

STATEMENT

Making a Curricular Commitment to Continuing Professional Development in Doctor of Pharmacy Programs

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As outlined in the Accreditation Council for Pharmacy Education (ACPE) Standards 2016, colleges and schools of pharmacy must provide an environment and culture that promotes self-directed lifelong learning. Continuing professional development (CPD) serves as a model that can foster and support self-directed, lifelong learning. The benefits of adopting a CPD model include assistance with attaining Center for the Advancement of Pharmaceutical Education (CAPE) 2013 Outcomes, such as self-awareness. This model can also support the individualization of experiential learning and student action on feedback from curricular-level assessments. The major skills involved in CPD, such as reflection and documentation, are frequently addressed in pharmacy curricula. However, these skills may be developed in isolation or exercised for purposes other than learning. The aim of this statement is to aid schools in creating “CPD ready” practitioners by defining the skill sets involved in CPD and making recommendations for advancing CPD in curricula.

Keywords: continuing education, continuing professional development

INTRODUCTION

In its 2003 report, *Health Professions Education: A Bridge to Quality*, the Institute of Medicine (IOM) referenced commitment to lifelong learning among the competencies that health professionals should possess.¹ Additionally, the report by the Commission on the Education of Health Professionals for the 21st Century, “*Health Professionals for a New Century: Transforming Education for Health Systems in an Interdependent World*,” states that graduates should be prepared for lifelong learning.² Consistent with these positions, ACPE addressed the concepts of CPD and self-directed lifelong learning in multiple areas of the ACPE Standards 2016. One such expectation is in Standard 12, which states that the pre-APPE curriculum “inculcates habits of self-directed lifelong learning...”³ In addition, the Center for the Advancement of Pharmacy Education (CAPE) 2013 Educational Outcomes highlight the importance of self-awareness, specifically the need to “examine and reflect on personal knowledge, skills, abilities. . . that could enhance or limit personal and professional growth.”⁴

In September 2014, the International Pharmaceutical Federation (FIP) launched its first global report on

continuing professional development and continuing education (CE) in pharmacy. The report summarized key country case studies and provided the foundation for additional work in CPD/CE around the world. More than half of FIP member organizations and countries implemented the FIP CPD framework focusing on self-appraisal, personal plan, action (implementation), documentation, and evaluation of learning and benefit.⁵ The federation recommends that to develop a functioning CPD/CE system: “the profession should adopt guiding principles on continuing professional development as a whole and lifelong learning skills/habits.” They also recommend that “countries beginning the CPD process should use this document [global report] for initial talking points for their respective governing bodies to determine which framework best suits their needs and available resources.”⁶

To facilitate profession-wide adoption and implementation of CPD concepts and approaches, ACPE established the CPD Steering Committee, which is composed of 8-10 members from various pharmacy sectors. The steering committee released its *Guidance on Continuing Professional Development for the Profession of Pharmacy*, which provide a definition of CPD, an updated CPD cycle, example CPD activities, and guidance on activity selection.⁷

As outlined in the ACPE Standards 2016, developing habits of self-directed lifelong learning must be an explicit curricular commitment in doctor of pharmacy

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(PharmD) programs. Schools have the responsibility to ensure students graduate with habits and skills necessary to continue learning throughout their career. The CPD model can foster and support self-directed lifelong learning. The aim of this statement is to aid schools in creating “CPD ready” practitioners. To that end, this paper describes the benefits of adopting a CPD model and defines the skills involved in CPD. In addition, it makes recommendations for advancing CPD in curricula.

ADOPTING THE CPD MODEL

Continuing professional development is a self-directed, ongoing, systematic, and outcomes-focused approach to lifelong learning applied to practice.^{8,9} In 2001, FIP defined CPD as “the responsibility of individual pharmacists for systemic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional, throughout their careers.”⁵

Individuals who adopt the CPD approach accept the responsibility to fully engage in and document their learning through reflecting on their practice, assessing and identifying professional learning needs and opportunities, developing and implementing a personal learning plan, and evaluating their learning outcomes with the goal of enhancing the knowledge, skills, attitudes, and values required for pharmacy practice (Figure 1).⁹ Schools that incorporate a CPD framework into the curriculum accept the responsibility of inculcating lifelong learning skills in students.

The CPD cycle is comparable to the process of scientific discovery where researchers reflect on what research question they want to pursue, gather evidence around the questions, study what has been done successfully in the past, and plan a scientific study around that knowledge to generate results that could elaborate on existing knowledge. After results have been generated, learning occurs, practice may change, action is taken, policy may be rewritten, and evaluation of the results or additional learning could generate additional hypotheses.

Self-directed, lifelong learning has been referred to as a “general ability outcome” of curricula. However, students begin pharmacy school after having spent years in K-12 and higher education systems, during which they were told, in large part, what to study, how to study it, and how they would be assessed. They have excellent study skills, but fewer experiences at determining their learning needs, identifying resources and activities to meet those needs, and evaluating their progress.^{10,11} To create CPD-ready practitioners, students require practice “moving into the driver’s seat.”¹² A curricular commitment can ensure that students receive practice with CPD.

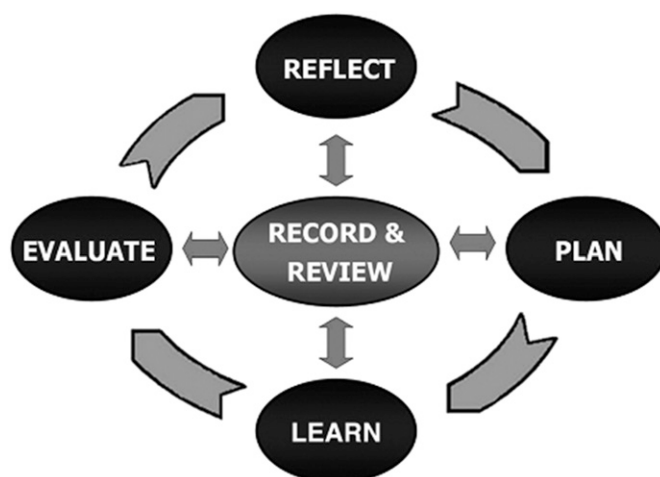


Figure 1. Continuing Professional Development Cycle
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In addition, CPD can aid schools in achieving curricular goals. For example, schools are investing heavily in curricular-level assessments of student learning (eg, milestone examinations, objective structured clinical examinations). However, obstacles include ensuring students review their results and take action based on the results. A CPD process can prompt students to review and consider feedback from curricular assessment reports during the reflective phase. In addition, the planning phase can assist in establishing action to be taken in response to assessment reports. After implementing the plan, students can evaluate their own learning and make plans based on the findings. Whether used for growth or remediation, the CPD process can encourage student responsibility for learning, while advisors assist the process.

As schools work to implement CAPE 2013 Outcomes, the CPD process can assist with Domain 4, personal and professional development.⁴ Regarding professionalism (4.4), the lifelong obligation to improve one’s competence is a vow within the Oath of a Pharmacist¹³ and is described within pharmacy as a trait of a professional.¹⁴ With its focus on self-assessment, reflection, and evaluation, engaging the in the CPD process can build self-awareness (4.1). In addition, CPD processes have been used to facilitate leadership development in pharmacy students.^{15,16}

In experiential education, CPD can aid in individualizing practice experiences to best meet the needs of each student. Preceptors and students can discuss students’ self-assessments and desired learning objectives, and through conversation, customize practice experiences to incorporate activities that will benefit the student’s individualized CPD plan. In addition, CPD can be used for preceptor development. When students see preceptors

model the habits of self-directed lifelong learning, students will better appreciate the breadth of learning activities and resources available in the workplace, which can aid the transition to practice-based learning. Residency training has used a process similar to CPD and is also a location for CPD skill development.¹⁷

HONING CPD SKILLS

The major skills involved in CPD are frequently addressed in pharmacy curricula. As outlined in Figure 1, those skills are reflection (including self-assessment), planning, learning (acting on the plan), evaluation, and recording and reviewing (documenting).^{8,9,18} However, these skills are often addressed without a deliberate connection to the self-directed lifelong learning process. For instance, students may be asked to reflect on an encounter with a patient, but the reflection may not be used as input into a learning plan that would help to enhance the student's skills. These skills may also be exercised for purposes other than self-directed lifelong learning. For example, most documentation in the PharmD curriculum understandably involves patient care and not necessarily documentation of personal learning and growth.

In order to develop and maintain competence throughout life, a practitioner must learn effectively from their experiences.¹⁹ Reflective practice aids a practitioner in developing new understandings, perspectives, and alternatives.²⁰ In pharmacy, reflective practice is supported through portfolios,²¹⁻²³ and through reflective writing in classrooms^{16,24} and experiential environments.²⁵⁻²⁷ Reflective writing "attempts to identify the significance and meaning of a given learning experience primarily for the writer."²⁸

In CPD, reflection is a critical self-examination that includes examining and considering personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions

that could enhance or limit performance, as well as personal and professional growth. In some cases, it can include facts and feelings about perceptions, observations, and feedback much like in a 360 evaluation process involving peers, mentors, patients, customers, clients, students, employees, and supervisors.²⁹ It also involves self-assessment or self-appraisal in terms of personal and organizational needs and goals. Assessing organizational needs and goals can be helpful in preparing oneself for new roles and responsibilities and/or advancing within the organization. The act of self-assessment involves observing, analyzing, and reflecting on performance, judging the degree to which it meets standards/criteria, and determining strategies for improvement.

The aim of reflection in CPD is to develop one's skills, which may be different than other curricular uses of reflection. For instance, reflection is used to document situations experienced by students and issues or challenges faced³⁰ or as a means to promote critical thinking.³¹ As a result, it is especially important to outline expectations for CPD related reflection and to help to focus reflection on learning. The "What? So What? Now What?" model can provide structure to reflections and can be customized to focus on learning.³²⁻³⁴ (Table 1)

In CPD, planning involves designing a personal development plan, including both formal and informal learning activities to achieve intended outcomes. The plan involves defining learning objectives, learning activities, required and available resources, and measures of success. It also involves articulating the plan with colleagues to support learning over an extended period of time. Care plans³⁵ and business plans³⁶ are used in pharmacy curricula. Fundamentally, all plans involve understanding needs, defining objectives, outlining action steps, and identifying indicators of success. Thus, skills may be transferable to some degree. However, the

Table 1. The "What? So what? Now what?" Process for Learning Reflection

What? (What happened? What did I learn?)

In this phase of the reflective process, you document the learning situation and results. This description is accurate, objective, complete, and well expressed (eg, focus, flow, organization). The description can come from your own perspective, but also comments on others involved (eg, patient, pharmacist, other health professional).

So What? (Why does this learning matter? Why is this learning significant?)

In this phase of the reflective process, you analyze and interpret the meaning of the learning. You do this by:

- analyzing your learning as it relates to standards, previous experiences, or coursework
- describing and interpreting your personal reactions to the learning, including feelings, opinions, and/or attitudes
- specifying the value of your learning to others. (In other words, why is it important to others [eg, patients, colleagues, or other health professionals] that I have learned this?)

Now What? (What implications does this learning have for my future?)

"Now what?" looks to the future. In this final phase of the reflection, you indicate your future plans, given the learning. In what ways will I use this learning? Given what I have learned, what goals shall I set, in order to improve my performance, the quality of my learning, or the effectiveness/impact of my future contributions?

complexity of competency development and the presence of learning challenges suggest that CPD planning requires context. It is not necessarily sufficient to draw from planning skills learned in another context. A CPD-ready practitioner has developed effective, self-directed learning habits through repeated consideration of learning needs, methods to address those needs, required resources, and options for measuring success.

The final stages of CPD are learning, evaluating, recording and reviewing. The learning stage involves putting the personal development plan into action to meet identified needs and goals, using an appropriate range of learning activities and methods. Evaluating involves regular review of progress, including evaluation of learning successes/challenges, and of attainment or mastery. Recording and reviewing involves documenting learning needs, learning objectives, learning plans, and learning progress aligned with career goals. A portfolio may be used to collect materials, electronically or on paper, to facilitate recording and reflection on past experiences, and to present any planned activities.^{16,37}

Schools are encouraged to examine methods for incorporating CPD into existing processes within the curriculum, including existing portfolio systems. For instance, a portfolio documenting accomplishment of curricular outcomes could provide rich input into a student's self-assessment and reflection. At strategic points, students could be asked to review their progress, identify areas for self-directed learning based on that progress, and outline a learning plan.

While students may have opportunities to plan during the pharmacy curriculum, there are fewer opportunities to execute the plan, evaluate progress, and document achievements. Incorporation of CPD in the curriculum provides a unique opportunity for students to gain experience with the entire cycle of improvement. Table 2 summarizes CPD-related skills and behaviors within each stage. These can be considered in the design of student pharmacist experiences.

RECOMMENDATIONS

Coach Students

Starting with a student's career goals can help to establish the relevance of CPD work. Continuing professional development isn't learning for the sake of learning; it helps to move students toward their career goals. Students should be encouraged to write goals that describe their desired future. For instance, a student could have goals related to becoming a certified diabetes educator or an independent owner. When engaging in CPD work, consider asking students to draft short term (1 year) and longer term (3-5 years) career goals that relate to their

personal interests and passions, acknowledging that goals change over time. In addition to providing a launching point for their needs assessments and learning plans, goals can provide a sense of direction and help students prioritize self-development efforts. They also aid in discussing future career plans with preceptors and employers.

As they begin their learning plans, developing learning objectives can be a difficult step for students. While career goals express what they want to *be* or *have* in the future, learning objectives describe what they want to be able to *do*. Students require practice writing objectives that are "specific, measurable, achievable, relevant, and timed" (SMART).³⁸ Often, pursuing 3-5 learning objectives provides enough variety without becoming overwhelming. When writing objectives, students can be challenged to reach for higher levels of cognition, focusing on application, analysis, synthesis, and evaluation instead of knowledge and comprehension. Emphasizing the transferability of objective writing and learning planning skills can be helpful. For example, objectives are needed when proposing expansion of pharmacy services or making budget requests.

Learning plans may also require patience and coaching. Some students may focus on traditional forms of learning (eg, reading articles, studying notes) and struggle with identifying and using resources based in the workplace (eg, shadowing, observing, repeating). As students consider resources, encourage them to think of things they could read, do, see, and discuss. To aid in keeping skill development a priority, encourage students to think about targets (eg, 2 patients/day, one article/week). In considering evaluation, encourage students to name the variables that will be assessed (eg, efficiency, thoroughness, engagement), as well as the timing of the evaluation. While summative evaluations are important, formative evaluation should also be considered. Students may look to authority figures for evaluation (eg, instructor, preceptor), but can be encouraged to consider others who may be able to provide quality input and feedback on their performance (eg, other health professionals, peers, patients, technicians). Discussing sample learning plans can help students prepare for writing their first learning plan. With little or no introduction to learning planning, students can identify strong and weak elements in the plans and make suggestions for improvement. In addition to building student confidence, this exercise can create good conversation about faculty expectations for student submissions. As students execute their plans and report on progress, feedback and scoring should recognize that some learning objectives take time and may not be completed by a particular checkpoint. In addition, career goals may have changed and can be updated at checkpoints.

Table 2. CPD-Related Skills and Behaviors for Consideration in Design of Student Experiences

Reflection	Plan	Learn	Evaluate
<ul style="list-style-type: none"> ● Identifying personal learning styles and preferences 	<ul style="list-style-type: none"> ● Incorporating evidence from reflection (eg, evaluations, surveys, feedback) 	<ul style="list-style-type: none"> ● Implementing a personal learning plan 	<ul style="list-style-type: none"> ● Regularly analyzing and interpreting learning impact on performance and other relevant outcomes
<ul style="list-style-type: none"> ● Identifying needs arising from an evolving health care system 	<ul style="list-style-type: none"> ● Identifying goals and creating SMART objectives in order to achieve goals 	<ul style="list-style-type: none"> ● Actively synthesizing, analyzing, and assimilating information 	<ul style="list-style-type: none"> ● Evaluating learning with the purpose of improving knowledge, skills, and learning abilities
<ul style="list-style-type: none"> ● Identifying competencies for performing work responsibilities and professional needs 	<ul style="list-style-type: none"> ● Establishing learning needs consistent with identified gaps 	<ul style="list-style-type: none"> ● Personalizing learning for relevance to practice 	<ul style="list-style-type: none"> ● Regularly assessing opportunities for improvement in practice based on learning (eg, commitment to change)
<ul style="list-style-type: none"> ● Analyzing competency and/or performance gaps 	<ul style="list-style-type: none"> ● Identifying learning activities and resources to meet objectives 	<ul style="list-style-type: none"> ● Engaging in cognitive processes reflective of taxonomies of learning 	<ul style="list-style-type: none"> ● Engaging peers in review of learning plans and evidence of success
<ul style="list-style-type: none"> ● Demonstrating awareness of the importance of learning and commitment to continuing personal and professional development 	<ul style="list-style-type: none"> ● Identifying realistic time frames 	<ul style="list-style-type: none"> ● Adapting to a wide variety of teaching methodologies 	<ul style="list-style-type: none"> ● Articulating a future direction for learning, including specific goals that can be refined and addressed in future learning plans
<ul style="list-style-type: none"> ● Incorporating peer/expert assessment and observations 	<ul style="list-style-type: none"> ● Reviewing learning plan for specificity and achievability 		
<ul style="list-style-type: none"> ● Identifying and describing instances of learning 	<ul style="list-style-type: none"> ● Asking for and negotiating buy-in for the plan ● Surveying the environment to determine available learning resources 		

SMART= Specific, Measurable, Achievable, Relevant, Timed

Make a Curricular Commitment to CPD

Continuing professional development can be threaded through the didactic and experiential requirements, helping tie the curriculum together and allowing students to individualize aspects of their education. However, threading skill development through the curriculum requires a coordinated effort of multiple instructors, as well as support systems. Schools are urged to discuss where CPD may logically fit—a skills sequence, professional development sequence, and/or experiential sequence may provide an appropriate location for this work.

The University of North Carolina Eshelman School of Pharmacy implemented a CPD process as part of a 4-week hospital introductory pharmacy practice experience (IPPE) with students in the summer following the first year. Using the school's course management system, students submitted a reflection on their past experiences, an education action plan, and learning activity worksheets documenting learning from their IPPE.³⁹ Wegman's School of Pharmacy at St. John Fisher College also implemented a CPD process in the first year of the curriculum. However, their process involved the use of a faculty advising system, with advisors signing off on student completion of each CPD step, and the goal of completing one CPD cycle by the end of the year.⁴⁰ Belmont University College of Pharmacy implemented CPD planning as part of a fourth-year spring capstone course aimed at aiding students with reflection and transition to practice. Students identify experiences and training required to become proficient in their current interest area, write goals, share them with a colleague, and develop a written plan for accomplishing the goals, which is evaluated by instructors.⁴¹ In the advanced pharmacy practice experience (APPE) year, the University of Maryland School of Pharmacy has students complete an initial self-assessment and an education action plan. After the completion of each practice experience (total of 8), students submit CPD reflective journals with preceptor feedback and a final CPD journal with a summative reflection of the fourth year, which provides an opportunity to document learning. At the University of Minnesota College of Pharmacy, students enroll in a 1.5-credit CPD portfolio course that runs concurrently with APPEs. Students complete a self-assessment, with input from various assessments (eg, objective structured clinical examination results, written curricular examination results), define career goals, and develop their first learning plan. At quarterly checkpoints, students complete reflections on their learning, document their progress, and revise their plans, which are reviewed by practicing pharmacists trained for the feedback/coaching role.

Possibilities for working within existing systems should be explored. For instance, if the school has a robust,

individualized advising system, students might share their plans and progress with faculty advisors at defined points in their PharmD program experience. In other systems, it may make sense to share plans and progress with mentors or preceptors during practice experiences. For schools using portfolios, modification of existing requirements might allow a shift to a CPD/learning-oriented portfolio. For schools with student services staff who engage students in career development, it may be possible to meld career development plans and CPD.

Recognize the Role of Mindset

The way we think about our intelligence may help or hinder our development. A “you have it or you don't” mentality (ie, entity theory of intelligence or “fixed mindset”) can lead to a desire to look smart and therefore a tendency to avoid challenges, give up easily, see effort as fruitless and ignore useful negative feedback.⁴²⁻⁴⁴ However, a “growth mindset” (ie, incremental theory of intelligence), which recognizes the dynamic and malleable qualities of intelligence, leads to a desire to learn and, therefore, a tendency to embrace challenges, to see effort as a path to mastery, and to learn from criticism.⁴²⁻⁴⁴ A growth mindset is critical to the ongoing pursuit of personal development.⁴⁴ Students in a fixed mindset may not be open to or see the value of CPD, which involves acknowledgment of areas for growth, focused attention, and hard work. Effort may be needed to support these students in moving to a growth mindset. This may involve teaching,⁴⁵ attitude change interventions,⁴⁶ or mentoring⁴⁷ on the notion of intelligence as expandable. In addition, feedback that reminds students of their capacity to overcome hurdles may also be helpful.⁴⁸

Foster Self-Knowledge of Learning

Targeted efforts to improve self-knowledge of a student's learning preferences, behaviors, and strategies can benefit CPD. For instance, Austin developed a Pharmacist's Inventory of Learning Styles (PILS) to define, describe, and measure learning styles among pharmacists. Such tools may provide the user with insight on preferred approaches to learning.⁴⁹ Students may also benefit from exercises that ask them to consider when they have been most effective in their learning, isolating the characteristics of that learning. As students move from didactic to experiential education, students should be prompted to consider changes in their learning behaviors and strategies to help build awareness of effectiveness. In order to position themselves to succeed as self-directed, lifelong learners, practitioners and students must know themselves and develop metacognitive awareness.

Utilize Resources and Expertise

The academy should use existing resources and tools provided by ACPE,⁵⁰ FIP,⁵¹ the International Lifelong Learning in Pharmacy bi-annual conference,⁵² and other notable organizations that advance the practice of CPD around the world. In addition, schools should draw on expertise to assist with teaching. For instance, continuing pharmacy education (CPE) administrators may be able to assist in developing students' CPD skills, such as defining SMART learning objectives. Preceptors may be able to support students in carrying out plans and evaluating progress. Assessment professionals may be able to aid in designing methods for assessing CPD skills.

SUMMARY

In light of the constant state of flux in health professions, continuing professional development skills are essential for maintaining competency. As schools respond to ACPE Standards 2016 and undergo curricular revision, CPD must be considered. While a number of CPD related skills are present in PharmD curricula, they may be taught in isolation or focused on areas other than personal development. To ensure graduates are "CPD-ready," the academy should commit to a more intentional, comprehensive, and coordinated curricular commitment to self-directed, lifelong learning.

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