

## RESEARCH

# A Qualitative Study Designed to Build an Experiential Education Curriculum for Practice-Ready Community Pharmacy-Bound Students

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**Objective.** To design an experiential education curriculum that sequentially and deliberately prepares community pharmacy-bound graduates to practice at the level of the care provider and display the skills needed to be a pharmacist-in-charge.

**Methods.** Semi-structured interviews were conducted with community pharmacy stakeholders. Transcriptions from the interviews were analyzed to identify common themes in needed community pharmacy training for core and elective advanced pharmacy practice experiences (APPEs). The themes were used to distinguish key elements of a community pharmacy experiential education curriculum that would meet the project objective.

**Results.** Forty-two individuals were interviewed: 11 were interviewed individually and 31 in focus groups, with each group comprising two to six individuals. There were 11 focus groups. Theme analysis allowed differentiation of activities and performance levels for the community pharmacy introductory pharmacy practice experience (IPPE) and the core APPE as well as the goal of the core APPE for all program graduates. Participants identified two important elective APPEs for students planning to practice in community pharmacy after graduation: an advanced patient care experience and a management experience. Participants emphasized the importance of sequencing the core and advanced elective APPEs so that the advanced electives could build upon the skills demonstrated in the core APPE. Participants identified knowledge, skills, and attitudes needed for practice-readiness upon graduation.

**Conclusion.** The identified experiential education curriculum for students planning to practice in the community pharmacy setting upon graduation will prepare them to provide care to complex community-dwelling patients and function as a pharmacist-in-charge in this setting.

**Keywords:** experiential learning, qualitative research, curricular assessment

## INTRODUCTION

Student readiness for practice upon graduation, although not a new concern, has generated much recent commentary.<sup>1-6</sup> Practice readiness is a concept implicit in the 2013 Center for Advancement of Pharmacy Education (CAPE) educational outcomes,<sup>7</sup> and a specifically-stated requirement in of the Accreditation Council for Pharmacy Education (ACPE) Standards 2016, where Standard 24 states that schools or colleges must develop, resource, and implement a plan to assess attainment of educational outcomes to ensure that graduates are prepared to enter practice.<sup>8</sup> In their report to the American Association of Colleges of Pharmacy (AACCP), members of the 2014-2015 Professional Affairs Committee proposed that AACCP

encourage its member schools and colleges to define and inform the practice readiness of professional pharmacy program graduates.<sup>9</sup>

The majority of student pharmacists will enter practice as community pharmacists upon graduation.<sup>10,11</sup> They will be expected to provide services well beyond dispensing, including medication management and reconciliation, educational and behavioral counseling, and preventive health care services.<sup>12</sup> Patient care, public health, communication, dispensing systems management, business management, pharmacy law, and leadership have all been identified as entry-level competencies for community pharmacists.<sup>13</sup> Designing an experiential education program for community pharmacy-bound students through which they can integrate and apply these required competencies will be critical to ensuring their readiness upon graduation to practice in this rapidly advancing care setting.

The ACPE Standards 2016 require a community pharmacy introductory pharmacy practice experience (IPPE), a "core" community pharmacy advanced pharmacy practice

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experience (APPE), and elective APPEs that develop the knowledge, skills, and attitudes needed for pharmacy students to practice competently.<sup>8</sup> Zarembski and colleagues in a 2005 publication identified activities in which students can participate in a typical core community pharmacy APPE; however, these activities were based on a 2002 survey and may not reflect the current and emerging state of community pharmacy practice.<sup>14</sup> Devine and Darbishire noted changes in IPPE practice activities between 2008 and 2013, including activities in community pharmacies, but this study was not designed to differentiate IPPE from APPE activities.<sup>15</sup> There is currently no consensus about how community pharmacy IPPE and APPE activities can and should differ,<sup>16</sup> nor are there evidence-based guidelines for how core and elective APPE community pharmacy experiences should differ. It would be useful to distinguish current skills in community pharmacy practice for which all pharmacy graduates should demonstrate competency and determine additional skills needed by students who plan to enter practice in this setting upon graduation.

This study describes a quality improvement investigation conducted at the University of Washington School of Pharmacy (UWSOP) to design an experiential education curriculum that would produce practice-ready community pharmacists upon graduation. This effort was undertaken in response to expanding services provided by community pharmacists nationally and new legislation in Washington state requiring pharmacists to be included as medical providers in health insurance provider networks beginning January 1, 2017 for community pharmacists.<sup>17</sup> The aim of the project was to design an experiential education curriculum that would prepare the graduating community pharmacy-bound student to function as a care provider. Other goals of this project were to differentiate the community pharmacy introductory, core advanced, and advanced elective student learning experiences and identify elements of student pharmacist community pharmacy APPE readiness. These findings could assist other academic institutions in designing an experiential education curriculum for students planning to enter a specific practice setting upon graduation.

## **METHODS**

This study was a qualitative analysis of community pharmacy stakeholders' opinions using key informant interviews and focus groups. Purposive sampling<sup>18</sup> was used with pharmacy managers, including district managers; staff pharmacists from independent, regional, and national chain pharmacies; executives from the state's professional pharmacy organization; UWSOP faculty members with a background in or training of community

pharmacy-bound students; and community pharmacy-bound students contacted by email and invited to participate. A database of current UWSOP preceptors was used to identify individuals practicing in varying roles and at different community pharmacy sites. The study protocol was reviewed by a University of Washington Human Subjects Division subcommittee and qualified for exemption.

An interview guide was designed to obtain stakeholders' answers to three questions: the characteristics required in future community pharmacist providers; the skills that student pharmacists should acquire in a core community pharmacy APPE versus an advanced community pharmacy elective APPE; and the essential knowledge, skills, and attitudes needed by students prior to starting their APPEs. In the original interview guide, a fourth question asked participants how community pharmacy IPPE activities should differ from community pharmacy APPEs. It became apparent after the first few interviews that most stakeholders were familiar with either IPPEs or APPEs, but not both. The question was subsequently modified to assess stakeholders' perspectives on the degree of structure needed for APPEs versus IPPEs. All four interview questions were scripted so they would be phrased the same way to every participant, but the interviewer was allowed to ask unscripted follow-up questions to clarify or expand a point made by participants in their answer to the scripted questions. The interview guide was piloted with a small number of faculty members to test the phrasing and flow of the questions.

Semi-structured key informant interviews and focus groups were conducted with the community pharmacy stakeholders by the primary investigator between August and November 2015. All interviews and focus groups were conducted in private locations at community pharmacies, regional management offices, or locations convenient to the participants. Interviews ranged from 15 to 50 minutes in duration and were audio-recorded with the participants' consent. Individual and focus group interviews continued until saturation was reached, with saturation defined as no new information detected in two sequential interviews and focus groups.

All audio-recorded interviews and focus groups were transcribed and de-identified by a research team member. The transcripts were analyzed to identify common themes in needed community pharmacy training at core and advanced community pharmacy APPEs.<sup>19</sup> The authors independently read and initially coded words and phrases in the transcripts using inductive coding strategies<sup>20-22</sup> in ATLAS.ti, version 7.5.10 (ATLAS.ti GmbH, Berlin, Germany). Two authors met repeatedly to compare code titles and descriptions, reconcile differences, and improve code definitions, then began to merge codes into larger

thematic areas.<sup>23,24</sup> Comparison of differential grouping of the thematic areas allowed differences between core and elective APPEs to emerge, and all authors agreed on the final descriptions for these experiences.

## RESULTS

Forty-two individuals were interviewed. Eleven individuals were pharmacy managers and participated in in-depth interviews. Thirty-one individuals participated in one of 11 focus groups, with group size ranging between two and six individuals. Thirty-nine participants were licensed pharmacists and three participants were students completing APPEs and planning to enter community pharmacy practice upon graduation. The study participants are further described in Table 1.

Competence is the habitual use of knowledge, technical skills such as communication and clinical reasoning, and attitudes apparent from expressed emotions and values that are demonstrated during daily practice for the benefit of the patient.<sup>25</sup> Participants described two knowledge areas, five skills, and three attitudinal competencies that future community pharmacists must possess upon graduation to practice as patient care providers. Critical knowledge areas were mastery of drug therapy information and treatment guidelines, and regulatory aspects of practice. The most frequent skill competency identified by participants, particularly pharmacy managers and staff pharmacists, was the provision of direct patient care, with the other four skills being organizational competence, communication, relationship-building, and management and leadership. The three attitudinal competencies were the qualities of being change-agile, patient-centric, and having a provider mentality. A provider mentality was described by participants as taking responsibility for patient outcomes and providing care at a level equivalent to that provided by physicians' assistants and nurse practitioners.

In response to questions about what students should learn in a community pharmacy IPPE versus core APPE versus advanced elected APPEs, participants outlined an experiential education structure to produce practice-ready graduates. Participants distinguished the community pharmacy IPPE as a learning experience introducing students to the daily operations of a community pharmacy. In their IPPE, students demonstrate the ability to distinguish between classes of over-the-counter medications for specific conditions, develop competence in each of the dispensing tasks except final verification, and counsel patients about commonly dispensed medications at that pharmacy. Participants indicated that the community pharmacy core APPE is the time to solidify student skills and that students should be expected to perform at the

level of an independent staff pharmacist by the end of their core community pharmacy APPE. In the core APPE, students demonstrate the ability to distinguish between individual over-the-counter medications for specific conditions, oversee and triage arising issues in the dispensing process, perform final verification, counsel patients about any medication, and perform basic medication therapy management. Participants emphasized the importance of advanced elective APPEs for students planning to enter community pharmacy upon graduation. Advanced elective APPEs were described as an opportunity to tailor the students' learning activities to their individual interests, expand their skills and knowledge in a specialty area, and/or design and conduct innovative projects that allow them to practice at the top of their license.

Participants described two important advanced elective community pharmacy APPEs for community pharmacy-bound students: an advanced patient care rotation and a pharmacy management rotation. Participants identified an advanced patient care rotation as an individualized, clinically focused learning experience that allows students the opportunity to further refine their patient care skills by focusing on specific disease states, patient populations, and/or patient care services of interest. The advanced patient care opportunity was also an opportunity for students to learn about implementation and evaluation of patient care services. A pharmacy management elective was described as training students to successfully run a pharmacy by focusing on leadership, legal, operational, and financial aspects of community pharmacy practice. Participants also emphasized the importance of APPE timing for community pharmacy-bound students. They felt strongly that schools and colleges of pharmacy should schedule community pharmacy-bound students' rotations so their core APPE precedes any advanced elective experience, thereby allowing the advanced experience to build upon the basic skills of being a community pharmacist provider. The community pharmacy IPPE, core APPE and advanced electives are shown in Table 2.

Participants felt students should have a strong foundation in eight knowledge, four skills, and two behavioral competencies from their didactic curriculum and IPPE before entering a core community pharmacy APPE. Participants wanted students to enter their core APPE with knowledge of the pharmacist's patient care process, medications, evidence-based guidelines, drug information resources, immunization schedules, pharmaceutical calculations, insurance plans, and state and federal laws regulating community pharmacy practice. Students should also have a beginning proficiency in four key skills: direct patient care, communication, critical thinking, and dispensing. Participants further

Table 1. Job and Practice Descriptions of Focus Group and Interview Participants

<b>Identifier</b>	<b># of Participants</b>	<b># of Alums</b>	<b>Job and Practice Description</b>
FG1	3	3	Pharmacy faculty with community pharmacy practice background
FG2	3	2	Corporate managers for autonomous regional company owned by national company
FG3	3	2	Pharmacy faculty with no community pharmacy practice background
FG4	6	1	Pharmacists; 5 regional managers and 1 pharmacy manager of a national chain
FG5	2	0	District managers for national chain
FG6	2	2	Pharmacists; 1 owner/manager of independent pharmacy; 1 staff pharmacist
FG7	2	2	District managers (2) + 1 pharmacy manager of autonomous regional company owned by national company
FG8	3	N/A	Community pharmacy-bound APPE students
FG9	2	0	Managers overseeing pharmacy clinical and mail order services for an international retailer; 1 manager was a member of the Pharmacy Quality Assurance Commission and spoke from that perspective
FG10	2	2	Pharmacists: 1 staff pharmacist and 1 community pharmacy resident for independent pharmacy
FG11	2	2	Pharmacist-leaders of a professional pharmacy organization
CP1	1	0	Pharmacy manager, regional chain site
CP2	1	1	Pharmacy manager, regional chain site
CP3	1	1	Pharmacy manager, national chain site
CP4	1	0	Staff pharmacist, local chain site; former inpatient manager
CP5	1	1	Former pharmacy manager, national chain site; physician's assistant
CP6	1	1	Independent pharmacist owner, specialty pharmacy
CP7	1	0	Pharmacist manager, national chain
CP8	1	1	Pharmacist manager, local chain site
CP9	1	0	Pharmacist manager, national specialty pharmacy
CP10	1	1	Pharmacist manager, national chain site
CP11	1	1	Independent pharmacy owner

Abbreviations: APPE = advanced pharmacy practice experience; CP=community pharmacist; FG = focus group; NA=not applicable

outlined that students should be able to interview a patient or caregiver and identify drug-related problems using effective communication strategies and fill a prescription upon starting their core APPE. The most frequent

behaviors participants described as required for entering a core APPE were a positive attitude and awareness of the practice environment. These foundational abilities are explained in Table 3.

Table 2. Differentiating IPPE, Core APPE, and Advanced Elective Community Pharmacy Experiences

Purpose	Illustrative Quote
<p><i>Community Pharmacy IPPE</i></p> <p>The purpose of a community pharmacy IPPE is to perform at the level of a community pharmacy intern by the end of the experience. The student should be able to perform any single step in the dispensing process (except final check), competently counsel patients on commonly-dispensed prescription drugs, collect and assess a patient history in order to appropriately recommend self-care (OTC drug classes and non-drug therapy), administer immunizations (where allowed by law), apply the laws governing the acquisition and dispensing of medications, perform accurate calculations, consult reliable drug and disease state information resources, and display professional and ethical behavior.</p>	<p>“I’ll treat them almost the same as an APPE [student], but with a lot more guidance. I’ll put them through all the [dispensing] stations because this is their first experience for most of them in a retail setting. So I’ll put them through all the stations at the very end and I’ll make them counsel. I say, ‘You’re an intern. You have intern on your license. You have to act like an intern.’ [They are] very nervous so we guide them and hold their hand pretty much throughout the entire process.” (CP3)</p>
<p><i>Core Community Pharmacy APPE</i></p> <p>The purpose of a core community pharmacy APPE is to have the student operating at the level of a staff pharmacist by the end of the experience. The preceptor should feel comfortable that if he or she had to leave the pharmacy for a couple of hours, the vital work would get done. The student should be able to oversee the dispensing process (including the final check), competently counsel patients on any prescription medication, recommend appropriate OTC products for patients, assess patient immunization needs as well as administer and document immunizations, apply the laws governing pharmacy operations including performing a self-inspection (where possible), incorporate primary literature and treatment guidelines into treatment decision-making and patient education, and display professional and ethical behavior.</p>	<p>“The [core APPE] should be, from point A to point Z in processing, what pharmacy does. Refill requests. Just the nuts and bolts of the basics. What a good pharmacist can do.” (FG4-DM3)</p> <p>“And the APPE, I would expect my student to truly function as a pharmacist as best to their license ability. And it may not happen on day 1, but I would hope to see it at the end of the rotation, that they truly feel confident, that they could do that job exiting school.” (FG5-DM2)</p> <p>“So at a core pharmacy, my goal when students come is to have them by their fourth week, be able to be the pharmacist. I don’t have to be there. So they do all the checking. They do all the counseling. They do pretty much everything.” (CP9)</p>
<p><i>Elective Community Pharmacy APPE</i></p> <p>The purpose of an elective community pharmacy APPE is to acquire advanced skills in a specific area of community pharmacy practice.</p>	<p>“And the advanced should be what a great pharmacist can do. Leading a team, performance management. Having difficult conversations. Pulling all those different pieces because what we do isn’t just A to Z. There’s all sorts of spaghetti twists in the middle and the spaghetti twists should be the second one.” (FG4-DM3)</p> <p>“I think with the advanced one really is paying more attention to the national trend and being able to bring out innovating practices whereas core APPE is doing the standard.” (FG2-DM3)</p>
<p><i>Elective Community Pharmacy APPE in Advanced Patient Care</i></p> <p>The purpose of an elective community pharmacy APPE in advanced patient care is to give students an opportunity to focus on disease states, patient populations, and/ or patient care services that are complex and challenging. Advanced patient care APPEs should include use of collaborative drug therapy agreements to design or optimize patient medication therapy.</p>	<p>“For the advanced, that’s when I think you get into more of the nuances of comprehensive disease state management. Not just looking at the basics of the MTM—what medications are they on and there’s no duplications and no formulary changes—but is this the best therapy for the patient...I think that spending a lot of time interviewing the patient and doing that full work-up, and then writing a letter back to the physician or a summary document: I think that’s kind of an advanced skill, above and beyond the MTM.” (FG11-PO1)</p>

(Continued)

Table 2. (Continued)

Purpose	Illustrative Quote
<p><i>Elective Community Pharmacy APPE in Pharmacy Management</i></p> <p>The purpose of an elective community pharmacy APPE in pharmacy management is to train students on running a successful pharmacy through an understanding of leadership and management, legal, operational, and financial aspects.</p>	<p>“... if you’re going in as an elective, you can kind of more self-directed do a project. I’ve had people call around to schools and set up flu shot clinics or do a presentation kind of go into community and be like, ‘hey, we’re doing a talk on this.’ And do a presentation at the third week or go into the senior centers and see if they want to do medication reviews for the seniors. I think those are great things to do as an elective because you can kind of go outside beyond just like the day-to-day pharmacy operations and do things that make community pharmacy fun.” (CP9)</p> <p>“...you have to do reviews, inventory control, making sure things get along in the schedule so if a person is really interested in doing that, they can do that in the advanced APPE...When I graduated pharmacy school, I became a manager right off the bat and it was kind of like a miraculous thing. But a lot of these things that I learned how to effectively deal with is [through] trial and error rather than somebody [teaching] me.” (CP2)</p> <p>“I think that’s the advanced one where they get to delve more into management. . .I think business is missing in a lot of schools’ curriculums in regards to teaching students reality of life, in regards to money. If you are constantly losing money, you’re not going to have a pharmacy to practice in so you have to be very strategic in how you use your manpower, your hours, your time, your money.” (CP3)</p> <p>“Although it’s not clinical, there’s a huge need for leadership training and development of future managers because it’s a whole different skill set – just because someone makes a really good staff pharmacist and even a clinical pharmacist does not necessarily mean they’re going to make a good pharmacy manager.” (CP7)</p>

Abbreviations: APPE=advanced pharmacy practice experience; CP=community pharmacist; DM=district manager; FG=focus group; IPPE=introductory pharmacy practice experience; MTM=medication therapy management; OTC=over-the-counter PO=professional organization leader

In order to more clearly distinguish between a community pharmacy IPPE, core APPE, and elective advanced APPE, participant descriptions were used to develop examples of how performance expectations might differ and build across the community pharmacy experiential education continuum. The performance expectation examples are outlined in Table 4.

## DISCUSSION

Previous commentaries have identified individual facets of a community pharmacy experiential education curriculum,<sup>26-31</sup> but only a few studies have examined construction of a longitudinal program in this setting. Kassam and colleagues demonstrated that students with

an enhanced orientation versus a traditional orientation made more patient interventions during an 8-week experience at a single community pharmacy site compared to two 4-week experiences at different sites.<sup>32,33</sup> Rodis and colleagues created the Partner for Promotion program, where students were paired with a community pharmacy partner with whom they completed a core community pharmacy APPE and then spent a 10-month longitudinal APPE setting up a new pharmacy service; 12 pharmacies set up new patient care services in this 2-year project.<sup>34</sup> The Partner for Promotion project has subsequently been adopted by five other colleges of pharmacy.<sup>35</sup> Although these evidence-based efforts were a welcome addition to the literature, a holistic approach to design an experiential

Table 3. Abilities Needed to Begin a Core Community Pharmacy APPE

<b>Ability</b>	<b>Illustrative Quote</b>
<i>Knowledge</i>	
Pharmacist's patient care process	"They need to have a strong drug database built into their brain already. They need to have the research or look-up skills very quickly accessible and comfortable to them, whatever it is they have decided they will access more information." (CP6)
Medications	
Evidence-based medicine/ guidelines	"I think they need to have, obviously the clinical knowledge, the book knowledge. Also I think it would benefit them if they have a better understanding of the healthcare system and how that really affects. . .the patient, because I feel like not a lot, but some time we spent is just educating them on Medicare part B and D." (FG5-DM1)
Drug information resources	
Immunization schedules	
Pharmaceutical calculations	
Insurance plans	
Laws and ethics	
<i>Skills</i>	
Patient Care (improve efficiency in APPE)	"They should be able to assess, interview – do clinical interviewing, gather information from the patient or caregiver." (FG3-PF1)
Collect, assess, identify, and resolve care plans	"Be able to identify medication-related issues and communicate that with the provider. And then help to resolve those medication-related issues that they identify." (FG3-PF3)
Immunization administration	"And be able to counsel a patient on any medication that they're on." (FG3-PF1)
Conduct MTM, CMR	
Counseling	
OTC recommendations	
Documentation of patient interactions	
<i>Communication</i>	
Motivational interviewing	"They should be able to effectively and comfortably communicate. That's the cornerstone. Absolutely. If you have all the knowledge in the world but you can't get it out of your head in a coherent manner, then you're not of any use, basically. So I'd rather have an average student who has a good rapport with people, because they're going to make more of a connection and they're going to help people more than someone that can't." (CP11)
Counseling/education	
Interacting with other health care providers	
<i>Critical Thinking</i>	
Task prioritization	"It's prioritizing. And I think that's pretty important. That's also questions I got for residency interviews and things. You have all these scenarios, how do you handle them and in what order and why and that kind of thing. I know that's somewhere in our curriculum, but maybe it wasn't enough or something, it just wasn't in my brain." (FG6-SP1)
Problem-solving	
Appropriate situations to contact a prescriber	
<i>Dispensing</i>	
Individual steps in filling a prescription (learned in IPPE)	"I think there's – you can break down the process of which a prescription is filled and depending on the way you look at, there's seven steps from the intake and getting the right information to the putting in the system and checking for DUR, all those different steps. I think having an understanding of that skeleton and it might look differently in other different areas but having an understanding of the checks and balances that go into the quality assurance side and ensure the right medication gets to the right person and that you're picking the right drugs off and everything that goes into that would be important to have in your belt." (FG11-PO2)
Checks and balances	
Quality Assurance	
<i>Behaviors</i>	
Positive attitude/enthusiasm	"I think the students that are eager and want to learn new skills—that's what they want, you know—they enjoy trying to learn more." (FG7-DM2)
Awareness of practice environment/ time management	"Pick something you're passionate about so you can excel in it and used the community pharmacy experience as a platform to do that." (CP10)
	"In a community store there's a lot going on and you have to be able to go from one thing to another. Pharmacist-ears: that's what I call them, so you listen to everything that's going on, so if something is misspoken, or there's a question, or a customer getting angry, you can go and direct your attention to that." (CP11)

Abbreviations: APPE=advanced pharmacy practice experience; CMR=complete medication review; CP=community pharmacist; DM=district manager; FG=focus group; IPPE=introductory pharmacy practice experience; MTM=medication therapy management; OTC=over-the-counter products; PM=pharmacy manager; PO=professional organization leader

Table 4. Differences in Performance Expectations Between Community Pharmacy IPPEs and APPEs, and Between Core and Elective APPEs

<b>Key Performance Areas</b>	<b>IPPE Performance Expectation Examples</b>	<b>Core APPE Performance Expectation Examples</b>	<b>Advanced Elective APPE Performance Expectation Examples</b>
<i>Knowledge</i>			
Drug/disease/treatment guidelines	Explain pharmacology and side effects for the top 50 medications dispensed at the pharmacy.	State counseling information for all medications; describe medical conditions. Outline important treatment guidelines.	Create an evidence-based treatment algorithm to support a new patient care service.
Law and ethics	Describe state and federal laws pertinent to the dispensing process.	Describe state and federal laws pertinent to all pharmacy operations. Describe the process of ethical decision-making.	Determine regulatory needs for starting a new pharmacy service. Successfully navigate ethically difficult situations.
<i>Skills</i>			
Dispensing	Perform all steps in the dispensing process and articulate to preceptor what needs to happen in each step.	Oversee the dispensing process.	Modify the overall dispensing process to improve efficiency.
Patient care	Collect patient information at intake. Perform patient counseling and simple over-the-counter and self-care recommendations.	Clearly use the pharmacist's patient care process for drug and non-drug therapy. Know and perform motivational interviewing. Perform basic medication therapy management and comprehensive medication review.	Medication therapy management and comprehensive medication review for individuals with complex medication regimens and precarious health conditions.
OTC/self-care	Identify correct drug classes to recommend for described patient symptoms.	Distinguish and justify which products within a given drug class are appropriate for described patient conditions.	Create informational brochure to help patients learn about the product or condition for which
Immunizations and screenings	Administer immunizations safely. Log immunization in registry. Notify patient's primary care provider of immunization.	Assess a patient's immunization history to determine needs. Place and read a tuberculosis skin test.	Independently conduct a travel clinic interview and assessment of needed immunizations and prophylactic agents.
Communication	Provide basic counseling on any of the top 50 medications dispensed at the pharmacy beyond just reading the prescription label to the patient.	Provide patient education on drugs and medical conditions beyond basic counseling. Communicate with pharmacy team, patient, and other health providers in a responsive, responsible, and respectful manner.	Promote communication and collaboration with individuals outside of the pharmacy, including other health care providers, patient groups and similar audiences, upper management, and payers.
Drug information	Quickly identify needed information in an appropriate drug reference (eg, Facts and Comparisons, Handbook of Non-prescription Drugs)	Quickly identify needed drug and disease state information and treatment guidelines using professionally appropriate resources.	Incorporate published guidelines appropriately into treatment algorithms for new patient care programs offered by the pharmacy.

(Continued)

Table 4. (Continued)

<b>Key Performance Areas</b>	<b>IPPE Performance Expectation Examples</b>	<b>Core APPE Performance Expectation Examples</b>	<b>Advanced Elective APPE Performance Expectation Examples</b>
<i>Attitudes</i>			
Change-agile	Demonstrate grace and flexibility when faced with unplanned situations.	React positively to change with guidance from management.	Lead change and provide guidance to others.
Patient-centric	Display empathy in patient interactions.	Identify and respond to patient priorities.	Act as an advocate for a patient's health care needs during interactions with others.
Provider mentality	When given a situation, identify and prioritize options.	Assist patient in achievement of optimal health outcomes.	Independently design, implement, and modify therapy regimens through collaborative agreements. Document clinical reasoning and decision-making in the patient's health record.

education curriculum that would prepare community pharmacy practice-ready graduates was still needed. This report is the first to distinguish between learning activities in a community pharmacy IPPE versus a core APPE versus an advanced elective APPE.

An important finding of this study was the stakeholders' perceptions of the importance of advanced elective APPEs for community pharmacy-bound students. While the goal of the core community pharmacy APPE is to produce a graduate capable of functioning as a staff pharmacist in the community setting, stakeholders felt that this level of training was inadequate for students planning to enter community pharmacy practice upon graduation. Advanced elective APPEs were necessary to practice collaborative care of community-dwelling patients and act as a pharmacist-in-charge, skills that stakeholders felt were critical for community pharmacists.

The stakeholders' emphasis on the timing of the core APPE before the advanced elective APPEs for community pharmacy-bound students was an interesting finding. Students are typically placed at APPE sites via computer programs that use a randomization scheme in matching students to sites and block times to make the process as fair as possible. Randomized allotment minimizes the chance that one student will be favored over another in specific site placement. But randomization also makes it difficult to schedule a deliberately placed succession of experiences designed to build a specific skill set, a directive implied in Standards 10.4 and 13.7 and Guidance 13g of Standards and Guidance 2016.<sup>8,36</sup> Alterations to

current placement methods may be needed to accomplish purposeful building of experiences within the APPE year. For example, students could be placed at the same site for a 3-month longitudinal community pharmacy experience, or the matching program could be modified to only place advanced elective experiences after the core experience for selected sites.

Another concern is finding an adequate number of sites able to offer the advanced patient care electives that allow students to work with pharmacist preceptors practicing at the top of their license. Sites with residency-trained preceptors may be best equipped to guide student decision-making in patient care experiences, and could be targeted as sites for advanced patient care elective APPEs.<sup>37,38</sup>

A limitation of this study was that all participants resided in Washington state. Participants' responses may have been heavily influenced by our broad pharmacy practice laws that enable pharmacists to practice at the top of their licenses, limiting transferability in states with narrower practice laws. However, other academic institutions may benefit from our stakeholders' perspectives on how to produce graduates ready to practice in such a progressive environment. Additionally, most participants lacked familiarity with our current IPPE structure because they infrequently precepted IPPE students. Experienced APPE preceptors were still able to describe skills and knowledge they expected students to have prior to their core APPE rotation, and it was clear which of these could only be acquired through an IPPE. Finally, 23 of the 42 participants were our alumni or students, which may have

affected their response to questions about our experiential learning program. Comparison of responses between alumni and non-alumni did not reveal any appreciable differences. Stakeholders were not asked to judge either the current curriculum or that of any other school. It's unlikely that trustworthiness of the data was affected by this characteristic.

## CONCLUSION

The deliberate creation of an experiential education curriculum, rather than just experiential education coursework, might enable community pharmacy-bound students to emerge from a degree program with improved practice-readiness for management and direct patient care opportunities. Such a curriculum aligns with accreditation requirements, with the expectations of employers who hire newly graduated students, and with the desires of the community pharmacy-bound students who participated in this study.

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