PRECEPTOR PEARLS

If you are a preceptor who works in an organization that may have more than one student at a time, schedule a lunch discussion with the students and include one or two other preceptors. Have the students participate in an informal debate and discussion regarding practice pros and cons in key career areas such as ambulatory care versus hospital practice, rationale for residencies and fellowships, and the importance of obtaining advanced credentials. When moderated effectively by a preceptor, these types of peer interactions can be very enlightening to students.

Additional Career Planning Support

When the student has made a well-informed decision regarding a particular career path, a preceptor can still offer further assistance to the student and help him or her to be successful. For example, assisting students in developing a network of pharmacist contacts is one important element. This can be accomplished in many ways, but one of the easiest is to take the student to a local or state professional meeting or continuing education program. Introduce the students to the people you know and encourage them to "work the room" and meet others, with a focus on helping students connect with pharmacists in their desired career path. Take students to as many hospital, business, or other types of meetings as possible and make sure that you explain pharmacy's role in the meeting and answer any questions they have about what they saw. Introduce them to your supervisor and others in leadership roles. Helping students develop relationships with physicians, nurses, administrators, and other healthcare professionals will not only improve their rotation experience, but could also open career path doors later on.

It is important to note that in today's age of social media, numerous personal and professional outlets can be used to expand the student's network. Websites such as Facebook, Twitter, and LinkedIn can provide connections to colleagues and other professionals but must be used with caution. Learners should be reminded that everything they post is permanent; before posting anything, they should consider whether it would be something that they would show their boss or potential employer directly. Some employers screen social media sites to determine the potential employability of a candidate. LinkedIn is geared toward career development and is one of the better sites for connecting with employers and colleagues. It can also be used to research particular companies, healthcare organizations, and leadership. It is a good idea to engage your student in a discussion around the use of social media for career development. The advice that you can provide from your own experience may be invaluable to students and can allow them to leverage the technology, expand their professional network, and prevent them from making mistakes.

The preceptor can also provide help to students by reviewing their curriculum vitae (CV) and online profile to ensure that key elements of their experience and education are highlighted and detailed to match their career goals. You may want to share your CV with students to provide them with another example and format. Many colleges of pharmacy work with students on résumé development, and the preceptor's additional review can be very helpful.

Location is another important consideration to discuss with students. Many

students find comfort in staying close to home when looking for their first job or residency program, and there may be family reasons that limit relocation prospects. On the other hand, the point at which they complete their degree is often a period in life where graduating students are most mobile. Where applicable, speak with students about organizations and programs that may be outside of their perceived geographic boundaries. This discussion is especially pertinent for students who want a specific type of residency or specialty opportunity or would like to pursue a career in a more unique practice setting.

Students who are in the process of determining their career path should be coached regarding the importance of doing additional research as they identify organizations where they may want to seek employment. Just as the learner would research information on a major purchase, they should also critically evaluate potential employers. Understanding the organization's patient population, mission, and current financial status can help clarify potential employment choices. If possible, encourage the student to speak with other pharmacists or residents from that organization who are in similar positions.

Finally, helping the student polish their interview skills can be very valuable. Develop a set of common interview questions and pose one or two of these questions to the student every week. Role playing answers to specific questions can also prepare the student for the job-seeking process. Using open-ended common questions like "*What are your strengths and weaknesses?*" or *"Tell me about your best team experience?"* are good questions to start with. Using behavioral-based questions such as *"Tell me about how you would handle a situation where a physician disagreed with your recommendation?"* can help prepare students for some of the tougher interviews that they may experience.

PRECEPTOR PEARLS

Sample open-ended and behavioral interview questions that can help prepare students:

- ***What tips or tricks do you use to make your job easier or increase your effectiveness?***
- ***You receive a phone call from an angry nurse stating that she has been waiting 5 hours for pharmacy to send an antibiotic. What would you do?***
- ***Tell me about an instance where you changed your opinion after receiving new information.***
- ***Describe a work or school situation where your behavior served as a model for others.***
- ***You find out that you have made a medication error. It is minor and likely that no one will ever know. What would you do?***
- ***How do you decide what gets top priority when you schedule your time?***
- ***Tell me about a time when you had to deal with a difficult boss or coworker. Physician?***
- ***What are the most important things you are looking for in our organization (e.g., clinical practices, teamwork, benefits/salary, advancement opportunities)?***

SUMMARY

Rewarding careers are the result of thoughtful planning, effort, and sacrifice. The preceptor's role is to help learners understand the importance of career planning, help them discover their interests and aptitudes for possible careers, and educate them about the available career opportunities for pharmacists. It is also important for learners to explore postgraduate

training programs, certifications, and other credentialing; preceptors can reinforce the benefit of credentials to a student's future success. The preceptor's potential impact on a student's career is virtually limitless and can result in a professional relationship that spans decades. The privilege of engaging and guiding your student through career planning is rewarding and may even provide the preceptor with further insight and gratitude for their own career path decisions.

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15

Pharmacy Residencies and Fellowships

Patrick D. Fuller, Rusol Karralli, and Michelle W. McCarthy

An invisible thread connects those who are destined to meet.

Chinese Proverb

IMPORTANCE OF RESIDENCY TRAINING

Postgraduate year one (PGY1) and postgraduate year two (PGY2) residency training lays a foundation for the pharmacy profession for expanded patient care roles; certifications beyond licensure, including credentialing and privileging; and achieving provider status.[1-3] In 2006, the American College of Clinical Pharmacy (ACCP) highlighted the importance of postgraduate residency training and described a vision whereby pharmacists involved in "direct patient care" will have completed residency training by 2020.[4] When looking to the future of pharmacy education and training, the ASHP Foundation Pharmacy Forecast 2019 reported that 61% of forecast panelists agreed that most pharmacy graduates will "not be prepared for front-line health-system pharmacy practice," thereby prompting health systems to "require a PGY1 residency for entry-level pharmacist positions."[5] ASHP, which is the only accreditation body for PGY1 and PGY2 residencies, has remained steadfast in its commitment to grow the number of residency programs and positions to achieve the goal that all pharmacists providing direct patient care will be residency trained.[6] Over the past 10 years, there has been unprecedented growth in the number of PGY1 and PGY2 pharmacy residency programs and positions (see **Figure 15-1**).[7] Between 2013 and 2017, residency positions increased from 3400 to over 4600.[6]

LEARNING OBJECTIVES

- Describe the importance of residency education and training.
- Define levels of postgraduate training.
- Summarize basic differences among different levels of learners.
- Demonstrate different preceptor roles, with activities based on the level of the learner.
- Provide tips to support students in navigating the residency process.

Note: The authors would like to acknowledge Christine L. Hall and Tony Huke for their foundational contributions to this chapter.

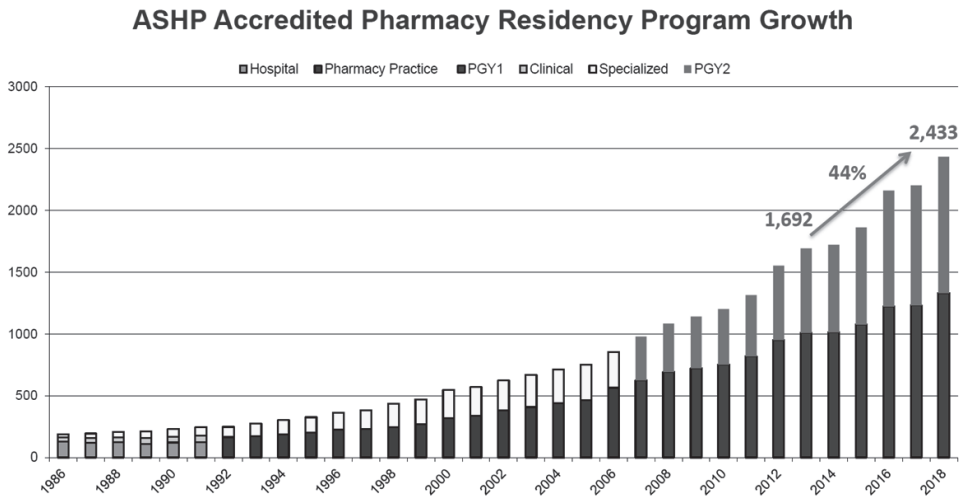

FIGURE 15-1. ASHP-Accredited Pharmacy Residency Program Growth (1986–2018) as of November 26, 2018.

Source: Courtesy of ASHP, Bethesda, MD. Copyright © 2018.

Pharmacy schools continue to increase awareness of postgraduate training through various forums including curriculum instruction, career fairs, regional residency showcases, and introductory pharmacy practice experience (IPPE) and advanced pharmacy practice experience (APPE) rotations. From 2007 to 2017, the number of pharmacy school graduates increased by 48% while the number of PGY1 applications increased by 159%.[8] Deciding whether to complete a residency and going through the process of residency program selection, application, and interview and matching (through Phase I or Phase II) can feel daunting to students. Preceptors have a unique opportunity to teach and mentor students as they begin their journey of obtaining a residency program that aligns with each student's professional and personal goals.

ASHP has dedicated a section entitled "Student Residency Guide" on its website that contains excellent resources and book suggestions to help students navigate the residency process.[9] Students may often ask preceptors for insight on the value of pursuing residency training. To address questions that students have about residency training, it is beneficial to describe the value of residency training and the reasons it is an important asset.[10] **Table 15-1** highlights the benefits of residency training as identified by practitioners who have completed PGY1 or PGY2 residency training.[11]

The process for and terminology associated with accreditation may be unfamiliar to some. **Box 15-1** summarizes the accreditation process and the various definitions.[12]

BOX 15-1. Residency Accreditation Terminology[12]

ASHP is the only organization that accredits pharmacy residency training programs. The ASHP accreditation standard defines the competency areas, goals, and objectives that must be taught within a program and holds programs to compliance with the standard. The ASHP Commission on Credentialing (COC) determines a program's accreditation status, which can be found within each program's listing on the ASHP Residency Directory. Accreditation is determined based on document review, an on-site survey, and review and evaluation by the COC.

TABLE 15-1. What Is the Value of a Residency?

Provides advanced knowledge and skills needed to provide high quality patient care.
Inspires you to invest in yourself.
Provides flexibility and adaptability to change interests during your developing career path.
Helps you discover what you are interested in by practicing in a variety of settings.
Builds resiliency and enhances stress and time management skills.
Provides an excellent forum for networking and learning from many individuals.
Fosters the development of lifelong relationships with co-residents, preceptors, mentors, residency program directors, and others.
Answers unknown questions through research.
Fosters independent critical thinking skills.
Advances emotional intelligence.
Helps you to become the best version of yourself.
Prepares you for certifications beyond licensure.
Enhances leadership development skills.
Provides a forum for endless learning opportunities.

Because there are multiple designations, ensure those pursuing residencies are familiar with the following designations:

Pre-candidate: the program has applied for accreditation and is in the process of recruiting their first resident. Ensure learners understand that the program is in development and they could possibly be the program's first resident. Students who are flexible, adaptable, open-minded, and willing to provide feedback are likely the best candidates to be first residents.

Candidate: a program that has a resident in training who has applied to ASHP for accreditation and is awaiting the official site survey and review/evaluation by the COC. In general, learners should be aware that this program is still new.

Accredited: the status granted after a program has met set requirements and has been reviewed and evaluated through an official process (e.g., document review, site survey, review and evaluation by the COC).

Conditional accreditation: a program that is not in substantial compliance with the accreditation standard due to severity of noncompliance and/or partial compliance findings. Programs must remedy identified problem areas and may undergo a subsequent on-site survey. In some cases, programs that fail to demonstrate resolution may have their accreditation withdrawn. Ensure that students considering programs with conditional accreditation understand the risk associated with this status.

The majority of residency programs are ASHP accredited; however, a small number of programs have not sought ASHP accreditation. Preceptors should advise students of the risks associated with unaccredited programs. Only programs that are pursuing accreditation or are accredited utilize the Pharmacy Online Residency Centralized Application Service (PhORCAS) and participate in the Resident Matching Program. It is important that students evaluating unaccredited programs understand a growing number of employers, particularly hospitals, require completion of ASHP-accredited residency programs for all pharmacists; those seeking to enter an accredited PGY2 program must have completed an accredited PGY1 program.

LEVELS OF POSTGRADUATE TRAINING

Similar to the medical training methods, postgraduate pharmacy training is designated by postgraduate year. PGY1 residencies are available in pharmacy, community-based pharmacy, and managed care pharmacy and are designed to build on Doctor of Pharmacy (PharmD) education and outcomes to produce clinical pharmacists eligible for board certification and PGY2 pharmacy residency training.[13-15]

PGY2 pharmacy residency programs build on PharmD education and PGY1 residency programs to develop clinical pharmacists in advanced areas of practice, and they are conducted in many advanced areas of pharmacy practice including:[16-18]

- Ambulatory care pharmacy
- Cardiology pharmacy
- Clinical pharmacogenomics
- Community-based pharmacy administration and leadership
- Critical care pharmacy
- Emergency medicine
- Geriatric pharmacy
- Health-system pharmacy administration and leadership
- Infectious diseases pharmacy
- Informatics
- Internal medicine pharmacy
- Investigational drug and research
- Medication-use safety and policy
- Neurology pharmacy
- Nutrition support
- Oncology pharmacy
- Pain management and palliative care
- Pediatric pharmacy
- Pharmacotherapy
- Pharmacy outcomes and healthcare analytics
- Psychiatric pharmacy
- Solid organ transplant pharmacy
- Specialty pharmacy administration and leadership

The expansion of PGY2 residency programs in terms of volume of programs available in addition to specialty and subspecialty types represented is a reflection of how the pharmacy profession is constantly preparing its workforce for the dynamic roles of health-system pharmacists in today's healthcare landscape. "The 2019 Match results for Phase I demonstrate remarkable expansion in residency programs and available positions," said Janet A. Silvester, PharmD, MBA, FASHP, Vice President, ASHP Accreditation Services Office. "PGY2 growth continues to outpace PGY1 growth, supporting the market demand for pharmacists with advanced training to fill medication expert roles on the patient care team."[19] External factors and trends in health-system pharmacy and healthcare as a whole will continue to drive changes in structure, standards, and preceptor development needs for residency training.[1] Clark proposed the adoption of two separate tracks for PGY2 residency programs; one for traditional patient care areas and a second for systems-of-care focusing on areas such as patient safety, informatics, and pharmacy administration.[1] Regardless of whether such unique tracks and corresponding standards are established, there will continue to be a need for training of clinical leadership skills within and outside of pharmacy, thus preceptor development in these areas is essential to support this focus during residency training.

It is important to note other types of advanced training available.

Postgraduate Year 3 (PGY3) Residencies

In recent years, the number of individuals seeking training beyond 2 years of residency has increased. The path for PGY3 training is not well established and may vary. In some instances, individuals are completing two specialty (PGY2) residency programs, whereas others are seeking subspecialized

training following completion of PGY1 and PGY2 residencies. Helling and Johnson described a framework for pharmacy residency training that includes PGY3 residencies and fellowships to fill PGY2 training gaps regarding specialty and subspecialty practices.[20] These types of practices tend to be narrowly focused and reflect a level of complexity of care that would benefit from a customized and/or elevated training structure. Preceptors should be equipped to discuss career options with trainees and assist them in evaluating training needs with potential career aspirations.

Fellowships

Pharmacy fellowships are highly individualized, research-focused programs designed to produce clinical researchers.[21] Given the growing complexity and cost of healthcare, the need for practice-focused researchers has grown. Fellowship programs are generally 2 years, and students develop research skills beyond those provided during residency training programs. Fellowships focus on subspecialty areas ranging from academic research to transplantation (see the ACCP online directory for a complete listing).[22]

ACCP defines a research fellowship as "a directed, highly individualized, postgraduate training program designed to prepare the participant to function as an independent investigator. The purpose of fellowship training is to develop competency and expertise in the scientific research process."[21] Because practice skills relevant to the knowledge area of the fellowship are expected, most fellowship candidates have prior practice experience or have completed a residency program. Fellowship graduates should be able to serve as a principal investigator and conduct research both independently and collaboratively. With support from their program director and preceptors, fellows should be given opportunities to conduct independent research and share their findings through presentation or publication.

Although there are no accreditation standards for fellowship programs, ACCP has approved general guidelines for research fellowship and training programs and has implemented a voluntary, peer-review process to ensure quality and assist preceptors in improving the program. Because fellowship programs are intended to be highly individualized, preceptors should be able to focus a fellow's training and education to his or her specific research interests and knowledge.[21] The ACCP Directory of Residencies, Fellowships, and Graduate Programs, hosted on the ACCP website, is the primary catalog of possible fellowship options. Those interested in pursuing a research fellowship may use this directory to identify available programs.[22]

Additional details on various pharmacy postgraduate programs, including general fellowship preceptor criteria and preceptor qualifications, can be found later in the chapter (Table 15-4).

Layered Learning Model

The *layered learning model* is an approach used in academic medical centers and community hospitals to align the delivery of patient care and the training of various levels of learners. In this model, the pharmacy team is integrated within the larger interdisciplinary healthcare team and extends care to more patients within the organization than is accomplished with the clinical specialist model. The team—comprised of pharmacists, pharmacy residents, and pharmacy students—is responsible for all aspects of patient-centered care. In most examples, the team is led by the attending pharmacist who has ultimate oversight of the patients on the team and is responsible for the activities of the other team members. In the layered learning model, each member (e.g., students, residents, pharmacists) operates at the highest legal capacity of their license to optimize patient care and associated outcomes (see **Table 15-2** for activities for each type of team member). Keys to

TABLE 15-2. Activities for Team Members in the Layered Learner Model

Pharmacist	Resident	Student
Orient learners to the practice area/ duties Model for learners Coordinate duties/patient assignment of learners Provide feedback/evaluation for learners	Serve as role models for students Ensure appropriateness of medication therapy Round independently Implement pharmacy-driven protocols Oversee students' activities	Perform medication histories Educate patients on medications, use, and adverse effects Identify patients acceptable for pharmacy-driven protocols Provide discharge counseling

successful integration of the layered learner model include effectively delineating activities/duties between team members; thoroughly orienting and onboarding learners to the organization, model, and team; and ensuring incorporation of the appropriate preceptor role and feedback related to each team member's performance.[23-27]

PRECEPTOR ROLES

The Learning Pyramid (see **Figure 15-2**) supports preceptors in identifying the most appropriate role to use for residents versus students. As students and residents progress through their programs, the preceptor's role should advance to reflect the growth, development, and independence of the learner.

Direct Instruction

Direct instruction is the teaching of content that is fundamental in nature.[28] IPPE and APPE students both require a fair amount of direct instruction through their experiences. Direct instruction is also appropriate in PGY1 residents, especially early in the residency year or if the resident is in an area with which they have limited previous experience. Examples of tasks associated with direct instruction are include readings,

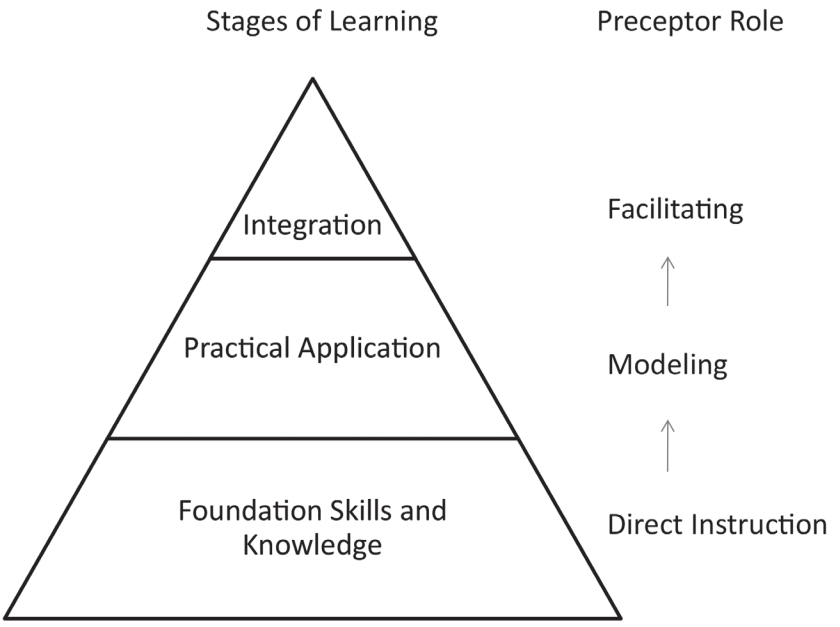

FIGURE 15-2. The Learning Pyramid.

Source: Nimmo CM. Developing training materials and programs; facilitating learning in staff development. In: Nimmo CM, Guerrero R, Greene SA, et al., eds. *Staff Development for Pharmacy Practice*. Bethesda, MD; ASHP. Copyright © 2000.

topic discussions, case-based teaching, and lectures. Although all levels of learners may need direct instruction, it is important to keep in mind that residents have greater autonomy; therefore, they should demonstrate independent, self-directed learning. Students, on the other hand, may benefit from didactic lectures or topic discussions.

Modeling

Modeling is demonstrating a skill or process while "thinking out loud," so the learners can witness the thoughts and problem-solving skills in addition to other observable actions of the preceptor. One example is providing medication education to a patient as students or residents observe. It is important for preceptors to explain and review their thought processes both before and after the activity. This preceptor role will be used for both students and residents; however, residents may progress to the next level—coaching—more rapidly.

Coaching

Coaching is having the preceptor observe and possibly assist learners as they participate in patient care activities and problem solving. In this preceptor role, the learner should "think out loud" and explain his or her thought processes. Again, this preceptor role will be used in situations for both IPPE and APPE students and residents. When mastery of a specific task is demonstrated, preceptors of high-performing students and residents can transition to facilitation once preceptors are comfortable or prior performance supports an individual's ability to perform independently.

Facilitating

In certain situations, high-performing students may progress to facilitating; this preceptor role is used mostly with residents and beyond. *Facilitating* allows the learner to practice independently, with the preceptor being available as needed. Preceptors must be comfortable with the learner's ability to self-evaluate and provide patient care activities independently yet be able to provide high-quality feedback to continue advancing the learner's growth and development.

PRECEPTOR PEARLS

It is important for preceptors to explain and review their thought processes both* before *and* after *an activity.

PRECEPTING DIFFERENT LEVELS OF LEARNERS

Preceptors may be exposed to more than one type of learner, from IPPE and APPE students to PGY1 and PGY2 residents, or more advanced postgraduate pharmacy trainees (e.g., PGY3 residents or fellows). It can be challenging at times to precept different levels of learners, especially concurrently. Having an understanding of the differences among types of learners will allow preceptors to more effectively integrate students and residents into their practice setting (see **Table 15-3** for differences between students and residents). Students tend to be less experienced and are focused on gathering information and developing basic critical thinking skills. During IPPE rotations, students are gaining some of their initial exposure to various pharmacy practice settings and have not completed all of their didactic coursework. As a result, their clinical problem-solving skills and knowledge base are still under development. As APPE students have completed all didactic coursework, APPE rotations provide them the opportunity to practice applying concepts learned in the classroom in real-life practice settings. Students typically have a variety of interests and are still being exposed to different practice areas within the pharmacy profession.

However, residents, as licensed pharmacists, typically have more experience and

TABLE 15-3. Differences among Students and Residents

Student	Resident
Licensed interns	Licensed pharmacists
Multiple practice sites	Focused practice site(s)
Less experienced	More experienced
Variety of interests	Generally more focused in specific practice area
Variable performers	Motivated to be high performers
Knowledge focused	Skill focused

are focused on the synthesis of information or skill-based development. The quality of students on APPE rotations can vary considerably, whereas most residents tend to be highly motivated achievers. PGY1 residents have generally narrowed their focus down to a practice setting (e.g., acute care, health system, ambulatory, community) and may continue to have many interests. Some PGY1 pharmacy residents have already identified a specific area of interest for pursuit of a PGY2 and specialized practice. Residents spend the full year at one institution or system, whereas students may switch to different sites every 4–6 weeks while on APPE rotations (or even more frequently with IPPE students). The consistent, onsite presence of residents allows for improved communication between preceptors and customization of their learning experiences. Unlike preceptors for pharmacy students who are not permitted to share information about student performance between them, residency programs have established processes for sharing information related to resident performance, strengths, areas for improvements, interests, and goals. In most cases, this approach results in accelerated professional growth and development throughout the residency program.

Precepting PGY2 Residents

PGY2 residencies are intended to provide residents the opportunity to function independently as practitioners often in specialized practice areas and to further develop the breadth and depth of their knowledge and experience beyond PGY1 training. The specialized nature of practice settings for which PGY2 residents train is reflected in the training programs' learning goals and objectives. With this in mind, the ASHP accreditation standard has minimum requirements for both PGY2 program directors and preceptors; this includes actively practicing in the area and having completed a PGY2 area in the advanced area of practice (see Table 15-4 later in this chapter). PGY2 program directors and preceptors should actively practice in the particular area and have completed a PGY2 residency in the advanced area of practice. PGY2 program directors are required to have additional training and practice experience beyond that which is required by preceptors to support the higher level of knowledge, skills, attitudes, and abilities incorporated into PGY2 residency programs.

Alternatively, the accreditation standard allows for equivalent practice experience in lieu of completion of a PGY2 residency of 5 years for program directors and 3 years for preceptors.[29] It is not uncommon for PGY2 residency programs to include nonpharmacists as co-preceptors and/or as a way to offer an experience where pharmacy may not have a true presence (e.g., toxicology) or full integration into a healthcare team. The integration of physicians or nurse practitioners as co-preceptors in the residency learning experience, for example, can effectively provide opportunities for the resident to practice independently within a multidisciplinary team.

Similar to precepting students and PGY1 residents, precepting PGY2 residents benefits from a multifaceted teaching style

approach. Although all four preceptor roles are incorporated into PGY2 residencies, the majority of training is accomplished through coaching and facilitation. Direct instruction may be incorporated through independent evaluation and critique of applicable primary literature and practice guidelines. The modeling provided to PGY2 residents is likely concentrated early in the program (i.e., orientation) and at the beginning of each new learning experience. After practice expectations are set for the program and learning experience, PGY2 residents should be provided with numerous opportunities to practice independently and serve as practice-extenders while receiving timely and comprehensive feedback. For example, a PGY2 resident in ambulatory care pharmacy can expand patient care services in the ambulatory practice area by starting clinical pharmacy services in a previously unserved area. The integration of longitudinal experiences within PGY2 training may be leveraged to empower residents to attain a sense of independence in certain practice settings. For example, a PGY2 solid organ transplant resident who provides care to post-transplant patients in the clinic would augment that resident's ability to provide coverage independently for the transplant team by applying accumulated knowledge and experience. Another example of this longitudinal rotation model is a pharmacy administration program that offers experiences regarding pharmacy regulation and compliance over the course of a full year. In this model, preceptors expose residents to implications of such frameworks at the point of relevance rather than during a dedicated rotation block.

Preceptor feedback is important when assessing performance in a rotation or longitudinal experience. To facilitate optimal growth, preceptor feedback should focus on the learner's strengths and areas of improvement and encourage residents to incorporate feedback into their daily practice environment. PGY2 residents often have self-awareness of the modalities and approaches to learning that they have deemed most effective for them personally and, thus, they can proactively close the feedback loop in a meaningful manner.

CASE SCENARIO 1

You are the preceptor for an internal medicine rotation. You currently have a PGY1 pharmacy resident and an APPE student. The PGY1 pharmacy resident is completing her second rotation in internal medicine and your APPE student is in his first week on rotation and is new to the acute care setting. During patient review, you notice a vancomycin progress note needs to be completed in the electronic medical record. While assigning this task to your PGY1 resident and student, what preceptor role would be most appropriate for each?

Based on the fact the PGY1 resident has completed a previous internal medicine rotation, it is most appropriate to start with coaching or facilitating. If it has been noted on previous evaluations that the resident needs improvement on her documentation of patient care activities, ask her to complete the evaluation. Before the resident documents, have her explain her thought process and provide any necessary feedback. If the resident demonstrates competence with this task and she does not need further coaching, ask her to complete the chart documentation independently and discuss her assessment with the medical team.

Because the APPE student is new to your practice setting and patient population, start by reviewing any site-specific processes or policies, protocols, or guidelines with him. The student will need to master this direct instruction phase prior to progressing to modeling.

PRECEPTOR PEARLS

Provide a PGY2 resident with the information (knowledge) and experience (skills and abilities) that you would desire in a new coworker or employee, and you will produce a highly functioning and employable pharmacist.

Establishing Expectations

With all types of learners, expectations should be established at the beginning of the learning experience and be well defined. Students may be less independent and require more guidance throughout the learning experience. However, as licensed pharmacists, residents are typically more independent. With new experiences, residents may require additional coaching and modeling. Regardless of the learner being precepted (student or resident), a comprehensive orientation to the site and the rotation/learning experience should be completed. A common source of dissatisfaction between learners and preceptors centers on the lack of clarity regarding expectations. Preceptors should identify key expectations regarding their practice area and associated policies and procedures (e.g., dress code, punctuality, use of electronic communication and social media) and require students and residents to review them on the first day of the rotation. Additional items such as a rotation calendar as well as examples of required work products, readings, and meetings (required and optional) can be helpful in supporting open communication about expectations among preceptors, students, and residents. At the beginning of each learning experience, preceptors should assess students' and residents' skill levels and customize expectation and goals accordingly.

PRECEPTOR REQUIREMENTS

Although some pharmacists may be preceptors to students, residents, and fellows, established minimum preceptor eligibility criteria and qualifications differ among the levels of learners. As documented below, qualifications for preceptors of pharmacy students are more focused on the preceptor's characteristics than specific training and practice requirements. However, ASHP has determined specific minimum training and practice requirements for resident preceptors (**Table 15-4**). The most up-to-date requirements for pharmacy residency preceptors can be found in the guidance documents associated with the specific residency accreditation standards on the ASHP website.[30]

Preceptors-in-Training

ASHP PGY1 and PGY2 accreditation standards allow for the use of preceptors-in-training for pharmacists who do not yet fully meet qualifications to be residency preceptors.[13-15,29] This approach benefits residents, preceptors, and programs as it allows expansion of the preceptor base while ensuring the development of less experienced preceptors. It is important for health-system pharmacy departments to support the professional growth of preceptors-in-training who can be integrated into the layered learner continuum.

Preceptors of Students

The Accreditation Council for Pharmacy Education has summarized qualifications for preceptors of pharmacy students:[31]

- Practice ethically and with compassion for patients.
- Accept personal responsibility for patient outcomes.
- Have professional training, experience, and competence commensurate with their position.
- Utilize clinical and scientific publications in clinical care decision making and evidence-based practice.
- Have a desire to educate others (e.g., patients, caregivers, other healthcare professionals, students, pharmacy residents).

CASE SCENARIO 2

You are the PGY1 residency program director of a hospital-based program and have four residents in your program. You are working with each resident to determine post-residency employment options and updating individual development (training) plans.

Resident 1 is interested in general clinical positions; because of personal reasons, she feels that she must enter the workforce following completion of her PGY1 program.

Resident 2 has a passion for oncology pharmacy practice, and his 5-year goal is to practice as an oncology clinical pharmacist in an academic medical center.

Resident 3 is interested in cardiology clinical research and sees herself as a school of pharmacy faculty member with a heavy focus on cardiology research.

Resident 4 is interested in psychiatric pharmacy and emergency medicine. His ideal career involves caring for psychiatric and emergency medicine patients, and he is willing to invest as much training time as needed to have this type of practice.

What potential career options will you discuss with each resident?

Based on the completion of her PGY1 and interest in joining the workforce, resident 1 is well suited for an entry-level clinical generalist position in a hospital. Have a discussion with her about job searching strategies and application processes and offer to serve as a professional reference.

Resident 2's interests and goals would likely be met through completion of a PGY2 oncology pharmacy residency program. Discuss the PGY2 program and application process and assess if you would be willing to serve as professional reference, if asked.

Resident 3 could pursue a cardiology clinical fellowship or a PGY2 cardiology residency program, followed by a cardiology clinical fellowship. Discuss strategies with her for evaluating programmatic requirements as well as application processes for PGY2 residency programs and clinical fellowships, and assess if you would be willing to serve as a professional reference, if asked.

Resident 4's needs may be met by completion of PGY2 residencies in psychiatric pharmacy and emergency medicine. Discuss strategies with him for evaluating programmatic requirements as well as application processes for PGY2 residency programs, and assess if you would be willing to serve as a professional reference, if asked.

- Have an aptitude to facilitate learning.
- Be able to document and assess student performance.
- Have a systematic, self-directed approach to their own continuing professional development.
- Collaborate with other healthcare professionals as a member of a team.
- Be committed to their organization, professional societies, and the community.

Preceptors must demonstrate the ability to precept residents' learning experiences by meeting one or more qualifying characteristics in all of the following areas:[13-15,29]

- Demonstrate the ability to precept residents' learning experiences by use of clinical teaching roles (i.e., instructing, modeling, coaching, facilitating) at the level required by residents.
- Have the ability to assess residents' performance.
- Have recognition in the area of pharmacy practice for which they serve as preceptors.

TABLE 15-4. Characteristics of Preceptors for Postgraduate Learners

PGY1 Residents	PGY2 Residents	Clinical Research Fellows
Licensed pharmacists who: ◆ Have completed an ASHP-accredited PGY1 residency followed by a minimum of 1 year of pharmacy practice experience; or ◆ Have completed an ASHP-accredited PGY1 residency followed by an ASHP-accredited PGY2 residency and a minimum of 6 months of pharmacy practice experience; or ◆ Without completion of an ASHP-accredited PGY1 residency, have 3 or more years of pharmacy practice experience. ◆ Additional qualifications related to practice and professional contributions can be found in the accreditation standard.	Licensed pharmacists who: ◆ Have completed an ASHP-accredited PGY2 residency followed by a minimum of 1 year of pharmacy practice in the advanced practice area; or ◆ Without completion of an ASHP-accredited PGY2 residency, preceptors must demonstrate mastery of the knowledge, skills, attitudes, and abilities expected of one who has completed a PGY2 residency in the advanced practice area AND have a minimum of 3 years of practice in the advanced area. ◆ Additional qualifications related to practice and professional contributions can be found in the accreditation standard.	Clinical scientists who: ◆ Have an established and on-going record of independent research accomplishments and expertise in the area of specialization related to the fellowship, which may be exemplified by: ■ Fellowship training, a graduate degree, and/or equivalent experience; ■ Principal or primary investigator on research grants and/or projects; and ■ Published research papers in peer-reviewed scientific literature on which the preceptor is the primary or senior author. ■ Active collaborative research relationships with other scientists.

- Have an established, active practice in the area for which they serve as preceptor.
- Maintain continuity of practice during the time of residents' learning experiences.
- Demonstrate ongoing professionalism, including a personal commitment to advancing the profession.

ADVISING STUDENTS ON THE RESIDENCY PROCESS

As a preceptor, you may be asked by students to help them navigate the application process. It is important to remind students that residency training is a serious commitment and should not be entered into lightly. Each student should be pursuing residency training because they are passionate and view residencies as a stepping stone to career advancement. Preparation is key for any student desiring to obtain a residency program of his or her top choice. Additionally, you may be approached by students asking you to review their curriculum vitae (CV) and/or letter of intent or serve as a reference writer. As a preceptor, you can have a great impact by investing time in guiding students as they select and apply to residency programs. Preceptors can have a tremendous impact in making the student's journey successful by providing them with CV and letter of intent writing pearls, in addition to determining the most appropriate reference writers (see **Boxes 15-2**, **15-3**, and **15-4**).

Students should first ask the person writing the reference letter if he or she has enough knowledge about the student and will write a positive letter. Reference writers should be honest when discussing the student's strengths and areas of improvement. If a reference writer is unable to write a positive letter, he or she should inform the student and explain the rationale. Reference writers should advise students to educate

BOX 15-2. Curriculum Vitae

- Encourage students to start on the CV during the summer of the APPE rotations.
- Remind students that accuracy, organization, grammar, punctuation, and appearance are important.
- Recommend that students have multiple preceptors and mentors review their CVs.
- Remind students to utilize the many resources of their pharmacy schools and pharmacy organizations.

BOX 15-3. Letter of Intent

- Potential employers, including residency programs, require candidates to submit a letter of intent as part of the application process.
- The goal of the letter of intent is to demonstrate to the reader what program or site-specific characteristics appeal to the candidate and to correlate the candidate's qualifications to the program/site.
- Students should thoroughly research the program/employer prior to submitting a letter of intent.
- Students should address program-specific requirements (e.g., page length) and additional questions about the letter of intent; failing to do so may result in not obtaining an interview.
- The letter should be professionally addressed to the correct recipient (e.g., "Dear Sir/Madam" is *not* recommended) and organization (e.g., ensure the correct organization is named).

their reference writers to follow program-specific criteria. Each program is different and may have areas of focus or discussion that should be highlighted in the letters of reference.

BOX 15-4. Reference Writer/ Letter of Recommendation

Who Makes a Good Reference Letter Writer?

- Students' IPPE or APPE preceptors (faculty or nonfaculty) who can attest to the student's clinical and professional abilities.
- Managers/supervisors from their place of employment.
- Faculty members who have served as mentors, academic advisors, student organization advisors, or IPPE or APPE preceptors.
- Other pharmacists who have a good understanding of their professional and clinical skills.
- People who are familiar with the residency application process and fit the above descriptions.

Who Does Not Make a Good Reference Letter Writer?

- Individuals who do not have the ability to evaluate professional, work, or clinical skills (e.g., friends, family members).
- Individuals who are not familiar with the reference writing process and pharmacy residency program requirements/ expectations; nonpharmacists may not be appropriate choices.

Valuable Resources

Resources that may be valuable to students seeking more information about the residency program application and interview process include:

- Caballero J, Clauson KA, Benavides S. *Get the Residency: ASHP's Guide to Residency Interviews and Preparation*, 2nd ed. Bethesda, MD: ASHP; 2019.
- Bookstaver PB, Caulder CR, Smith KM, et al. *Roadmap to Postgraduate Training in Pharmacy*. New York, NY: McGraw-Hill Medical; 2013.

- Bauman JL. *ACCP Field Guide to Becoming a Standout Pharmacy Residency Candidate.* 2nd ed. Lenexa, KS: American College of Clinical Pharmacy; 2016.

Suggested Residency Application Timelines

Below is a suggested residency application timeline (based on a 4-year Doctor of Pharmacy curriculum) that can be used as a guide when discussing the process with students.

First and Second Professional Years

Advise students to attend career fairs or local residency showcases as early as their first professional year of pharmacy school. It is never too early to obtain information by speaking with faculty, preceptors, students, residents, and residency program directors. To assist students in becoming a high-quality and competitive candidate, encourage them to obtain employment as a pharmacy intern as the experience will be valuable and help them narrow their interest areas. Students may ask how important grades are in becoming a standout candidate. Preceptors may suggest that students should strive for learning and understanding the material and doing their best academically while being well-rounded. Student participation in extracurricular activities should be encouraged as they can learn many valuable skills with associated positions (e.g., class president, secretary, treasurer, active organization member). Preceptors may want to ask students about their level of interest in pursuing research during pharmacy school, as this experience may help prepare them to conduct future research as a resident, practitioner, or faculty member.

Third Professional Year

As students enter their third professional year, they will be selecting their APPE rotations. In addition to each school's required APPE rotations, encourage students interested in residency training to challenge themselves by selecting APPE rotations that will prepare them for a residency. For example, students interested in acute care inpatient-focused residencies should seek to complete required or elective APPE rotations in acute care settings (e.g., teaching hospitals, community hospitals, academic medical centers). Students interested in outpatient or ambulatory care-focused residencies should seek APPE rotations in ambulatory care advanced practice outpatient settings (e.g, ambulatory clinics, Veteran's Administration facilities, outpatient pharmacies with medication management services). Likewise, students who are interested in more focused career paths such as healthcare administration or managed care should seek APPE rotations in these areas that will enhance their knowledge of practice expectations and further confirm their interest(s). If a special summer internship program or a residency track APPE rotational experience is offered through their school, encourage students to consider this type of training as it can provide them with invaluable experiences.

Fourth Professional Year

May to August

- During the summer months of their fourth and final year of pharmacy school, students should begin to identify individuals to write a positive letter of recommendation on their behalf.
- Students should be instructed to search the ASHP directory for a listing of pre-candidate, candidate, and accredited residency programs.[32]

September

- Students should update their CV.
- Students should take advantage of the ASHP CV review program, if needed.
- Should students ask you to review their CV, remind them that the CV will take time to construct and particular attention should be dedicated to grammar, organization, and content.
- Students should be reminded to begin formally asking for "favorable" letters of recommendation.

October

- Students should attend a local career fair or residency showcase to begin networking in earnest with other programs, residents, and program directors.
- Students should register for the ASHP Midyear Clinical Meeting (if attending).
- Students should identify residency programs to visit at the Residency Showcase at Midyear.
- Students should determine whether to register for the Personnel Placement Service (PPS) at Midyear.
- Students should make travel and hotel reservations for Midyear.

November

- Students should register for the Pharmacy Online Residency Centralized Application Service (PhORCAS).
- Students should request that pharmacy school transcripts be sent to PhORCAS! (Schools are closed for multiple days prior to most program application deadlines. Students should be informed that delays in submitting transcript requests can result in students missing program application deadlines and being removed from consideration.)
- Students should register for the Match through the National Matching Service to obtain a candidate Match number.
- Students should finalize their CV and begin to draft a letter of intent.

With many local and regional residency showcases offered throughout the country, a common inquiry of students is whether or not they should incur the financial costs and time to attend the ASHP Midyear Clinical Meeting. This meeting allows students to network and attend the Residency Showcase. Attendance is not mandatory, but students contemplating the trip may need guidance.

December

- If student desires, he or she should attend the ASHP Midyear Clinical Meeting.
- Students who attend the Residency Showcase should identify suitable programs.
- Students should determine individual residency program application requirements and deadlines.
- Students should submit residency applications through PhORCAS before program deadlines.

Box 15-5 contains additional information to help students succeed at the ASHP Midyear Clinical Meeting.

BOX 15-5. Tools to Help Students Succeed at the ASHP Midyear Clinical Meeting

Third Professional Year

- Attendance can be encouraged, but remind students it is not required. It can alleviate anxiety for those students who plan to attend Midyear during their fourth year.
- Students who are not in their final year of school are only allowed attend the showcase during the last hour.
- Students should be encouraged to utilize all networking opportunities (e.g., state receptions, site-specific receptions) and to introduce themselves to residency program directors, preceptors, and residents.
- Students may attend the student educational sessions on Sunday designed to inform them about residency programs and other programs, such as career pearls and résumé writing.
- You should discuss the ASHP Residency Showcase experience with students. Students can utilize the showcase to meet with additional

residency programs in an efficient manner.

Fourth Professional Year

Helping Learners Choose Residencies:

Residency program selection is based on many factors.

- Areas of interest, including the following considerations: customization of rotations based on interest, level of responsibility in clinical/on-call staffing, opportunities to precept and/or teach at a College of Pharmacy, etc.
- Reputation/word of mouth
- Geography
  - Where does the candidate want to live?
  - Where does the candidate *not* want to live?
- Information found on the ASHP online residency directory [24]
  - Hospitals that have PGY2 programs can aid in finding PGY1 programs that have expertise in areas that may match the candidate's interests.

Before the Midyear Clinical Meeting:

- Have students update their CV and review it or have it reviewed by another advisor.
- Have students prepare professional business cards to share with new contacts they meet at the multiple networking opportunities.
- Recommend the use of ASHP's Residency Directory to research programs in advance.[32]
- Encourage students to utilize program websites to find information on how a specific program may be recruiting (e.g., showcase only, showcase and PPS).
- Help students determine which programs are participating in PPS so they can make the best decisions for the limited time they are at the meeting. PPS is an additional cost, and it is more commonly utilized to search for by PGY2 programs and full-time positions/jobs.
- Encourage students to plan their trip in advance, mapping out the programs they will visit at the Residency Showcase.

During the Meeting:

- Remind students of professional dress attire. First impressions are the most important.
- Continue to encourage networking opportunities and educational sessions, as noted above.
- Provide information regarding the Residency Showcase:
  - Three sessions—Monday afternoon, Tuesday morning, and Tuesday afternoon. Programs participate in only *one* of these sessions.
  - Plan the route for each session using the maps provided.
  - Be respectful of each program's time.
  - Prepare questions before visiting each booth.
  - Talk to residents, preceptors, and the residency program director, if able.
  - Ask program-specific questions to demonstrate that they have researched their program as well as a consistent set of questions to ask programs and use as a comparison, if needed.

After the Meeting:

- Send an email (with a handwritten thank-you card to follow) to show gratitude to the program's residents and program director(s) for taking time to visit.
- Start the application process within PhORCAS and start preparing for interviews.

One pertinent aspect of the residency application process that any potential resident and preceptor advising students should be aware of is the Match, the informal name for the ASHP Residency Matching Program (RMP) administered by National Matching Services Inc. (NMS). This program is the formal way to match candidates with programs for PGY1 and PGY2 residencies after onsite interviews have been conducted.

In 2016, ASHP instituted the Phase II Match. The purpose of the Phase II Match is to ensure that student pharmacists have another structured opportunity to apply for open residency positions through an orderly application process. When the Phase II Match has concluded, any remaining candidates or programs will proceed outside of the RMP. It is important to remind students that the results of the RMP constitute binding agreements between applicants and residency programs that may not be reversed unilaterally by either party. Backing out of a position post-Match should be avoided unless a candidate has a significant situational change that is clearly communicated to the program in a timely manner. This should be avoided if at all possible.

January

- Submit remaining residency applications.
- Prepare for residency interviews.
- Accept or decline program offers to interview.
- Begin program interviews (remind students about professional dress and conduct during the interview process).

February

- Complete program interviews.
- Determine preliminary residency rank order list.
- Review rank order list instructions.

March

- Submit final Phase I residency rank order list by the deadline.
- Receive Phase I Match result.
- If matched, congratulate the student.

Unmatched Candidates

- Unmatched candidates will go through the Phase II Match.
- Unmatched candidates utilize PhORCAS to search for and apply to open positions.
- Submit residency applications for Phase II Match.
- Complete Phase II Match interviews.

April

- Submit final Phase II residency rank order list.
- Receive Phase II Match result.
- If matched, congratulate the student.
- If unmatched, assist the student for post-Match process.

Post-Match Process

- Unmatched applicants and programs with unfilled positions are free to contact each other to fill remaining positions.

May

- Prepare for graduation.
- Prepare for required pharmacist licensure exams.

June/July

- Begin residency year.

CASE SCENARIO 3

It is the month of August, and you are the preceptor of a second-year student on his hospital IPPE rotation and two students on their acute care APPE rotation. Each student has expressed interest in residency training and has asked you to discuss the topic and advise them on the application, interview, and matching process. You ask each candidate the following question: *Why are you interested in residency training, and how will a residency help you reach your career goal(s)?*

The IPPE student enjoys hospital pharmacy but is unsure if a residency is the right path. He is an average student and has been very involved in school organizations. He is unsure how a residency will help him reach his career goals.

APPE student "A" answers that she is planning on going back to her hometown and wants to eventually take over her aunt's pharmacy, but she is unsure if an ambulatory residency is the right path for her.

APPE student "B" answers that she has been interested in oncology pharmacy since her grandmother died from lung cancer when student "B" was in high school. She wants to learn the skills necessary to provide the same type of care her grandmother received. She would like to teach students and conduct research. She is passionate about being a resident and understands that a residency is necessary to help her achieve her career goals.

What advice would you give each candidate?

The IPPE student is still in the "information gathering phase." He is exploring his options and keeping an open mind. Reassure him that as he continues in his coursework, he may find out what he really likes. Offer to mentor him one-on-one on the benefits of residency training and how a residency can help him reach his career goals.

APPE student "A" may be a great candidate for a PGY1 and possibly a PGY2 ambulatory or community-based residency program. She may learn many skills during her residency training that will help her in taking over her aunt's pharmacy while working at the top of her license. Encourage her to look into community-based and ambulatory care programs and offer to meet any time.

APPE student "B" has her mind made up. She knows exactly where she sees herself, and she knows that residency training is the next step in preparing her for her future. It appears that she has prepared herself well. Congratulate her on her decision, ask if she has additional questions, and offer to help guide her through the process.

PRECEPTOR PEARLS

Midyear is an opportunity to network and attend the Residency Showcase. Give your students tools to make the most of the meeting and sessions.

SUMMARY

Regardless of the level of your current learner(s), understanding their knowledge base, skill set, aspirations, and commitment will help you as a preceptor in successfully advising them on choices they can make to meet their career goals. Thoroughly reviewing expectations and orienting the student to your practice area and learning experience is essential. Preceptors are encouraged to utilize the four preceptor roles as needed by the learner and to identify tasks for each level

of learner who allows them to practice at the highest level based on their specific license. Preceptor development is essential to ensure residency programs are equipped to meet the dynamic and customized needs of residents.

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16

Resiliency and Well-Being

Bryson M. Duhon, Alex C. Varkey, Althea L. Woodruff, Kevin R. Donahue, and Steven A. Scott

> We can't practice compassion with other people if we can't treat ourselves kindly.
>
> *Brené Brown*

WELL-BEING, RESILIENCE, AND CLINICIAN BURNOUT RESEARCH

Clinical well-being has gained increased interest in light of growing rates of burnout among health professionals. *Well-being* in its simplest form is defined as "the state of being comfortable, healthy, and happy"; however, there are many components that contribute to overall well-being.[1] Resilience, social connectedness, self-compassion, and mindfulness are just a few of the qualities that enhance well-being. Without a dedicated approach to the development of well-being, burnout can easily creep into any clinician's life. *Burnout* is distinct from stress, and although there is no agreed-upon definition, it typically consists of three components: 1) emotional exhaustion, 2) depersonalization and cynicism, and 3) a decreased sense of accomplishment that leads to reduced performance.[2] Burnout is distinct from depression in that burnout affects only the work components of one's life, whereas depression is all-encompassing. A caveat to this is that research has shown those suffering from burnout are at a higher risk for the development of depression.[3] See **Table 16-1** for common definitions related to well-being and resilience.

In 2016, then-acting United States Surgeon General Vice Admiral Vivek Murthy, MD, MBA, participated in an interview ahead of the Association of Health Care Journalists Annual Meeting. In that interview, Dr. Murthy shared

LEARNING OBJECTIVES

- Describe the statistics of burnout among health professionals.
- Define burnout and its associated components.
- List strategies to improve student well-being.
- Describe interventions and opportunities to enhance communication between preceptors and students regarding burnout and resilience.

TABLE 16-1. Common Definitions Related to Well-Being and Resilience

Flourishing (or *thriving*)***:*** Exhibiting high levels of emotional, psychological, and social well-being[42]
Positive psychology: The science of what makes us able to flourish, or thrive[38]
Resilience: Being persistent in the face of challenges[19,43]
Social connectedness: Feeling of being "human among humans" and identifying with those who are different from ourselves[44,45]
Autonomy (or *internal locus of control*)***:*** Feeling that you are self-directed; perception that you have control over your choices and behaviors[25,46]
Life purpose: Belief that one lives a meaningful existence; having a cause that's "greater and more enduring" than one's self[46]
Growth mindset: Working from the belief that one's basic qualities are things that can be developed through one's efforts versus being born with certain fixed talents or abilities, which is defined as a ***fixed mindset***[29]
Self-compassion: Recognizing our shared humanity and treating one's self kindly to lessen suffering and to focus on learning and growing from failure[32]
Mindfulness: "The awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment"[34,35]
Flow: Being totally immersed or absorbed in an activity; a sense of losing yourself in an activity[38,47]
Gratitude: "A felt sense of wonder, thankfulness, and appreciation for life"[38,39]

one of his emerging priorities that he further developed throughout the remainder of his term as Surgeon General—addressing physician burnout and its impact on healthcare. Dr. Murthy explained his reasoning, stating "if healthcare providers aren't well, it is hard for them to heal the people for whom they are caring."[4] This statement not only applies to physicians, and there is reason to believe that is why Dr. Murthy used the term *healthcare provider* versus *physician* in that specific statement. The concept of burnout applies to all healthcare professionals, including pharmacists and pharmacy personnel, in today's demanding environment.

Since Dr. Murthy's assertion of clinician burnout being a national healthcare issue requiring attention and response, more literature related to clinician burnout is coming to the forefront, even though research on this subject has been conducted and published for decades. In response to this increased awareness in the healthcare world, the National Academy of Medicine recently developed the Action Collaborative on Clinician Well-Being and Resilience, which consists of many different sponsoring and contributing organizations including several pharmacy associations such as ASHP.[5] The Action Collaborative, which started in 2017, consists of five work groups committed to developing resources to address individual and system issues related to clinician well-being over a 4-year period. The Collaborative's aims are:

- Raise the visibility of clinician anxiety, burnout, depression, stress, and suicide.
- Improve baseline understanding of challenges to clinician well-being.
- Advance evidence-based, multidisciplinary solutions to improve patient care by caring for the caregiver (https://nam.edu/initiatives/clinician-resilience-and-well-being/#noodle).

The Action Collaborative has created an online Knowledge Hub, consisting of a search engine for articles and other resources

related to clinician burnout and well-being (https://nam.edu/clinicianwellbeing/).[6] This is a wonderful resource for clinicians, preceptors, and learners alike when engaging in conversations about the individual and system-related solutions to preserving clinician well-being.

When it comes to research on clinician burnout and its impact on patient care, the vast majority of available literature revolves around physicians, nurses, and other healthcare professionals rather than pharmacists and pharmacy personnel. Recently, thanks to pharmacy organizations including ASHP and the American Pharmacists Association (APhA), there is increased focus on this area of concern; more research on the subject as it relates to pharmacy practice is emerging.

As previously mentioned, burnout consists of the following three characteristics—emotional exhaustion, depersonalization, and a decreased sense of accomplishment, which can lead to poorer performance. Pharmacy preceptors should be cognizant of what these characteristics may look like within themselves as well as their colleagues and their learners.

According to recently published literature, there is evidence of burnout in pharmacists, including health-system pharmacists. In one study, health-system pharmacists were required to complete the Maslach Burnout Inventory Human Services Survey, a widely accepted instrument that assesses levels of burnout. Of the 329 participants, just over half (53%) reported scores that were consistent with a high degree of burnout in at least one of the three subscales of the inventory: emotional exhaustion, depersonalization, and reduced personal accomplishment.[7] These scores indicate that pharmacists are a prime population of clinicians to study as it relates to the causes of burnout for pharmacists, the impact of burnout on patient care provided by pharmacists, and eventually system solutions to curb pharmacist burnout.

Burnout has been associated with multiple negative patient outcomes, including lower patient satisfaction, reduced patient safety, and ultimately, inferior quality of care.[8] There are several studies that have shown the impact of clinician burnout as it relates to clinician mindset, learner development, and overall healthcare quality.

In 2002, published results from a study conducted at the University of Washington Hospitals revealed medical resident burnout and the unfortunate consequences on patient care.[9] As in the previous study, the Maslach Burnout Inventory was used to identify residents who were actively experiencing burnout. The differences between the burnout and no-burnout groups were frightening. When compared with the residents not experiencing burnout, the group experiencing burnout related more closely to the following statements:[9]

- "I found myself discharging patients to make the service 'manageable' because the team was too busy."
- "I did not fully discuss treatment options or answer a patient's questions."
- "I made treatment or medication errors that were not due to a lack of knowledge or inexperience."
- "I paid little attention to the social or personal impact of an illness on a patient."
- "I had little emotional reaction to the death of one of my patients."
- "I felt guilty about how I treated one of my patients from a humanitarian standpoint."

This highlights a significant consideration for preceptors of learners who may be experiencing burnout. Exhibiting practices such as premature discharging of patients, poor communication, medical or medication errors, and stunted emotions related to patient mortality serve as a very difficult foundation for the learner's future in practice, and intervention may be warranted.

Another study that was conducted among internal medicine residents at the

Mayo Clinic showed correlations between measured rates of daytime sleepiness and distress and corresponding increases in self-reported medical errors.[10] The residents were measured using a series of surveys validated to measure daytime sleepiness, burnout, and depression. Although the methods of this particular study entailed self-reporting of errors versus a more reliable marker such as direct observation audits, this is still an important study. The team's research showed a correlation between fatigue and resident performance as well as the impact of distress on clinician learners and the subsequent consequences, which could include suffering from burnout, depression, or both. The authors of the study contend that more research is warranted, but the results show that medical residency programs must work to develop strategies to mitigate fatigue, erroneous activity, and depression among learners.

A third study assessing members of the American College of Surgeons (ACS) via their responses to a survey continues down the pathway of determining a relationship between clinician burnout and medical errors. Shanafelt's team found statistically significant relationships between surgeons' mental quality of life, levels of burnout and depression, and their overall self-reported rate of error. The lower the quality of life or the higher the burnout or depression, the greater the risk of the surgeon reporting an error.[11]

In a Swiss National Science Foundation grant-supported study conducted among intensive care unit clinicians from 48 different hospitals in Switzerland, researchers found a correlation between patient mortality and emotional exhaustion exhibited by clinicians. Interestingly, this study found that in the short-term, clinicians can maintain patient safety despite how busy they are and how unpredictable the work environment can be. However, they caution that clinicians who are burned out ultimately rate their hospitals and work units lower in patient safety, and units that showed high levels of emotional exhaustion among their staff also showed higher standardized mortality ratios. Welp and colleagues contend that clinician mental health and patient safety must be managed together and that more research is necessary from a prospective standpoint to determine causal relationships.[12]

With the majority of studies being retrospective in nature or depending on self-reporting of patient safety concerns or errors, several sources have highlighted that the causal relationship between clinician well-being and patient safety concerns is difficult to prove. The Agency for Healthcare Research and Quality (AHRQ) and its 2015 *Annual Perspective on Burnout Among Health Professionals and Its Effect on Patient Safety* highlight this very trend and how self-reporting as a primary source of data results in relatively weak outcome measures.[13]

Given that most studies are retrospective or self-reporting in nature, more prospective studies of clinician burnout are needed. A prospective cohort study was conducted at three U.S. freestanding children's hospitals where more than 120 residents participated from three different pediatric residency programs.[14] All participants were screened for depression and burnout, with 20% meeting criteria for depression, and almost 75% meeting criteria for burnout. In addition to collecting self-reported error data, the investigators utilized a team of nurses and physicians trained to collect data on medication errors via chart review and medication order review at the unit level so that any errors identified could be traced back to the specific resident. Although many studies have conjectured that clinician well-being and burnout are major factors in predicting patient safety risks, this study actually showed a stronger correlation between depression and an increased rate of errors. In fact, the data showed that depressed pediatric residents were six times more likely to commit medication errors compared to nondepressed pediatric resi-

dents. No statistical significance was found when comparing the error rates of residents who experienced burnout with those who did not. While the comparative size of both arms in the burnout/no burnout group could have played a factor in this result, this study highlights that mental well-being is imperative when it comes to preserving patient safety and that burnout should not be the only focus when it comes to developing individual and system solutions.

In healthcare, administrators commonly refer to *The Triple Aim*—the three main foci of healthcare administrators to ensure the impact and sustainability of their respective organization's patient care efforts, including costs, quality, and patient satisfaction. Recently, there has been movement on a concept referred to as *The Quadruple Aim*, which is based on the notion that human factors as they relate to clinicians must also be a focal point when determining the impact and sustainability of patient care. This focus on "fitting the healthcare system to the human versus the human to the healthcare system" has been lauded as a primary driver in developing system solutions to curbing clinician burnout and subsequent impact on patient care.[15]

One study—focused on making systems changes to drive clinician well-being improvement—was conducted in a system of clinics in New York City as well as some clinics in the upper Midwest of the United States.[16] The study's aim was to determine whether work condition improvements ultimately led to decreases in rates of clinician burnout. Primary care clinicians were the subjects of the study, and measures such as work control, time pressure, and clinician outcomes were used to determine results. The interventions included improving communication, changing workflow to become more efficient, and quality improvement projects. Results demonstrated that intervening with workflow and communication improved clinician satisfaction and reduced clinician burnout rates. Therefore, organizations interested in making system improvements to enhance clinician well-being may choose to focus on improving workflow and communication.

Although most efforts dealing with well-being and burnout have originated in practice, there is a growing awareness among pharmacy educators that learners have been demonstrating increased stress with their overall well-being adversely impacted. In 2016, the American Association of Colleges of Pharmacy (AACP) Board of Directors approved the formation of a new Student Affairs standing committee to address a variety of student-related issues including well-being and resilience. In 2017, AACP President, Steven Scott, charged members of the 2017–2018 Student Affairs committee to focus on the perceived decline in the overall wellness and resilience of students, and wrestled with best methods to support them. The committee suggested a variety of recommendations, including the development of educational institutes focused on helping pharmacy educators and staff better address the wellness of their learners. Two fully subscribed institutes were conducted in 2018–2019 attended by teams of personnel from over 70 colleges of pharmacy.[17]

PREVENTIVE STRATEGIES FOR LEARNER WELL-BEING AND IMPOSTER SYNDROME

In the mental health field, a preventive approach works toward helping individuals flourish or thrive in their personal, emotional, social, and professional lives. Learners can implement research-based strategies to achieve such positive results; however, knowledge of wellness strategies eludes many learners who are caught up in demonstrating academic and professional success to the detriment of other areas in their lives. Helping learners develop strategic knowledge of various conditions that can support well-being may have positive impacts not only on their personal and emotional lives but also on their academic and profes-

sional success. For example, research demonstrates that using mental health techniques like practicing mindfulness and developing a growth mindset leads to improvements in academic outcomes.[18,19]

One aspect of wellness that learners can develop strategies to improve is *resilience*, the ability to bounce back from overwhelmingly stressful experiences. Methods for improving resilience include:

- Realizing that failure and struggle are inevitable components of the learning process
- Attending to the learning that comes from these difficult experiences
- Taking into consideration how each experience—negative or positive—relates to one's life purpose
- Focusing on mastery of skills and concepts rather than performing well to look good

Research demonstrates that resilience is a psychological factor that can be strengthened over time when learners are intentional about developing it.[20]

Social connectedness also has direct ties to mental health, motivation, and achievement.[21-23] Continuing and building relationships with family, friends, colleagues, and others prevent learners from feeling isolated and provide the social support they may need to depend on during difficult times. Learners must be reminded to prioritize these relationships and take the time necessary to connect consistently with their social support network. Additionally, providing opportunities for colleagues to get together informally to reconnect, participate in recreational activities together, and make new friendships can protect against negative outcomes, including loneliness, depression, and physical health problems.[24] Unfortunately, time spent in social activities is often considered wasted. Instead, learners need to realize that spending time with family and friends is necessary to their happiness and can even extend their life expectancy.[24]

In addition to connecting with others, human beings have a need for autonomy.[25] In their research, Deci, Ryan, and others demonstrate the importance of what they term *self-determination*. According to their findings, feelings of self-directedness are "essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being."[25] To feel autonomous, learners have to experience a sense of control over their environment, behavior, and future. They need to see themselves as self-motivated agents who can set their own goals, make their own decisions, and act on these in ways that are internally motivated. By providing choices, acknowledging feelings, and providing opportunities for self-direction, preceptors support learners' autonomy, which has motivational and psychological benefits.

Believing that one lives a meaningful life is also a core component of positive psychology. It is related to greater life satisfaction, happiness, and hope.[26-28] Learners need to know that the skills, concepts, and knowledge that they're developing now have a direct link to their sense of purpose in life. Helping them set and plan steps for achieving goals allows learners to see where they are going and how what they are doing now will help them achieve what they want to accomplish in the future. Also, sharing your goals, methods for achieving them, setbacks you experienced, and how you overcame them can model for learners the thinking and strategies you use to maintain motivation, persistence, and a healthy outlook on life. Acting as a role model in both your academic and professional life and in your social and emotional life allows learners to see well-being strategies in action.

Another research-based idea that preceptors can model is having a growth mindset, or belief that abilities like intelligence are not fixed traits but ones that can improve.[18,29] Additionally, learners with a growth mindset subscribe to the idea that failure is an inevi-

table part of the learning process and that making a mistake is the first step in growing and mastering whatever learning goal we have set for ourselves. Working from a growth mindset perspective views help-seeking as a positive strategy rather than something to be looked down on (e.g., needing help means you're not as smart or as good as you should be). Learners' mindsets influence the way they react to failure, challenges, and stress. Having a *growth mindset* relates to more adaptive coping and learning strategies whereas having a *fixed mindset*—viewing abilities as fixed traits that cannot be improved—leads learners to disengage when faced with a challenge and to feel helpless.[30] Even if a learner is working from a fixed mindset perspective, preceptors can help him or her develop a growth mindset by doing a few things:

- Teach learners how to use mistakes/failures to their advantage.
- Talk about your own mistakes/failures and how you've used them to learn and grow.
- Focus on the importance of hard work, using effective strategies, and getting help when you need it.
- Let learners know you don't want perfection. Use words like *learning* and *growing*, rather than *achievement* or *performance*.
- Teach and model self-regulation strategies like setting goals, creating time management plans, becoming aware of emotions, and using techniques to address these emotions.

Often, learners view themselves and their abilities from a fixed mindset and have done so for most or all of their lives. Therefore, it may take time for them to shift toward developing a growth mindset.

Practicing *self-compassion*, defined as treating yourself like you would a close friend by accepting your shortcomings but also holding yourself accountable to grow and learn from failure, is another wellness technique that learners often find difficult to apply.[31,32] The components of self-compassion include 1) being kind to yourself; 2) recognizing our common humanity; and 3) being mindful of our experience (e.g., not ignoring or exaggerating our pain). Research suggests that "self-compassionate individuals may be better able to see failure as a learning opportunity and to focus on accomplishing tasks at hand."[33] Practicing self-compassion helps learners develop emotional resilience and intrinsic motivation for improvement and build closer relationships with friends and significant others.[32]

How can preceptors help learners become more self-compassionate? Model being kind to yourself. When you make a mistake or fail, instead of beating yourself up (e.g., "I made a big mistake. I'm a terrible person. How am I supposed to oversee others' performances when I can't even perform well myself?"), show how to use empathetic self-talk (e.g., "I really messed up. To err is human. I need to think about how I would do this differently next time so I don't make the same mistake"). Focus on our common humanity by sharing struggles and failures, discussing experiences from different perspectives, and giving learners the benefit of the doubt. Model and teach learners about being mindful.

Mindfulness is "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment."[34,35] Research demonstrates that mindfulness improves memory, reduces stress, and fosters improved physical health.[35,36] Encourage learners to use simple mindfulness techniques like noting thoughts, emotions, and sensations; taking time to do nothing; and performing deep-breathing exercises.[32] More advanced mindfulness strategies include meditating and doing yoga.

In addition to changing your beliefs and thinking, intentionally changing your behavior to incorporate more activities that

create positive emotions can improve well-being. Research demonstrates that participating in activities that put you in a state of *flow*—defined as "complete absorption in what one does"—leads to greater involvement in life, more enjoyment of activities, having an increased sense of control, and feeling a stronger sense of self.[37,38] To increase the frequency and duration of flow experiences, learners need to be fully engaged in what they're doing, and they need to participate in both professional and personal activities that are challenging but not overly challenging, which can lead to anxiety.[37] Encourage learners to find and engage in activities that allow them to experience this sense of losing themselves. These activities could be work-related such as owning a valued project of reasonable magnitude at their rotation or practice site, or leisure-related such as running, solving puzzles, reading, or having a conversation with someone.

One final strategy for improving well-being is expressing gratitude. In simple terms, researchers define *gratitude* as "a felt sense of wonder, thankfulness, and appreciation for life."[38,39] Emmons, McCullough, and their peers have demonstrated the beneficial impacts of expressing gratitude on physical and mental health.[32,39,40] This research also shows that through consistent practice, gratitude can be developed over time, leading to higher levels of happiness and self-worth as well as stronger relationships.[38,39,41] Preceptors can help learners implement simple strategies for expressing gratitude such as taking time each day to reflect on why you are grateful, writing in a gratitude journal consistently (e.g., daily, weekly), and expressing gratitude to someone else either face-to-face or in writing. Be sure to have learners vary the strategies they use because research demonstrates that over-practicing a strategy can dampen its positive effects.[38]

CASE EXAMPLE

Roger is a second-year pharmacy student who excelled academically in his pre-pharmacy coursework and has performed very well thus far in pharmacy school, with mainly As and Bs in the majority of his classes. Despite this success, Roger constantly compares himself to his peers and believes he is underachieving. He does not believe he is active enough in student organizations, has not yet conducted any research, and is fearful of his projections for residency. His mental and emotional well-being is constantly in a precarious position, despite all of the positive accomplishments in his life.

What Issues Exist in This Scenario?

This case example is one seen all too often in pharmacy students. Due to the rigorous admissions requirements and demands of pharmacy school, programs admit outstanding students who have achieved great success with limited experience in failure. When faced with the first non-perfect grade performance or negative feedback, students are capable of ruminating over the negative aspects of that assessment and fail to step back and look at the bigger picture.

How Would You Handle the Scenario?

Many strategies can aid these students in improving their academic perspective and overall outlook on life. In fact, there are so many strategies that diagnostic tools exist to help guide students to strategies and behaviors that are capable of improving their well-being. The researcher and author Sonja Lyubomirsky has demonstrated that we have the ability to influence our happiness by engaging in a set of small activities.[38] Although not all activities benefit everyone, by utilizing her *Person-Activity Fit Diagnostic*, one can identify strategies and activities that may greatly influence one's positive outlook. See **Table 16-2** for Lyubomirsky's *Person-Activity Fit Diagnostic*.

TABLE 16-2. Person-Activity Fit Diagnostic

Consider the following 12 activities. Reflect on what it would be like to do the specific activity every week for an extended period of time.

On a scale of 1 to 7, rate each of the following next to the terms which will help identify why that specific activity may be sustained for extended periods of time.

1 2 3 4 5 6 7
Not at all Somewhat Very much

NATURAL: Because doing this activity will feel "natural" to me and I'll be able to stick with it.
ENJOY: Because I will enjoy doing it; I'll find it to be interesting and challenging.
VALUE: Because I value doing it; I'll do it freely even when it's not enjoyable.
GUILTY: Because I would feel ashamed, guilty, or anxious if I don't do it; I'll force myself.
SITUATION: Because somebody else wants me to, or my situation will force me to.

1. Count your blessings	Expressing gratitude for what you have (either privately – through contemplation or journaling – or to a close other) or conveying your appreciation to one or more individuals whom you've never properly thanked.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
2. Cultivating optimism	Keeping a journal in which you imagine and write about the best possible future for yourself, or practicing to look at the bright side of every situation.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
3. Avoiding overthinking and social comparison	Using strategies (such as distraction) to cut down on how often you dwell on your problems and compare yourself to others.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
4. Practicing acts of kindness	Doing good things for others, whether friends or strangers, either directly or anonymously, either spontaneously or planned.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
5. Nurturing relationships	Picking a relationship in need of strengthening, and investing time and energy in healing, cultivating, affirming, and enjoying it.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
6. Doing more activities that truly engage you	Increasing the number of experiences at home and work in which you "lose" yourself, which are challenging and absorbing.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
7. Replaying and savoring life's joy	Paying close attention, taking delight, and going over life's momentary pleasures and wonders – through thinking, writing, drawing, or sharing with another.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):

8. Committing to your goals	Picking one, two, or three significant goals that are meaningful to you and devoting time and effort to pursuing them.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
9. Developing strategies for coping	Practicing ways to endure or surmount a recent stress, hardship, or trauma.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
10. Learning to forgive	Keeping a journal or writing a letter in which you work on letting go of anger and resentment towards one or more individuals who have hurt or wronged you.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
11.Practicing religion and spirituality	Becoming more involved in your church, temple, or mosque, or reading and pondering spiritually-themed books.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
12.Taking care of your body	Exercising, meditating, smiling and laughing, and getting plenty of rest.	Natural (N): Enjoy (E): Value (V): Guilty (G): Situation (S):
SCORING: For each of the 12 activities subtract the average of the NATURAL, GUILTY and SITUATION ratings from the average of the ENJOY and VALUE ratings. That is, FIT SCORE = (NATURAL + ENJOY + VALUE)/3 – (GUILTY + SITUATION)/2 The higher the number = the better the strategy for the individual		

Source: Used with permission from S. Lyubormirsky. *The How of Happiness: A New Approach to Getting the Life You Want*. © 2007.

In Roger's case, let's say he took the fit diagnostic and found that his internally-driven strategies are counting his blessings, practicing acts of kindness, nurturing relationships, taking care of his body, and developing strategies for coping. He can then create a plan to implement these strategies on a regular basis to improve his happiness. See **Table 16-3** for Roger's example plan.

TABLE 16-3. Roger's Example Plan

General Strategy	Specific Methods for Implementation
Counting his blessings	Writing three things he's thankful for in a gratitude journal at least twice a week
Practicing acts of kindness	Starting a chain of kindness (aka "pay it forward") at least once a week
Nurturing relationships	Planning to go out to dinner with friends or family at least once every week
Taking care of his body	Going for a run three times a week
Developing coping strategies	Keeping a journal that he writes in for at least 15 minutes three times a week

Additionally, Roger is demonstrating many of the traits and behaviors of someone experiencing *imposter syndrome*, or imposter phenomenon, which is "characterized by strong feelings of intellectual or professional phoniness in high-achieving individuals."[48,49] Other components of imposter syndrome include believing that one is unintelligent, attributing success to external factors rather than internal ones, and worrying that eventually one's phoniness will be revealed to others (e.g., through one's struggles or failures). Research demonstrates that experiencing these kinds of thoughts and feelings relates to higher levels of depression and anxiety.[49,50] Teaching learners to change their beliefs by developing a growth mindset, becoming more self-compassionate, and increasing autonomy provides them with more adaptive methods for thinking about struggle and failure.

PRECEPTOR INTERVENTIONS FOR STRUGGLING STUDENTS

CASE EXAMPLE

Jason is a 23-year-old student assigned to a neurology–critical care advanced pharmacy practice experience (APPE) rotation at an academic health center during the second block of his P4 year. His previous APPE was a community pharmacy experience in a chain pharmacy where the primary focus of his activities was filling and dispensing prescriptions and counseling patients. Following the standard brief orientation on the first day, Jason was assigned to follow four patients in the intensive care unit (ICU). He appears to be diligent during the first days of the rotation, spending most of his time reviewing the electronic medical records of the four patients. He is observant during medical rounds but asks few questions of his preceptor or other members of the healthcare team.

On day three of the rotation, Jason is asked to present one of his patients, during which he is unable to produce an appropriate problem list or make any significant recommendations regarding the patient's drug regimen. His preceptor gives him feedback and hints on how to improve the work-up of his patients and expresses her concerns about his inability to recall basic information about drugs on the patient's medication list.

By the end of the first week, Jason is only able to report on information about two of his four patients. His preceptor states that he is not performing up to expectations and should "put more effort into his rotation responsibilities."

On the following Monday morning, Jason sends his preceptor an email that he is ill and will not be in that day. The preceptor responds and indicates that she wants to meet with him the following day prior to rounds to review his patients. Jason does not appear at the set time the following day and later sends an email that he is still feeling ill but will attempt to make it in that afternoon if he's feeling better. He appears at the preceptor's office late in the afternoon, appearing anxious, tired, and disheveled. His preceptor asks, "Are you okay?" Jason avoids direct eye contact during the initial conversation and then becomes teary during the conversation. He indicates that although he spent 12 to 16 hours at the hospital each day last week, he felt overwhelmed and did not know what to do to improve his performance. He states that although he got As and Bs in all of his courses during the didactic portion of the curriculum, he feels as though he does not know anything and is concerned that he may not pass this rotation and will be forced to take out another loan to pay for remediation APPEs. He also indicates that he worked two 10-hour shifts over the weekend at a local chain pharmacy.

What Issues Exist in this Scenario?

- The student and preceptor have a gap in communication regarding rotation expectations and performance.
- The student is hesitant to reach out to the preceptor for fear of being negatively perceived and spirals further into negativity and avoidance of the situation.

How Would You Handle the Scenario?

- Take a step back and gradually assess and enhance the student's roles and responsibilities.
- Inform the student that working excess hours outside of the rotation is a recipe for disaster and should be avoided during particularly difficult rotations.
- Inform relevant experiential staff or faculty members of the student's struggles to provide another level of supervision and intervention, as necessary.

For some time now, the literature has reported that students pursuing degrees in healthcare fields may lack the resilience needed to handle stressful situations encountered during their educational program. Many of these students come to college having experienced little, if any, adversity during their high school and early college years and thus have not had to develop coping strategies. Likewise, many students have successfully mastered material during their didactic curriculum, especially if they are good multiple-choice test-takers. Problems often arise when these students must apply their knowledge with patients who have complex drug regimens in the healthcare setting. These students may recall information in a siloed format but are unable to apply their knowledge when dealing with multiple problems at the same time.

Students who have been successful during their didactic experience often have minimal coping skills and are often hesitant to reach out for help from a preceptor as they did not find it necessary during their didactic experiences. Many of these students feel as though they should be able to resolve their situations on their own and are more likely to reach out to one of their peers before reaching out to a preceptor for assistance and guidance. This is compounded due to, except in rare cases, the student not being able to develop a trusting personal relationship with their preceptor. Preceptors should attempt to create a bond with students in order to create an environment that encourages students to reach out for support when necessary.

The typical students' mindset is that if they spend more time on task (e.g., reviewing charts, notes, literature), they should be able to resolve their situation without assistance. This approach often continues until they reach the point where they are at risk of failing the APPE. Students or residents who do not "right their ship" in a timely fashion and continue to experience this sense of continued failure often feel helpless, which can result in severe anxiety and/or depression.

As students are often hesitant to reach out to preceptors for assistance during the early portion of an APPE rotation, it is essential for preceptors to watch for behaviors that may indicate the student is experiencing stress, anxiety, and/or depression including:

- Uncharacteristically poor recall of knowledge that should be standard for P4 students
- Flat affect
- Unusual behaviors
- Signs of lack of sleep
- Falling asleep on a frequent basis
- Repeated absenteeism
- Showing up late on a routine basis
- Continually asking for deadline extensions for projects or presentations

- Avoiding contact with the preceptor
- Suicidal ideation

All discussions with students who appear to be struggling should:

- Be held in a private location.
- Have the preceptor address the student in a kind, honest, and direct manner.
- Provide the student with specific examples of their behaviors of concern using clear, concrete language.

As most of us are not trained as mental health professionals, we often feel ill-equipped to intervene when students are demonstrating behaviors consistent with stress, anxiety, and depression. That being said, we can all use the most basic of human empathetic approaches at the first signs a student may be struggling. Perhaps the first thing a preceptor can do when the student's performance is sub-par is to ask the student if he or she is okay. If the student answers *yes*, the preceptor can then note observations of the student and perhaps suggest that outside factors (e.g., financial strain; lack of rest, sleep, or exercise; transportation challenges; family or personal relationship tensions) may be at least partially responsible for the student's unsatisfactory performance. At this point, the preceptor may wish to share challenges when he or she was a student in an attempt to demonstrate that many previous students have experienced similar struggles and have developed coping strategies to deal with difficult situations. Preceptors should share all available local resources and encourage the student to seek help. The student also likely has access to counseling and psychological services at his or her home university. The experiential office at the student's college should be able to help them access these resources.

The key to any situation in which a preceptor confronts a student about a sense of well-being is some plan for action steps that the student, and perhaps the preceptor, can take to address the identified problem(s). There should also be a plan for follow-up in the very near future, perhaps the following day. A follow-up text, email, or phone call later that day is never a bad idea.

In situations where students appear extremely upset, depressed, or at risk of harming themselves, it is important for the preceptor to know his or her limits and refer the student to a professional. Refer a student if:

- Distress is hindering the student's progress.
- You observe worrisome behavior patterns when you interact with the student.
- The problem seems more serious than you are comfortable handling.
- You are worried about the student's safety.
- You are concerned about the student's impact on others.
- You feel you are overextending yourself to help the student.

Students who struggle during their APPE year often find themselves isolated far away from their families, friends, advisors, mentors, and resources on campus. This results in their preceptors as the most likely source of support. Preceptors should keep in mind that simple actions demonstrating care and compassion can go a long way to help the student resolve issues that may arise. Completing a Mental Health First Aid course may also provide preceptors with tools to help students as well as the patients they may serve.[51] It is also important for preceptors to know their limits and to refer students to the appropriate mental health professionals when the student's situation is beyond the ability of the preceptor to address.

ADDRESSING STRESSFUL SITUATIONS AND SECOND-VICTIM SYNDROME

CASE EXAMPLE

Chris is a first-year pharmacy resident on rotation in your ICU at a large medical center. He's very enthusiastic and has performed well over the course of the residency year. As part of the residency requirements, each resident completes several evening clinical staffing shifts throughout the year. During his staffing the previous evening, he received a pharmacy consult to initiate a bivalirudin infusion in a patient with known heparin allergy. This patient was directly admitted to the cardiac catheterization laboratory for an emergent procedure and did not have a formal medication reconciliation performed at the time of request. The initial coagulation laboratory test results were within normal limits; however, so Chris started the therapy.

The next morning Chris arrives at the patient's bedside to find you assisting the ICU team in the resuscitation of the patient. They are requiring multiple pharmacologic interventions and emergent procedures. Laboratory and imaging findings suggest the patient is in hemorrhagic shock. Upon your review of overnight events and transfer records, you determine the patient had received fondaparinux prior to admission, and the patient had been inadvertently placed on two full-dose anticoagulants. Emergency coagulation laboratory test results demonstrate supratherapeutic anti-Xa levels in the setting of acute renal failure. Unfortunately, the patient continues to deteriorate and progresses into cardiac arrest with unsuccessful resuscitation.

Chris was present and assisting with the management of the emergency; upon his preceptor's discovery of the medication error, he becomes very distraught. Chris asks to step out of the room and passively observes the remainder of the event. At the conclusion of the event, the preceptor steps out of the room to check on Chris. Before the preceptor can say anything, he asks "Did I kill this patient?"

What Issues Exist in This Scenario?

- The pharmacy resident has been part of a medication error that contributed to the death of a patient.
- The pharmacy resident is clearly demonstrating signs of acute emotional distress and may be unable to continue his rotation for the day.
- The preceptor must balance the acute patient management issues, the emotional needs of the resident, and the institutional process for patient safety event reporting.

How Would You Handle the Scenario?

This scenario presents several very sensitive issues, each of them uniquely challenging. The primary preceptor would be best-served not trying to manage each aspect of this case on his or her own and should enlist the help of colleagues as needed. In situations where a learner is clearly demonstrating signs of emotional distress, it may be best to let them step away from rotation responsibilities for a period of time to collect their thoughts and reflect on what has occurred. This can allow the preceptor to continue active management of the patient as well as prevent the preceptor from adding to the learner's distress with a potentially knee-jerk reaction in the heat of the moment before having a chance to review the details of the case.

Once the preceptor can step away from the bedside, several people should be notified of what has

occurred. In this case, both the program director and a trusted peer or colleague of the resident should be notified. If the learner is a student, the experiential director at their respective institution should be notified. In each case, the contacted individual can independently check on the learner and walk through the case from a different perspective disconnected from the actual event. The affected learner may feel more comfortable talking through the event with someone other than the primary preceptor due to fear or anxiety. Ideally, these conversations can occur prior to the primary preceptor debriefing with the learner. This can allow the preceptor time to formulate their own thoughts on how feedback will be provided while also getting updates from the contacted individuals as to how the learner is doing emotionally.

The preceptor and learner should then walk through the scenario objectively and focus on specific aspects of the case, highlighting different decision points and alternative choices. It's vital for the preceptor to remain composed and allow the learner space and opportunity to share their own reflections. Additional feedback can be geared towards the root cause of the event. Did an error occur out of laziness, overlooked details, lack of clinical experience with a scenario, or just plain old bad luck? Each of these would require different feedback to the learner as part of the debriefing and action plan. Discussion should also focus on next steps, and the learner should be made aware that the patient safety event process is likely to be activated. If desired, they can submit in accordance with institutional procedure; however, it may fall to the primary preceptor to report the event.

Throughout the medication safety process, the learner should be involved in the assessment and identification of potential systemic gaps contributing to the error. This may then include process changes and implementation, changes to documentation strategies, and staff education as needed. Throughout the entire process, the preceptor should respect the emotional well-being and right to privacy of the learner. This includes avoiding gossiping about the event to other colleagues and providing unnecessarily harsh criticism and feedback. It also includes committing to helping the learner grow from the experience.

PRECEPTOR PEARLS

Learners may develop emotional distress while taking care of patients, and it can arise in a variety of clinical settings.

Second-victim syndrome ***refers to a caregiver experiencing emotional trauma as a result of having a role in a harmful patient safety incident.***

Preceptors should be aware of situations that may be emotionally difficult for learners. With a growing emphasis on mental and emotional well-being within healthcare, preceptors need to be able to recognize the signs and symptoms of a learner who is experiencing emotional distress. This may go beyond recognition of burnout and require dealing with a crisis situation. One of our primary responsibilities as preceptors and role models is helping learners deal with the emotional burden that comes from patient care encounters, which includes developing appropriate coping skills to deal with any situation.

As noted above, the term *second-victim syndrome* was first described in 2000 as "a caregiver who experiences emotional trauma as a result of having a role in a harmful patient safety incident."[52] The term can be applied to any member of the multidisciplinary team, and institutional programs have been evaluated in several settings. Care-

givers experiencing second-victim syndrome frequently exhibit a wide variety of symptoms that may impair their ability to practice. A recent survey regarding physicians and errors found that approximately 61% of physicians had increased anxiety and fear regarding future errors, 44% had decreased confidence in skills, and 42% had difficulty sleeping.[53] In a separate survey involving all members of the healthcare team, only 39% of respondents had heard the term *second-victim syndrome*. However, 30% of respondents reported personal problems, primarily with anxiety, depression, and ability to perform their expected role. An additional 15% had considered leaving their profession as a result of an error. Most distressingly, 65% of respondents reported working through their emotional distress on their own, without support from their colleagues or institution.[54]

Classically, this nomenclature has referred to caregivers involved in the death of a patient; however, this likely underestimates the number of scenarios that may trigger second-victim syndrome. Based on medication-error reporting tools, situations can range from a variety of near-miss events to those that need escalation in care and therapeutic intervention or result in significant morbidity and prolonged length of stay.[55] Given the relative lack of experience and positive reinforcement of their skills, pharmacy learners may be particularly susceptible. Involvement in less severe scenarios may lead to learners questioning their skills or attention to detail. When handled appropriately, they can serve as valuable learning opportunities, but if handled poorly, they can lead to sustained doubt and anxiety in the learner.

Preceptors should also be familiar with the concept of *failure to rescue*. Defined as a failure to prevent a clinically important deterioration or complication from an underlying illness or treatment that developed on a caregiver's watch, it may reflect the quality of monitoring, the effectiveness of actions taken once early complications are recognized, or both.[56] Learners who follow patients with clinical deterioration or complications may feel guilt at having failed to prevent that outcome. It may manifest with thoughts such as "How did I miss that?" or "If only I'd spoken up." Learners with limited experience seeing patients outside of the classroom setting may be particularly vulnerable.

Preceptors need to be aware of the learner's experience level and recognize that what they perceive to be common occurrences in their practice setting may be foreign and difficult for the pharmacy learner. Proactive and effective use of debriefing and objective assessment of challenging situations during sit-down conversations with a learner may help mitigate their emotional distress and prevent progression into second-victim syndrome.

MOVING PAST TRAUMATIC ROTATION EXPERIENCES

Pharmacy learners may frequently experience anxiety, depression, and lack of confidence related to stressful situations. These emotions may in turn adversely impact their experience and performance on rotation. Preceptors need to be aware of the subtle signs and symptoms that a learner may exhibit suggesting burnout or second-victim syndrome.

While pharmacy education teaches us how to handle a wide variety of professional and clinical situations, education regarding management of caregiver mental health is still in its early stages. There is a lack of guidelines or recommendations on how to best approach learners who exhibit these symptoms. In addition to recognizing situations that may precipitate second-victim syndrome, as noted above, preceptors also need to be able to recognize learners' verbal and nonverbal cues. What one learner might find to be an intellectually stimulating case, another may perceive as highly stressful and anxiety-producing.

Given the lack of pharmacy-specific guidance on this topic, recommendations are extrapolated from other aspects of the healthcare team, but many of the core principles can apply to the preceptor–learner relationship. For example, Scott and colleagues charted the responses of caregivers with self-reported second-victim syndrome. Based on these data, they were able to develop a second-victim syndrome trajectory that occurs in six stages.[57] The primary preceptor of an impacted learner has a role to play in each stage while also recognizing when to seek assistance from other colleagues. This may include mentors and trusted peers of the impacted learner, program directors, and college of pharmacy faculty unconnected to the rotational activities.[58]

Stage one is *accident and chaos response* and focuses on initial recognition of a triggering event. The learner may experience a wave of emotions and be unable to care for a patient in the acute setting. At this stage, the primary preceptor should focus on initial management of the patient and may allow the learner to step away if he or she is unable to participate. Learners may ask questions such as "How/Why did this happen?" A thorough debrief and assessment of the situation with the learner should not take place during this stage as it does not allow for both the learner and preceptor to reflect and objectively assess any preceding events.

Stage two is *intrusive reflections* and encompasses internal review of an event by the learner. While learners may find this difficult, it's important that they be given the opportunity to think back through an event and evaluate decisions that were made. By allowing learners to review the scenario on their own, the preceptor gives the learners an opportunity to be more receptive to critical feedback during the debriefing session.

Stage three is *restoring personal integrity* and generally consists of learner-focused questions such as "What will others think?" and "Why I can't concentrate?" Fear and anxiety may also be common at this stage, which occurs in the hours to days after an event. The preceptor is vital during this stage as he or she needs to respect the learner's privacy while at the same time helping him or her understand the nature of the event. Preceptor engagement at this stage should be tailored to the nature of the event. In the case of a medication error, discussion of knowledge gaps or external factors contributing to the outcome is important. In cases in which no error has occurred but the learner is still experiencing these symptoms, feedback should be tailored more to an objective assessment and discussion of risks and benefits of potential interventions. For example, in an oncology patient who transitions to comfort-care measures, it may be appropriate to have a discussion regarding the role of palliative care and limitations of available treatment options in a patient-specific scenario.

Stage four is *enduring the inquisition* and focuses on institutional steps that have to take place. Learners may ask "What happens next?" or "How much trouble am I in?" at this stage. The medication safety review process should also be implemented at this step if appropriate. Learners should engage in that process and in a systematic review and assessment of the event to help identify potential changes required in the future.

Stage five is *obtaining emotional first aid*; however, this stage is not required in all situations. At this stage, the preceptor can help facilitate personal and professional support, including counseling if desired by the learner. In all cases, though, the preceptor should be willing and able to engage with learners and allow them to talk through their emotions.

Stage six is *moving on*, and the preceptor plays a very important role within it. As described by Scott et al., second victims at this stage tend to follow one of three pathways. They either (1) drop out or strongly reconsider what their professional path looks like, (2) survive with ongoing emotional stress, or (3) thrive and use the experience to better themselves.[57] Ideally, we should see all

learners thrive and apply lessons learned from an event to improve patient safety; however, it's unrealistic to expect every learner to react this way. This stage can also be applied to every preceptor–learner interaction when considering the practice area a learner should pursue. For example, a fourth-year student may be excited about an upcoming critical care rotation and think they want to pursue that specialty. On rotation, though, they may find the experience emotionally challenging and the patient interactions difficult to manage. Preceptors should be willing to discuss the day-to-day nature of the practice site realistically and share the challenges they face every day. This can help learners better identify a practice setting that is the best fit for their skill set and interests, and hopefully decrease the risk of some of the challenges discussed in this chapter.

PRECEPTOR WELL-BEING AND ROLE MODELING

Among the many stressors in healthcare, unrealistic expectations of clinicians can contribute to burnout. There is very little, if any, room for error, and any error can lead to tragic consequences. Because of this, pharmacists and other healthcare professionals may find it difficult to show vulnerability out of fear that doing so will immediately result in lost credibility. However, when used appropriately, showing learners our own vulnerabilities as preceptors, role models, and mentors can help learners develop into well-adjusted practitioners capable of resiliency. The more learners understand the challenges and barriers that lie ahead in their careers, the better able they will be in determining ways to navigate the stresses of the healthcare system and in focusing on ways to optimize their patient care efforts.

As learners' workloads and expectations increase, preceptors model hard work and dedication to professional success, but they often miss the boat when it comes to modeling how to balance one's professional life with one's personal, social, and emotional life. Beyond modeling work–life integration and achieving some semblance of personal balance and well-being, preceptors may not feel comfortable sharing their shortcomings with learners out of fear that learners will ultimately respect them less.

Two researchers from Australia, Margaret Bearman and Elizabeth Molloy, refer to a concept known as *intellectual candor* (previously referred to as *intellectual streaking* by the same pair of researchers).[59,60] Essentially, intellectual candor exposes a teacher's (or preceptor's) thinking, challenges, and failures to learners as a way of modeling self-reflection and resilience. Bearman and Molloy concede that there will be tension between one's vulnerability and overall credibility, but taking the risk of revealing knowledge gaps and past mistakes could go a long way in ultimately developing a high-trust relationship with learners and demonstrating to them how to overcome those challenges.

In an increasingly unforgiving society, it is imperative that preceptors focus on ways to establish trust in their relationships with learners, not so that they view the preceptor as perfect or one that performs at a level that is unattainable, but instead so they see the preceptor as a learner similar to themselves. Preceptors should be comfortable demonstrating that not every day is perfect, that there are challenges in meeting priorities and responsibilities at times, and that these challenges can be overcome through reflection, experience, and thoughtfulness.

CASE EXAMPLE

Carey is a critical care pharmacist who has been working in the medical ICU for 10 years. She typically precepts six fourth-year pharmacy students, four postgraduate year 1 (PGY1) residents, and two PGY2 residents on critical care rotations each year. In addition to a challenging work life, Carey is the mother of three children, ages 6 and 4 years old and 9 months old. Although she worked extremely hard to reach this point for more than a decade, she has begun to struggle with finding joy in her daily work duties and leaves dissatisfied most days. She believes she is beginning to demonstrate a negative attitude to her learners, one of whom recently asked her "Why do you continue to work here?"

What Issues Exist in This Scenario?

- The preceptor is exhibiting signs of burnout and has not addressed her work–life balance.
- The preceptor is demonstrating a negative attitude to learners, potentially affecting their ideas of what to anticipate within their own careers.

How Would You Handle the Scenario?

- Talk with department leadership about the possibility of taking fewer learners each year to allow the preceptor more time to find an appropriate balance and find joy in the position that she worked so hard to attain.
- Take advantage of the opportunity to discuss what a bad day may look like and demonstrate intellectual candor in having a discussion about how to manage through these moments and the importance of developing resiliency.

SUMMARY

Well-being among healthcare professionals is emerging as a critical component of the healthcare system. Students, residents, and preceptors are all capable of exhibiting symptoms of burnout, which can lead to reduced satisfaction in work activities and to impaired patient care. It is important for all members of the healthcare team to be aware of and practice skills that can improve one's happiness. When faced with stressful situations, preceptors should be equipped with the tools to help model effective wellness strategies and techniques and to address negative behaviors exhibited by learners. These skills can be utilized to help train and maintain a future cohort of health professionals in the skills of resiliency and well-being.

> "Put simply, the absence of mental illness is not the presence of mental health; flourishing individuals function markedly better than all others, but barely one fifth of the U.S. adult population is flourishing."[42]

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17

Misconduct and Inappropriate Behaviors

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> When a wise man is advised of his errors, he will reflect on and improve his conduct. When his misconduct is pointed out, a foolish man will not only disregard the advice but rather repeat the same error.
>
> *Gautama Buddha*

In the course of your professional career, it is an unfortunate reality that you might encounter situations involving learner misconduct or inappropriate behavior. This category of behaviors is large, varied, and complex. Although much effort is focused on developing professional behaviors and attitudes in pharmacy curricula, preceptors are tasked with observing and evaluating these behaviors in practice. It is imperative as a preceptor to be able to address these actions swiftly and appropriately, including recognizing when to reach out to others for assistance. The purpose of this chapter is to arm you with the tools and resources to address these issues.

LEARNING OBJECTIVES

- Define misconduct and inappropriate behaviors.
- Describe three common conduct and behavioral issues in experiential education.
- Identify appropriate actions to prevent and resolve inappropriate learner behavior and misconduct.

DEFINING MISCONDUCT AND INAPPROPRIATE BEHAVIORS

Experiential Education

Universities and colleges hold students to certain standards including appropriate behaviors and/or actions (Code of Conduct) and academic integrity (Honor Code). Codes of conduct and associated policies delineate what the institution considers appropriate behaviors and actions that constitute misconduct. Professional development and professionalism includes the student demonstrating appropriate behaviors and conduct. ACPE Standards 2016, Standard 4 requires the following: "the graduate is able to exhibit behaviors and values that are consistent with the trust given

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to the profession by patients, other healthcare providers, and society." Students can be informed of behavior and conduct standards throughout the curriculum during new student orientation programming, in course syllabi for didactic and experiential courses, and by providing behavioral expectations for participation in professional co-curricular activities. Colleges and schools of pharmacy assess behavior and conduct in didactic courses and during co-curricular activities, which include professional organization participation, community service events, and experiential training.

Residency Training

Although the ASHP Standards[1] do not specifically address misconduct and inappropriate behaviors, they are components within Objective R3.2.4: Manage one's own practice effectively. This includes the following subpoints:

(a) demonstrates pride in and commitment to the profession through appearance, personal conduct, planning to pursue board certification, and pharmacy association membership activities,

(b) demonstrates personal commitment to and adheres to organizational and departmental policies and procedures.

This broad definition of misconduct and inappropriate behaviors allows for incorporation of site-specific guidance and policies. These documents should be transparent to residents so that their expectations are known, when possible. A robust residency manual, with definitions as applicable to the institution, is a simple way of addressing common issues regarding conduct and behavior.

THREE PREVALENT ISSUES

Title IX and Harassment

Title IX protects people from discrimination based on sex in education programs or activities that receive federal financial assistance. The U.S. Department of Education's (DOE) Office of Civil Rights (OCR) is responsible for enforcement of Title IX. When Title IX is mentioned, the tendency is to think of an issue of discrimination in sports. However, this is not the only aspect of Title IX that is relevant to universities. Title IX also applies to the sexual harassment of students. The OCR has found a significant number of students have experienced sexual harassment, which has interfered with a student's academic performance and emotional and physical well-being.

It is important for preceptors to be aware of Title IX and the implications in the event a learner feels harassed. For example, a faculty member or preceptor conditioning some benefit such as grade or letter of recommendation if the learner participates in unwelcome sexual conduct (quid pro quo harassment) would be a violation of Title IX. Any unwelcome sexual conduct by a person in a position to exercise power over the student would be a Title IX violation. Sexual assault as it is defined in the Clery Act would also be a Title IX violation.

Preceptors have a responsibility to report any complaint from a student if he or she feels in any way to have been the subject of a form of sexual harassment. A common question is, "*When should a preceptor make a report?*" Basically, if you heard, read, or saw something that made you wonder if you should report a complaint and/or allegation to the college or school, the answer is probably "yes." At no time should the preceptor try to determine if the student's allegation is a Title IX issue.

Knowing the college's or school's reporting process is critical. The preceptor's role is to contact the appropriate experiential personnel to inform them of the complaint. Coordinators and/or directors of experiential programs would be considered "mandatory reporters" as they are required to report any allegation of sexual harassment to the appropriate office at their institution. Public

universities and colleges have a Title IX office as well as private institutions if they accept federal funds. The Title IX Office investigates the allegation and follows the institution's process for handling allegations.

PRECEPTOR PEARLS

- ***Know who is considered a "Mandatory Reporter" at the college or school.***
- ***Report an allegation even if you do not feel it is serious. If the student in any way felt uncomfortable such that they told you of an incident, report it.***
- ***Know the university's reporting process—this should be a topic covered in new preceptor orientation.***
- ***Residents precepting students can also be subject to Title IX allegations.***

Academic Dishonesty

Academic dishonesty is most commonly associated with the classroom setting. However, academic dishonesty can, and does, occur in the experiential setting. Two of the more common issues of academic dishonesty in the experiential setting are related to falsifying academic records—*unauthorized collaboration/collusion* and *plagiarism*.

If a student submits experiential hours that do not reflect actual hours worked, the student is falsifying his or her academic record and committing academic dishonesty. Tracking of student hours takes on different forms in the experiential setting, with some being electronic and others on paper. While it is the responsibility of the student to track and report accurate hours, the preceptor should make sure that the reporting is accurate. One way to ensure academic dishonesty does not occur is for preceptors only to sign completed timesheets that they have independently verified as accurate. A preceptor should never sign a blank form that the students fill in on their own later. The preceptor can also document hours worked on-site themselves or with the help of others and request an explanation of the student for any hours reported for work that were not directly supervised by someone within the institution.

Students are often assigned to an experiential rotation with one or more other students. These students may work together throughout the rotation to complete assignments. If this is not acceptable, then the students would be committing unauthorized collaboration or collusion which is academic dishonesty. The preceptor should set clear expectations for all assignments that students are expected to complete as to whether they can work with others or if all work must be their own.

Students also commit academic dishonesty in the experiential setting when preparing for posters and presentations. The preceptor should set expectations at the beginning of the rotation for how the student should cite references for any written work. When reviewing a student's work for presentation or publication, the preceptor should thoroughly review the student's work and use available resources to ensure that plagiarism has not occurred. If the preceptor suspects plagiarism, a method to check for it is a simple copy and paste of the suspected wording into a search engine. In addition, the preceptor can contact the college or school, provide the suspected materials, and request that available resources be used to check for plagiarism.

If a preceptor suspects that a student has falsified work hours or committed plagiarism, he or she should report the events directly to the college's or school's experiential coordinator for processing. Each college or school will have its own process for how incidents of scholastic dishonesty are handled. While processes vary, there are a few steps that will be consistent regardless of the institution. First, the preceptor

will need to file a report and turn over all supporting evidence. The report may be as simple as sending an email with the supporting evidence to the experiential coordinator. Institutions may have specific forms that need to be completed. (For a sample form, see http://deanofstudents.utexas.edu/conduct/downloads/FacultyReferralDispositionForm1819.pdf.) These forms may be completed by either the preceptor or the experiential coordinator.

Once the report has been filed, the institution will then go over the report and evidence and meet with the student regarding the allegation. At this time, the student will be able to provide a defense of his or her actions and supporting evidence. Based on the evidence, the institution will propose a penalty. If the student accepts the penalty, then the penalty is enforced, and the case is closed. If the student does not accept the penalty, then the process continues through the institution's academic dishonesty review process. In most cases, a single incidence of academic dishonesty will not carry additional consequences. However, if the student has previous issues of academic dishonesty on file with the institution, then additional consequences may be enforced.

Consequences of academic dishonesty vary from a zero on an assignment to expulsion. In the experiential setting, a student who falsifies his or her experiential hours might fail the rotation and be asked to complete another rotation and thus be delayed in graduation. On the other hand, a student who commits plagiarism or collusion on a presentation or assignment could receive no credit and be asked to redo the assignment. The preceptor should work with the college or school to determine the recommended penalty for academic dishonesty.

It is imperative that preceptors be aware of the potential for academic dishonesty in the experiential setting and set processes in place to prevent it from occurring. Setting clear expectations at the beginning of a rotation regarding reporting hours, working with others, and citing sources will help prevent academic dishonesty while also informing the student of the consequences should it occur. In addition, the preceptor should have a clear understanding of the college or school's student conduct process. (For an example, see http://deanofstudents.utexas.edu/conduct/downloads/StudentConductProcess091118.pdf.)

PRECEPTOR PEARLS

- ***Hours worked by a student for a rotation should be verified by the preceptor before approving.***
- ***Preceptors should not sign blank forms that the student fills in later with hours worked or duties performed.***
- ***Preceptors should provide clear expectations regarding when or if a student can work with others on an assignment.***
- ***Written work should be looked over by the preceptor for accurate citation of references.***
- ***If a preceptor suspects a student of academic dishonesty, the preceptor should file a report with supporting documentation to the experiential coordinator as soon as possible.***

MISCONDUCT

Misconduct takes many forms and levels of severity, from tardiness to Health Insurance Portability and Accountability Act (HIPAA) violations and minor mishaps to actual harm. Although the focus is shifting to address professionalism proactively within pharmacy curricula, there is insufficient literature to guide individual preceptors outside of the classroom setting.

Medical literature can give some insight on dealing with professionalism, and a collection of tips developed from a work-

shop of medical faculty provide an excellent framework for a four-pronged approach:

1. Building a healthy organization
2. Gathering and fact checking
3. Having the conversation
4. Closing the loop[2]

In this section, we will focus on two commonly encountered types of misconduct—dress and behavioral issues—and we can use this framework to address them.

Unprofessional Dress

Building a Healthy Organization

What constitutes professional dress does not transcend all workplaces, groups, or individuals, and large generational and cultural gaps often exist. Prevention of misinterpretation, whenever possible, is key. Organizational guidelines and policies in your rotation syllabus and/or residency manual are helpful to increase transparency and clarity for students. Generally, overarching policies on tattoos, piercings, and jewelry are addressed in dress code policies and have been vetted by human relations/legal professionals. Rotation-specific policies that apply to all students, such as requirements for wearing white coats, no makeup in the intravenous (IV) room, or shoe requirements (i.e., closed toe shoes), are easy additions to the syllabus.

Gathering and Fact Checking

The most common issues with dress are the components that are more open to interpretation, including length of skirts/dresses, exposure of cleavage, and appropriate grooming. Addressing these issues, especially in a student of the opposite sex, can feel uncomfortable. As a first step, verify that the dress is in fact unprofessional, either by discussion with colleagues or logging complaints/concerns from patients. Be aware of implicit bias that can lead to unfair application of expectations, and ensure that the issues have a real or clear potential for harm in professional or patient relationships. When it has been decided that this is a matter that should be addressed, prepare for the conversation. If addressing a student of the opposite sex, plan to have a colleague of that sex lead or at minimum supervise the conversation.

Having the Conversation

Create an environment that is private and comfortable. Be prepared to discuss specific issues such as the impact the dress is having and concrete advice to remedy the issue. For example, if a student is consistently wearing clothing that is too short, explain that the length of clothing might impact credibility with patients and provide the minimum length necessary (i.e., at knee level when seated). Listen to the learners' thoughts and concerns and address them as they are expressed.

Closing the Loop

Provide continuous feedback on progress so that the student knows where he or she stands on the stated issue and consequences for continued dress/grooming violations. If issues still arise, alert the residency program director (RPD) or experiential staff so further action can be taken. To maintain transparency, communicate with the learner that you are taking this step.

Inappropriate/Unprofessional Behavior

Building a Healthy Organization

Inappropriate behavior can encompass many actions, but the most common include tardiness, communication, timeliness of materials, and work ethic expectations.[3] Clearly-defined policies in a syllabus help to communicate expectations and set a basis for consequences. Make the syllabus available well in advance of the rotation, communicate that they are expected to read it in its entirety, and have the students sign that they have read and agree with the syllabus on the first day. While this appears extreme, it sets a clear precedent that you are serious about what it contains and that you will hold them to its standard.

Gathering and Fact Checking

When collecting information about unprofessional behaviors, you should document from multiple sources if possible. If the behavior is a communication issue with colleagues in other professions, elicit specific examples from different perspectives. If the student is tardy, note the time of arrival or first access of the patient chart. Record these observations or complaints in a single document with times and dates when known.

Having the Conversation

If a learner breaks a syllabus policy or has inappropriate behavior not addressed in the syllabus, the best practice is to approach it early on and from a place of concern. In medical literature, a framework developed by Vanderbilt University School of Medicine and elaborated on by van Mook et al. encourages a stepwise, graded approach, starting with a "cup of tea conversation" to a last resort of disciplinary intervention, with adjustment for the severity of the behavioral issue.[4,5] It is again imperative to make a safe space in which you are able to have a private conversation. Begin by asking the student why the behavior occurred to help facilitate a conversation rather than a lecture. There may be underlying reasons that could be important to consider, such as a sick spouse unable to transport the children to daycare or an underlying medical condition that is not well controlled. It is important to remember that learners have outside stressors and burdens that may be affecting their behavior on rotations, and actively listening to the student and his or her perspective will build trust and rapport. In some instances, no mitigating factors will be acceptable. For example, if a student makes a recommendation without discussing with you as his or her preceptor, this can be clear grounds for failure. While the outcome of this should be clear if the syllabus explicitly stated this policy, a discussion with the student is still warranted to re-emphasize the reasoning behind the failure, the gravity of the situation, and the importance of not repeating this behavior in the future.

Closing the Loop

Be clear and thoroughly document both the incident and conversation with the learner in formal feedback, including a specific action plan for improvement with clear follow up. This might include weekly surveys with clinic staff to ensure communication is improving or zero late arrivals. In addition to setting clear and achievable expectations, documentation of these behaviors might also form a longitudinal pattern that can be detected by the RPD or experiential office. If the behavior continues or was very troublesome at the onset, engage the appropriate administrators in the learner's program early on. Their insight and expertise can help identify what level of interventions need to be taken; they generally have a longer-standing relationship with the learner.

PRECEPTOR PEARL

Example Absence Policy

Planned absences or events must be discussed with the preceptor no later than the first day of the rotation. The student should notify the preceptor of any unplanned absences no later than 7 a.m. Failure to do so will result in a documented warning, with any further unexcused absences resulting in failure of the rotation.

PROCESS FOR ADDRESSING CONDUCT AND BEHAVIORAL ISSUES

Case Scenarios

Case 1

A student is assigned to your pharmacy for a 6-week advanced pharmacy practice experience. On the first day, you meet with the student and set your expectations for

the rotation. During the second week of the rotation, the student arrives late with no explanation. You are busy at the time and do not approach the student. Because it is a busy day, you do not have an opportunity to talk with the student. Another week goes by, and the student arrives late again on two separate occasions with no explanation. The preceptor and student are scheduled to meet at the end of the week for a midpoint evaluation. *How should the preceptor handle the situation?*

Discussion: It is important that inappropriate behavior is addressed as it occurs. By not addressing the behavior, the preceptor inadvertently informs the student that the behavior is acceptable. Ideally, the preceptor should meet with the student after the first occurrence. Next, the preceptor should have the conversation. This meeting should serve as a learning opportunity for the student. Make sure to give the learner space to explain what has been happening. Many responses will be unacceptable and require corrective action. Others might demonstrate that an inappropriate behavior is a symptom of a larger problem within the learner's personal life. Responses can then be used as the basis for a directed action plan:

Learner: "I keep sleeping through my alarm."

Action plan: Set alarm for 20 minutes earlier and move the alarm clock across room so snooze cannot be pushed.

Learner: "I have been really struggling with depression and have been experiencing difficulty getting out of bed in the morning."

Action plan: Seek psychiatric care to help manage symptoms of depression and focus on well-being.

Case 2

In preparation for the midpoint evaluation meeting with the student, the preceptor is reviewing the student's electronic timesheet. The preceptor notes that the student has entered the exact same start and stop time for each day of the rotation. Given that the student was tardy on three separate occasions, the preceptor knows the timesheet is not accurate. *How should the preceptor handle the situation?*

Discussion: The preceptor should begin by addressing the unprofessional behavior first. Then, the preceptor should ask the student if the timesheet submitted accurately reflects the time worked or if the student would like to adjust the timesheet. If the student makes the appropriate adjustments to reflect the late arrival and can provide explanation for any hours worked that were not observed, then the preceptor should counsel the student on accurate reporting of time worked. If the student does not make adjustments to reflect the late arrival and cannot provide explanation for any hours worked that were not observed, then the preceptor should report the falsification of time to the school or college experiential coordinator.

Case 3

A fourth-year pharmacy student must give a presentation to pharmacy staff on a new drug that has been added to the formulary. The student prepares and delivers the presentation using Powerpoint. During the presentation, it becomes apparent that the student has copied and pasted the information directly from drug references on to the slide. At the conclusion of the presentation, the student presents no references.

Discussion: The preceptor should discuss the presentation with the student and ask for the list of references. The preceptor should educate the student on proper citation of references when preparing a presentation. The preceptor should let the student know that the current presentation represents academic dishonesty and should request that the student redo the presentation materials. The preceptor should document the conversation and follow up with the school or college experiential coordinator. If the student has had previous incidences of this type of behavior, then the student may be formally disciplined for academic dishonesty. If the student has had no previous incidences of this type of behavior, then having the

student redo the assignment with proper citation of sources may be sufficient. The experiential coordinator should know if this is a one-time occurrence or if the student has a history of similar behavior.

BEST PRACTICES AND PRECEPTOR PEARLS

- Address behavior early on and with clear implications for continued occurrences.
- In the rotation syllabus, clearly list expectations and consequences. Distribute the syllabus prior to the rotation to allow learners time to read and ask questions and have them sign on the first day of the rotation.
- Have students sign a Professionalism Contract prior to the start of experiential rotations that delineates the ramifications if the student fails to abide by the terms of the contract (see **Exhibit 17-1** for an example of a P4 Professionalism Contract).
- Include expectations for appropriate conduct and behavior in the evaluation forms used to assess student performance.
- Do not sign blank forms that the student fills in later.
- Request that students submit written work in advance for review prior to submitting a presentation or proposal.
- Make notes of hours the students are observed on site and request that students discuss duties performed during non-observed times.

RESOURCES

When precepting learners who exhibit unprofessional behavior, it is crucial to remember that you do not need to address the issue alone. For students, engaging the experiential education staff early can help identify trends or underlying issues that may change the management of the situation. Professionalism problems seldom develop unexpectedly, and some students may require longitudinal follow-up to ensure expectations are met to a sufficient level. In residency, discuss problems with the RPD and any mentors assigned to the resident. These individuals may have invaluable insight on approaches to the resident that have proven helpful or have not been successful in the past. Additionally, seasoned preceptors have likely encountered many of the same issues that you will face; finding a mentor to discuss difficult precepting scenarios will give both of you a source of advice and a sounding board for your possible interventions. When preparing for a crucial conversation, role play with your mentor to get feedback on your approach. In addition to engaging colleagues and experiential staff, there are several publications with tips for dealing with professionalism issues in learners:

- ***Plethora of pharmacy-based examples and suggested remediation strategies:*** Davis LE, Miller ML, Raub JN, Gortney JS. Constructive ways to prevent, identify and remediate deficiencies of "challenging trainees" in experiential education. *Am J Health-Syst Pharm*. 2016;73:996-1009.
- ***Tips and suggested phrasing for addressing professionalism:*** Rougas S, Gentilesco B, Green E, Flores L. Twelve tips for addressing medical students and resident physician lapses in professionalism. *Med Teach.* 2015;37:901-907.
- ***Example criteria for rating professionalism in pharmacy learners:*** Boyle CJ, Beardsley RS, Morgan JA, de Bittner MR. Professionalism: a determining factor in experiential learning. *Am J Pharm Educ.* 2007;71(2)Article 31.
- ***Review of strategies to prevent and address unprofessional behavior:*** van Mook WNKA, van Luijk SJ, Zwietering PJ, et al. The threat of the dyscompetent resident: a plea to make the implicit more explicit! *Adv in Health Sci Educ.* 2015;20:559-574.

- ***Resource for "having the conversation" on difficult topics:*** Patterson K, Grenny J, McMillan R, et al., eds. *Crucial Conversations: Tools for Talking When Stakes Are High*. New York, NY: McGraw-Hill; 2012.

SUMMARY

As a preceptor, you will likely encounter misconduct or inappropriate behavior at some point in your career. Setting clear expectations and consequences of those actions in advance will help minimize these issues, but they undoubtedly will still occur. Address any concerns as they arise, ensuring you have a conversation and close the loop with follow-up/feedback. Lastly, do not be afraid to reach out for help or clarification on appropriate next steps. Experiential education departments and RPDs can help you understand or identify underlying trends/patterns and assist you in developing a plan for action. On some occasions, misconduct or inappropriate behavior are best handled by these individuals and they should be informed of them, including potential Title IX allegations, academic dishonesty, or a serious offense. Even though these conversations are hard, you have the opportunity as a preceptor to help your learner understand his or her role and responsibilities as a healthcare provider and representative of our profession. These crucial conversations can be transformative in the professional lives of your learners, and they can be both positive and rewarding for you as well.

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1. ASHP Commission on Credentialing. Required Competency Areas, Goals, and Objectives for Postgraduate Year One (PGY1) Pharmacy Residency Programs. 2014. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/required-competency-areas-goals-objectives. Accessed May 1, 2019.
2. Rougas S, Gentilesco B, Green E, Flores L. Twelve tips for addressing medical students and resident physician lapses in professionalism. *Med Teach*. 2015;37:901-907.
3. Boyle CJ, Beardsley RS, Morgan JA, de Bittner MR. Professionalism: a determining factor in experiential learning. *Am J Pharm Educ*. 2007;71(2)Article 31.
4. Hickson GB, Pichert JW, Webb LE, Gabbe SG. A complementary approach to promoting professionalism: identifying, measuring, and addressing unprofessional behaviors. *Acad Med*. 2007;82(11):1040-1048.
5. van Mook WNKA, van Luijk SJ, Zwietering PJ, et al. The threat of the dyscompetent resident: a plea to make the implicit more explicit! *Adv in Health Sci Educ*. 2015;20:559-574.

EXHIBIT 17-1. P4 Professionalism Expectations and Contract

Consistent with the College's **Honor Code**, by initialing and signing this contract, I agree to the following and will be held accountable for any penalties incurred due to violation of this contract:

The student will:	Penalty	Initials
1. Contact each rotation preceptor at least six weeks before the start of the rotation, or as prescribed by the regional director. *Contact the regional director if you cannot reach the preceptor.*	Failure to comply will result in a delay in starting the next rotation, implying a possible delay in graduation.	
2. Submit all required onboarding paperwork as instructed by the regional director or facility by the due date(s) given.	Failure to comply will result in a forfeit of rotation OR delay in starting the next rotation, implying a possible delay in graduation.	
3. Be professional and respectful to <u>all</u> individuals at all times. Introduce yourself at all first encounters in a congenial, professional manner. Demonstrate active listening skills, and the willingness and flexibility to contribute to the well-being of others.	Unprofessional behavior, demeanor or dress may result in dismissal from the rotation site for the day. Any hours missed are considered <u>unexcused</u> and will be made up at a <u>4:1 ratio</u> (4 make up hours for every 1 unexcused absence hour). Students <u>must</u> contact the regional director immediately upon dismissal from a rotation site.	
4. Be well-groomed and dress with clothing that is professional in appearance (*appropriate to the culture of the institution/facility as defined by the preceptor, the site dress code, the APPE Guide, and professional norms*).		
5. Arrive each day on time prepared to learn and with all required equipment and assignments.	Incomplete or late assignments may be considered unprofessional behavior, and will be evaluated as such on the P4 APPE Evaluation Form.	
6. Comply with HIPAA regulations at all times, guard patient information from disclosure, and seek permission to disclose information to other parties (e.g., *family, other healthcare professionals*).	Violation of HIPAA regulations may result in dismissal from the rotation <u>permanently</u> and, thus, failure of the rotation.	
7. Actively participate in all rotational experiences (e.g., *patient rounds, meetings, discussions, counseling*) and complete all assignments on time. Do not plagiarize others' work. Demonstrate accountability without repeated reminders, and an earnest desire to learn. Request projects if you feel you are not staying busy.	See #5. Plagiarism will result in <u>immediate failure</u> of the rotation and a delay in graduation as per the APPE Guide.	
8. Contact your preceptor <u>and</u> regional director via *telephone* (*emails and texts are not acceptable*) if you are to be absent for any reason, expected or unexpected on a rotation, as directed by the regional director. Unreported absences are considered unexcused and subject to disciplinary action.	Unexcused absences must be made up <u>prior</u> to completing the rotation at a <u>4:1 ratio</u>. Submission of APPE hour sheets indicating absences not reported to the regional director are subject to disciplinary action.	

The student will:	Penalty	Initials
9. Submit complete rotation paperwork by the last day of each rotation (*this includes intern evaluation, hours sheet, preceptor evaluation, portfolio, etc.*)	Failure to comply will result in a delay in starting the next rotation. No hours will count towards the next rotation until complete paperwork is submitted and/or uploaded to your portfolio.	
10. Attend all regional meetings and activities, arrive on time and actively participate. Meet all regional deadlines for submission of assignments and presentations.	Regional meetings are required activities. Any absence or tardiness is an unexcused absence. Time will be rounded up to the nearest quarter hour and must be made up at a 4:1 ratio prior to completing the rotation. Failure to comply will result in loss of rotation hours until the assignment is completed and submitted.	
11. Notify the regional director in writing, including the official accommodation letter from the Dean of Students Office, if you require special accommodations for the P4 milestone exam. The regional director will set the due date for this notification.	Failure to submit the required documentation by the deadline will result in no accommodations for the P4 milestone exam.	
12. Make the most of the P4 year by participating fully in all rotations regardless of practice interests, actively participating in professional organizations and community service, and investigating career options through preceptors, other students, and the community.	Your loss	

Student Comments:

_____

_____

_____

I have received training and instructions on the above expectations and requirements and understand my responsibilities and the penalties associated with violation of any of the items listed above.

_____ _____

Student Signature Date

_____ _____

Print Name UT EID

Source: Courtesy of the University of Texas at Austin, College of Pharmacy, Austin, Texas.

18

Teaching Across Diverse Student Populations

David A. Wallace, Kimberly A. Nguyen, and Grace M. Kuo

"Inconceivable!"

"You keep saying that word. I do not think it means what you think it means."[1]

William Goldman, The Princess Bride

Reading the quote above, a reader will have one of two responses. He or she will either be transported back to the Fire Swamps and Pit of Despair, probably reciting other quotes from the 1987 movie adaptation of the book along the way, or continue past the quote with the thought "I wonder why that was chosen." The way that the reader interprets the quote depends on whether he or she has a shared experience similar to one of the authors of this chapter. Those who have seen the movie multiple times may more quickly grasp the concept it intends to illustrate because they have a shared reference. However, the likelihood of this understanding is largely dependent on the reader being from the same generation, having the same language, and coming from the same culture as that of the author who chose the quote.

For those who did not recognize the quote initially, it is possible to gain an appreciation for the message attempting to be conveyed through its use. But it will take more than a simple assignment to go watch *The Princess Bride* for this to occur. It will also take active reflection and possibly a discussion with someone who has already watched the movie. Such is the challenge of precepting student pharmacists whose background (e.g., gender, race, generation, previous career training, military service, sexual orientation, country/cultural, language) is different from that of the preceptor. As the profession of pharmacy continues to diversify, such situations become increasingly likely.

LEARNING OBJECTIVES

- Describe the heterogeneity of pharmacists and pharmacy students.
- Identify characteristics of learners in different generations.
- List strategies to engage with learners classified as Millennials or Generation Z.
- Increase awareness of differences that can affect the education of diverse student populations, especially nontraditional students, gender identity and sexual orientation, non-native speakers of English, and military service.

Almost a half century ago when a patient encountered a pharmacist, that pharmacist was almost certain to be a white male (according the census data from 1970). Today the profession of pharmacy has radically shifted from such a homozygous demographic profile. The largest shift in demographics has been in gender, with female pharmacists now outnumbering their male counterparts almost 2 to 1 (see **Table 18-1**). At the same time the gender earning gap in pharmacy has shrunk, making it one of the smallest among high-paying professions.[2]

The diversification of the profession means a preceptor will be more likely to train student learners who differ from himself/herself in terms of gender, gender-identity, generations, sexual orientation, and/or primary language to name just a few. Indeed, data from the American Association of Colleges of Pharmacy (AACP) on the gender and ethnicity/race of first professional degrees awarded to Doctor of Pharmacy students shows the diversification (see **Figures 18-1**, **18-2**).[5]

Pharmacist-preceptors probably have been delivering patient-centered care to individuals from a myriad of different backgrounds and cultures. *Culture* refers to the beliefs and norms shared by most, but importantly not all, members of a particular group. Camphina-Bacotes has stated that "cultural competence is a process, not an event."[6] A first step in developing culture awareness is an examination of the biases one's own

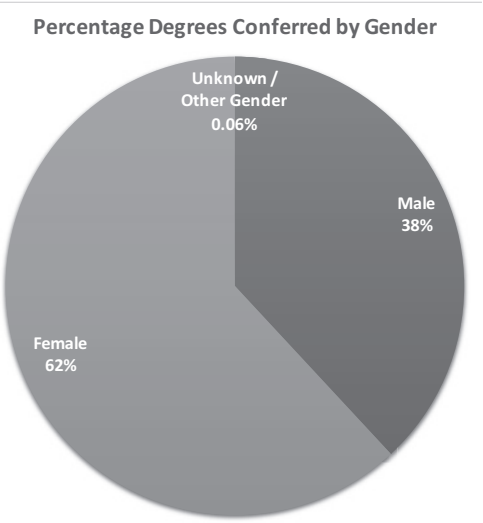

FIGURE 18-1. AACP percentage degrees conferred by gender in 2017.[5]

culture imparts to one's thought processes and interactions with others. Subsequently, a person can then explore the cultural beliefs and practices of other groups with the goal of developing an ability to empathize with members of those groups. Pharmacists wishing to reflect on their current state and identify areas for future growth can complete the Cultural and Linguistic Competence Health Practitioner Assessment (CLCHPA) at http://www.clchpa.org. The tool, hosted by Georgetown University's National Center for Culture Competency, allows a healthcare professional to self-assess in three domains through an online survey tool. The skills and mindsets used to deliver care in a culturally aware, competent manner can be translated into the training of intern pharmacists.

It has been said that a healthcare provider who has seen one patient with a particular condition has seen one patient with a particular condition. This is a caution against over-generalizing, which leads to a failure to recognize the diversity of presentations and optimized treatments for the condition. Must a preceptor who has interacted with one student pharmacist from a diverse group be cautioned that he or she has interacted with one student pharmacist? Pharmacy preceptors hoping to find more references on teaching particular diverse student popula-

TABLE 18-1. Pharmacists' Demographics in the Past Half Century

	1970[3]	2018[4]
Total number	110,331	358,000
Male	88.1%	36.6%
Female	11.9%	63.4%
White or Caucasian	92.5%	67.9%
Black or African American	2.4%	7.2%
Hispanic	1.8%	4.4%
Asian	1.5%	23.1%

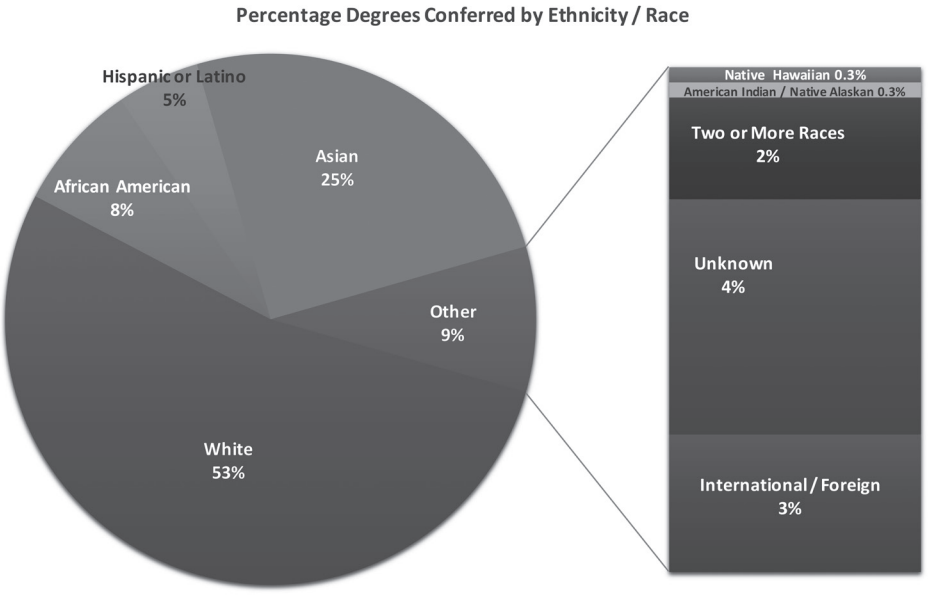

FIGURE 18-2. AACP percentage degrees conferred by ethnicity/race in 2017.[5]

tions may have difficulty locating articles in the pharmacy literature. In many cases, the search will have to be expanded to literature from other healthcare professions, nursing in particular, and even possibly undergraduate education. The authors of this chapter seek to present information on particular populations of students in an effort to facilitate pharmacy preceptors' increased awareness and exploration/reflection on training pharmacist intern members as individuals.

GENERATIONAL DIFFERENCES

The American Heritage Dictionary defines a generation as the people born and living about the same time, considered as a group. Learners from different generations have life-defining events that helped shape and influence their viewpoint and work characteristics. For instance, *Silent or Traditionalists* went through the Great Depression; they exhibit tendencies to save. *Baby Boomers* were raised with the Civil Rights movement; they value teamwork and are optimistic. *Millennials* were raised with two working parents; they prioritize work–life balance. *Generation Z* have had mobile technology since birth and have dealt with natural disasters in real-time; they exhibit confidence and caution. Learners who were born near the birth year cut-offs may have characteristics resembling two generational categories.[7] Generational differences can lead to challenges for the preceptor who may have different work expectations for the learner.

Currently, as noted above, five generational cohorts are employed in the work environment. The workforce is comprised of Silent or Traditionalists (born 1925–1945), Boomers or Baby Boomers (born 1946–1964), Generation X (born 1965–1980), Millennials (born 1981–1996), and Generation Z (born 1997 and beyond) (see **Table 18-2**). The Silent generation makes up the smallest workforce with 2% and Baby Boomers comprise 29% of the workforce. In 2016, the Millennials surpassed other generational cohorts by becoming the largest group in the workforce with approximately 54 million employees.[13] Some estimates indicate that the Millennials and Generation Z will make up most of the workforce by year 2020.[13,14] By having different generations together, there will be differences in work ethic and communication preferences.

TABLE 18-2. Characteristics of the Different Generations[7-12]

Generation	Birth Year	Age in 2019	Part of Workforce	Defining Events of Generation	Work Characteristics	Communication Preferences	Coaching Preferences	Recognition Methods
Silent (Traditionalists/Veterans/Matures)	1925–1945	74–91	2%	Great Depression, World War II, war-based economy, threat of nuclear war Emergence of middle class, one-income family	Practical, patient, loyal and hard-working, respectful of authority, follows rules	Formal, face-to-face, written	One-to-one, formal instructions	Handwritten notes, plaques
Baby Boomers (Boomers)	1946–1964	55–73	29%	Vietnam War; Civil Rights movement; Woodstock festival; space race; walk on the moon; assassinations of John F. Kennedy, Martin Luther King, and Robert Kennedy Voting age lowered to 18 years of age, TV access, 2-parent home, father worked and mother stayed home	Optimistic, values teamwork and cooperation, ambitious, work-oriented	Lesser formality, face-to-face, group processing	Peer-to-peer	Public recognition
Generation X	1965–1980	39–54	34%	AIDS epidemic, Roe vs. Wade, Women's movement, Watergate, Challenger explosion, end of Cold War, fall of Berlin Wall, end of Vietnam War, massacre in Tiananmen Square, end of apartheid in South Africa 2-career households—40% grew up in divorced households, "latchkey" kids	Skeptical, more independent, risk-taking; balances work and personal life; likes to keep things informal and fun; technology literate	Concise and direct, technology usage	As a partner, seeks to demonstrate expertise	Paid time-off, involvement in novel projects
Millennials (Generation Y, Nexters, Net-Gens)	1981–1996	23–38	34%	Violence and terrorism, Princess Diana's death, Iran hostage crisis, Iran-Contra affair Raised in multicultural, multiethnic, global world Born to older mothers—60% born into homes in which both parents work Structured and scheduled world, MTV	Hopeful, meaningful work; diversity and change valued; technology savvy; achievement focused	Short discussion, less reading, quick feedback	Increased coaching, prefers structure and guidance, values internship	Personal feedback, schedule flexibility
Generation Z (Post Millennial)	1997 - Present	22 and under	1%	International terrorism, natural disasters—Hurricane Katrina, Haitian earthquake Born with technology—computers and cell phones, information at their fingertips Read less, sleep less, close to family	Confident, but cautious, seeks autonomy	Texting, email, technology-driven	Prefers self-reflection and self-evaluation, locates information as needed	Instant feedback

To have a successful precepting relationship, it is important to recognize general tendencies of the different generational groups:

- Silent and Baby Boomers prefer face to-face communication.
- Younger generational cohorts of Millennials and Generation Z gravitate toward a technological method of communication, primarily text and email.
- Millennials prefer structure.
- Generation Z seeks autonomy.

Providing feedback also varies among the different learners:

- Millennials prefer more coaching and guidance, so the preceptor needs to plan and set aside appropriate time to address a particular situation.
- Generational Z learners would like self-reflections, self-evaluations, and instant feedback as part of the feedback methodologies.

Preceptors who incorporate particular communication styles that suit the generational learner will help in creating a positive preceptor–learner relationship.

PRECEPTOR PEARLS

Focus on the strengths of learners from different generations. Seek out opportunities to learn about the learners' experiences, values, and beliefs while sharing your experiences. Mobile devices will be synonymous with Millennials and Generation Z. Boundaries need to be explained and maintained when delineating work hours versus off-work hours for texting purposes.

The 2004 ASHP National Residency Preceptor Conference focused on generational differences. The director of the Center for Generational Studies, Robert Wendover, shared with preceptors a four-step process to confirm understanding when working with Millennials:[15]

- ***Step 1***—Describe the assignment or research question and outline guidelines and outcomes.
- ***Step 2***—With the learner, formulate the necessary steps to complete the assignment or research. Correct any incorrect thoughts or misdirection early on.
- ***Step 3***—Instruct the learner to submit a detailed response with supporting evidence. Have the learner compare the finished product with the original assignment request.
- ***Step 4***—Encourage the learner to work through all roadblocks and obstacles.

Using the four-step process will provide the guidance and coaching that the Millennials are seeking, while ensuring the learner is on the correct path for completing the assignment or research project.

NONTRADITIONAL STUDENTS AND STUDENTS WITH PHARMACY AS A SECOND CAREER

Who are nontraditional students? According to the National Center for Education Statistics (NCES),[16] the number of nontraditional students is growing. *Nontraditional students* usually refer to undergraduate students, but this can be applicable to many pharmacy students and residents. Characteristics of nontraditional students include age (especially those older than age 24), residence (e.g., not on campus), minority race, gender, and level of employment (particularly full-time).[17] For some students, pharmacy is their second career because they could not find a good paying job, did not like their first career, or previously did not have an opportunity to study pharmacy.

Preceptors can help nontraditional and second-career students by understanding their needs and providing creative ways to help them achieve learning objectives. Almost all pharmacy schools require at least two years of undergraduate education plus 3 or 4 years of pharmacy curriculum; some pharmacy schools only accept students who have completed a bachelor's degree. Many pharmacy students are 24 years of age or older and are considered financially independent. Some pharmacy students are married and/or with children. As a surrogate variable, age captures a population of adult students who often have personal responsibilities, at home or at work, which can interfere with successful completion of educational objectives. Studies have shown that a pharmacy student's age is negatively associated with academic performance.[18,19] Awareness of nontraditional students' competing challenges will help preceptors gain more understanding and create flexible workflows to help nontraditional students meet deadlines and learning objectives.

Many nontraditional students live off-campus and commute to classes or rotation sites. They have less availability to spend time and bond with classmates. It is difficult for them to participate in school events, either due to longer distance or lack of social support at school. If possible, preceptors can select more convenient times for commuters or even create social events that allow nontraditional students to bring their family members.

Due to a demanding curriculum, not many pharmacy students have full-time jobs during school. However, many students, particularly nontraditional students, work part-time. Some of them may need greater financial aid to pay tuition and/or support family. Some may become mentally stressed worrying about whether they have adequate funds. Preceptors may have to refer them to financial or psychological counseling services. If possible, preceptors can help nontraditional students create support groups.

Students for whom pharmacy is a second career come from various walks of life. Preceptors can help these students connect pharmacy practice with their expertise area based on previous training. Preceptors can help second-career students form a network of special interest groups. Second-career students may face overwhelming demands and expectations. Preceptors have a very important job to understand the needs of these second-career pharmacists, and to celebrate with students their unique training and expertise.

PRECEPTOR PEARLS

Awareness of nontraditional students' competing challenges will enable preceptors to gain more understanding and create flexible workflows that help them meet deadlines and learning objectives. Preceptors have a very important job to understand the needs of second-career pharmacists, and to celebrate with students their unique training and expertise.

VETERANS

In 2019, Dyar published a scoping review aimed at informing nurse educators about military veterans as higher education students.[20] Strengths for veterans that were identified in the literature included a strong sense of duty, self-discipline, and solid work ethic. A preceptor might engage a veteran's mission-focused mindset by asking or working with the student to set goals and mileposts toward the completion of a project.

Dyar also noted that veterans are often proud of their service and the development of traits it fosters, although they may not always want to disclose their veteran status. This concern can be born from a perceived stigma of military service. However, in a review of the literature, veterans cited that their experiences in the military prepared them to be

successful as students. Furthermore, these experiences were seen as developing maturity. It was noted that veterans who were deployed oversees may have increased their awareness of the beliefs, values, and norms of other cultures and possess a more global perspective in their encounters with individuals from new cultures.

Conversely, Dyar also found several challenges that student veterans may face. Veterans were noted to have lower family incomes and may encounter difficulties managing or maintaining financial stability. Veterans may feel pressure to work, in addition to the hours required for the experiential training, to make ends meet. A preceptor should be alert to this possibility and open a dialogue with their trainee early in the experiential rotation about balancing time demands. Furthermore, the preceptor can recognize the veteran may be reticent to talk about difficulties meeting the mission goal and approach it in a manner that does not appear to be a failure to follow orders.

Additionally, veterans in the studies reported complex health issues, including mental health and substance use concerns. However, upper-level student veterans (e.g., juniors, seniors, graduate students) were less likely to express a willingness to ask for help in transition counseling/psychological counseling.[21] Preceptors of student veterans need to be alert to signs of mental health concerns but not assume they will likely be present. Concern about mental health illness stigmas can lead veterans to not disclosing their military service. Instead, a pharmacist serving as a preceptor can utilize the same clinical skills and compassion when interacting with patients to recognize signs of mental health issues in veterans.

PRECEPTOR PEARLS

Student veterans have a mission-focused mindset but may face several challenges such as having inadequate financial resources, time management issues, or mental health concerns. A preceptor can utilize the same clinical skills and compassion when interacting with patients to recognize signs of mental health issues in veterans.

LGBTQ

Historically, society has long shunned and stigmatized individuals who identify as lesbian, gay, bisexual, transgendered, or queer/questioning (LGBTQ). However, the profession of pharmacy—in meeting a core value of ethically and equally treating all persons—has begun to focus on how members of the LGBTQ communities can be approached inclusively. Indeed, a few descriptions of the courses that include or are focused on the healthcare needs of LGBTQ individuals in pharmacy school curricula have been published.[22-24] Another early step in this process is gathering information on how pharmacists and student pharmacists identify themselves.

The AACP now asks pharmacy preceptors, as well as graduating students, how they self-identify in terms of gender and/or sexual orientation as part of the organization's annual Curriculum Quality Surveys (see **Table 18-3**).[25,26] A higher percentage of graduating students selected trans male, trans female, lesbian or gay, or bisexual when compared to the preceptor cohort. Interestingly the graduating students also selected the "Prefer Not to Disclose" response less often though their cohort was larger (**Table 18-4).**

TABLE 18-3. AACP 2018 National Data: How Do You Describe Yourself?

Response	Preceptor[25] (n)	Graduating Students[26] (n)
Female	54.5% (4270)	62.8% (7161)
Male	39.3% (3078)	35.1% (3998)
Trans Female/Trans Women	0.0% (1)	0.1% (7)
Trans Male/Trans Man	0.0% (2)	0.1% (6)
Different Identity	0.4% (31)	0.2% (22)
Prefer Not to Disclose	5.9% (459)	1.9% (212)

TABLE 18-4. AACP 2018 National Data: Do You Consider Yourself to Be?

Response	Preceptor[25] (n)	Graduating Students[26] (n)
Heterosexual / Straight	85.9% (6733)	91.5% (10439)
Gay or Lesbian	1.8% (142)	2.3% (265)
Bisexual	0.4% (29)	1.3% (145)
Not Listed Above	0.7% (57)	0.4% (41)
Prefer Not to Disclose	11.2% (880)	4.5% (516)

Although a small cohort of pharmacists and student pharmacists report being members of the LGBTQ communities, a preceptor can strive to create a supportive learning environment for a student pharmacist who identifies him- or herself as LGBTQ. A first step for a preceptor can be reflection on their beliefs, attitudes, and biases in regard to gender identity and sexual orientation. Many colleges and universities have resource centers or offices of diversity and inclusion, which can provide materials as well as staff with experience assisting others in increasing awareness and acceptance. An examination will likely include the preceptor exploring how heterosexism in society has granted privileges to heterosexual, cis-gendered (i.e., identifying one's gender congruent with the gender one was assigned at birth) individuals while either covertly or overtly discriminating against individuals who are outside that group and the degree to which their beliefs and actions toward others is colored by heterosexism. Preceptors can explore how they react to the topics of sexual orientation and gender identity in recognition of the nonverbal cues they are likely transmitting. *Does the preceptor interact with others at work to avoid being identified as LGBTQ, and how strong is that avoidance? How does that appear to a learner in a subordinate position?*

Subsequent steps can include becoming an ally for members of the LGBTQ communities.[27] As mentioned above, often heterosexuality is assumed in interactions with others. Instead, a preceptor can choose to use gender-neutral language when they do not know the student pharmacist or their significant others well. The preceptor can ask how the intern prefers to be referred to. Another action the preceptor can adopt is to challenge others when they stereotype or behave inappropriately toward members of the LGBTQ community. This can include speaking up when another person makes an off-hand but derogatory comment. The action not only provides feedback to the person making the comment, but it also signals to LGBTQ individuals that they do not have to face the intolerance alone. Finally, a preceptor can incorporate LGBTQ-related concerns into activities such as topic discussions in therapeutic reviews.

PRECEPTOR PEARLS

Although gender and sexual orientation are important facets of personal identity, individuals are so much more. By being alert to the language used daily that may be exclusionary and by being willing to recognize and confront their own biases, preceptors can create a safe, inclusive learning environment.

RELIGION

Title VII of the Civil Rights Act of 1964 does not allow any religious discrimination in a workplace environment. Students are learning to transition to a workplace environment while remaining faithful to their beliefs. Their experiential rotations are a great way to explore opportunities about ways to adhere to religious tenets while working.

Earlier knowledge of the learner's religious practices will help with initial rotation planning. A preceptor can open a dialogue by asking if the student has religious observances he or she performs daily or that will be falling during the experiential rotation. For instance, students of the Islamic faith observe *salut* or prayer five times daily during certain windows of time. Additionally, during the Islamic holy month of Ramadan, the interns may fast, refraining from eating or drinking anything, including water, during daylight hours. By knowing the intern is engaging in these practices at the outset of a rotation, a preceptor can structure the schedule to incorporate this aspect of the student's life.

The U.S. Equal Employment Opportunity Commission provides the following examples of religious accommodation:[28]

- Exemption to the company's dress and grooming practice (e.g., Muslims wearing a hijab [a religious headscarf], Jewish man wearing a skullcap [yarmulke])
- Flexibility in scheduling for a Catholic student learner to attend religious services on Good Friday and for a Seventh-Day Adventist or Orthodox Jewish student unable to work on Sabbath or ritual ceremonies for Native American learners
- Exemption for an atheist who does not participate in religious invocations at staff or department meetings
- Exemption for dispensing of birth control prescriptions for a Christian pharmacy learner
- Flexible break time to allow daily prayers for Muslim learners

Interns who practice a particular faith tradition may also request to be excused from the rotation for the observance of a religious holiday. Having a dialogue about religious observances can provide a safe opening for the learner to share the absence request. The University of Missouri's Division of Inclusion, Diversity and Equity, maintains a web page at https://diversity.missouri.edu/guide-to-religions/dates-practices-accomodations/, which preceptors may consult as a resource about religious holidays. The web page lists a number of religious holy days, the faith that observes them, and dates during the current and upcoming academic year along with general practices for the observance and recommended accommodations for classes. **Table 18-5** provides a list religious holidays that may have significant work restriction implications for followers of the religion. The dialogue can also offer the preceptor an opportunity to prompt the learner to explore and reflect on how other healthcare practitioners within their faith tradition balance the observance of these holidays with their patient care responsibilities.

TABLE 18-5. Selected Religious Holidays with Potential Work Restrictions[29]

Holiday	Faith Celebrating	Brief Description
Rosh Hashanah	Jewish	Start of the Jewish New Year commemorated by rest and celebrations. Observers pray in synagogue and share festive meals.
Yom Kippur	Jewish	Day of atonement and fasting often considered the holiest day in the Jewish calendar.
Eid al-Adha	Islamic	Festival celebrating the willingness to make sacrifices for one's faith.
Diwali	Hindu, Sikh, Buddhist, Jain	Hindu Festival of Lights observed by multiple religions in Southeast Asia. Celebrates the victory of good over evil.
Christmas	Christian	Celebration of the birth of Jesus, the central figure of Christianity, through attendance at church and gift giving. *Note:* Catholic and Protestant denominations celebrate on a different date than Eastern Orthodox denominations.
Gantan-sai	Shinto	Celebrations of the New Year festival through prayer and family visits.
Chinese New Year	Buddhist, Taoist, Confucian	Celebration with families through sharing meals and giving gifts of money in red envelopes to children. Considered the most important of Chinese holidays.
Easter	Christian	Celebration of the end of Lent and resurrection of Jesus through church services and family gatherings. *Note:* Catholic and Protestant denominations celebrate on a different date than Eastern Orthodox denominations.
Pesach/Passover	Jewish	Observance of the exodus of Jewish slaves from Egypt through gathering with family and sharing Seder meals.
Shavuot	Jewish	Celebrations of the receipt of the Torah through evening devotions and studying the Torah.
Eid al-Fitr	Islamic	Observance of the last day of Ramadan and breaking of the fast. Participants celebrate by prayer, giving gifts, and feasting with family and friends.

Source: Information adapted with permission from University of Missouri Division of Inclusion, Diversity & Equity's Guide to Religions. www.diversity.missouri.edu/guide-to-religions/.

PRECEPTOR PEARL

During your initial communication, include your institution or company's policy on dress code and religious observations. Invite your students to share their religious observations that you need to be aware of to best prepare the rotation schedule.

ENGLISH AS A SECOND LANGUAGE

English as a second language (ESL or EASL), English as a foreign language (EFL), and *non-native speaking (NNS)* are all terms used in the literature to describe students for whom English is not the first language they learned to speak. The challenges facing such students can be related directly to a potential incomplete mastery of English or indirectly speaking another language fluently; both may indicate a culturally different identity from that of U.S.-born persons. Students identified as EFL report decreased satisfaction with the quality of their class notes as well as being asked by fellow students less often for their notes.[30]

Comprehension and vocabulary have been identified as large challenges for this

group of students. Diaz-Gilbert found, in a study of 25 students whose time living in the United States averaged 7 years (range 2.9 to 19 years), that the cohort was able to provide acceptable definitions or synonyms for 52% of the words tested on the survey instrument.[31] Another study by the same author investigated the writing skills on advanced pharmacy practice experiences (APPEs) of pharmacy students, for whom their first or best language was not English, and found the majority of the student and preceptors felt writing skills needed improvement. However, in this study, only 57% of preceptors reported providing their learners with feedback.[32]

Preceptors of students who are non-native speakers of English can provide support in a number of ways. The preceptor can recognize the additional time that may be required to translate or infer the information presented to the student and provide a time-line that is achievable for these students. One simple exercise that the reader can undertake is for the preceptor to describe their morning routine out loud but for every verb spoken, a second verb that could substitute for the first must be spoken immediately after the first. For instance, "I got up out of bed" becomes "I got up out of/arose from bed." By the time the reader describes leaving their residence, the preceptor may be on the path toward developing empathy for the challenges faced by a non-native speaker. Additionally, the preceptor can inquire about vocabulary or comprehension concerns using nonjudgmental questions such as "*What terminology did you encounter today that was new to you?*" Questions about a student's comprehension need not be limited to only medical or scientific terminology as idioms or colloquial expression can also be misunderstood or interpreted by non-native speakers. The reader should pause for a moment and think of three to five phrases used commonly in their region of the country that the person from outside the region would have difficulty understanding on first hearing the phrases.

Finally, the pronunciation of words and phrases, especially when accent and languages differ, can lead to communication challenges for speakers not native to the region of the country. "Rs" may be rolled, letters may be silent, or the tongue may be placed further back on the palate along with any number of other variations that make human communication so diverse. For pharmacy preceptors, a trip down memory lane to recall his or her own challenges learning to pronounce medication names, brand or generic, can spur the development of empathy for the speaker of another language or even dialect of English.

Other factors beyond language may be considered when precepting students for whom English is not their native language. Having another language as a native tongue often indicates the learner also has a different cultural background, and culture influences many other aspects of interactions with others. For instance, students from Asian or Hispanic cultures may avoid eye contact with individuals they consider authority figures as a display of respect. Additionally, one of this chapter's authors has had the opportunity to precept students who grew up on the continent of Africa. During midpoint evaluations or other similar feedback sessions with these students, assertiveness was discussed as an area for continued development as it is with many interns. However, these students expressed a concern that to speak up to an instructor in their home country's education system was considered taboo or unthinkable. The important lesson here is that the preceptor opened the dialogue with each learner, clearly stated that it would be okay, and is an expectation as part of the culture of patient safety. A plan was established with the learner to have it be a safe partnership for the student to explore speaking more assertively to the preceptor.

CASE SCENARIO

You are the preceptor for a community rotation. You are assigned an introductory pharmacy practice experience (IPPE) student who is 22 years old and on his first week of the rotation. He is fairly new to the community pharmacy practice setting, as he has not worked previously. You mentioned to him that his rotation schedule is the same as your work schedule. You provided him with your 2-week work schedule for his review. Later that evening at 8 p.m., you received a text from your student: "I can't work this Saturday as it is my Sabbath. Is there another day that can be substituted?"

The student's request for rotation work day accommodation is based on his religious belief. This is a good opportunity to share your institution or company's policy on religious accommodations because the student is new to the work environment. In addition, you can request any rotation dates that the student may need off in your initial correspondence with the student. The information the student may share could include medical appointments, religious observances, or professional conferences. Knowing the dates ahead of time can save you time in rearranging the schedules last minute.

A second concern to the preceptor may be the timing of text. Based on the student's age, the learner is categorized into the post-Millennial or Generation Z learner cohort. This generation prefers instant feedback, thus the after-business hour text message. You may consider sending a short text message replying that you acknowledge the message and that you can discuss the situation tomorrow. This particular learner lacks work experience and perhaps did not know common etiquette on when to choose texting versus email in sending the message. In a face-to-face meeting, share with the learner that the use of after-hours text messaging is reserved for emergencies and email is preferred in nonemergency situations. Because the scheduling will not be changed that evening, the email method would suffice. However, if the learner realized Friday night that he will not be able to come into rotation due to Sabbath, texting would be appropriate in that case. Providing examples of what constitutes an emergency and nonemergency situation will help the learner in choosing the preferred communication method in the future.

PRECEPTOR PEARLS

Preceptors can assist nonnative speakers of English through recognition that language is just one part of the learner's cultural background, different from his or her own, and openly explore situations where the intern's approach differs.

SUMMARY

As the profession of pharmacy has become more diverse over the past half-century, today's pharmacist preceptor will likely be of a different background than their pharmacy intern. Thus, the preceptor cannot expect the student pharmacist to approach situations intuitively in the same manner or have exactly the same understanding of how things work as the preceptor. This can be both a source of struggle for the busy preceptor and also an opportunity for gaining a new perspective from the learner. By being mindful of the many facets of diversity, preceptors can model the importance of showing respect for others' differing viewpoints and experiences, as well as maintaining self-awareness and self-reflection as a member of the healthcare team.

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19

Ethical Aspects of Practice

Ashley N. Cubley and Diane B. Ginsburg

> Ethics is nothing else than reverence for life.
>
> *Albert Schweitzer*

The experiential education component of the pharmacy curriculum plays an integral role in establishing the future professional practice of pharmacy learners. The role of a preceptor is vital in both teaching and modeling ethical principles/behavior to learners to equip them to excel in response to ethical dilemmas in their career. This chapter will cover the basic principles of biomedical ethics and provide a framework for decision making to guide learners in the provision of pharmacist-directed patient care.

LEARNING OBJECTIVES

- Understand the Code of Ethics and Oath of a Pharmacist and explain how they apply to experiential training.
- Define the core biomedical ethics principles and recognize their role in everyday practice.
- Identify the importance of ethics and morality in healthcare and their role in the provision of pharmacist-directed patient care.
- Demonstrate competency in the application of bioethical principles and appropriate decision-making frameworks to patient situations.

ETHICS IN PHARMACY EDUCATION

The Accreditation Council for Pharmacy Education (ACPE) has designated ethics as an essential component of pharmacy education. The 2016 Accreditation Standards includes ethics as a required element in the didactic portion of the Doctor of Pharmacy curriculum under the social, administrative, and behavioral sciences content area.[1] The teaching of ethics is suggested to include approaches for resolving ethical dilemmas in patient care to equip learners for critical evaluation of viable options with an emphasis on moral responsibility.

It is essential to understand the ethical education background that pharmacy learners have when they begin their experiential educational experiences. Although required of all Doctor of Pharmacy programs, the teaching of ethics nationwide varies greatly among the 144 ACPE accredited colleges of pharmacy (see **Box 19-1**). Through conversations

with both student and resident learners, a baseline of ethical knowledge should be ascertained to establish the foundation on which to grow during the pharmacy experiential education.

BOX 19-1. Ethics Courses Nationwide

- Independent Ethics Courses

  There are 37 colleges of pharmacy that have an independent ethics course (25.69%). Of these, 15 taught ethics in the third professional year, 12 in the first year, and 6 in the second year. Three programs did not have information available on when the course was offered, and one program had two ethics courses within the curriculum taught during the second and third professional years.
- Combined Ethics and Law Courses

  There are 67 colleges of pharmacy that have a combined law and ethics course (46.53%). Of these, 34 taught law and ethics in the third professional year, 14 in the second year, and 14 in the first year.
- Integrated Courses

  There are 10 colleges of pharmacy that have an integrated curriculum through which law and ethics are not taught independently (7.64%). It is unclear how and when these topics are covered in the curriculum based on the available information.

CODE OF ETHICS AND OATH OF A PHARMACIST

The membership of the American Pharmacists Association adopted the Code of Ethics for Pharmacists on October 27, 1994.[2] This Code provides eight guiding statements for both learners and preceptors in upholding a high ethical standard during their everyday pharmacy practice (see **Box 19-2**).

BOX 19-2. Code of Ethics for Pharmacists

Preamble

Pharmacists are health professionals who assist individuals in making the best use of medications. This Code, prepared and supported by pharmacists, is intended to state publicly the principles that form the fundamental basis of the roles and responsibilities of pharmacists. These principles, based on moral obligations and virtues, are established to guide pharmacists in relationships with patients, health professionals, and society.

I. A pharmacist respects the covenantal relationship between the patient and pharmacist.

   Considering the patient–pharmacist relationship as a covenant means that a pharmacist has moral obligations in response to the gift of trust received from society. In return for this gift, a pharmacist promises to help individuals achieve optimum benefit from their medications, to be committed to their welfare, and to maintain their trust.

II. A pharmacist promotes the good of every patient in a caring, compassionate, and confidential manner.

   A pharmacist places concern for the well-being of the patient at the center of professional practice. In doing so, a pharmacist considers needs stated by the patient as well as those defined by health science. A pharmacist is dedicated to protecting the dignity of the patient. With a caring attitude and a compassionate spirit, a pharmacist focuses on serving the patient in a private and confidential manner.

III. A pharmacist respects the autonomy and dignity of each patient.

   A pharmacist promotes the right of self-determination and recognizes individual self-worth by encouraging patients to participate in decisions about their health. A pharmacist communicates with patients in terms

that are understandable. In all cases, a pharmacist respects personal and cultural differences among patients.

IV. A pharmacist acts with honesty and integrity in professional relationships.

A pharmacist has a duty to tell the truth and to act with conviction of conscience. A pharmacist avoids discriminatory practices, behavior or work conditions that impair professional judgment, and actions that compromise dedication to the best interests of patients.

V. A pharmacist maintains professional competence.

A pharmacist has a duty to maintain knowledge and abilities as new medications, devices, and technologies become available and as health information advances.

VI. A pharmacist respects the values and abilities of colleagues and other health professionals.

When appropriate, a pharmacist asks for the consultation of colleagues or other health professionals or refers the patient. A pharmacist acknowledges that colleagues and other health professionals may differ in the beliefs and values they apply to the care of the patient.

VII. A pharmacist serves individual, community, and societal needs.

The primary obligation of a pharmacist is to individual patients. However, the obligations of a pharmacist may at times extend beyond the individual to the community and society. In these situations, the pharmacist recognizes the responsibilities that accompany these obligations and acts accordingly.

VIII. A pharmacist seeks justice in the distribution of health resources.

When health resources are allocated, a pharmacist is fair and equitable, balancing the needs of patients and society.

Source: American Pharmacists Association. Code of Ethics for Pharmacists. **https://www.pharmacist.com/code-ethics**

PRECEPTOR PEARL

Review the Code of Ethics and Oath of a Pharmacist at the beginning of rotation to find out what they mean to the learner.

The Oath of a Pharmacist was adopted by the AACP House of Delegates in July 2007 and is recited by many Doctor of Pharmacy students at the beginning and commencement of their pharmacy education.[3] Learners and preceptors should be familiar with this Oath and its guidance in pharmacy practice (see **Box 19-3**).

BOX 19-3. Oath of a Pharmacist

I promise to devote myself to a lifetime of service to others through the profession of pharmacy. In fulfilling this vow:

- I will consider the welfare of humanity and relief of suffering my primary concerns.
- I will apply my knowledge, experience, and skills to the best of my ability to assure optimal outcomes for my patients.
- I will respect and protect all personal and health information entrusted to me.
- I will accept the lifelong obligation to improve my professional knowledge and competence.
- I will hold myself and my colleagues to the highest principles of our profession's moral, ethical and legal conduct.
- I will embrace and advocate changes that improve patient care.
- I will utilize my knowledge, skills, experiences, and values to prepare the next generation of pharmacists.

I take these vows voluntarily with the full realization of the responsibility with which I am entrusted by the public.

Source: American Association of Pharmacy. Oath of a Pharmacist. **https://www.aacp.org/sites/default/files/2018-05/oath2018.pdf**.

PRINCIPLES OF ETHICS AND MORALITY

The discipline of ethics covers multiple principles and morality; however, for the purposes of biomedical ethics, there are five key ethical principles: *autonomy*, *nonmaleficence*, *beneficence*, *justice*, and *fidelity*.[4] These moral principles are integral to the practice of pharmacy as they are reflected in both the Code of Ethics and Oath of a Pharmacist. An understanding of these principles is key in successfully leading learners through resolution of ethical dilemmas encountered daily in patient care.

Autonomy

The principle of *autonomy* invokes the idea that all people have the right to have their wishes, beliefs, and choices respected. This right extends to the patient, provider, and all other interested parties so long as the individual is capable of making a meaningful decision. This principle is reflected in Article III of the Code of Ethics, "A pharmacist respects the autonomy and dignity of each patient." Autonomy ensures the patient's rights will be respected as long as the patient is able to understand the decision he or she is making, including full disclosure of risks versus benefits, and makes the decision without influence from others.

Nonmaleficence

The principle of *nonmaleficence* requires an avoidance of undue harm in healthcare practice. This principle calls for the potential risks of a medical intervention to be carefully considered in guiding healthcare decisions. This principle is reflected in Article V of the Code of Ethics, "A pharmacist has a duty to maintain professional competence," as well as the Oath of a Pharmacist, "I will consider the welfare of humanity and relief of suffering my primary concerns." Nonmaleficence ensures that the pharmacist has the necessary clinical knowledge to foresee potential harms from medication therapy and can act accordingly to mitigate the risks to the patient. If a pharmacist fails to observe these duties, patients may be harmed due to dated knowledge or inadequate technical skills and can rightly claim that their trust in the fiduciary relationship has been violated.

Beneficence

The principle of *beneficence* necessitates that healthcare providers' primary obligation is to benefit and promote the welfare of patients. This principle is reflected in Article II of the Code of Ethics, "A pharmacist promotes the good of every patient in a caring, compassionate, and confidential manner," as well as the Oath of a Pharmacist, "I will apply my knowledge, experience, and skills to the best of my ability to assure optimal outcomes for my patients." Beneficence expresses the sense that morality requires more than just staying out of another's way but, rather, providers on occasion may be obligated to step in and aid others. This principle closely interplays with the principle of nonmaleficence, and one can often not be considered without the other.

Justice

The principle of *justice* obligates healthcare providers to aim to allocate healthcare commodities fairly. This principle is reflected in Article VIII of the Code of Ethics, "A pharmacist seeks justice in the distribution of health resources." Justice requires the pharmacist to consider whether the resources provided to patients are distributed fairly and equitably in regard to the patient, healthcare system, and society to ensure the maximum benefit to all.

Fidelity

The principle of *fidelity* acknowledges the trust placed in the healthcare provider. This trust is reflected in patient–provider relationships, provider–provider relationships, and in the trust providers hold from society. This principle is reflected multiple times in the Code of Ethics, including Article I, "A pharmacist respects the covenantal relationship between the patient and phar-

macist," and Article IV, "A pharmacist acts with honesty and integrity in professional relationships," as well as the Oath a Pharmacist, "I will respect and protect all personal and health information entrusted to me." Fidelity ensures that the sacred patient–provider relationship is not violated, therefore charging healthcare providers to uphold the trust of patients and colleagues at all times. This principle is closely intertwined with the other ethical principles, as a pharmacist's violation of any ethical principle could result in the loss of trust and would be a violation of fidelity.

ETHICAL DECISION-MAKING

As ethical dilemmas arise in practice, it is necessary to identify the relevant facts, key ethical principles at play, and any contributory factors to aid the resolution of the dilemma. Due to the nature of ethical dilemmas, it can be difficult to break the problem down into workable pieces. The utilization of an ethical decision-making framework aids in this process by establishing linear steps to gather relevant facts, identify key principles, and generate available options. This four-piece ethical decision-making framework allows both learners and preceptors clear steps to follow in resolving ethical dilemmas:[5]

Step 1—Gather relevant facts of the situation.

Step 2— Identify key principles and any in conflict.

Step 3—Generate available options and/or answer the question, "What could you do in this situation?"

Step 4—Choose an option and justify the decision and/or answer the question, "What did you chose to do and why?"

PRECEPTOR PEARL

Practice ethical dilemma case scenarios with students and residents to prepare them for real-life situations they will encounter.

APPLICATION OF ETHICS IN PHARMACIST-DIRECTED CARE

The identification of an ethical dilemma during experiential education offers an invaluable opportunity for the preceptor to be a model and guide the pharmacy learner through the decision-making framework and ethical behavior. Before beginning the ethical decision-making framework with a learner, it is important to first ascertain what personal ethics the learner and/or institution may hold. Identifying the ethical values of the institution and learner will help prevent an ethical conflict from arising between the teacher, learner, and/or institution. These ethical values may be based on a variety of sources including institution or school policy, philosophy, or religion.

Additionally, it is important to ensure that the learner is aware of the federal, state, and local laws and statutes that may apply to be certain the dilemma is resolved both ethically and legally. There are times where the ethical principles may be in conflict with the legal requirements, and this offers an important learning opportunity on the negative professional implications of acting ethically but not legally or legally but not ethically.

Taking time to work through the ethical decision-making framework step-by-step will allow the preceptor to gauge the learner's understanding of the ethical principles and ability to successfully apply them to patient care. Ensure that the learner has access to or is provided with the relevant information needed to evaluate the ethical dilemma fully. Multiple ethical dilemmas may be evaluated throughout the learning experience, allowing

the preceptor to first model utilizing the framework and later allowing the learner to resolve ethical dilemmas independently. Consider the following ethical dilemma (see **Box 19-4**) as an example of how to utilize the decision-making framework.

BOX 19-4. Ethical Dilemma Patient Case

Mr. Smith, a 50-year-old Caucasian male, is being admitted to the inpatient unit due to a congestive heart failure exacerbation. The admitting doctor would like to continue Mr. Smith's home medications including betahistine, a weak H1 agonist and potent H3 antagonist, that is approved in Canada for the treatment of Ménière's disease. However, betahistine is not approved by the Food and Drug Administration (FDA) for any clinical use in the United States. There is no alternative FDA-approved medication indicated for the treatment of Ménière's disease or alternative FDA-approved medication with a similar mechanism. The admitting physician orders the medication and requests the hospital pharmacy to label Mr. Smith's home supply of betahistine for in-hospital use.

Step 1

The first step in utilizing the ethical dilemma decision-making framework is to identify the relevant facts. In this case, the patient is being admitted for congestive heart failure, and has the comorbidity of Ménière's disease for which he takes betahistine. Betahistine is not approved for use by the FDA in the United States. There are no FDA-approved alternative medications available with a similar mechanism of action or alternative FDA-approved medication indicated for the treatment of Ménière's disease. The physician would like to utilize Mr. Smith's home supply of betahistine, which hospital policy requires the pharmacy to verify and label for in hospital use.

Step 2

The next step in the ethical decision-making framework is to identify the key principles. In this example, beneficence supports the benefit of continuing to treat Mr. Smith's Ménière's disease. The role of nonmaleficence is more convoluted as it could be interpreted to violate the principle by discontinuing necessary treatment for Ménière's disease; however, it could also be violated by providing a medication that is not FDA-approved. Considering fidelity, the pharmacist must consider the trust that the profession holds in providing authentic, safe, and efficacious medications as well as the possible violation of this trust by providing a medication that cannot be guaranteed to be safe and efficacious. The principle of autonomy supports allowing the patient to decide whether to take the medication. In addition to considering the ethical principles, this case presents legal implications and liability concerns for the pharmacist in providing a medication not approved by the FDA.

Step 3

After gathering the relevant facts and considering the ethical principles, the next step is to generate available options. In this example, there are two options: 1) for the pharmacy to label and provide the patient with the medication or 2) for the pharmacy to decline to approve the medication for administration within the hospital. The first option champions autonomy and beneficence but holds potential legal implications. The second option upholds nonmaleficence and fidelity, at the potential risk of violating beneficence and autonomy.

Step 4

The final step in the decision-making framework is to select an option. The learner may initially struggle with selecting an option due to the fear of choosing the wrong answer. The preceptor should remind the learner that often in ethical dilemmas there

is no fully right or wrong answer. The most important aspect of selecting an option is ensuring that all ethical principles and legal implications have been evaluated and that any options identified allow the learner or preceptor to act both legally and ethically. In this example, hospital administration was ultimately consulted; it was determined that the legal implications and liability concerns overruled any ethical questions. It was decided that the medication would not be continued while the patient was admitted.

PRECEPTOR PEARLS

- ***Practice what you preach (i.e., uphold the Code and Oath in your practice to model for learners as you encounter ethical dilemmas).***
- ***Engage with other healthcare disciplines and review their codes of ethics to see how each member of the healthcare team can play a part in resolving ethical dilemmas.***

SUMMARY

It is the duty of the preceptor to model, employ, and lead pharmacy learners in appropriate ethical decision-making throughout patient care. Through a strong understanding of key ethical principles and the core tenants of the Oath of a Pharmacist and Code of Ethics, preceptors can successfully serve as positive ethical role models for all pharmacy learners.

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Teaching and Learning Methods for Students and Residents

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> The mediocre teacher *tells*. The good teacher *explains*. The superior teacher *demonstrates*. The great teacher *inspires*.
>
> *William Arthur Ward*

INTRODUCTION

Assumptions are often made that because our learners have effectively navigated undergraduate studies and the pre-pharmacy curriculum, that they must already know how they learn best and how to adapt their learning style to the specific teaching strategy. Many would also argue that "how to learn" is not the main goal of a pharmacy program or any healthcare professional program. However, understanding the principles of how learners learn is the key to designing effective learning activities and teaching methods as well as the key for learner success.

MYTHS OF TEACHING AND LEARNING STRATEGIES

Many misconceptions exist from both preceptors and learners concerning which learning strategies are most effective. Preceptors may rely on personal experience of what strategies seemed to be most effective for their own learning and may have misconceptions of what the true effectiveness of certain strategies may be. For the seasoned teachers and preceptors or the newcomers, the myth is that the "preceptor epiphany fairy" will magically show us the way. Or, we anxiously await for the "ah-ha moment" to justify that we are teaching and precepting the appropriate way and, therefore, our learners will always succeed! Truth be told, you may be waiting for a long time, especially if you

LEARNING OBJECTIVES

- Use principles of how learners learn to design effective learning activities.
- Differentiate between a variety of teaching and learning strategies to choose strategies appropriate for the learners' learning outcomes.
- Generate a specific plan for learners based on teaching and learning strategies and techniques.

Note: The authors would like to acknowledge Molly Hatcher for her foundational contributions to this chapter.

lack formal education training, do not have access to a preceptor development program, and are not affiliated with a teaching center of excellence.

Couple these misconceptions with the fact that learners may have their "off days" and likely have not been taught how to learn or adapt to the teaching strategy. Learners may rely on study habits that were successful during their formative years such as high school and undergraduate studies, where topics seemed more straightforward. It is not until learners are challenged with a complicated topic or they receive their first academic warning letter (or, worse, earn their first failure), that they realize common study techniques such as rereading, highlighting, and mnemonics (which may have been effective during lower level studies) are actually not efficient learning strategies. Dispelling these myths and educating learners on evidence-based methods is the first step to helping learners learn better.

PRECEPTOR PEARL

MYTHS DISPELLED

Learning techniques that are not evidence-based:[1]

- ***Rereading***
- ***Highlighting***
- ***Mnemonics***
- ***Summarizing***
- ***Text imagery***

Despite the perceived lack of training or how-to guides for preceptors and learners alike, we must view our teaching and learning efforts with "kind-sight" (i.e., doing the best we can with what we have been dealt); it may not be perfect, but it is meaningful. We may not always understand some of our approaches to teaching or learning, but by trial and error (and much reflection), you likely have identified your favorite strategies for teaching and approaches to learning that seem to work. It would be amazing and save us lots of time if we had some supporting evidence that these "tried and true" strategies are actually validated by educational theory. Then the preceptor could devote more time to the patients and the learners; ultimately, "paying it forward" to the learners, who are future preceptors, that this is the way and this is why. Learners would be successful leading to better patient outcomes and feel empowered as future preceptors. Read on and you will get just that—justifications for why some of your strategies seem to work better than others, why some may seem to create a mismatch between the preceptor and learner, and why some do not work and should be abandoned.

FACTS OF TEACHING AND LEARNING STRATEGIES

If you search the education literature, you may be surprised that there are several identified teaching strategies and various ways individuals learn that are explained from different theoretical perspectives. Which approaches are applicable to pharmacy precepting? Through our search of the education and pharmacy literature and our professional experiences and perspectives as pharmacists and educators, we propose 10 evidence-based teaching and learning strategies that best match with pharmacy learners and the busy pharmacy environment.

PRECEPTOR PEARL

FOCUSED FACTS

Learning and teaching techniques that are evidence-based:

- ***Activating prior knowledge***
- ***Testing and retrieval***
- ***Interleaved practice***
- ***Spacing***
- ***Elaboration***
- ***Peer assisted learning***
- ***Feedback***
- ***Metacognitive training***
- ***Scaffolding***
- ***Personalization***

Each of the teaching and learning strategies will be introduced by a definition and a short description of the strategy. Key literature supporting the strategy and how it impacts learning will be summarized. Then specific examples and preceptor pearls for how to incorporate the strategies into the pharmacy experiential education curriculum will complete the section.

While we will be providing short summaries of all 10 of these techniques, this does not suggest that all will fit naturally into a single learning experience nor that all 10 need to be in one experience. Some of these techniques may be new to you (and your learner), while others may be familiar. As you are initially incorporating these techniques into your learning experience, we suggest first identifying one activity from your rotation that is most meaningful to you, that you feel the most comfortable with, and that learners tend to perform well. It is easier to start with something that has proven success and then refine this task, than to try to work with a difficult activity where learners tend to underperform. In addition, both you and the learner will be more motivated to incorporate or refine the technique. This will allow both the preceptor and learner to focus on the teaching and learning strategy. To summarize, start small and then go big!

INDIVIDUALIZATION OF TEACHING AND LEARNING STRATEGIES

The most impactful learning experience is one that is personalized, allows for mixing and matching of techniques to blend the learner's goals with the preceptor's techniques, and allows for professional growth for both the preceptor and the learner. Outstanding patient care comes naturally when the learning and teaching environment is comfortable and effective. As you read through the descriptions, look for the "ah-ha" or familiar teaching techniques that you likely are already doing but may not have realized the evidence supporting it (goal: put an evidence-based name to your favorite technique). Or, identify a pharmacy activity that lends itself well to a particular teaching and learning technique (goal: add a new technique to an old skill). Some techniques may be easily incorporated, and others may require some reflection.

Activating Prior Knowledge

Definition/Description of Strategy

All new learning is built on what the learner already knows. By activating this *prior knowledge*, knowledge is transferred from storage in long-term memory to working memory for quick processing.[2] Learners can then use this knowledge to refine their understanding and build upon it with new information. The use of prior knowledge affects how new material is organized and understood.[3] By recalling what is already known, learners can visualize the gap between where they are currently and what is still to be learned.[2] Additionally, it is important that the preceptor understand the learner's level of prior knowledge in order to target instruction and activities at the appropriate level.

Evidence for Strategy and Impact on Learning

Many studies have shown that activating prior knowledge has a strong, positive impact on learning.[4] Some experts even suggest that it is one of the most important prerequisites for learning.[3] It is important that we set the tone of new learning by first helping learners to understand how it relates to what they already know.

Application to Experiential Education/ Rotations

In the experiential setting, it may not be clear exactly what or how learners were taught regarding specific topics if you are not familiar with their PharmD curriculum. It is imperative that you quickly establish what is already known by the learner so you can build new information. You may be fortunate and get to build on a firm foundation of

solid knowledge but more likely, pieces of the foundation may be shaky and require extra attention. It is assumed that prior knowledge will help facilitate learning but watch out for prior knowledge that may be incorrect or faulty, which can actually hinder learning.

PRECEPTOR PEARL

- ***Ask learners to self-assess their prior knowledge in a given area. Encourage learners to use phrases like "heard of it, could define it, could explain it, could use it to solve problems" to quantify their knowledge.***
- ***Begin the rotation or topic discussion with a short quiz to assess learner knowledge about a topic. Tailor your teaching accordingly.***
- ***Before starting a discussion, ask learners to tell you everything they know about the topic.***
- ***Assign pre-readings to initiate the recall process for learners. Make the activity more meaningful by providing prompting questions for them to answer from the text.***
- ***Reinforce prior knowledge by reminding learners when and where they have heard of content before. (If you know the PharmD curriculum the learner studied, you can point to specific courses but you could also reinforce reading material for content learned on rotation.)***
- ***Assign a concept map activity to help learners integrate what they already know about a topic.[3] Concept maps are pictures with text and linkages that connect related ideas in order to show a bigger picture.***

Testing and Retrieval

Definition/Description of Strategy

"Practice testing" is just that—taking "practice exams" to improve retention of knowledge.[1] Practice testing or test-enhanced learning uses testing as a means to facilitate retrieval practice and dates back to 1909.[5] *"Retrieval practice"* is a learning strategy where teachers focus on getting information out of learners' heads instead of getting information into learners' heads.[6] Through the act of retrieval, or calling information to mind, our memory for that information is strengthened and forgetting is less likely to occur. Retrieval practice is a powerful tool for improving learning without more technology, money, or class time.

Evidence for Strategy and Impact on Learning

The concepts of *practice testing* and *retrieval practice* (e.g., self-quizzing, deliberative reading, written paraphrasing) are somewhat linked to interleaving or interleaved (mix up) practice.[7]

Practice testing is well studied, culminating in over 100 publications in the last 100 years.[5] Practice testing has broad applicability and is known for two different kinds of testing effects (i.e., direct, mediated). *Direct effects* refer to changes in learning that arise from the act of taking a test itself, whereas *mediated effects* refer to changes in learning that arise from the influence of testing on the amount or kind of encoding that takes place after the test (e.g., during a subsequent restudy opportunity). Practice testing may enhance how well learners mentally organize information and how well they process idiosyncratic aspects of individual items, which together can support better retention and test performance.[1] In a study by Stewart et al., self-testing increased retention of course material and improved performance in a PharmD course.[8] All of these variables demonstrate that practice testing promotes knowledge acquisition and retention.

In the book *Make It Stick: The Science of Successful Learning*, Brown et al. use cognitive psychology research to debunk why traditional teaching methods may be ineffective and only promote short-term memory, and why using the retrieval method may actually lead to more long-term retention.[9] Guiding principles in the retrieval method (sometimes called testing method) include limiting the use of high-stakes exams, especially those with multiple choice and true/false formats, minimizing the use of repetition or studying the same way over and over again, moving away from easy learning, and being more open to sharing the principles of the retrieval method with learners.[9]

Agarwal et al. suggest that the most effective stepwise approach to implement retrieval practice into teaching, which improves learning, involves four key concepts.[6] These include the addition of more low-stakes quizzing to instruction, "mixing up" learning methods, designing teaching strategies that require effort, and providing justification and clarity to learners about the chosen teaching methods. The process of trying to retrieve skills and information from memory reinforces the learning more effectively than simply reviewing it (e.g., the typical approach with high stakes exams). Low- or no-stakes quizzes such as in retrieval practice is proven to alleviate test anxiety.[10] Learning will be more impactful if learners have to try to recall the information (e.g., short answer, essay) instead of just recognizing the information (e.g., multiple choice, true/false).

Application to Experiential Education/Rotations

This teaching strategy is commonly used in didactic teaching as an assessment tool, but it should also be applied to the experiential setting as a learning strategy. Incorporation of practice testing and practice retrieval in the experiential education series may help to alleviate anxiety related to key concepts when used as low-stakes or no-stakes (i.e., not for a grade).

PRECEPTOR PEARL

- ***Provide retrieval practice frequently, as often as possible.***
- ***Provide retrieval practice after a lesson is complete, perhaps even a few days or weeks later. Space it out.***
- ***Use a variety of strategies to implement frequent retrieval practice (e.g., clickers, index cards, quick writing prompts).***
- ***Reassure learners that challenging learning (via retrieval practice) is a good thing!***
- ***When using this strategy, use a variety of question types (i.e., fact-based, conceptual, higher order/transfer).***

Interleaved Practice

Definition/Description of Strategy

Interleaved practice is described as occurring "when different ideas or problem types are tackled in a sequence, as opposed to the more common method of attempting multiple versions of the same problem in a given study session (known as *blocking*)."[11] The order of information studied may be different with interleaving, but the same amount of time is spent on learning as with blocked practice. This type of scheduled practice can be mixing different types of problems or mixing study time with testing/quizzing opportunities so that learners assess knowledge and then return to uncover why they missed items.

Evidence for Strategy and Impact on Learning

Less literature exists on this newer method of learning, but the body is growing.[12] Evidence of the benefit of this strategy is somewhat

complicated by the fact that interleaving is related to spacing/distributed practice; therefore, it is unclear how each contributes to enhanced learning. Most research has focused on this strategy with related material[13] so it is unclear whether interleaving different topics is beneficial.[14] Alternating studying time with testing/quizzing opportunities may be beneficial as retrieval of information from long-term memory is practiced. Additionally, studying right after retrieval practice shows added benefit than if the material was not tested.[7]

Application to Experiential Education/ Rotations

Rather than memorizing a process applicable to all scenarios in the material, interleaving promotes the concept of differentiating the types of issues or problems so that learners can determine the best way to address each.[15] This is beneficial to developing clinical skills and the pharmacists' thought process as learners should be developing a process of thinking that applies to many clinical situations rather than just memorizing the correct answer for a single situation.

PRECEPTOR PEARL

- ***Resist the urge to try to cover everything about a certain topic in a single setting. It might be better to cover several topics or several issues related to that topic in one session rather than one topic in depth.***
- ***Patient cases (whether simulated or real-life) provide the best context for this type of practice as learners are exposed to many issues at once.***
- ***Help learners to focus on the process they are using to approach issues and not just arriving at the correct answer for a single situation.***

Spacing

Definition/Description of Strategy

One of the most effective learning strategies is to space practice in order for optimal processing of material. This method, sometimes called *distributed practice*, can be coupled with another effective learning technique to further increase the return on investment with those strategies.[1] *Spaced learning* is the opposite of cramming because it involves scheduling practice over time versus in one session. The exact time in between sessions is not prescriptive, but longer lag times seem to be better than shorter lag times.

Learners are often unaware of the benefits of spacing[16] and even note that their learning is better after massed study.[17] Informing learners of the literature supporting this strategy should be one role of the preceptor.

Evidence for Strategy and Impact on Learning

Hundreds of studies have verified this strategy, which was first proposed by Ebbinghaus back in the 1800s.[11] By spacing the time between when the material is learned and then practiced with testing, retention of these important concepts is enhanced.[18] Specifically, this strategy promotes retention of information long-term,[12] which is our goal as we shape developing practitioners. Although the ideal lag time between each practice is not known, one study suggests that it should be approximately 10–20% of the desired retention time.[19] In experiential medical education, spaced learning using clinical cases and questions in weekly emails significantly improved retention of knowledge.[20]

Application to Experiential Education/ Rotations

The unexpected and changing nature of the experiential setting can make spacing of learning more difficult to schedule. It is sometimes more convenient to set aside time for a single topic rather than repeatedly talking about it across a wider time frame.

Additionally, resolution of the situation may need to be found quickly for patient care, so this strategy may not work for every situation. The benefits of this strategy should motivate preceptors to create activities that capitalize on how our brains learn and retain best with spacing.

PRECEPTOR PEARL

- ***Revisit concepts learned previously during the rotation. Do not schedule topic discussions for the entire rotation but rather set aside the time for the discussion and determine the topics based off of content discussed in the previous week.***
- ***Schedule topic discussions across multiple days versus just one long session.***
- ***Rather than setting aside large amounts of time for a single project, create projects that build upon each other with time frames to ensure spacing of material over several weeks.***
- ***Provide a smaller amount of time daily during the rotation for learners to study assigned topics rather than a large block of time once a week.***
- ***Record concepts that learners are unclear about and revisit those concepts a week later.***

Elaboration

Definition/Description of Strategy

Elaboration is connecting new information to knowledge that is already known.[11] By integrating new knowledge with known concepts, learners can better organize the new material and use it more effectively.[21] Specific types of elaboration strategies include elaborative interrogation and self-explanation.

Elaborative interrogation provides the avenue for learners to demonstrate deep understanding by explicitly stating "why" or "how" when crafting explanations or justifications. Similarly, *self-explanation* requires that learners provide steps in their thought processes for reasoning or problem solving. Both of these techniques can uncover where incorrect knowledge may be present and allow for correction by the preceptor.

Evidence for Strategy and Impact on Learning

Data show moderate utility for elaborative interrogation and self-explanation.[1] Effects seem to be larger when learners create the elaborations themselves rather than receiving them from an expert.[22] When the prior knowledge is learned at a deeper level and not just rote memorization, the effects of learning with elaboration are greater.[23]

Application to Experiential Education/Rotations

The experiential setting is the perfect setting to help learners use this learning strategy. Preceptors can use elaborative interrogation and self-explanation to get learners to think beyond the "answer" and understand the "why" and "how" behind the answer. As preceptors, we should be proficient in asking questions and sometimes the best question is simply, *"Why?"*

PRECEPTOR PEARL

- ***Question learners during and/or after case presentations to make sure they understand the concept and not just the right answer.***
- ***Assign learners clinical questions for homework to have them elaborate and further explain concepts.***
- ***Write open-ended questions for quizzes rather than just multiple-choice items to allow learners the opportunity to explain their thought process.***
- ***Identify incorrect thinking during learner elaborations and correct accordingly.***

Peer Assisted Learning

Definition/Description of Strategy

Peer assisted learning (PAL) "is not a single, undifferentiated educational strategy; it is an umbrella term incorporating various cooperative and collaborative educational approaches with students."[24] PAL involves acquiring knowledge or skills from other learners at different or similar experience or academic levels. "It is learning with and from each other."[24] In addition to peer teaching, associated PAL concepts include peer modeling, peer education, peer monitoring, and peer assessment.[24] Peer education is similar to peer teaching; however, it pertains mainly to general life problems and solutions. It is not specific enough for pharmacy practice. While peers providing feedback can be beneficial,[25] Wagner et al. discovered that pharmacy students graded peers higher than faculty[26]; therefore, the benefit of formal peer assessment may be limited. Peer modeling and monitoring could prove beneficial in pharmacy experiential training.

Evidence for Strategy and Impact on Learning

Experiential peer teaching involves learners teaching one or more fellow students.[27] Peer teaching reinforces confidence, communication, and presentation skills of the learner in the teacher role.[24] It can instill a lifelong culture of learning and teaching. By having less of a teacher–learner hierarchical structure, which in turn is a more relaxed atmosphere, it allows greater learner interaction. It has been shown that students are more comfortable talking among themselves than with faculty or preceptors, no matter how good of a relationship there is between the learner and teacher. While peer teaching, by its definition, has non-professional teachers teaching, students were not disadvantaged from participating in peer teaching activities.[24] Unfortunately, there is limited documented use of peer teaching for pharmacy experiential training in the literature; however, it is still worth exploring.

Several themes of peer teaching have been acknowledged: *hierarchy*, *educational distance*, *clinical teaching unit size*, *perception of teaching role*, and *influence of daily schedule and workload*.[27] The larger the distance in education between members of a unit, the more the hierarchy. For example, the hierarchy between a P2 IPPE student, a P4 APPE student, a pharmacy resident, and an attending pharmacist is determined by their various levels of schooling. It is quite interesting, though, that the difference in hierarchy between a student in their final year of APPEs and a PGY1 pharmacy resident is not always apparent.[27] It is very dependent on the individuals themselves. Sharif-Chan and colleagues discovered there is no optimal educational distance between learners for peer teaching to occur, and in fact, hierarchy had no benefit to learning.[27] Peer teaching in itself was beneficial. The opportunities for peer teaching are heavily influenced by how large a teaching unit is and how heavy the schedule and the workload are of each member of that unit. Fewer people and the busier the workload end up with fewer peer teaching opportunities.

Application to Experiential Education/ Rotations

The *layered learning model* was originally described by the University of North Carolina (UNC) Hospitals.[28] It is designed to train pharmacy residents to precept students and other residents all under the supervision of an attending pharmacy preceptor. It has been shown to increase medication reconciliation, discharge counseling, and the overall number of pharmacy interventions.[29] The model[29] describes the role of the primary preceptor to oversee all patient care activities and education of all those involved. This includes orienting the learners to the model, defining expectations, and providing feedback. The resident preceptor has the frontline duties when it comes to a pharmacy student. The resident preceptor will orient the student to the site and practice, integrate them into patient care activities, and provide feedback and support

to the student. The student learner has the responsibility to learn, but also to provide feedback on the experience and the preceptors. The layered learning model should not be implemented overnight. There should be pre-planning of materials and activities, orientation of stakeholders and all participants, and post-experience evaluation.

Bates et al. studied layered learning in oncology.[30] The layered learning model offers an excellent opportunity to highlight peer modeling and monitoring. The learners at a higher hierarchy can model qualities of a pharmacist such as proper patient care, professionalism, and self-directed learning, similar to how a preceptor in the modeling stage would.[31] In addition, regardless of hierarchical position, each learner can monitor others to ensure appropriate and effective learning behaviors.

PRECEPTOR PEARL

Do not limit the number of learners in your experience. Consider implementing a layered learning approach to maximize learning while being efficient with resources. Some suggestions of design principles for layered learning include:[30]

- ***Learning objectives should be compatible across all layers of learners; however, they can differ by breadth and depth depending on their educational distance.***
- ***To maximize time on actual activities that could promote peer teaching, self-study should be the approach for understanding foundational content.***
- ***More advanced levels of learners should participate in peer teaching to reinforce knowledge and skills.***
- ***If you have multiple learners, whether they are at the same educational level or a different level, incorporate peer teaching into the experience with case presentations, teaching rounds, and therapeutic discussions.[24]***

Feedback

Definition/Description of Strategy

A clear understanding of the four terms (*assessment*, *feedback*, *evaluation*, and *grading*), which are often used interchangeably during practice and in the literature, aligns both the preceptor and the learner to a central goal—growth. The preceptor and the learner are the common link between the four terms. The key differences lie in the act or the process of how each is provided. For example, assessment is the umbrella or overall process of the preceptor (or the learner) *gathering* information to assess the learner. Feedback is the preceptor act of *providing* information to facilitate the growth of the learner and is provided throughout a learning experience. Evaluation is the end process of the preceptor, who is *judging* how well the learner has performed. Ultimately, the preceptor *assigns* the learner's final score or grade at the completion of the learning experience.[32] These scenarios depict information flow from the preceptor to the learner; however, the opposite (learner to preceptor) also occurs in practice. Feedback will be the point of emphasis in the remainder of this section.

The concept of *feedback* was first recorded in the 1940s by rocket engineers.[33] Since that time, business administration, psychology, and education have embraced feedback. The father of feedback in the setting of clinical medicine is known by many to be Jack Ende.[33] Ende states, "Without feedback, mistakes go uncorrected, good performance is not reinforced, and clinical competence is achieved empirically or not at all." He points out that feedback "...is necessary, it is valuable, and after a bit of practice and planning, it is not as difficult as one might think."[33]

Evidence for Strategy and Impact on Learning

In addition to regulatory bodies such as ACPE and ASHP stressing the importance of including feedback in any learning experience,[34,35] there are also important clinical

perspectives.[36] As Weitzel et al. state, [feedback] "is a formative process that reinforces strengths, identifies and corrects weaknesses, and helps the learner identify strategies for future skills development."[31]

Specific feedback strategies (e.g., feedback sandwich, 360-degree assessment, ARCH)[36] and examples of how to incorporate feedback into learning experiences that minimize resistance and emotional reactions to the feedback are explored in other chapters of the book. Feedback, applied broadly to teaching and learning models, increases student learning and improves student's future performance.[37,38]

Application to Experiential Education/ Rotations

The experiential rotation should allow for timely formative feedback in a comfortable environment to encourage growth of the learner and the preceptor, and, ultimately, culminate in a nurturing summative evaluation for both individuals. Drawing on personal experiences, "The Praise and Polish Pendulum" (**Figure 20-1**) has been effective when introduced at the beginning of the learning experience and touched on throughout the experience to avoid a surprise summative evaluation or unexpected final grade.

A pendulum may be described as a weight hung from a fixed point to allow freedom to swing backward and forward. The concept is also used to refer to the tendency of a situation to oscillate between one extreme and another. As the pendulum relates to teaching and learning models, the weight in the upper picture represents the preceptor and the weight in the lower picture represents the learner (protégé). The learning experience must allow for two-way communication and feedback between the preceptor and protégé. Similar to reciprocal force, if the communication between the preceptor and learner is uncomfortable, the outcome will be uncomfortable (flat response to hyper-response). Creating a comfortable environment for providing feedback primes the preceptor and learner for a positive response. Expect highs and lows during the learning experience (similar to the pendulum swinging back and forth)—days with focus on refinements or focus on strengths, and some days with little feedback offset by days with lots of feedback. The goal is to keep the pendulum swinging and continue to strengthen the relationship between the preceptor and the learner. Not providing feedback or remaining neutral with feedback (much like stationary weights in a pendulum) stifles growth and may lead to a disengaged learning environment and plateauing of growth. The preceptor and learner must feel comfortable to provide both praise and polish to each other throughout the experience to meet the common goal of growth by the end of the rotation. Victor De Dios, PharmD candidate, provided written reflection on his experiences with the *pendulum method* (April 2019): "Feedback is the reason I am growing to become the pharmacist I have always wanted to be. With the invaluable guidance of my preceptors, I have developed a clinical approach founded on reflection upon past experiences and curiosity in daily learning."

PRECEPTOR PEARL

- ***"Prime" or "set the stage" for the learner at the beginning of the feedback session so the intent is clear and creates a positive mindset. For example, verbally preface the session, "This is feedback." Some learners may respond better to a physical pause in the form of an index card with the following written message: "This is not the final grade. This is feedback."***
- ***Create a list of "feel good" words to use instead of "weakness," and keep the list handy. Using the terminology "weakness" often invokes a negative response and***

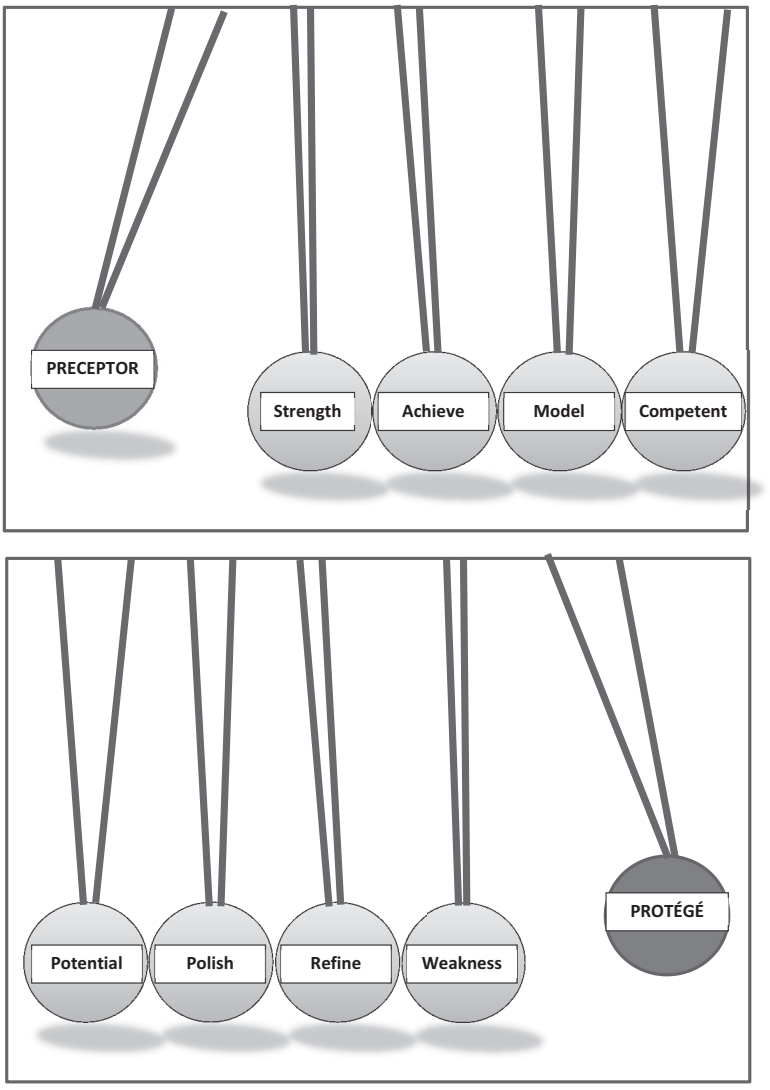

FIGURE 20-1. "The Praise and Polish Pendulum."

Picture Credit: Coined by Melinda J. Burnworth (preceptor) and Victor De Dios (protégé)

may put the learner on the defensive, immediately setting the stage for an emotional or resistant response to feedback. Instead, create a nurturing environment by using the following "feel good" words as an alternative to weakness: ability, development, effort, enhancement, enrichment, grow, hone, improvement, invitation, learning, opportunity, polish, progress, refine, try, willingness. Both the learner and the preceptor should continue to add to the "feel good" list.

- ***Providing feedback, especially when a learner has a skill that requires refinement, may seem challenging and uncomfortable for the preceptor. Prepare a summary of written phrases/introductory sentences that rephrase negative feedback into a more positive approach while still addressing the area of formative growth. For example, "As your preceptor, I am committed to your success. We have an opportunity to work together during the next week to further refine your delivery of patient counseling."***

Metacognitive Training

Definition/Description of Strategy

Originally defined by John Flavell, *metacognitive training* regulates thinking and learning and consists of three self-assessment skills. These self-assessment skills include *planning*, *monitoring*, and *evaluating*.[39] A more concise way to think about metacognitive training or metacognition is "thinking about one's thinking."[40] Other chapters in this book look into metacognitive training in more detail; however, since it applies to teaching and learning models, failing to briefly mention it would be incomplete.

Evidence for Strategy and Impact on Learning

One becomes a better pharmacist if one is a better learner; therefore, metacognition is important to pharmacy practice.[39] Once learners identify their gaps in knowledge, they can focus on obtaining the appropriate information. Being more mindful through self-reflection can lead to the prevention of healthcare errors as it leads to better critical thinking and monitoring ability.[39] It has been shown that self-assessment errors routinely occur among healthcare providers including pharmacists, physicians, nurses, and others.[41]

Application to Experiential Education/ Rotations

Being able to self-reflect is required by both the ACPE Standards 2016[34] and the ASHP Accreditation Standards for residency types, including all PGY1 programs and various PGY2 programs[35]; therefore, a preceptor should be versed in metacognitive training to help learners improve this skill.

PRECEPTOR PEARL[42]

- **Pre-assessments:** ***Either at the very beginning of the experience or even before it begins, it can be helpful to have the learners assess their current knowledge and skills. They may realize they know more than they think!***
  - ***"What do I already know about this topic that would guide my learning?"***
- ***At the end of the day, ask your learners what their Muddiest Point (i.e., most confusing thing you encountered) was from the day to prompt them to explore the answer on their own before returning to the rotation.***
- **Retrospective post-assessments:** ***Have your learners reflect on their impressions at the start and end of the experience.***
  - ***"At the beginning of this rotation, I thought a pharmacist's role in internal medicine was…. Now I think that a pharmacist's role in internal medicine is…."***
- **Reflective journals:** ***Have your learners keep a written journal reflecting on what they did well that day and what they could improve upon.***
  - ***"What about my preparation for today's patient rounds worked well that I should remember to do next time? What did not work so well that I should not do next time or that I should change?"***
- **Metacognitive modeling:** ***Show students how you think as a pharmacist as you are working through a clinical decision by thinking out loud. Talk through the decision-making process with them.***

Scaffolding

Definition/Description of Strategy

The idea of educational/instructional scaffolding is very similar to scaffolding used in construction.[43] Instructors help to build the framework for learners to climb to higher levels in their knowledge that they may not be able to reach on their own at that time.[44]

The support provided is temporary and will gradually be removed as the learners become more competent on their own. *Scaffolding* is a dynamic intervention individualized to the learner and their learning process; therefore, it changes based upon the learners' needs, characteristics of the situation, and type of task.[45]

Scaffolding can come in many forms including providing feedback, hints, instruction, explanations, modeling, and questioning.[45] Operationalizing the scaffolding process can include clearly stating instructions, providing necessary resources, and providing how learners will be evaluated prior to the activity.[46]

Evidence for Strategy and Impact on Learning

Van de Pol et al. reviewed the vast research on scaffolding and summarizd that scaffolding is effective for improving both cognitive and metacognitive activities.[45] Stupans et al. demonstrated that scaffolding strategies can improve the reflection capabilities of pharmacy learners.[46] Preceptors should be trained on the common characteristics of scaffolding (i.e., contingency—adaptive support based on learner level; fading—gradual withdrawal of support; transfer—of responsibility of learning from the teacher to the learner) in order to effectively support learning.[45] This stepwise process mirrors closely the four pharmacy preceptor roles (*direct instruction, modeling, coaching, facilitation*).[47]

Application to Experiential Education/ Rotations

Proper scaffolding is time intensive but represents what experiential education is all about. Preceptors come alongside learners to see where they are and help them to build to where they want to go. The preceptor must first assess where the learners are in their learning and then assess where they are capable of going. Scaffolding is then built to help them get to that place.

PRECEPTOR PEARL

- ***Increase complexity and number of patients the learner is responsible for over time. For example, depending on your practice site, you may have a learner care for just one patient per day for the first week and then build to five patients at the end of the rotation.***
- ***Think aloud to model expert thinking to your learners.***
- ***Give exemplars of assignments or presentations so learners know what is expected of them.***
- ***Provide rubrics to help learners organize projects and presentations.***
- ***Provide positive feedback and encouragement to reinforce behaviors.***

Personalization

Definition/Description of Strategy

The original idea of *personalizing* or individualizing education to a specific learner's interests goes all the way back to 1913.[48] While the original discussion was focused on young children's learning, the concept can be applied to adult education and more specifically healthcare education. Published literature studying this concept in pharmacy education is limited; however, there are some studies that can be assessed.[49] Participation in learning activities is a key determinant of engagement and can affect learning outcomes.[50] A lack of perceived personal value in a learning experience may result in indifference, minimal effort, general withdrawal, and poor concentration.[51]

Evidence for Strategy and Impact on Learning

There are multiple ways to think about personalizing a learning experience. It is not until the experience is individualized for each learner that learning opportunities are maximized.[52] The individualized experiential plan should be based upon an assessment of entering knowledge, skills, attitudes, abilities, and interests. PGY1 residency accreditation standards[35] require a development plan for each resident based on an initial assessment. While a residency has core requirements, this strategy is personalizing the residency to each resident. Being able to identify specific strengths and weaknesses at the beginning of a residency program may make the experience more successful for the resident.[53] This benefit may be extrapolated to an IPPE or APPE experience as well. An IPPE or APPE probably has a syllabus and similar requirements for rotation completion. While a preceptor needs to ensure completion of all the syllabus requirements, creating a personalized development plan for that learner based on an incoming assessment should also be done.

Completing a personalized development plan can spark a learner's situational interest to the experience (**Figure 20-2**). Situational interest has been described as a "thirst for knowledge."[50] In a study by Beck et al., it was found that personalizing discussion of a clinical case to a medical student's career interests caused greater interest in the original clinical case subject matter.[54] One could think about this with regard to any potential health condition and any future health professional. For example, perhaps a learner or a learner's loved one survived or is in the process of surviving a certain kind of cancer. The learner may be more interested in learning oncology and personalizing his or her career to that interest.

Application to Experiential Education/ Rotations

The experiential setting is a perfect place to personalize learning. You get to precept a small number of learners at one time. Healthcare is personalizing medicine to a patient's specific needs; healthcare education should also be personalizing learning to a learner's specific needs.

PRECEPTOR PEARL

- ***Create a development plan for the learner, including expectations for progression that align with the time period of the experience and with the learner's interests.***
- ***Direct clinical case discussions to the interest of the learner. For example, if you are discussing a pediatric case, yet your learner has no interest in pediatrics, discuss the overlap of the subject matter with other patient populations and emphasize the relevance of this case to their interests.***

SUMMARY

Based on our combined teaching and precepting experiences, we believe that in order for meaningful teaching and learning to occur, the following components are needed: the learner, the preceptor, and the connection. The "connection" or bridge between the learner and the preceptor is dependent upon the teaching and learning strategy that is individualized to the experience.

While there are numerous teaching and learning strategies identified in the literature, this chapter focused on 10 of the

EXAMPLE DEVELOPMENT PLAN

(for all learners, including PharmD students and pharmacy residents)

CAREER GOALS

This section is to ensure discussion of career goals. This can allow modification to the learning experience to meet the learner's goals or can show the learner that activities being completed during the experience can help them achieve their career goals.

- *Short term:* Learner would like to be a staff pharmacist at first, then obtain a management position after gaining experience.
- *Long term:* Learner would ideally like to move into a more clinical niche (e.g., mental health clinician/specialist) within the pharmacy business model, or perhaps expand upon academia interests while maintaining a role as a pharmacist.

PHARMACY PROFESSIONAL GOALS

This section is used to discuss goals for staying involved in the profession. This can include involvement in a local, state, or national organization, etc. and can also involve becoming board certified or earning a similar credential.

- Be involved in a local pharmacy organization through committee work and participation in other activities with the goal to move into a leadership role (e.g., board position) within 3-5 years.
- Attend and participate in the yearly state and national conferences.
- Participate in a committee at a state or national level.
- Obtain board certification upon eligibility in my chosen area of specialty.

INTERESTS

List any healthcare-related areas of interest of the learner such as a certain drug class, a health condition, etc.

- Mental health and psychiatric medication adherence, pharmacogenomics, MTM, immunizations, preventive health screenings.

STRENGTHS

List strengths of the learner and add any narrative as necessary:

- Ability to translate complicated health jargon into understandable and meaningful counseling points for patients. This provides a foundation for relationship building with patients.
- Confidence in carrying out tasks and assuming leadership roles. This characteristic aligns with your goals to become a manager and a leader.
- Ability to accept constructive criticism and learn from mistakes. Accepting outside feedback along with self-assessment will help you improve as a pharmacist and grow as a person.
- Able to prioritize and organize tasks. This helps you meet deadlines and be successful in this experience.

AREAS FOR IMPROVEMENT

Choose areas the learner can focus on improving during this experience. Provide a specific plan for how improvement can be made, such as specific activities:

- Greater knowledge of counseling points for commonly dispensed medications
  - ❖ Create flash cards of popular medications dispensed at the site.
  - ❖ Practice counseling with the preceptor and other pharmacy personnel.
  - ❖ After counseling patients, discuss the activity with the preceptor (e.g., self-assessment).
- Public speaking
  - ❖ Usually only one presentation is required during this experience; however, further practice is warranted.
  - ❖ Create a presentation by midpoint of experience.
  - ❖ Practice presentation with preceptor for formative feedback.
  - ❖ Present to targeted audience. Get feedback from audience.

CHANGES TO EXPERIENCE

In order to accomplish any goals listed above and to focus on areas of interest or areas of improvement, please list any changes to the experience's schedule or calendar that would help achieve them.

- Since counseling to patients on common medications is needed, more time will be scheduled in this area of the experience. Also a second presentation will be scheduled for more practice and to determine improvement in this area.

FIGURE 20-2. Example development plan.

strategies that may lend well to pharmacy education. Our goal was to help you assist learners in developing a "toolbox" of diverse learning techniques that can be tailored to the specific nature of whatever needs to be learned.[9] The chapter dispelled various myths surrounding teaching and learning, and focused on the facts by summarizing the literature supporting each teaching and learning strategy. Share these myths and facts with your learners. When learners are included in the teaching process and understand the methods and benefits of specific teaching strategies, learners are more likely to incorporate the technique.[9] Strive to make the educational process more impactful to both preceptors and learners by experimenting with ways to add one or more of these techniques to your learning experience.

PRECEPTOR PEARL

Challenge yourself to incorporate one of the top 10 learning and teaching techniques that are evidence-based into your learning experience:

- ***Activating prior knowledge***
- ***Testing and retrieval***
- ***Interleaved practice***
- ***Spacing***
- ***Elaboration***
- ***Peer assisted learning***
- ***Feedback***
- ***Metacognitive training***
- ***Scaffolding***
- ***Personalization***

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21

Accreditation Standards

Claire A. Latiolais, Janet A. Silvester, and Diane B. Ginsburg

> Education is not the filling of a pail, but the lighting of a fire.
>
> *W.B. Yeats*

Experience within the pharmacy field is an essential part of both pharmacy education and residency training. A preceptor can create either a positive or a negative learning experience, and, therefore, can directly impact the future career of a pharmacy practitioner. To create a consistent quality training experience, it is important to establish standard qualifications and requirements for an individual to become a preceptor. To ensure great learning experiences, these requirements are regulated on multiple levels: the Accreditation Council for Pharmacy Education (ACPE), state pharmacy regulatory agencies, individual pharmacy colleges and schools, and ASHP residency accreditation as well as individual residency programs.

LEARNING OBJECTIVES

- Describe the 2016 ACPE Accreditation Standards for experiential education, including preceptor qualifications and program requirements.
- Describe the ASHP standards for resident preceptors.
- Discuss best practices for preceptor recruitment, orientation, development, and retention.
- Define where student and resident preceptor requirements and best practices overlap.

ACCREDITATION COUNCIL FOR PHARMACY EDUCATION: STANDARD 20

The 2016 Accreditation Council for Pharmacy Education (ACPE) standards outline preceptor requirements for colleges and schools of pharmacy in Standard 20 (**Table 21-1**).[1]

ACPE: Guidance for Accreditation Standard 20[2]

To provide clarity on Standard 20, ACPE provides a guidance document, which includes additional details and require-

TABLE 21-1. 2016 ACPE Accreditation Standards[1]

Standard 20
1. List of active preceptors with credentials and practice site
2. Number, percentage of required APPE precepted by non-pharmacists categorized by type of experience.
3. Description of practice sites (location, type of practice, student/preceptor ratios)
4. Policies and procedures related to preceptor recruitment, orientation, development, performance review, promotion, and retention
5. Examples of instruments used by preceptors to assess student performance
6. Curriculum vitae of administrator(s) responsible for overseeing the experiential education component of the curriculum
7. Description of the structure, organization, and administrative support of the Experiential Education office (or equivalent)
8. Results from AACP preceptor surveys

Source: Reprinted from Accreditation Council for Pharmacy Education, Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Copyright © 2015.

ments to those listed in Standard 20. The topics addressed in this guidance document are presented in the following discussion.

Preceptor Criteria (20a)

The guidance document addresses non-pharmacist preceptors as mentioned in item number 2 of Table 21-1. Colleges and schools are permitted to have a small percentage of non-pharmacist preceptors who may provide rotations in areas such as research, working with other healthcare professionals in unique practice settings, academia, and team-based competency experiences. Colleges and schools providing rotations with non-pharmacist preceptors must report the number and percentage of these preceptors as well as categorize by experience type as stated in Standard 20.

It is important for colleges and schools to consider offering rotations for non-pharmacist preceptors as it can provide a very positive and unique learning experience. This can broaden the student's experience and allow the learner to see practice from a different perspective as well as be involved in interprofessional collaboration.

Student:Preceptor Ratios (20b)

The document includes guidelines regarding student:preceptor ratios as an addition to Standard 20. These ratios should be based on assessment data looking at the quality of the experience. ACPE states that the following factors should be considered:

- Provision of individualized instruction
- Appropriate guidance and assessment
- Compliance with state/federal statutes and regulations

It is important to take time to assess appropriate ratios within your own institution. Given the limited number of rotation opportunities, it can be tempting to assign multiple students to a single rotation. Although this can be successful, it can also be unsuccessful and result in a negative experience for all students. Assessing the type of rotation (e.g., core advanced pharmacy practice experience [APPE]), rotation site, and preceptor qualifications is critical before assigning more than one student to a preceptor.

PRECEPTOR PEARL

ACPE does not recommend exceeding a 3:1 student:preceptor ratio for introductory pharmacy practice experiences (IPPEs) or a 2:1 ratio for APPEs.

Aptitude for Teaching (20c)

ACPE states that preceptors should have an aptitude for teaching and be able to perform multiple levels of teaching: instructing, modeling, coaching/mentoring, and facilitating. This is in line with ASHP's four preceptor roles: *direct instruction*, *modeling*, *coaching*, and *facilitating*. It is essential that preceptors are proficient in these four areas as students then learn to perform activities with limited supervision and are practice-ready upon graduation. It also allows the student to gain knowledge and confidence, minimize errors, and progress more efficiently in their professional development.

Attributes of Preceptors (20d)

Preceptors should serve as positive role models for their trainees. ACPE outlines the attributes for a preceptor to serve as a positive role model. These attributes are very similar to the requirements for pharmacy resident preceptors and residency program directors (RPDs). The attributes are as follows[2]:

- Practicing ethically and with compassion for patients.
- Accepting personal responsibility for patient outcomes.
- Having professional education, experience, and competence commensurate with their position.
- Utilizing clinical and scientific publications in clinical care decision-making and evidence-based practice.
- Desiring to educate others (e.g., patients, caregivers, other healthcare professionals, students, residents).
- Demonstrating the willingness and ability to advocate for patients and the profession.
- Demonstrating creative thinking that fosters an innovative, entrepreneurial approach to problem solving.
- Having an aptitude for facilitating learning.
- Being competent in the documentation and assessment of student performance.
- Having a systematic, self-directed approach to their own continuing professional development and actively participating in self-directed lifelong learning.
- Collaborating with other healthcare professionals as a visible and contributing member of a team.
- Being committed to their practice organization, professional societies, and the community.

Although it is unlikely that every preceptor will embody the entirety of this list, it is important to think about these attributes when creating partnerships and recruiting practitioners to serve as preceptors. It is also essential for preceptors to practice self-reflection of these traits and what areas they may need improvement.

PRECEPTOR PEARL

Asking for feedback from students is a great way to identify areas for improvement.

Preceptor Appointments (20e)

Colleges and schools may provide compensation for individuals to serve as preceptors. The practice site and/or individual practitioner may receive payment from the college or school. Some preceptors do not require any compensation and are satisfied with benefits received from the college or school, including continuing education and profes-

sional development to facilitate enhancing the educational experience for their students. It is also essential to provide university and college resources necessary for their role as preceptors. Many preceptors may not have access to various resources within their own institutions, so these additional resources will help many preceptors to advance the caliber of their rotational experiences and create a better learning environment. Additionally, colleges and schools may provide faculty appointments and titles for preceptors (e.g., adjunct professors, practitioner faculty) and are encouraged to create a formal process for preceptors to affiliate with the program.

It is important to recognize and reward preceptors in some manner for the invaluable experiences that they provide to the students. Without preceptors, there would be no colleges and schools of pharmacy. Annual awards programs and selection of a "preceptor of the year" is a way to recognize preceptors for their contributions to the educational mission.

PRECEPTOR PEARL

Annual award programs are a great way to recognize the contribution of preceptors. The preceptors' employers also view these types of awards positively.

Preceptor Preparation (20f)

ACPE states preceptor education should include the following[2]:

- Orientation to the college or school's mission, goals, and values.
- Review of the college or school's curriculum and teaching methods.
- Review of the specific objectives for the pharmacy practice experiences.
- Guidance regarding the assessment of students' prior knowledge and experience relative to the rotation's objectives. This allows the preceptor to tailor the rotation to maximize the student's educational experience and ensure appropriate interaction with patients, their caregivers, and other health professionals, as applicable.
- Orientation to systems in place to assist preceptors in dealing with serious student problems and/or unprofessional student behaviors.
- Review of the college or school's performance assessment and grading systems, and policies to address behavioral problems or misconduct.

Colleges or schools of pharmacy should work intimately with preceptors. The orientation and onboarding components are critical to set the stage for good practice experiences for students. Colleges and schools cannot expect preceptors to know the expectations of students without proper onboarding. Colleges and schools must also keep preceptors up-to-date with any changes or advances in rotational requirements and assessment tools and methods. Current or seasoned preceptors should be included in the planning and executing phases of orientation, continuing education events, trainings, etc.

Assessment of Preceptors (20g)

ACPE stresses the importance of assessing preceptor performance. This can be done multiple ways, although obtaining student feedback is one of the best ways. This feedback should in no way be related to the grading process. Examples of areas to assess preceptors are as follows:

- Facilitate learning
- Communicate effectively
- Serve as a professional role model and mentor
- Positively represent and advance the profession

Assessment of preceptors is an essential component in advancing the student's educational experience. Preceptors must receive feedback on their strengths and weaknesses

as well as input from the student regarding the rotation experience. This will also aid in the professional and personal development of pharmacy preceptors to better serve the students.

ACPE: Self-Assessment Instrument[3]

In addition to Standard 20 and information in the guidance document, ACPE also provides a self-assessment instrument for colleges and schools of pharmacy to gauge where improvements should be made to meet the standards and continue to improve and develop the experiential component of the curriculum. The colleges and schools of pharmacy use this tool when conducting the program's self-study assessment in preparation for an accreditation site visit by ACPE. The tool for Standard 20 includes required and optional documentation and the college or school's assessment regarding meeting the standard. The tool should be used to aid in appropriate preceptor recruitment, orientation, development, performance review, promotion, and retention. As part of the self-assessment process, colleges and schools of pharmacy should provide comments on the following aspects of the experiential program, including:

- Areas that are noteworthy or innovative ways of addressing a topic
- Issues identified with a timeline of plans for future success
- Findings that highlight areas of concern with actions or recommendations to remediate
- Additional strategies to further advance the quality of the pharmacy program

STATE PRECEPTOR REQUIREMENTS

In addition to ACPE requirements of preceptors, colleges and schools of pharmacy must also follow the requirements as instituted by their respective state laws and rules. These requirements are addressed in Chapter 10: Legal and Regulatory Aspects of Practice. Appendix 10-1 within Chapter 10 details the similarities and differences between the state requirements of preceptors.

PHARMACY PROGRAM PRECEPTOR REQUIREMENTS

Colleges and schools of pharmacy may also institute additional requirements to become a preceptor for their program. This may include unique training or requirements of the preceptors, such as number of years of practice, involvement in professional pharmacy associations, participation in community-service activities, and/or required onboarding or training.

ASHP STANDARDS FOR RESIDENCY PROGRAM ACCREDITATION[4]

ASHP is the accrediting organization for postgraduate pharmacy residency programs. ASHP's Commission on Credentialing (COC), an appointed group comprised of RPDs representing different residency programs, practice sites, and other pharmacy organizations, in addition to two public members, establish the standards for residency programs. ASHP grants accreditation to a program after evaluation against the residency standard. Each residency program is evaluated against a specific standard (PGY1, PGY1 Managed Care, PGY1 Community-Based, or PGY2).

PRECEPTOR PEARL

There are requirements the site must meet for the residency program to receive accreditation. There are similar expectations for practice sites for students.

Requirements of Residency Program Directors and Preceptors

Preceptor Attributes

Like preceptors for students, residency preceptors take on the role of teacher, mentor, and coach. They can positively affect a resident's life and career. Some of the characteristics residency preceptors should possess include serving as a role model; having expertise in a practice area; having the ability to coach; providing meaningful feedback; and having a positive attitude regarding their practice, colleagues, and learners.

BEST PRACTICES FOR PRECEPTOR RECRUITMENT, ORIENTATION, DEVELOPMENT, AND RETENTION[4]

Recruitment

Many practitioners choose to precept students and residents as a result of having had great preceptors during their education and training. When recruiting preceptors, it is important to discuss the involvement of pharmacy staff with the institution's Chief Pharmacy Officer and/or Director of Pharmacy. Preceptors must have the support of their institution and supervisor to participate. For many institutions, teaching and training students and residents is part of the educational mission of the facility. As discussed previously, colleges and schools of pharmacy can provide many benefits for practitioners to serve as preceptors. Access to the college or school of pharmacy's library resources can help the institution save on expensive subscriptions to databases and journals. In addition, some programs will provide faculty appointments for preceptors. Depending on state laws, residents can serve as preceptors after they have practiced for a specified period. Recruiting residents to serve as preceptors should be part of the onboarding process for residents. Precepting students will help the resident meet educational components of the residency standards.

Orientation

A comprehensive orientation program is essential for preceptors to be successful in educating students and residents. Many colleges and schools of pharmacy provide annual preceptor conferences to train new preceptors and include topics such as policies and procedures, reporting structures, course syllabi, college curriculum, requirements for IPPE versus APPE, assessment methods, and manner to address performance and behavioral issues.

Development

In addition to annual preceptor programs provided by colleges and schools of pharmacy, preceptors can engage in professional development activities through other means. State and national pharmacy meeting programming may include sessions specific for preceptor development. Preceptors can receive continuing education through online courses provided by the college or school. In addition, resident participation in academic training programs affiliated with colleges and schools of pharmacy is a mechanism for professional development.

Retention

One of the most important aspects of experiential training is retention of qualified preceptors. As stated previously, colleges and schools of pharmacy would not be in operation without a multitude of preceptors and experiential sites. Recognition through an annual awards program is one way to acknowledge the contributions of preceptors. At the national level, the American Association of Colleges of Pharmacy (AACP) recognizes preceptors through their Preceptor of the Year award. ASHP provides annuals awards recognizing preceptors and programs. Inviting preceptors to serve on key committees involved with experiential training and

residency programs will help engage them. Compensation is one manner to help with preceptor retention; however, visits by college or school experiential personnel go a long way in helping with preceptor retention.

SIMILARITIES BETWEEN STUDENT AND RESIDENT PRECEPTORS

When comparing experiential training versus residency training, there are more similarities than differences for preceptors. Each requires the preceptor to have an aptitude for teaching and be fluent in the four preceptor roles. Knowledge of the layered-learning model is essential as the preceptor may be teaching learners at different levels (e.g., IPPE, APPE, resident). There are legal and regulatory requirements for a practitioner to be a preceptor for students. Although not legally required, these are similar to residency preceptor requirements. The attributes for preceptors are also similar as delineated in ACPE and ASHP Accreditation Standards. There is no requirement for a preceptor to complete a residency; however, this is one eligibility requirement. In the absence of a residency, years of practice experience meet the requirements.

SUMMARY

Serving as a preceptor for students and residents is an important component of professional practice. Practitioners who serve as preceptors have a passion for teaching and giving back to the profession. To be a preceptor, it is important to be fluent in the standards for experiential and residency training. Colleges and schools of pharmacy should recruit and retain preceptors who possess the necessary attributes to teach learners. To be successful, preceptors must have a clear understanding of their responsibilities and the proper orientation and training to successfully educate and train. Preceptors who start with a solid foundation will find educating and training learners to be a fulfilling part of their professional practice.

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