Establishing an Experiential Liaison Position to Increase IPPE and APPE Capacity and Preceptor Satisfaction in the Health System Environment

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ABSTRACT

Description of the problem: *Providing experiential experiences for student pharmacists within health systems can be challenging for schools of pharmacy. Establishing clinical faculty practices within health systems enables schools to increase student placements, however the clinical faculty typically prioritize experiential education within their individual clinical practice and may not be positioned to develop experiential education opportunities across the site.*

Description of the innovation: *A novel clinical faculty position, the experiential liaison (EL), established at the school's largest health system partner to focus on improving the quality and quantity of experiential education across an academic medical center (AMC).*

Critical analysis: *University of Colorado Skaggs School of Pharmacy and Pharmaceutical Science (SSPPS) identified interested preceptors, recognized and coordinated preceptor development, and facilitated development of quality experiential activities within the site through the establishment of the EL position. Since the establishment of the EL position, student placement at the site increased to 34% of SSPPS's experiential placements in 2020. A high number of preceptors answered "strongly agree or agree" to understanding SSPPS's curriculum, expectations from the school, how to utilize assessment tools to measure student performance on rotation, and how to provide feedback to the school. Preceptor development opportunities are routine and effective, and the relationship between the school and hospital is collaborative.*

Implications: *Establishing an experiential liaison clinical faculty position within a health system is a feasible strategy for schools to further increase experiential education placements in health systems.*

Keywords: Experiential Liaison; health-system; pharmacy; APPE; education

Description of the Problem

Experiential education is vital for students to apply their skills and knowledge in various pharmacy practice settings and remains an essential component of pharmacy school training.[1-4] Accreditation standards require student pharmacists to complete a minimum of 300 introductory pharmacy practice experience (IPPE) hours, 150 of which must be balanced between community and health system settings; and a minimum of 1440 advanced pharmacy practice experiences (APPE) hours, of which at least two APPE rotations must occur in a hospital or health system setting.[1] The logistics of placing every pharmacy student within these settings to complete 75 hours prior to the APPE year along with 2 APPE rotations can be challenging for schools with larger class sizes, especially in geographic areas with multiple schools competing for limited health system sites.[5,6] Irrespective of capacity of health system sites, additional administrative requirements prior to attending rotations and onboarding can also be time intensive for experiential staff, preceptors, and students.

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Partnering with a medical center is advantageous to overcoming these challenges for a school of pharmacy.[7] The partnership can facilitate large numbers of student placements, especially when there are clinical faculty service appointments within that health system. However, even with such appointments, the School of Pharmacy (SOP) still needs to commit substantial resources for preceptor support and development and establish bidirectional communication between both institutions to ensure an optimal experiential education experience. This Note describes the innovative establishment of a clinical faculty position created to serve as a liaison between the University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) and its largest health system partner, the University of Colorado Hospital (UCH), a large academic medical center hosting over 200 SSPPS experiential placements annually.

Description of the Innovation

While SSPPS had numerous established clinical faculty appointments at UCH, their expertise was more heavily focused within their individual specialty practice areas. The experiential liaison position (EL) was strategized between the Department of Clinical Pharmacy (DOCP) Chair and the Director of Experiential Education, with input from the school's dean and other leadership with the primary goal to establish a constructive communication conduit between preceptors and leadership at UCH, and SSPPS, especially within the experiential department. SSPPS and UCH felt having an "EL" could greatly

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facilitate nurturing relationships between both entities so UCH agreed to help fund the EL position, since the position could also focus on global institutional priorities. A faculty position was created allocating 35% for the EL position, 25% for clinical practice at the site, and 40% for teaching, advising, and scholarly activities. To alleviate challenges to providing rotations, it was necessary for the candidate to have a significant understanding of hospital/ health system pharmacy operations and practice . The EL faculty was added to SSPPS's Experiential Education Committee (EEC) to simultaneously represent SSPPS faculty and UCH preceptor/institution perspectives and started their position by meeting with leadership from both institutions to understand needs and vision for the position. Individuals in attendance included UCH leadership of inpatient, outpatient, and clinical pharmacy activities; and SSPPS leadership from the Office of Experiential Programs (OEP) and DOCP. Mutual goals included supporting and increasing the quantity and quality of experiential rotations at UCH. The EL felt supporting preceptors and their development would be crucial to achieving these goals since preceptors provide the individual learning experiences.

The EL employed numerous strategies to enhance experiential learning at UCH. The EL attended site staff meetings to familiarize preceptors to the role, understand institutional priorities, and identify upcoming barriers for student education. The EL quickly became the "go-to" person for student issues at the site, as their onsite presence facilitated rapid development of a communication loop between the institutions. The EL started meeting preceptors frequently to learn their vision, needs, and challenges around experiential education at the site. The EL heard many preceptors felt isolated within the large hospital and desired collaboration with peer preceptors within UCH. To alleviate the work of establishing and delivering rotations, the EL created a shared digital resource site coined "The Preceptor Corner" on the UCH intranet to facilitate access to relevant resources for preceptors, including rotation schedules, presentation expectations, sample rotation calendars and syllabi, tools from peer preceptors, and links to precepting resources from SSPPS and other pharmacy organizations. Repeatedly orienting students to the electronic medical record (EMR) for each rotation burdened UCH preceptors and competed with patient care responsibilities. The EL consolidated and conducted all student onboarding through group orientations. They confirmed EMR access for each student; reviewed EMR navigation, formulary access, medication and infection prevention safety practices; and established UCH pharmacy practice communication and presentation expectations.

Preceptors wanted to increase student exposure to pharmacy operations (e.g., preparation/dispensing and inventory) at UCH because they observed gaps in both APPE students' and PGY-1 residents' familiarity of pharmacists' responsibilities of these duties. Some preceptors had arranged time for students in the central pharmacy (where the bulk of the operational activities occurred), however, the exposure was inconsistent for all students rotating through UCH. The EL restructured health system IPPE (HS IPPE) rotations at UCH to ensure all learners at UCH were exposed to preparation/dispensing, and inventory activities, while limiting the burden of learner load on the central pharmacy. Twenty-five of the 80 required HS IPPE hours at UCH for all students were coordinated by the EL and allocated to: obtaining medication histories and conducting admission medication reconciliation, practice verifying compounded sterile preparations (CSPs), answering frequently encountered drug information and calculation questions, reviewing the process from prescribing to preparation/dispensing to administration of medications at UCH, developing a site specific plan for a drug shortage, reviewing the pharmacy's influence on EMR development, and reviewing cases of narcotic diversion by health care professionals. Students spent the remaining 55 HS IPPE hours with their individually assigned preceptor.

Efforts for preceptor collaboration and development took place concurrently with centralizing some training. UCH preceptors held a broad range of experience from early to established PGY-2 residency preceptors. Preceptor development was consolidated to target topics relevant for all levels of learners precepted and charged to a new "preceptor development subcommittee" chaired by the EL and housed within the PGY-1 residency advisory committee (RAC). Additionally, the EL scheduled annual preceptor orientation sessions with the School's OEP leadership to review upcoming experiential expectations and curricular/ assessment changes. Quarterly preceptor roundtables were developed focusing on broad topics applicable to student and resident preceptors and as needed workshops were created to address specific skills (e.g., rotation syllabus development).

Critical analysis

Numerous pharmacy programs have collaborated with health systems to establish faculty practice sites and provide unique student pharmacists' training at the site.[8-11] Often faculty lines are the primary method for prioritizing rotation placements; it is not uncommon to find multiple student pharmacists paired with one faculty preceptor. This paper describes an EL position dedicated to optimize the quality and quantity of educational experiences across a health system. The EL identified numerous pharmacists who expressed interest in precepting, who would not otherwise been found by routine OEP recruitment strategies, served as a primary contact for questions or problems that arose, and clarified countless questions or unclear points about SSPPS's expectations of preceptors. Additionally, UCH gave the EL autonomy to enhance the student experience to develop and implement a robust HS IPPE program that meets accreditation requirements.

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After the EL role was established, SSPPS's experiential placements at UCH increased from 29% in 2015 to 34% in 2020 (Table 1). Baseline information from UCH preceptors was not collected prior to the establishment of the EL role, however, preceptors were surveyed in 2020 to gather perceptions of the UCH HS IPPE, preceptor support, preceptor understanding of SSPPS's expectations of rotations, and the EL role (Table 2). The authors hypothesize the 10 total responses of "neutral" or "disagree" to the survey statement "establishment of the school's experiential liaison position has been effective at enhancing the relationship between preceptors and the school" could be from preceptors having limited engagement with the services of the EL or not understanding the split role of the EL between SSPPS and UCH, since supplementary comments were not included with the responses. Opportunities exist to better collaborate with pharmacists working different shifts and continue messaging about the role of the EL, especially with new employees.

Table 1. Annual Trends in Students in Experiential Offerings at UCH

Year	2015	2016	2017	2018	2019	2020
Total number of SSPPS students in experiential training, N	780	784	781	757	732	724
Unique SSPPS students in at least one offering at UCH, N (%)	233 (29.9)	219 (27.9)	221 (28.3)	217 (28.7)	223 (30.5)	248 (34.3)
Number of unique experiential placements completed at UCH	309	290	291	282	297	323
Health System IPPE, n	79	74	77	87	84	64
Advanced IPPE rotation, n	25	36	37	42	50	51
APPE rotation, n	153	145	166	140	154	204
Other student placements, n	52	35	11	13	9	4

UCH: University of Colorado Hospital, the health system site; SSPPS: Skaggs School of Pharmacy and Pharmaceutical Sciences; IPPE: Introductory Pharmacy Practice Experience; APPE: Advance Pharmacy Practice Experience

Table 2. Perception of Experiential Education by Active UCH Preceptors in 2020 (N=18)

	Responses, N (%)		
	Agree[a]	Neutral	Disagree[b]
Items Regarding Student Orientation			
The student orientations have decreased time I spend orienting students for my rotation	11 (61)	5 (28)	2 (11)
The student orientations improve my efficiency as a preceptor	9 (50)	5 (28)	4 (22)
Items Regarding Preceptor Development			
The available preceptor development is applicable to my needs as a preceptor	10 (56)	7 (39)	1 (7)
My precepting skills have improved from the preceptor development offerings	8 (44)	6 (33)	4 (22)
My confidence as a preceptor has improved from the preceptor development offerings	8 (44)	6 (33)	4 (22)
My confidence in navigating challenging learner situations has improved from the preceptor development opportunities	5 (28)	10 (56)	3 (17)
I understand the school's expectations of me to precept students.	16 (89)	2 (11)	0
I understand the experiential curriculum at the school of pharmacy	12 (66)	4 (22)	2 (11)
I understand how to use the assessment/grading tools to measure student performance.	14 (78)	2 (11)	2 (11)
The assessment/grading tools provided are effective at measuring student performance in my specific practice setting.	9 (50)	6 (33)	3 (17)
I am aware of the mechanisms to provide feedback directly to the school.	12 (66)	3 (17)	3 (17)
Items Regarding the Experiential Liaison Position			
Establishment of the school's experiential liaison position has been effective at enhancing the relationship between preceptors and the school.	8 (44)	6 (33)	4 (22)

[a]Includes responses of *Agree* and *Strongly Agree*

[b]Includes responses of *Disagree* and *Strongly Disagree*

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The anonymous preceptor perceptions survey showed the establishment of the EL at UCH benefited preceptors through orientation, preceptor development, and understanding of SSPPS precepting expectations. Following the position implementation, preceptors answered "strongly agree or agree" to understanding SSPPS's curriculum and expectations (100%), how to utilize the rotation assessment tools to measure student performance (89%), and how to provide feedback to the school (83%). All these elements are valued by the Accreditation Council for Pharmacy Education (ACPE) which collects these data annually through its national survey of preceptors.

Discussions at SSPPS's EEC with UCH preceptors demonstrated a much better clarity around SSPPS's vision for the HS IPPE, expectations of students on site, assessment of IPPE and APPE students, and knowledge of where to find appropriate documents, policies, and syllabi. OEP personnel reported easier on-boarding processes with fewer issues around computer access, badge requirements, and other placement logistics for students at UCH.

Challenges about time to precept, preceptor training, and lack of standardization and coordination among colleges and schools were reported as challenges in an American Society of Health System Pharmacy (ASHP) survey of directors of pharmacies in 2008.[6] The EL position began to address these challenges through standardization of on-boarding and expectations within the site.

UCH preceptors' desires to increase experiential learning on medication preparation/dispensing and inventory activities is consistent with a survey of HS IPPE preceptors published in 2016 revealing *"over half the respondents agreed or strongly agreed that knowledge of pharmacy practice, and understanding of hospital pharmacy practice are barriers to learning for students during IPPEs*.[12] Restructuring the HS IPPE at UCH to allocate hours to medication preparation/ dispensing and inventory activities ensured all students at UCH were provided this education. This initiative was made possible by the EL, who had intimate working knowledge of UCH's priorities, operations, and pharmacy culture.

Establishment of the EL role at UCH was key to enhancing the existing relationship between UCH preceptors and SSPPS. The EL was a visible point-person whose main responsibility was to strengthen the educational offerings at the site. As a result, preceptor development opportunities were made more routine and effective, and the relationship between the school and hospital was fostered.

Of note, the response rate to the surveys (~26 %, n =18 responses from 70 pharmacists) is low, however, this response rate is consistent with previous surveys given to UCH preceptors. This particular survey was administered in March 2020 just prior to the COVID-19 pandemic, where all efforts quickly re-focused to address the worldwide crisis.

Next Steps

Preceptor development provided at UCH can be shared with other SSPPS preceptors, as needed, or used to identify more global preceptor development needs. Other SSPPS partner health systems benefit from ideas from the UCH EL, but a dedicated EL for larger partners could facilitate rotation development and preceptor development within those sites as well. The UCH EL continues to work closely with UCH preceptors and the school to identify new experiential opportunities. Next goals include expanding the EL services to the ambulatory pharmacy sites and preceptors, and to UCH partner hospitals within the state. Establishing a shared EL faculty position between a SOP and a health system is a feasible strategy for other Schools of Pharmacy and may result in multiple positive changes to student pharmacists' experiential education, as well as preceptors' experiences at the site. It can help increase quantity and quality of experiential education and preceptor development and should be explored with future clinical faculty placements.

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