

ASHP 2018 National Pharmacy Preceptors Conference
Professional Poster Abstracts

Poster Title: Integrating management lessons into advanced pharmacy practice experience

Poster Type: Descriptive Report

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Purpose: As has been identified by White et. al. (2013), the need for well-trained leaders in pharmacy remain. This is due to a lack of pharmacists with leadership experience or knowledge. To address this gap in the pharmacy workforce, leadership must be addressed as a learning objective in all advanced pharmacy practice experiences (APPEs). Often, students are asked to shadow pharmacy leadership scenarios and merely observe problem-solving skills during their APPEs. This method is not adequate leadership training. Our descriptive poster illustrates an effective didactic classroom model and translates our methods into a framework for building leadership experience during APPEs.

Methods: The primary educational objective is for the student to use proven and published leadership concepts to assigned real-life case, then apply this concept and prepare logical and actionable solutions supported by state and federal law. The actual solution chosen by the student to solve the case is secondary to the primary benefit of selecting appropriate leadership style and correctly applying it to solve the case. To achieve this educational objective, real-life management case simulations are presented as assignments for students to collaboratively solve in small workgroups. Instructions are provided to enable students to hand in their proposed solutions which the instructor can assess and discuss with the workgroups. This method of leadership learning in the classroom has been shown effective through student feedback as outlined in the results section below. To export our classroom learning technique to APPE clinical rotations, this poster outlines a descriptive method for translating preceptor management and leadership experiences into a case that can be solved and discussed between student and preceptor. By following this process, APPE students will receive additional exposure to leadership challenges and in so doing, better prepare them to apply proven leadership techniques in their future practices. The benefit of the proposed methodology is to

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prepare the next generation of pharmacy practitioners to skillfully apply leadership techniques and to competently address frequently encountered managerial and operational problems.

Results: The following data is from the didactic curriculum assessing greater than 600 students over a period of 6 semesters. The overall results are projected to be analogous when this methodology is applied to advanced pharmacy practice experiences. From Fall 2015 term to Spring 2018 term, students were surveyed on the effectiveness of the process. The areas surveyed included: (1) preparedness to handle issues in operational management, (2) principles of planning, (3) implementing legal regulatory compliance into solving the problem, and (4) students' perceptions of applicability to their future practices. Of the students assessed, greater than 75% felt prepared to handle issues in operational management, 73% felt better prepared to handle principles of planning, 78% affirmed that the cases were effective in teaching legal and regulatory compliance and most affirmed satisfaction with the assignment. Overall, students were assessed by faculty as being better prepared for effectively resolving common operational and leadership challenges that occur in almost every pharmacy at one point or another.

Conclusion: A critical pharmacist leader/manager shortage is approaching. The need for the pharmacy profession to add leadership/management training in APPE rotations is evident. This leadership training framework can be quickly and easily implemented by preceptors in the students' APPE rotations to develop capable leaders for the next generation of pharmacy practitioners.

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Poster Title: The most efficient way to select the best candidates during an interview

Poster Type: Descriptive Report

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Purpose: At the conclusion of the 2018 ASHP Pharmacy Residents Match result, obtaining a PGY1 Residency continues to be competitive. There were 6157 graduating pharmacy students and new practitioners, but only 4853 PGY1 and PGY2 positions were available. Trying to get into a residency is very competitive and selecting the best residency applicants is not easy. Most applicants have a full resume: good grades, good qualifications, and are actively involved in pharmacy organizations, committees and volunteer work. How can one choose the best applicants? At Temple University Hospital, we found the most efficient way to select the candidates.

Methods: The residency steering committee decides to interview 20 candidates in 5 days. A poll is sent to our clinical specialists to ask for their availabilities from noon to 4pm in the first 3 weeks of February. We need 8 interviewers on each interview day and one alternate interviewer in case an appointed interviewer cannot make it. These 9 interviewers will be the same persons doing all 5 interviews. Clinical specialists will review all residency application materials and assign each candidate an assessment score. The scores are based on their grades, letters of intent, references, leadership, achievement and professional experience. We select the top 20 candidates based upon the scores and clinical specialists' recommendation. The current residents will set up the interview dates. An interview group will consist of 4 applicants. During the interview, one resident will give a hospital tour. All clinical specialists, residents and pharmacy administrators will have lunch with the candidates and answer any questions. After lunch, the staff will give feedback to the Residency Director (RPD). In the afternoon, candidates will be divided into 4 different interview groups with 2 interviewers in each group. Each candidate will rotate to a different session. At the end of the day, interviewers and the RPD will meet and discuss about and rank the candidates. The interviewing cycle will repeat on the 2nd through 5th days.

Results: The candidates will be ranked at the end of each interview day. One the first day, we rank 4 candidates; second day, 8 candidates; and third day, 12 candidates. By the end of 5th

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day, we will rank all 20 candidates. We do the ranking at the end of each interview so that we can make a fresh decision. Only the interviewers have the authority to vote. The other clinical specialists have no say in the selection process. Five candidates will be selected and submitted to ASHP Matching Program.

Conclusion: For our PGY1 residency program for 2018-19, we had 107 applicants fill 5 positions. All 5 candidates are matched in phase 1. Our laid out selection method and concerted effort make the most efficient way to select the best candidates during an interview.

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Poster Title: Demonstrating the value of political advocacy using the 30-day burpee challenge

Poster Type: Descriptive Report

Primary Author: Melinda (Mindy) Burnworth; Midwestern University College of Pharmacy-Glendale; **Email:** mburnw@midwestern.edu

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Purpose: Involvement in the advocacy (political) process is a professional's responsibility, a key vehicle to improve patient care, and has a direct impact on future pharmacy practice. This project was designed to illustrate the value of adding advocacy into any pharmacy learning experience, how it is manageable by starting out small and building up, and with a little dedicated time has exponential results.

Methods: Initially, viewers of the poster will be asked to share an elevator speech — a 30 to 60 second introduction that explains their passion for or against burpees, perceived baseline fitness level, and exercise goals suggested by guidelines — with poster presenters. This “ice-breaker” will bridge the concepts of exercise to advocacy, demonstrating the ease and value of adding new techniques to a standard routine.

Then, using the 30-day challenge concept, advocacy experts will illustrate an easy-to-incorporate method of adding advocacy activities into any learning experience. Using key visuals and side-by-side comparisons (bridging burpees to advocacy), presenters will illustrate the value-added to rotations by incorporating advocacy techniques related to promotion of pharmacists as providers who improve patient care, methods of advocacy, and stages of advocacy (beginner, intermediate, advanced). To streamline implementation, advocacy resources and a sample 30-day rotation calendar with suggested activities to incorporate throughout the experience that teach and allow for advocacy in action will be provided. Activities will include role-playing various advocacy scenarios and developing talking points to prepare for appointments with congressional offices.

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Finally, viewers will be asked to prepare and rehearse a 30 to 60 second elevator speech to share with congressional staff that justifies how pharmacists improve patient care, the value-added of pharmacists to the health care team, and why pharmacists should be recognized as providers.

Results: Similar to starting a new exercise routine that includes burpees, with effort and dedication amazing weight-loss and toning results will be evident. Promoting advocacy and the profession may seem challenging in the beginning but with incremental purposeful steps, advancement of pharmacists providing outstanding patient care will result.

All poster viewers will be asked to take the “30-day advocacy challenge” and will receive a certificate of commitment to incorporate advocacy into learning experiences that may be displayed at their own practice site. Programs will be encouraged to share their “before and after” 30-day challenge experiences with fellow preceptors with hopes of inspiring pharmacy professionals and programs to see advocacy as part of their professional commitment to care for patients and spark career-long dedication to political involvement and giving. Thus, demonstrating the value of advocacy through exercise.

Conclusion: As a preceptor who strives for a more engaging rotation experience and a desire to ensure that patients have access to the valuable services that pharmacists provide, it is necessary to add advocacy to the learning experience. Just as exercise regimens, boot camps, and CrossFit gyms across the nation regularly incorporate burpees in daily workout routines; preceptors should include advocacy in learning experiences.

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Poster Title: Development and implementation of a questionnaire to assess participant perceptions of a pharmacy residency teaching certificate program at an academic medical center

Poster Type: Evaluative Study

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Purpose: The purpose of this quality improvement project was to develop a questionnaire for pharmacists who completed pharmacy residency training programs with University of Utah Health and also participated in our teaching certificate program. The questionnaire assessed the usefulness of the teaching certificate requirements and whether graduates have used teaching skills learned in the certificate program in their current positions.

Methods: At University of Utah Health, a teaching certificate program has been offered to pharmacy residents since 2009. This program offers structured requirements to obtain experience in didactic and experiential teaching areas. Individuals completing all requirements earn a teaching certificate. A questionnaire was developed by the study investigators who are members of the preceptor development and teaching certificate committee for the University of Utah Health pharmacy department. The questionnaire consisted of 9 multiple-choice questions, 14 Likert-scale questions, and 3 free-text questions. Collected data included demographics of the respondents, current teaching opportunities, time to completion of the teaching certificate program, and perceptions of the teaching certificate program when it was completed. The questionnaire was sent electronically via e-mail to 111 past resident graduates of the pharmacy residency programs. The questionnaire was opened for a two-week time frame in May 2018. The e-mail to participants contained a cover letter and a link to the questionnaire supported by online-based research software (Qualtrics, Provo, UT). All recorded responses were anonymous. Descriptive statistics of the results were performed. Free-text questions were analyzed qualitatively using thematic analysis by the primary investigator and co-investigators to identify emergent themes. The collected information will be used to assess and improve the teaching certificate program for future participants.

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Results: A total of 52 respondents initiated the survey (response rate 47%). Of total responses, 26 completed a post-graduate year one (PGY1) program, 34 completed a post-graduate year two (PGY2) program, and 4 completed a combination year one and two administration program. Currently, 65% reported positions as ambulatory or inpatient clinical pharmacists, 13% as faculty/adjunct faculty, and 10% as management positions. Most who did complete our teaching certificate program did so during a PGY1 program (60%) and completed the program in one year (92%). About 16% of responses reported currently precepting rotation students, 17% precept residents, and 18% precept students and residents outside of traditional learning experiences (eg, health fairs or as project mentors). Additionally, 13% provide staff in-services, 13% lead small-group discussions, and 12% give formal lectures. About 89% of respondents felt the expectations of the teaching certificate program were appropriate for completion in one year.

Respondents felt the most beneficial requirements of the program were preparing and presenting a formal didactic or continuing education lecture and precepting a pharmacy student. Respondents suggested offering more opportunities for longitudinal student precepting and leading more small-group discussions. Common recommendations included requiring less reflective journaling and offering mentorship from current faculty members.

Conclusion: Questionnaire respondents felt the expectations of our institution's certificate program were reasonable to complete in a one-year residency program. Requirements related to lecturing and precepting pharmacy students were the most beneficial. The institution will use the information from this questionnaire to improve the program for future participants.

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Poster Title: Creating a common goal for Kentucky: A novel statewide approach to enhance the development and expansion of residency programs.

Poster Type: Descriptive Report

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Purpose: The Kentucky Pharmacy Residency Network (KPRN), a once independent group of Residency Program Directors (RPDs), preceptors and residents from across Kentucky, formalized their affiliation with the Kentucky Society of Health Systems Pharmacists (KSHP) in 2015 in order to better support the development and expansion of residency programs in the Commonwealth of Kentucky. The purpose of this project is to share successful aspects of the affiliation, including the expansion of KPRN, in order to serve as a model for other statewide programs.

Methods: KSHP recognized the importance of affiliation with KPRN by modifying the Society's bylaws and organizational structure to include the chairperson of KPRN as a member of the KSHP Board of Directors. KPRN established a leadership group to include RPDs, preceptors, and residents to create a vision, mission and strategic plan for KPRN. Through this work, KPRN generated focused objectives to align initiatives and resources that mutually benefit both KPRN and KSHP. Through monthly meetings and a focused needs assessment of the KPRN membership, objectives were identified and prioritized. The initial efforts of the affiliation focused on an annual statewide meeting solely related to residency training along with diverse and structured delivery of education dedicated to preceptor development. These two objectives were prioritized in order to improve preceptor skills and allow opportunities for achievement of ASHP residency accreditation standards, including providing qualified preceptors (Standard 2.5), evaluation (Standard 3.4) and preceptor responsibilities (Standard 4.7) for both new and established residency programs. In addition, two previously separate residency showcases held at each college of pharmacy were consolidated into a single statewide residency showcase hosted by KSHP each fall. At the annual statewide KPRN Summer

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meeting, a business session is conducted to collect member input on the KPRN strategic plan and objectives. The strategic vision and objectives of KPRN are incorporated into the KSHP strategic plan.

Results: The Kentucky Pharmacy Residency Network’s vision is for the Commonwealth of Kentucky to be recognized as a pioneer and leader in diverse post graduate training opportunities; with a mission to provide opportunities for networking, learning, and development of residency programs, program directors, preceptors, residents, and students from across the Commonwealth of Kentucky. Thus far, KPRN and KSHP have received positive feedback from members on current efforts as a result of affiliation. Collaboration between KPRN and KSHP has provided KPRN with a reliable platform to perform and expand its mission.

Conclusion: KPRN, with the support of KSHP, is implementing a novel affiliation agreement to advance, support and expand residency preceptor development and residency programs within Kentucky.

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Poster Title: Implementing a layered learning practice model for a pharmacist-managed outpatient clinic in a community hospital

Poster Type: Evaluative Study

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Purpose: Layered learning practice model (LLPM) is an innovative approach developed to expand patient care and learners' experiences by creating teams consisting of an attending pharmacy preceptor, pharmacy residents, and advanced pharmacy practice experience (APPE) rotation students. Florida Hospital Celebration Health (FHCH) Clinical Pharmacy Services (CPS) department implemented a LLPM starting July 2016 to better integrate the four preceptor roles (direct instruction, modeling, coaching, facilitation) into the daily workflow of the clinic. It was anticipated that the LLPM would improve team satisfaction and the feedback and evaluation process.

Methods: In the years prior to LLPM implementation, the traditional learning model was utilized. APPE students from multiple schools of pharmacy were assigned to an ambulatory care rotation at FHCH. When providing patient care, students would work with all available preceptors and residents, usually presenting patient cases to the first available pharmacist. While this provided the students with the ability to observe a variety of teaching and practice styles, it led to inconsistency in evaluations and student professional growth. Additionally, it inhibited teaching experience for the pharmacy residents. As part of an ongoing process improvement, it was determined that students could be better utilized as pharmacist extenders, and pharmacy residents could be more involved in teaching during the daily clinic workflow. For these reasons, a LLPM was implemented in July 2016. In this new model, teams typically consist of one attending pharmacy preceptor, one pharmacy resident, and one or two pharmacy students as available. Students have the same schedule as the rest of their team and work together to provide patient care in each clinic. An electronic, anonymous survey was conducted in June 2017 to assess satisfaction and obtain feedback from students, CPS preceptors, and PGY1 residents who participated in the LLPM.

Results: Surveys were emailed to 21 APPE students and 15 responses were received. On average, students had completed approximately seven APPE rotations at the time the survey

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was conducted. Fifty-three percent of students reported they had no other rotations utilizing the LLPM. The remaining reported only one to three rotations utilizing a LLPM out of a possible 11. Satisfaction scores were high with the LLPM (86.7 percent, very satisfied) as compared to the traditional model (20 percent, very satisfied). One hundred percent of student respondents reported they received more frequent feedback with the LLPM. Some of the perceived benefits by students included working one-on-one with a preceptor or resident, increased patient care exposure, and improved autonomy. Some of the perceived weaknesses by students included lack of variety in teaching styles, personality conflicts, and scheduling variability. Additionally, surveys were sent to and completed by 11 current CPS preceptors and PGY1 residents to assess their satisfaction with the recently implemented LLPM. All respondents reported satisfaction with this model.

Conclusion: Implementation of a LLPM was found to be satisfactory to CPS preceptors, PGY1 residents, and APPE students. LLPM benefits both the learner and the teacher through integration of the four preceptor roles into the daily workflow. Additionally, having learners and teachers work side by side seemed to improve the process of feedback and evaluation. Feedback is given more frequently and at the time the event occurs, and the teacher can observe the progression of the learner over the course of the rotation.

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Poster Title: Incorporating designated time for clinical topic discussions into weekly resident meetings

Poster Type: Descriptive Report

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Purpose: Developing a knowledge base suitable for practicing as a clinical pharmacist takes dedication to learning and reviewing evidence-based material. As the VA Black Hills Health Care System Post Graduate Year 1 pharmacy residency program has evolved, residents have requested more devoted time for clinical topic discussions. However, scheduling a convenient time for both preceptors and residents was challenging. The residency program already conducts weekly Thursday morning discussions with residents and preceptors. Historically, topics discussed during this meeting emphasized professional development, leadership, and residency specific requirements. The 2016-2017 resident class suggested incorporating clinical topic discussions into the weekly residency meetings.

Methods: The residency program revised the schedule to include more clinical topic discussions that would take place during these weekly meetings. A wide variety of new topics were added to the schedule that included core disease states managed in ambulatory care, anticoagulation, and the geriatric population. Additionally, more specialized topics such as oncology and liver disease were also discussed.

Results: Based on resident feedback, the program was able to incorporate more designated time for clinical topic discussions by specifically scheduling them into Thursday morning meetings. During the 2014-2015 residency year, there were no clinical topic discussions during the Thursday morning meetings. This number has progressed over the years. During the 2017-2018 residency year, there were 13 clinical discussion sessions added to the schedule. This new implementation was deemed successful as the 2017-2018 residents felt that the amount of clinical topic discussions was ideal.

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Conclusion: The residency program was able to successfully implement resident feedback for more clinical topic discussions. Therefore, VA Black Hills Health Care System will continue to schedule time for topic discussions during the Thursday morning meetings in the future.

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Poster Title: Limited resources: maximizing student experience in a rural clinic via multidisciplinary team

Poster Type: Descriptive Report

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Purpose: Faculty guided ambulatory advanced pharmacy practice experiences are challenging as most ambulatory faculty are in clinic less than fifty percent of the week. Pharmacy student learners are often assigned a single preceptor for ambulatory experiences with forty-hour week expectations. Some faculty are able to partner and introduce students to multiple sites or have sites with multiple preceptors. In rural clinic settings, there is often only one pharmacist to act as preceptor with site access limitations. This rural, ambulatory clinical experience was designed to maximize exposure to clinic practice through integration of various disciplines and planned activities.

Methods: Student pharmacists are assigned either solo or in pairs, so the experience design requires accommodation of more than one learner. The clinical pharmacy faculty member assigned to this rural site attends practice two days weekly. Recognizing this would not provide a well-rounded experience with ample direct patient exposure, it was decided to integrate other disciplines since partnering with another faculty member was not feasible. Two days a week, a post-graduate year two ambulatory pharmacy resident was at the rural clinic site. This allowed for tiered-layered mentoring, as one day overlapped with the faculty member and the second served as an independent preceptorship day for the resident. The remaining two days were balanced between oversight from the nurse manager and physicians who would incorporate the students into patient evaluations with medical students (creating a interdisciplinary layered model) and finally a secondary site where ambulatory pharmacy students and residents pooled to discuss coordinated topics for disease state management in an ambulatory arena.

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Results: This model has been met with positive student feedback largely due to the varied arrangement. Students will have four to five days of direct patient interaction, allowing mastery of communication skills, pharmaceutical care plan practice, and an appreciation for varied roles for ambulatory clinical pharmacy sustainability and success. During the time with the faculty member and resident, focus is placed on pharmaceutical management, barriers to medication access and adherence, and hybrid model billing accompanied with documentation. During the time with the nurse manager, focus is placed on medication assistance, report interpretation, outreach for optimization of patient access, and appropriate methods for sharing of collected data. Time with the physicians is valuable for students pharmacists to observe various approaches between disciplines and to embrace the importance of teamwork for self-learning. This is the final and key benefit to this model.

Conclusion: This model optimizes pharmacy learners' experiences, particularly when access to faculty members and practice sites are limited. Partnering within the clinic to devise a sustainable model for student experience is essential to faculty balance. Additionally, the varied experience obtained on both sides of the relationship has added value beyond traditional models. Due to the limited availability in rural clinic settings, this model fills a gap in maintaining meaningful clinical ambulatory advanced pharmacy practice experiences.

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Poster Title: Assessing an overnight rotation for advance pharmacy practice experience (APPE) students

Poster Type: Descriptive Report

Primary Author: Kathryn Derrig; Hershey Medical Center; **Email:** krderrig@gmail.com

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Purpose: There are many diverse advanced pharmacy practice experience (APPE) rotations a pharmacy student can choose from across the United States. However, there are few overnight rotations for pharmacy students to experience and therefore, the evaluation of an overnight shift for APPE students is lacking. Because of this, an assessment of an overnight shift rotation is needed.

Methods: The assessment of this overnight shift was conducted in the emergency department at an academic medical center. A survey was created by an emergency medicine pharmacist to assess the student prior to as well as after an overnight rotation. The survey consisted of a series of questions asking the student's perception of an overnight shift, what they expect, and strengths and weaknesses they anticipate. The student was asked what improvements could be made to enhance this type of rotation. Due to lack of overnight staffing, the student switched between overnight and evening shifts in the emergency department.

Results: During the 2017-2018 APPE student rotation year, one student was able to experience an overnight shift and complete the surveys. For the pre-rotation survey, the student had never experienced an overnight shift and was unsure what to expect. Difficulties the student expressed were the schedule and the ability to think quickly. Strengths the student endorsed were interactions with both patients and the patient care team. After experiencing this rotation, the student did not expect the department to slow down as it did in the middle of the night. The student also stated that she had a difficult time with patient cases due to the lack of time spent with patients in the emergency department. Improvements that were suggested were better communication between preceptors and a more consistent schedule.

Conclusion: This assessment showed that an overnight shift maybe be a new beneficial experience for APPE students. There are improvements that can be made to further this unique rotation and will be implemented at the institution. There needs to be more research on

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students' experiences on night shift to determine if this type of rotation is valuable for APPE students.

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Poster Title: Implementation of the student pharmacists acquiring relevant knowledge and skills (SPARKS) program in an academic medical center

Poster Type: Descriptive Report

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Purpose: Historically, student pharmacists employed within a health-system served in operational roles, primarily consisting of medication preparation and delivery. The Student Pharmacists Acquiring Relevant Knowledge and Skills (SPARKS) program was created to broaden the learning experiences offered to student pharmacists employed as pharmacy technicians. Additional responsibilities and educational opportunities were provided to students to develop professional skills, enhance understanding of the pharmacist's role and heighten awareness of potential careers in health-system pharmacy. The program includes four pillars: operational responsibilities, clinical duties, scholarly activities, and structured mentorship. Furthermore, many activities meet the criteria of core entrustable professional activities (EPAs) for new graduates.

Methods: Implementation of the SPARKS program involved a standardized approach to train and develop ten student pharmacists, enrolled in either their second or third professional year. Students were trained in the operational responsibilities of the pharmacy technician position. Once proficient in this role, students completed training as pharmacist extenders for defined clinical activities, such as medication reconciliation and patient education for high-risk medications. Additional clinical opportunities included working with pharmacists to review patients receiving warfarin, vancomycin, and total parenteral nutrition and answering drug information questions and inquiries regarding IV compatibility. Students also engaged in scholarly activities by presenting a clinical pearl to the pharmacist and technician staff and working on medication safety or operational projects. Ten clinical pharmacists were integrated into the program to serve as mentors and provide assistance and support while students fulfilled their operational, clinical, and scholarly responsibilities.

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SPARKS students were administered a knowledge assessment prior to receiving the clinical activity training and again after six months of performing clinical activities. To serve as a comparison, the knowledge assessment was administered once to a control group of ten non-SPARKS, fourth year students during their first Advance Pharmacy Practice Experience (APPE) rotation at our institution. After performing six months of clinical activities, SPARKS students were also invited to complete an anonymous survey regarding the training associated with the SPARKS program.

Results: The mean difference between pre and post-clinical test scores for the SPARKS participants (N equals 10) was 23 percent (61.5 percent to 84.5 percent, P equals 0.0002). The mean difference between the clinical test scores for the SPARKS students (N equals 10) and APPE students (N equals 10) was 12.5 percent (84.5 percent to 72 percent, P equals 0.02). All students presented a clinical pearl to the pharmacy staff and seven students are working on projects, with plans to submit an abstract for poster presentation at a national conference. Seven students responded to the post-clinical, anonymous training survey. All seven students reported they were clearly informed about the expectations of the SPARKS program and received significant feedback from the pharmacists. Furthermore, five students felt sufficiently prepared to perform the clinical responsibilities while two felt very well prepared. The students indicated the initial shadowing of the medication history technicians and ongoing guidance and feedback from the pharmacists mentors were most helpful.

Conclusion: The SPARKS program is valuable in developing the knowledge base and clinical skills of student pharmacists employed as pharmacy technicians. Students gained early exposure to activities they may not otherwise complete until their APPE year, thereby increasing their self-confidence and developing their clinical, communication, and presentation skills. These skills will assist them in their future APPE rotations, pursuit of pharmacy residencies, and, potentially, a career in health-system pharmacy. Furthermore, the experiences and mentorship offered through the SPARKS program enhanced the overall quality of their employment experience.

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Poster Title: Maximizing quality and quantity of experiential sites through LEOs

Poster Type: Descriptive Report

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Purpose: A novel approach was introduced to gather data from both students and preceptors via the use of Liaisons for Experiential Outreach (LEOs). Data gathered from LEOs are utilized to enhance experiential education at Pacific University School of Pharmacy and facilitate quality assurance of sites.

Methods: LEOs are pharmacists who serve as liaisons and goodwill ambassadors for the School of Pharmacy Office of Experiential Education (OEE), and practicing pharmacists. They visit experiential sites as assigned and meet individually with preceptors and students to provide training, and assess quality of the educational experiences provided by the preceptor and site. LEOs provide continuous quality improvement, expansion of existing sites, and recruitment of new sites for introductory and advanced pharmacy practice experiences. They also support the OEE in areas of practitioner collaboration (e.g. Preceptor Advisory Board) and disseminate general information on School and Experiential programming to members of the pharmacy community.

Results: Data gathered from LEOs are inputted in E*Value, an online platform system to leverage aspects of experiential learning. Data gathered from site visits include but are not limited to: quality of pharmacy, preceptor and student information. These results yielded information that increased education in preceptors and students, increased more information in our office of experiential education, and more importantly, optimized student placement in their experiential sites.

Conclusion: Achieving high quality experiential sites is critical for the future of pharmacy practice. LEOs help strengthen existing relationships and foster new ones between the School of Pharmacy and the Community. This, in turn, helps build long-lasting connections with students, preceptors, and the School.

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Poster Title: Development of a perioperative advanced pharmacy practice experience (APPE) with a focus on interprofessional collaboration

Poster Type: Descriptive Report

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Purpose: Working as a part of an interprofessional team is an integral part of pharmacy student education. Perioperative care is an underrepresented setting for pharmacy students as well as an area of opportunity for interprofessional collaboration. Therefore, the development of a perioperative advanced pharmacy practice experience (APPE) was undertaken as a way to facilitate education of perioperative pharmaceutical care and a multidisciplinary approach to patient care.

Methods: Three perioperative clinical pharmacy specialists developed a one week rotation in the perioperative setting as part of a hospital practice APPE. This one week rotation was then extrapolated to create a six week APPE in perioperative pharmaceutical care. A rotation syllabus was developed and approved by pharmacy management and the hospital site pharmacy student coordinator. The rotation syllabus was then presented to area colleges of pharmacy and accepted as an elective rotation option for APPE pharmacy students. To ensure interprofessional collaboration, pharmacists worked with members of anesthesia, surgery, nursing, and perfusion to establish a plan for successful partnership and a positive educational experience.

Results: Five APPE students were enrolled in the six week rotation from January 2017 to April 2018. Each student was offered the opportunity to spend one to two weeks working with members of different perioperative disciplines. All five students successfully completed the rotation and corresponding pharmacy preceptor and site assessments. Assessments and feedback from both the pharmacy students and members of the other disciplines were positive and encouraged the continuation of the practice experience.

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Conclusion: This experience prepared student pharmacists to practice as a clinical pharmacist in a perioperative setting as an integral member of a multidisciplinary team.

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Poster Title: Student performance on required advanced pharmacy practice experiences (APPEs) using outcomes derived from the entrustable professional activities (EPAs)

Poster Type: Descriptive Report

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Purpose: Core Entrustable Professional Activities for New Pharmacy Graduates were published in 2017 by a task force created by the American Association of Colleges of Pharmacy (AACP). The EPAs serve as a guide to define the activities an entry level pharmacist should be able to complete. The college of pharmacy recreated all APPE learning outcomes and evaluations for required APPE rotations to include the six domains and 15 EPA statements.

The purpose of this educational research was to measure student performance on EPA mapped learning outcomes during core required APPE (Adult Acute Care, Ambulatory Care, Institutional, and Advanced Community) rotations.

Methods: A robust experiential curriculum map was designed including experiential learning outcomes and assessment forms integrating the Accreditation Council on Pharmacy Education (ACPE) Standards 2016, Center for Advancement of Pharmacy Education (CAPE) Outcomes 2013, Joint Commission of Pharmacy Practice 2014 Pharmacist Patient Care Process (PPCP) Wheel, and AACP 2017 EPAs for New Pharmacy Graduates, incorporating the 15 Core EPA statements and over 60 examples of performance-based tasks for the Patient Care Provider, Interprofessional Team Member, Population Health Promoter, Information Master, Practice Manager, and Self-developer EPA domains.

Preceptors evaluated student performance completing online evaluations at the mid-point (three weeks in) and final (at the culmination of six weeks) of all APPEs. Identical assessment forms for mid-point and final evaluations included 10 professionalism and 19 general learning outcomes with example activities. The assessment rubric was a five point Likert scale where 5 = student is able to achieve this outcome and exceeds expectations in this area, 4 = student is able to achieve this outcome without assistance, 3 = student displays satisfactory progress toward achieving this outcome, 2 = student cannot achieve this outcome without significant assistance, and 1 = student is unable to achieve this outcome. Students who received scores less than 3 on the final assessment, received a no pass for the rotation.

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A retrospective data analysis of student evaluation scores was compiled and evaluated using descriptive statistics.

Results: A total of 956 evaluations for 239 of students were collected and reviewed during the 2017-2018 academic year. Overall, results showed that students met learning outcomes on all four required APPEs (averages of 4.00-4.67 on a 5.00-point scale). Variations in achievement of scores in practice settings were reported. Students achieved the highest scores for individual learning outcomes most during Ambulatory Care (4.51 average), followed by Advanced Community (4.32 average), with Adult Acute Care (4.27), and Institutional (4.28) APPEs extremely close. Adult Acute Care student scores related to the minimization of adverse drug events and medication errors were lower than all other APPEs and achievement of EPA: collaborate as a member of an inter-professional team was greatest on Ambulatory Care APPEs. Overseeing pharmacy operations scored lowest overall for all rotation types.

Conclusion: Utilizing EPAs in APPE learning outcomes and assessment forms allowed for evaluation of student progression of EPA derived learning outcomes rotation was evaluated. Variations between student performances across these rotations was observed with an overall higher level of achievement noted during Ambulatory Care APPEs.

A more thorough analysis of confounding factors affecting student performance including timing of the rotation, site and preceptor variation and student pre-APPE readiness will be completed in future research projects.

Future academic years will incorporate trust statements into the assessment scale rubric.

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Poster Title: Needs assessment for PGY1 preceptors' professional development:

Poster Type: Evaluative Study

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Purpose: To ensure excellence in experiential programs, it is important to invest in preceptors' professional development. As per the current evidence, there isn't enough data or well-constructed guides to aid professional development for residency preceptors. This survey was conducted to measure the competency of PGY1 pharmacy residency preceptors in Hamad Medical Corporation, Qatar, which is ASHP accredited.

Methods: A comprehensive literature review was conducted and translated to a preceptor development assessment rubric. The rubric was then depicted in a form of survey to measure the confidence and proficiency of preceptors. The survey consisted of 16 questions focusing on: being a pharmacy role model, teaching skills and models, communication, professionalism, research and others.

Results: The survey included 16 questions for self-assessment. Emails were sent to 18 preceptors with a 94% response rate.

Preceptors showed high confidence in being pharmacy role models, being able to motivate residents, demonstrate enthusiasm and providing support. . However, there was a deficiency in being able to transition between different teaching models such as coaching and facilitating. Preceptors reported that they require improvement in teaching management skills, time management and critical conversation.

Conclusion: On a global level, preceptor development requires significant improvement especially for pharmacy residency programs

In HMC, there are multiple areas for improvement such as: teaching strategies, writing feedback and presentation skills which will be addressed by designing a structured development program.

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Poster Title: Fostering interprofessional education (IPE) in a non-teaching community hospital

Poster Type: Descriptive Report

Primary Author: Rebecca Margevicius; Southwest General; **Email:**
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Sandra Harris

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Purpose: Ohio colleges of pharmacy curriculum goal: Every student to have at least one rotation with IPE and several experiences of IPC by 2019-2020 year
IPE will be tracked and a part of mandatory hours by 2018-2019 year per ACPE (ref ACPE Standard 11)

Prepare nursing and pharmacy students by deliberately working together and improving team-based training with the common goal of building a safer and higher quality healthcare system
Evaluate the impact of IPE using SPICE-R2 Survey on interprofessional teamwork and team based practice, roles and responsibilities for collaborative practice, and patient outcomes from collaborative practice

Methods: Collaboration between Southwest General pharmacy students and Baldwin Wallace nursing students

Four-week rotation involving 4-6 pharmacy students and 5-6 nursing students

Week 1: Administer PRE SPICE-R, Orientation, 30 minute presentation and ice-breaker, Assign nursing-pharmacy teams 1:1 or 1:2

Week 2: Rounding and group patient discussion, Alternate pharmacy lead and nursing leading discussion

Week 3: Rounding and group patient discussion, Case study, provided 1 week in advance to students

Week 4: Rounding and group patient discussion, Administer POST SPICE-R
PICOT Question (Problem, Intervention, Comparison, Outcome, Timeframe)

P: Deficiency of Pharmacy and Nursing student interdisciplinary education

I: Pharmacy/Nursing student educational intervention in rounding & case studies

C: Pre and post SPICE-R2 Survey

O: Enhanced interdisciplinary communication, consultation, and respect

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T: Monthly (New cohort every 4 weeks) , Phase I: November 2017 – April 2018
IRB approved

Results: SPICE-R Survey: The Student Perceptions of Interprofessional Clinical Education - Revised

10 questions using a Likert scale on 3 factors

Administered pre and post collaboration

Pharmacy n=18 / Nursing n=20

3 factors evaluated in addition to total change in SPICE-R survey

nursing change +9%, pharmacy change +10.9%

Teamwork and Team Based Practice

nursing change +6.6%, pharmacy change +13.5%

Roles and Responsibilities for Collaborative Practice

nursing change +15.1%, pharmacy change +13%

Patient Outcomes from Collaborative Practice

nursing change 6.9%, pharmacy change +5.3%

(reported with mean and standard deviation on poster)

Conclusion: Drastic change in roles and responsibilities for collaborative practice in both nursing and pharmacy students. All positive increase in all areas of IPE.

Limitations:

Identifying clinical rotations to incorporate IPE

Lack of understanding of opposite discipline curriculum

Knowledge and clinical skill difference of students early in their program versus nearing graduation

Handling repeat students

Not set criteria for learning objectives

Future direction:

Incorporate simulation manikin into case presentations

Faculty survey on changed perceptions

Award students with IPE certificate upon completion

Include student narrative in post survey

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Poster Title: Resident pharmacist “boot camp” develops skills in precepting pharmacy students

Poster Type: Descriptive Report

Primary Author: Terri Marxen; The Valley Hospital; **Email:** tmarxen@valleyhealth.com

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Sasha Falbaum

Maria Leibfried

Purpose: Resident pharmacists are on the learning side of the four preceptor roles throughout their residency. A goal of the longitudinal education experience is for residents to serve as an educator for pharmacy students. We describe a process utilizing the four preceptor roles and a five day activity with the students to train the residents on the foundation for being a preceptor in a non-teaching hospital.

Methods: Residents are introduced to the four preceptor roles at orientation. Throughout the year, preceptors utilize the four preceptor roles in the education and training of the residents for patient care and non-patient care rotations. To have the residents practice the four roles, a precepting “boot camp” was developed where, during their internal medicine or ambulatory care rotation, the resident selected a patient care activity in which they were competent and developed a teaching plan utilizing the four preceptor roles to teach the patient care activity to the Advanced Pharmacy Practice Experience (APPE) students over one week. Residents designed each element of the four roles, which were discussed and approved by the preceptor prior to implementation. Instruction included articles to read, pre-assessment, and discussion. Modeling included the students observing the resident performing the tasks. Coaching included the students performing the task under guidance of the resident. Facilitating included the students performing the task independently, and reporting back to the resident. The goal for all students was to have them participate in all four roles, including working independently (facilitating). Students were evaluated by the resident through direct observation and discussion. Residents reflected on the activity at the end of the experience.

Results: All three residents participated in this process and chose at least one activity: medication reconciliation in the emergency department (ED), medication review of myocardial infarction (MI) patients, medication reconciliation in the heart failure (HF) clinic, and education for chronic obstructive pulmonary disease (COPD) inpatients. Eleven students participated: 3 for medication reconciliation in the ED, 3 in the medication review of MI patients, 3 in the

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medication reconciliation of HF patients, and 2 in the inpatient COPD medication. Three out of the four activities went through the continuum through facilitation (COPD patients reached coaching for one student and modeling for one student). Residents found the activity rewarding and engaging. They began to see themselves as leaders and gained a new appreciation of the amount of time and planning that goes in to precepting, developing activities, and giving feedback. They also discovered that students at different levels require different levels of education and guidance.

Conclusion: During the one week precepting “boot camp,” residents were able to practice the four preceptor roles, develop and implement learning activities, and give students feedback. Due to the success of the process, it will be continued.

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Poster Title: Growing pharmacy practice research with students: A layered learning approach

Poster Type: Descriptive Report

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Additional Authors:

Purpose: Pharmacy practice research examines its impact on health care systems, medication use, and patient care. Sharing identified strong practices, challenges, and successes via posters and publications is vital to progressing pharmacy practice as the profession continues strengthen the pharmacists role on the health care team. Leveraging students to assist with the research process is mutually beneficial as those seeking post-graduate training pursue opportunities to obtain a competitive edge for residency programs. This project is designed to grow publications in practice research among students seeking residency using a layered learning approach.

Methods: The dean of experiential affairs at the Medical University of South Carolina (MUSC) College of Pharmacy and the student liaison at the Ralph H. Johnson Veterans Affairs Medical Center (RHJ VA MC) facilitated coordinating students interested in research and preceptors willing to take on the project advisor role. Preceptors submitted project ideas via email to the student liaison who in turn shared the list with the experiential dean. Students interested in residency were given preference and paired with projects based on self-identified interest. Expectations for the student included: access to the VA network, lead author, poster submission and attendance at a pharmacy conference, and project completion outside of rotation hours. Expectations for the preceptor included: facilitation of project proposal submission to VA Research & Development committee and precepting student through all levels of research. Completed posters were primarily presented at ASHP's Midyear Clinical Meeting (MCM) to allow students to document the project for residency applications.

Results: At MCM 2016, zero posters presented by students were precepted by staff at RHJ VAMC while at MCM 2017, 9 posters were accepted and presented by students precepted by 8 staff. Poster topics in 2017 ranged a variety of areas including: dashboard efficiency, USP 800 implementation, direct oral anticoagulants appropriateness, aprepitant use in bariatric surgery, diabetes outcomes in a pharmacist run clinic, secure message communication, access increase

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in primary care, heart failure outcomes, and inpatient antibiotic use. For MCM 2018, 12 preceptors are working with students on 10 research ideas.

Conclusion: The partnership between the college of pharmacy and preceptor practice site created an sustainable model to grow practice research within the pharmacy body of literature.

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Poster Title: Fostering efficiency: Evaluating and restructuring the residency selection system and interview process

Poster Type: Descriptive Report

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Purpose: The resident selection system and interview process can be highly demanding for candidates and the Residency Advisory Committee (RAC). As the number of applications continues to increase, the need for an efficient residency selection and interview process is essential. Our goal was to identify quality resident candidates for onsite interviews, increase efficiency, and minimize interruptions in patient care. The purpose of this quality improvement project is to describe the three-section evaluation process of selecting resident candidates as well as maximizing the onsite interview experience through a block rotation schedule.

Methods: The residency selection system and interview process are evaluated annually by the RAC. The significant components of the application are divided into three- sections; a pre-screening tool (40% of total points), onsite interview (50% of total points), and clinical application (10% of total points). The clinical application includes both a case presentation, drug information response, and medication reconciliation consultation. Candidates are scored by each member of the RAC, and total points are averaged to remove partiality and increase consistency. The onsite interview follows a block rotation schedule in which candidates rotate through the panel interview, resident one-on-one, and clinical applications. A maximum of three-residents are interviewed per session for a total of six candidate interviews per day. Additionally, the onsite interview process includes a program overview and networking luncheon. Onsite candidate interview are completed in two days and followed by a panel discussion. Improvements to the residency selection system and interview process are made annually based on feedback from residents, candidates, and RAC.

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Results: The selection system has been successfully used for the past five years for our PGY1 Community Pharmacy Residency. The pre-screening tool has undergone annual improvements. Changes including increase the percentage weight of categories (ex. academic performance, leadership, research). Additionally, the onsite interview questions were edited to include more behavioral interview questions. Panel members were instructed to keep questions consistent between candidates. The clinical application section has been modified with the implementation of drug information questions and transition of care medication reconciliation consultation. After initiating the block schedule interview process, the total number of days spent on onsite interviews decreased from 6 days to 3 days. Additionally, the number of candidates interviewed per day increased from 2 per day to 6 per day. As a result, members of the RAC were able to attend each interview, and patient care interruptions were minimized.

Conclusion: The three-section evaluation process is an effective tool to incorporate consistency and fairness in candidate evaluations. Furthermore, the block rotation for resident onsite interviews has increased efficiency. The restructuring of the residency selection system and interview process has been well received by our staff and candidates.