Poster Title: Analysis of the nature, frequency, and student preference for topic discussions on advanced pharmacy practice experience (APPE) rotations

Poster Type: Evaluative Study

Primary Author: Regina Arellano, **Organization:** Midwestern University Chicago College of Pharmacy; **Email:** regina.arellano@yahoo.com

Additional Authors:
Jennifer Phillips
Lisa Palmisano
Jaini Patel
Klodiana Myftari

Purpose: Topic discussions (TDs) are often incorporated into the advanced pharmacy practice experience (APPE) rotations and frequently designed to provide an overview or refresher to the student on a particular disease state or clinical topic. Despite the frequent utilization of TDs during APPEs, little is known about the characterization of TDs (e.g., frequency, topics discussed, modalities utilized). In addition, student perceptions about the benefits of TDs are unknown. The primary objective was to characterize TD modalities encountered by students on APPEs. Secondary objectives were to identify student-preferred modality, student preparation time, and students' perceptions of value.

Methods: Fall quarter of 2016, after completion of rotation block 3 of 8, 147 fourth year pharmacy students were invited to complete a 14-question survey regarding their experiences with TDs during APPE rotation block 3. The survey was administered on campus during a mandatory class at the end of the rotation block. Questions included number and length of TDs, topics covered, role of the student, preliminary work/time required to prepare, and the qualifications of the person leading the TD. In addition, students were asked the perceived value of the TD and their preferred modality for learning. Data were analyzed using descriptive statistics. A thematic analysis was used for all free text answers. The t-test and Chi-square or Fisher exact test was used for post-hoc analysis.

Results: Overall, 74.8% (n=110) of students completed the survey with 69.4% (n=75/108) having completed a rotation with a non-faculty preceptor. The most common TD modality encountered by students was a didactic format (53.5%, n=53/99) or hypothetical patient case-based discussion (40.4%, n=40/99). For pre-identified topic areas on the survey, the median number of TDs ranged from 0 ?" 1. The majority of TDs were not associated with an assessment component/grade, 62.5% (n=60/96). Most TDs were small group (1-5 plus preceptor), 56.4% (n=62/110). The median time spent by students preparing for a TD ranged from 30 ?" 180 minutes. The most common activity completed to prepare for TDs was "reviewed readings I sought on my own" (59.1%, n=65/110) followed by "reviewed readings preceptor provided to me prior to the discussion" (53.6%, n=59/110). Eighty percent (64/80) of respondents perceived the didactic format to be useful and 76.8% (53/69) of respondents found hypothetical patient case-based discussion useful. Although a game format was preferred less by respondents, 12.1% (n=12/99), 32% (n=16/50) perceived this format as useful.

Conclusion: This landscape survey found that many non-faculty preceptors are using traditional topic discussion modalities such as didactic and patient case-based formats and students find these formats useful for enhancing learning.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Incorporation of PGY-1 pharmacy residents into a pharmacist-managed culture review service for patients discharged from the emergency department and urgent care centers

Poster Type: Descriptive Report

Primary Author: Samantha Bastow, **Organization:** University of Chicago Medicine; **Email:** samantha.bastow@uchospitals.edu

Additional Authors:
Jeremy Lund
Eileen Shomo
Jamie Kisgen

Purpose: Previous studies have shown the impact of a pharmacist-managed culture review service for patients discharged from the Emergency Department (ED) to promote appropriate outpatient antimicrobial therapy. Starting in the Fall of 2012, a multitude of physician-pharmacist collaborative practice agreements (CPAs) were developed to allow pharmacists to make alterations to empiric antimicrobial therapy as needed. To provide PGY-1 pharmacy residents with additional experience in antimicrobial stewardship and patient education, our institution has included participation in this service as a required component of the longitudinal service commitment on weekends.

Methods: Starting with the 2015-2016 year, residents were trained on the Culture Review Service (CRS) during pharmacy department orientation. Two hours of formalized training was provided; one hour of didactic lecture reviewing established CPAs, and one hour of hands-on, real-time culture review. Beginning in August, residents were assigned to staff in the ED alongside a pharmacy preceptor and to provide CRS support. Resident work was reviewed for accuracy until each resident was deemed competent to provide CRS support independently. For cultures requiring intervention by physicians, residents were encouraged to develop recommendations prior to receiving coaching by the supervising pharmacist. Once credentialed, residents spent the first half of their 8-hour shift in the ED in order to gain exposure to the CRS, and the second half working in central pharmacy. Two residents were slated to staff each weekend day; the first shift beginning at 8AM, and the second beginning at 12PM. The shift coverage structure was selected to correspond with the time of the day the majority of positive cultures are reported by the laboratory service. Residents also provided a wide-range of telephone-based patient counseling including determination of continued symptoms, sexually transmitted infection education, MRSA education, and need for re-evaluation by outpatient providers or emergency medicine personnel. After completion of the each patient's culture review, the resident entered formal documentation in the electronic medical record.

Results: Formative feedback was provided to residents by supervising pharmacists continuously throughout the year related to accuracy of culture review, patient education, provider interaction, and appropriateness of documentation. Cumulative feedback was provided by supervising pharmacists to each resident's Longitudinal Service Preceptor, and formal feedback was provided to each resident as a component of the quarterly Longitudinal Service rotation evaluation verbally and in PharmAcademic.

Additional feedback regarding usefulness of this learning experience was provided by both supervising pharmacists and residents to the ED Clinical Pharmacy Specialist. Alterations to the experience have been made over the course of time as it has evolved. Feedback from supervising pharmacists has focused on alleviating ED workflow and enjoyment of providing additional ED learning experiences to residents. Feedback from residents has centered on improvement in patient counseling skills and making face-to-face recommendations to providers.

Conclusion: Inclusion of PGY-1 residents into a pharmacist-managed culture review service of patients discharged from the ED and UCCs as a component of longitudinal staffing provides residents with beneficial experiences while alleviating workflow for ED pharmacists. Future expansion plans include creation of protocols for different culture sources, optimizing resident staffing hours, and improving introductory training.

Poster Title: Impact of trainees on provider acceptance of clinical recommendations from a formalized drug information service

Poster Type: Evaluative Study

Primary Author: Sara Britnell, **Organization:** Durham VA Health Care System;
Email: sara.britnell@va.gov

Additional Authors:
Sendra Yang
Jamie Brown

Purpose: The growing number of pharmacy students and residents has posed a challenge to preceptors in balancing clinical and precepting duties. The increasing number of trainees also has the potential to create additional opportunities for students and residents to serve in pharmacist-extender roles. The value of utilizing these resources to support pharmacy trainees in a drug information setting is not well established. Thus, the objective of this study was to determine the overall contribution of trainees to formal drug information service through identification of the provider acceptance rate for therapeutic recommendations given by trainees of a formal drug information service.

Methods: This was a retrospective review of responses for drug information requests between May 1, 2015 and April 30, 2016. Each response was reviewed for requestor, researcher, and question characteristics; classification of request; references utilized; and research time invested. Patient chart reviews were then conducted to assess the provider acceptance rate for responses that contained patient-specific therapeutic recommendations. The primary endpoint was the provider acceptance rate, defined as the percentage of therapeutic recommendations accepted and implemented by the provider. Secondary endpoints included trainee contribution to the total number of drug information responses completed and total research time associated with trainee support of the drug information service. Descriptive statistics were used to analyze the data collected.

Results: Out of 112 total drug information questions submitted during the study period, the majority of requests (70.5%) were from pharmacists; mid-level providers and physicians also utilized the drug information service. Of the total number of drug information questions, 64 (57%) were patient-specific requests, with 23 (20.5%) resulting in a therapeutic recommendation by a trainee. Analysis of each trainee therapeutic recommendation identified that 20 (87.0%) of the recommendations were accepted and implemented by the requesting clinician. Of the total number of drug information questions, 93 (83.0%) were completed by trainees of the drug information service, contributing to a total research time of 389.9 hours.

Conclusion: A dedicated drug information service staffed by trainees provides high-quality responses whose therapeutic recommendations were accepted by the majority of providers utilizing the service. In addition, trainees were able to support most drug information requests during the study period, resulting in a significant amount of research time invested in the drug information services. Trainees leading the research and response to drug information questions allows the multi-disciplinary group of providers the opportunity to prioritize other clinical responsibilities. These results support the incorporation of trainees into a formal drug information service and further justify the value to trainees within a healthcare system.

Poster Title: Successful failure: a Christmas story (in July)

Poster Type: Descriptive Report

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

Additional Authors:
Suzanne Larson
Janet Cooley
Christine Lewis

Purpose: Failures can happen to everyone, everywhere, and at every level of training in pharmacy practice. Learners and preceptors often view failures as deficiencies and a negative model for learning instead of a process for success. The purpose of this poster is to explain how failure may be viewed as an opportunity for growth or success or "successful failure." In addition, productive ways to utilize successful failures in pharmacy practice are explored.

Methods: A thorough literature search of strategies to cope with failures, along with an analysis of companies that embrace a culture of failure, was completed. The authors (in the role of learners and preceptors) also reflected on personal experiences of failure that fostered successful outcomes.

Results: Discomfort with failure perpetuates a culture fraught with hiding mistakes and missed opportunities for self-reflection, resilience, growth, innovation, and leadership development. Preceptors often struggle with helping learners maximize opportunity from failure. Strategies that encourage the utilization of successful failures include sharing personal experiences of failure, coaching, growth mindsets, CV of failures, wall of failures, and mindfulness based stress reduction. Many successful companies have adopted a culture of embracing failure. These strategies may be extrapolated to pharmacy practice.

Conclusion: Learners and preceptors need to recognize, acknowledge, and embrace failures as a necessary aspect of achieving success, creating a "successful failure." Honest dialogue with learners about failure (to include visible records) can foster a cultural shift and change in mindset whereby failures are viewed as a part of the process of success and promote self-reflection, resilience, growth, innovation, and leadership development. Preceptors should be skilled in helping learners maximize opportunity from failure.

Poster Title: Development of a needs assessment questionnaire to improve pharmacy preceptor development at an academic medical center

Poster Type: Descriptive Report

Primary Author: Jenni Buu, **Organization:** University of Utah Health; **Email:** jenni.buu@hsc.utah.edu

Additional Authors:
Skye McKennon
David Peterson

Purpose: Within the Department of Pharmacy Services at an academic medical center, a quality improvement project was initiated to develop, implement, and evaluate the results of a needs assessment questionnaire created to determine the educational and support needs of pharmacy resident and student preceptors at the institution. The results of this questionnaire will be used to more effectively utilize resources, determine future educational offerings to the department of pharmacy, and provide recommendations to the institution's pharmacy residency advisory committee to improve preceptor support.

Methods: A questionnaire consisting of 23 Likert-scale questions regarding learner feedback, support for precepting, comfort with clinical teaching roles, and ability to mentor residency projects was developed by the study investigators and sent to 309 pharmacist preceptors at one academic medical center in April 2017. An additional 4 free text questions were included in the questionnaire to address barriers to precepting, barriers to mentoring resident projects, ways to continue and improve preceptor development, and preceptor development programming topics of interest to respondents. Questions were not formally validated but were piloted by 7 members of the institution's Pharmacy Preceptor Development and Teaching Certificate Committee prior to dissemination. Participating respondents included pharmacy resident and student preceptors and preceptors-in-training, all of whom are practicing pharmacists in various pharmacy departments at the institution. Questionnaires were completed electronically via an emailed link supported by an online-based research software (Qualtrics, Provo, UT). Questionnaire response was voluntary and all recorded responses were anonymous. Questionnaire responses were analyzed using descriptive statistics by the study investigators. Free text questions were analyzed qualitatively using thematic analysis by the investigators to identify emergent themes. The medical center's institutional review board determined no oversight from the board was required for this project.

Results: A total of 70 out of 309 questionnaires were initiated (response rate 22.6%). The majority of pharmacy preceptors agreed or strongly agreed that they provide effective formative feedback (78.6% of total responses) and summative feedback (95.7%). Only 54.3% of respondents agreed or strongly agreed they are able to successfully guide a struggling learner, while 41.4% were undecided. Questionnaire responses showed that 45.5% of preceptors agreed with feeling they received actionable feedback from a residency program director or management, and 36.4% disagreed or strongly disagreed with this statement. Regarding feeling a preceptor has adequate time to focus on precepting, 46.3%

agreed or strongly agreed, 20.9% were undecided, and 32.8% disagreed. Most respondents rated their proficiency level regarding each of four clinical teaching roles (instructing, modeling, coaching, and facilitating) as average, above average, or excellent. Thematic analysis of the free text questions and aggregated results showed that preceptors felt the biggest obstacle they face as a preceptor was lack of time for preceptor training, coordinating, and balancing other job duties (62.3% of total responses). The most common requests for preceptor development session topics included research project development and execution (19.0%), feedback and communication tips (12.0%), and how to motivate struggling learners (10.0%).

Conclusion: Results from a needs assessment questionnaire sent to pharmacy resident and student preceptors at an academic medical center demonstrated preceptors feel they can effectively provide feedback to learners and are proficient in four clinical teaching roles. A large portion of preceptors do not agree that they receive actionable feedback on precepting skills from pharmacy management or residency program directors. The Pharmacy Preceptor Development and Teaching Certificate Committee at this academic medical center will use these questionnaire results to develop further programming to address perceived barriers to effective precepting, including lack of time and comfort with mentoring residency projects.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Implementation and Evaluation of a Pharmacy Residency Cardiac and Pulmonary Physical Assessment Training Program

Poster Type: Evaluative Study

Primary Author: Sandeep Devabhakthuni, **Organization:** University of Maryland School of Pharmacy; **Email:** sdevabha@rx.umaryland.edu

Additional Authors:
Jeffrey Gonzales
Nicholas Leon
Kristin Watson

Purpose: The ability to understand and perform components of the physical examination is essential for patient care pharmacists. Pharmacy residents have varying degrees of training in this area, which can impact their level of comfort and their ability to perform any or all of the components of the cardiac and respiratory physical examination. To teach these skills, a physical assessment training program was developed and implemented for pharmacy residents and fellows. The purpose of this project was to survey pharmacy residents to determine their perceptions and confidence in performing physical assessments in clinical practice.

Methods: In July 2016, an all-day physical assessment training program was offered to pharmacy residents and fellows during their orientation period at University of Maryland. This voluntary program was intended for trainees who would practice physical assessment skills at their practice site(s) or would like to have a better understanding of assessment techniques. This program provided the opportunity for pharmacy residents and fellows to learn the fundamentals of cardiology and respiratory physical examination and practice physical assessment skills through various activities, including 1) group case discussion using a patient case scenario, 2) hands-on physical assessment with peers, 3) and patient simulations using high-fidelity mannequins. To evaluate this training program, the authors conducted a pre-and post-survey study that included trainees who consented to completing a pre-survey before the training program, a post-survey immediately afterwards, and a post-survey 6 months after completion. For the pre-survey, participants were asked about prior training, practical experience on actual patients, and confidence in performing cardiac and respiratory examination. For the post-survey, participants were asked about their perceptions regarding pre-reading assignments, benefits of training, type of training activity (e.g., didactic lecture), confidence in performing cardiac and respiratory physical examination, and application of skills in clinical practice. This survey was considered exempt by the Institutional Review Board at University of Maryland. Each survey took approximately 10 minutes to complete.

Results: Of our twenty trainees, fourteen residents registered for the training program and completed the pre-survey and post-survey immediately on the same day. In the pre-survey, the majority of the residents indicated that they had didactic experience but limited hands-on experience during pharmacy school or prior residency training. Additionally, all residents had little or no confidence in performing components of the cardiac or respiratory physical examination. In the post-survey, over 85% of the residents found all components of the training to be useful or very useful, and residents also indicated an improvement in their confidence in performing each component of the cardiac (100%) or respiratory (93%) physical examination. Immediately after participating in the training program, 85% of the residents felt that it was likely that they would apply the knowledge and skills to clinical practice. At 6 months after the training program, 9 of the 14 participating residents completed the follow-up post-survey. At that time, 44% and 33% of the trainees had the opportunity to perform the cardiovascular and pulmonary physical exam, respectively. Thirty-three percent reported an improvement in their confidence to perform the cardiovascular exam; 44% reported improvement in their confidence to perform the pulmonary exam.

Conclusion: The physical assessment training program was well received. The program structure allowed for enhancing knowledge of physical assessment skills. Immediately after the training program, an improvement in confidence to perform components of the cardiovascular and pulmonary exam was reported. However, at 6 months, the majority of the residents did not have the opportunity to apply these physical assessment skills at their practice site(s) and did not see an improvement in their confidence. Feedback from the trainees will be used to enhance the 2017 training program.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Improvement of post graduate year one (PGY-1) residency match rates using post-match surveys of candidates

Poster Type: Descriptive Report

Primary Author: Justine Dickson, **Organization:** Boston Medical Center;
Email: justine.e.dickson@gmail.com

Additional Authors:
Jason Mordino

Purpose: The number of candidates who wish to pursue a pharmacy residency continues to grow exponentially. It becomes increasingly challenging for programs to secure the candidates they desire as the number of programs and positions increase in response to this demand. Few have assessed the decision making process from the point of view of the applicants. The purpose of this quality improvement project is to assess factors that influence selection of a specific PGY-1 program, use those factors to necessitate change, and see how those changes affect the ratio of the least preferred matched rank to the number of positions filled.

Methods: This was a quality improvement project in which PGY-1 interview candidates were evaluated via electronic survey over the course of two years. Anonymous surveys were e-mailed via the Pharmacy Online Residency Centralized Application Service (PhORCAS) one week after the initial match. The survey contained questions about the rating and ranking of factors that ultimately influenced their decision-making process. Candidates were asked to assess current structure of the program (physical location, program size, reputation, PGY-2 programs, etc.) as well as their interactions with the program from the American Society of Health Systems Pharmacists (ASHP) Midyear Residency Showcase through their on-site interview. There were also open ended questions to assess strengths and weaknesses of the program. Candidates ranked influencing factors based on a five-point Likert scale. Between year one and two of the surveys, there were many small improvements made to the residency program based on the results from the first survey. The improvements included resident salary increases, recruitment material and website redesign, increased attendance at additional local residency showcases, increased preceptor attendance at ASHP Midyear Residency Showcase, decreased number of standardized questions during the interview and an increased number of personalized questions, dinner with current residents the night before the interview, restructuring of required rotations and an increased number of elective rotations offered.

Results: Year one of the survey had a 71.4% (N=20) response rate and year two had a 50% (N=16). None of the areas of weakness repeated from year one to year two. Match ratios were obtained for the year prior to any surveys (4.8), year of the first survey (3.5), and year of the second survey (1), indicating an improvement in the least preferred matched rank to the number of positions filled. Results from the second year of surveying candidates are currently being evaluated and are being used to focus efforts on creating a more robust preceptor development program and increasing the number of pharmacists that are considered preceptors or preceptors in training. Items that were identified as having a very positive

influence on a candidates' ultimate rank decision were reiterated throughout the program and highlighted. From year one to year two, we also had candid conversations with our interviewees regarding program components and institutional factors that are out of the control of the department of pharmacy (e.g. physical location of the hospital, campus construction, missing specialty services, etc.).

Conclusion: Residency programs who have been struggling with matching the candidates that they highly desire should consider reflecting inwards at their branding, perceived resident satisfaction, and other items that their candidates find important in making their rank decisions. Next steps are to repeat the same quality improvement cycle every year, continue to make positive changes to the program, and to track and monitor if the improvement of the match ratio can be maintained.

Poster Title: Utilization of preceptors to coordinate and teach a pediatric elective course at a local college of pharmacy

Poster Type: Descriptive Report

Primary Author: Joshua Elder, **Organization:** Norton Children's Hospital; **Email:** joshua.elder@nortonhealthcare.org

Additional Authors:
Allison Jones
Shannon Mayes
Cynthia Zoeller
Heather Damhoff

Purpose: Pediatric pharmacy is underrepresented in didactic portions of most pharmacy curricula. Since the local college of pharmacy does not employ a dedicated pediatric faculty member, the pediatric pharmacy residency program partnered with the college of pharmacy to offer a pediatric pharmacotherapy elective for the student body. The residency institution identified this as an area of opportunity for both entities, to aid the student body to expand their pediatric medication knowledge and to offer preceptor development opportunities to residency preceptors.

Methods: The pediatric pharmacotherapy elective was offered as a 10 week elective class to second year pharmacy students in the winter quarter of 2017. In order to promote continuity for the students in the pediatric elective, one preceptor coordinator was identified to facilitate effective and consistent delivery of the class. Each class utilized active learning strategies with students completing assigned readings prior to class, which allowed the majority of class time to focus on case-based learning. Preceptors were invited to participate in the pediatric pharmacotherapy elective based on their area of clinical practice to provide students with access to content experts. The course coordinator attended all class sessions to ensure material was being delivered consistently to provide the most beneficial learning environment to the students. Topics covered in the pediatric pharmacotherapy elective included pediatrics for the community pharmacist, patient counseling, neurology, cardiology, oncology, infectious diseases, neonatology, critical care, and medical emergencies. The course culminated in a pediatric objective structured clinical examination. Grading was structured as 25% for quizzes on pre-class readings, 45% for selected assignments, 20% for the objective structured clinical examination, and 10% for professionalism.

Results: Fifteen students enrolled in the pediatric elective. Ten preceptors and all 4 pharmacy residents participated in the delivery of the elective. In the ninth week of the elective course, students were administered an anonymous survey via Poll Everywhere to ascertain commentary on the delivery of the course, strengths, opportunities for improvement, and overall student engagement in pediatric pharmacy as a potential career option. Fourteen students participated in the survey. Students were asked about each of the 3 assignments, with 100% of the students reporting each assignment was beneficial to their learning. All students reported that grading was timely and fair throughout the

course. Students were asked about continuity of the course, with 100% reporting that experiencing different preceptors each week did not impede their learning. Of the responders, 9/14 (64%) would recommend the elective to other classmates. Interestingly, 7/14 (50%) of students did not prefer the active learning format of the course, instead preferring a more traditional lecture format. The medical emergencies class, which included code simulations, was the favorite class of 9/14 (64%) of students. Six of 14 (43%) students responded with an interest in participating in a pediatric-focused student interest group if it was offered at their college.

Conclusion: The pediatric pharmacotherapy elective was a successful endeavor that was mutually beneficial to both the students as well as the residency program preceptors. Based on perceptions of the students and the residency preceptors, the pediatric pharmacotherapy elective will continue to be offered and optimized to subsequent pharmacy classes. Based on 50% of students not preferring the format of the course, a hybrid approach of lectures and active learning will be employed for future classes. Continued exploration will occur into the benefits and limitations of offering a structured pediatric-focused student interest group to the college of pharmacy.

Poster Title: Impact of Pharmacist Educational In-service on Psychotropic Medication Polypharmacy at a State Supported Living Center

Poster Type: Descriptive Report

Primary Author: Abimbola Farinde, **Organization:** Columbia Southern University;
Email: aofpharm420@hotmail.com

Purpose: Evaluate the prevalence of the prescribing psychotropic polypharmacy medications at state supported living center among psychiatrists resulting from clinical pharmacist educational inservice on the appropriateness of medication prescribing and prospectively review individualized patient charts of selected facility residents to assess frequency of psychotropic medication polypharmacy among psychiatrists pre and post clinical pharmacist educational in-service.

Methods: The involvement of a clinical pharmacist on a psychotropic polypharmacy committee will be utilized as the platform for evaluating the prevalence of polypharmacy prescribing among the facility's psychiatrists. This study will involve the prospective examination of psychotropic medication prescribing in the aftermath of a clinical pharmacist's educational in-service given to psychiatrists on the appropriateness of psychotropic medication prescribing. The study will follow prescribing patterns of psychiatrists over the span of 6 months and assess frequency of psychotropic polypharmacy as identified by the review of residents' medication regimens. A survey will also be utilized to assess psychiatrist's perception of psychotropic medication polypharmacy and usefulness of educational in-services.

Results: The stud reported t on the number of psychotropic polypharmacy pre and post educational in-service. In addition, the study reported the frequency of psychotropic medication polypharmacy and associated cost-saving that are identified during the six month observation.

Conclusion: Individuals with intellectual impairments, developmental delays, and related conditions who reside in state supported living centers, there is the potential to be placed many psychotropic medications to manage aggression, agitation, mood, or behavioral disturbances that may arise. The presence of polypharmacy can develop as a result of multiple providers prescribing without proper communication causing duplication of therapies. Clinical pharmacists have the unique opportunity to identify and resolve cases of psychotropic polypharmacy by providing continuing educational in-service on appropriate psychotropic medication prescribing thus helping to decrease the prevalence of psychotropic polypharmacy.

Poster Title: Effective strategies in residency candidate selection and interviewing

Poster Type: Descriptive Report

Primary Author: Leah Frantzen, **Organization:** HealthEast St. Joseph's Hospital; **Email:** lmfrantzen@healtheast.org

Additional Authors:
Stacy Livingston
Brandon Ordway
Megan Sandgren

Purpose: As the number of applicants and positions for postgraduate year one (PGY1) pharmacy residency programs continue to increase, residency sites are using creative strategies to narrow the list of candidates for interviews. The on-site interview must efficiently and effectively identify the best candidate for your organization. As an organization heavily involved in Lean principles, we continually look to the scientific method of Plan, Do, Check, and Act (PDCA) as a means for continuous improvement. We will share our improvement strategies and discuss how PDCA was used to achieve the desired outcomes.

Methods: As a relatively new residency program and a health system highly engaged in continuous improvement, we have evaluated and improved our residency selection and interview process on an annual basis for the last four years. New ideas are generated based on feedback from the Gemba, where Gemba is defined as the place where the work happens. Feedback is sought from candidates, residents, preceptors, and residency program leadership immediately after the yearly selection and interview process (Plan). The feasibility of each improvement idea is assessed by the Residency Advisory Committee and small incremental changes are implemented to improve the efficiency and throughput of the selection process and interview day (Do). Ideas implemented from the previous year are evaluated throughout the current year's selection process to ensure they're achieving the desired results (Check). Finally, improvements are continued or modified if appropriate (Act) and the PDCA cycle continues all over again.

Results: Incremental enhancements made to the application review process include streamlining criteria to assess each candidate's application materials (decreased from 40 to 20 criteria), simplifying the scoring tool and minimizing tally portions of the scoring while focusing the review on the pertinent categories. These small improvements have decreased demand on reviewers by 50%. The outcome of this improvement work was measured through feedback solicited from preceptors after the interview selection meeting and again after Match Day to determine if the caliber of candidates remained high despite the changes. The largest impact on efficiency was seen through improvements to the interview day schedule. Modifications were made to allow 12 candidates to be interviewed in 14 hours, an increase from 8 candidates in 14 hours. Pivotal implementations included changing from a patient case presentation to a case study, minimizing standard behavioral interview questions in favor of multiple mini interviews (MMI) and decreasing break time, which was often considered wasted time for

candidates and preceptors. Assessing the value of decreasing the time spent with candidates was evaluated through direct feedback from candidates and preceptors.

Conclusion: To increase efficiency in a highly competitive selection and interview process for PGY1 pharmacy residency candidates, this program employed the Lean principles of continuous improvement and PDCA to enhance its applicant review and interview process. Pre-interview candidates are reviewed at a rate of 15 minutes per candidate and 12 candidates are interviewed in less than 14 hours. With the decrease in time commitment from the Residency Advisory Committee members, candidates, preceptors, and residency program leadership, all report high-satisfaction with the improved process.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Impact on academic activity throughput by involving learners in collaborative work within a health-system

Poster Type: Descriptive Report

Primary Author: John Harris, **Organization:** Wingate University School of Pharmacy; **Email:** johnbrockharris@gmail.com

Additional Authors:
Mindy Parman
Amy Holmes

Purpose: The purpose of this review is to describe differences in the throughput of health-system pediatric population research projects, medication use evaluations, and other publications involving clinical pharmacy specialists in neonatology, pediatrics, and pediatric hematology and oncology as well as a pediatric pharmacy faculty member after a focused effort to collaborate and involve learners, both residents and students. January 2012 to December 2014 production was compared to January 2015 to May 2017 production.

Methods: Throughput or production was measured from January 2012 through May 2017 by collecting published and non-published projects, medication use evaluations, and other collaborative and non-collaborative activities. The comparison point of January 2015 was chosen based on an initial discussion of increasing throughput and output for pediatric populations within the health-system that took place during that month between members of the pediatric pharmacy service lines. Epoch 1 was January 2012 through December 2014 and epoch 2 was January 2015 through May 2017. Example activities include: manuscripts professional abstracts; book chapters; medication use evaluations; education materials; and presentations and lectures. If an activity involved 2 or more of clinical pharmacy specialists or the faculty member plus at least one additional clinical pharmacy specialist, the item was tallied as one activity but as the actual number for collaborators. Data collected included: the number of activities; the number of learners participating in a production activity; the type of learner participating; the location of activity presentation (internally or externally); and the number of collaborative members for the activity. The hypothesis was collaborative work focusing on learner involvement would increase throughput and production in the pediatric pharmacy service line.

Results: More activities were completed during epoch 2 compared to epoch 1, 63 to 33 respectively. During epoch 1, 94% of activities were presented externally and 27% of activities involved learners: 18% involved students and 9% involved residents. The collaborator to activity ratio was 1.06 for epoch 1. During epoch 2, 84% of activities were presented externally and 36.5% of activities involved learners: 20.6% involved students and 15.9% involved residents. The collaborator to activity ratio increased to 1.4 during epoch 2. The number of presentations and lectures and posters were consistent during both time periods. The activities during epoch 2 that differed from epoch 1 were publishing book chapters and education materials. There were no book chapters or educational materials during epoch 1. However, during epoch 2, the two activity groups accounted for 26 of the 63 activities and 36 of the 88

collaborators. Nine of 26 learner collaborators participated in publishing educational materials. The majority of learners involved in educational material publications were residents (78%) during epoch 2. During epochs 1 and 2, students were mostly involved in professional abstract presentations as posters, 67% and 77% respectively. Overall the number of collaborative activities involving students increased.

Conclusion: A focused collaborative effort within the pediatric pharmacy service line at a health-system to involve learners, both students and residents, has increased the gross throughput and output both internally and externally. Continued pursuit of learner involvement in research related activities within the pediatric population service lines allows for additional collaboration. The collaborative process will continue to be a utilized. However, more emphasis will be placed on incorporating learners in a variety of activities in the future.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Incorporating transition of care services into a resident training program

Poster Type: Descriptive Report

Primary Author: Laura Hencken, **Organization:** Henry Ford Hospital; **Email:** laura.hencken@gmail.com

Additional Authors:
Sanjeev Kumar
Charles Makowski
Nancy MacDonald

Purpose: A 2012 survey about transition of care (TOC) activities was distributed through ASHP. Most respondents felt it was important for pharmacists to be involved in TOC for hospitalized patients however institutions provide a wide variety of services. The authors made recommendations for expanding pharmacy's involvement in TOC and suggested incorporating such activities in resident learning experiences (LE). In 2016, the PGY1 residency goals and objectives added Goal R1.2: Ensure continuity of care during patient transitions between care settings. This project identifies ways to incorporate TOC activities into PGY1 programs and thus increase the number of TOC activities pharmacy departments provide.

Methods: In 2012, a pharmacy department implemented TOC consults for hospitalized patients. The consults are documented in the electronic medical record (EMR) and include medication history discrepancies, adherence assessments, medication and disease state education and the plan to improve medication adherence. Competency must be obtained before a pharmacist documents TOC consults independently in the EMR. Competency requires adequate skills for assessing medication adherence, implementing a pharmacy medication adherence plan (P-MAP) and documenting the consult in the EMR. The department incorporated pharmacy consults into the PGY1 learning description activities for the 2015-2016 class using the PGY1 residency goal R1.2: Ensure continuity of care during patient transitions between care settings. Residents were required to become competent by the end of the third quarter and complete a minimum of twenty TOC consults by the end of residency. Additionally, residents also documented formal consults to optimize outpatient parenteral antimicrobial therapy (OPAT) prior to discharge but it was not included in residency requirements as it is a standard pharmacy service. Residents could also send an electronic referral to ambulatory care pharmacists for follow up after discharge. A retrospective review was conducted to describe these TOC consult activities provided by PGY1 residents before and after incorporating minimal requirements for graduation.

Results: The institution's pharmacy residency program has eleven PGY1 residents. During the 2014-2015 residency year, prior to the integration of the TOC activity requirements into the residency program, PGY1 residents provided 10.2% of TOC consults. During the 2015-2016 residency year, after integration of the TOC activity requirements into the residency program, PGY1 residents provided 26.2% of TOC consults. In regard to OPAT TOC services, residents provided 17.9% of OPAT consults during the 2014-2015 residency year and 30% of OPAT consults during the 2015-2016 residency year. During the 2014-

2015 residency year, residents sent 18.8% of electronic referrals to ambulatory care pharmacists while during the 2015-2016 residency year, residents sent 14.8% of electronic referrals.

Conclusion: Incorporation of TOC consults into PGY1 residency requirements provides a novel way to meet Goal R1.2 during internal medicine rotations. Additionally, this demonstrates how pharmacy departments can utilize pharmacy residents to expand TOC activities. Electronic referrals are novel ways to incorporate TOC activities longitudinally in each inpatient rotation. Moving forward, TOC consults by residents may be a way to target special populations through disease specific consults. These processes may be expanded to PGY2 residency programs as the goals and objectives are updated for each of these programs.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Evaluating self-assessment skills of PGY1 residents

Poster Type: Descriptive Report

Primary Author: Mathew Jones, **Organization:** Henry Ford Hospital; **Email:** mjones18@hfhs.org

Additional Authors:
Nancy MacDonald
James Kalus

Purpose: Self-assessment (SA) is a process by which one identifies and evaluates the strengths and weaknesses of their work, judges the degree to which they achieve their goals, and revises accordingly. The ability to evaluate one's skills is acquired over time, and is essential for self-improvement and lifelong professional development. It is important for PGY1 residents to receive frequent and constructive feedback to improve SA skills. However, this is an area of partial compliance for PGY1 residency programs approximately 61% of the time. Our purpose was to create a formal process for evaluating PGY1 resident SA skills.

Methods: A formal process for evaluating PGY1 resident SA skills was implemented in October 2016 at a preceptor development session for both residents and preceptors. The session described the importance of developing SA skills and the new process to evaluate this skill, using customized evaluations in PharmAcademic (PA). Participants were given a guide for improving SA skills based on common challenges for residents and preceptors. Residents were evaluated on accuracy of their SA and ability to create an improvement plan for clinical decision making in the Pharmacy Resident On-Call Program (P-ROC) and for presentation skills in the Professional Presentation Development (PPD) longitudinal learning experiences (LE). Resident SA ability was categorized in PA as "completely accurate", "somewhat accurate" or "completely inaccurate" and the ability to create a self-improvement plan as "cannot create roadmap", "roadmap created but would not help resident improve", or "appropriate roadmap created", along with feedback as appropriate. The frequency of evaluating resident SA skills differed between the two learning experiences and as the resident gained independence for clinical activities in the P-ROC LE. Preceptors were given verbal feedback on their ability to provide a roadmap for improving the resident's self-assessment skills. The PGY1 Residency Advisory Committee discussed each resident's SA evaluation and roadmap at monthly meetings, as appropriate.

Results: We completed a formal summative evaluation of SA skills at least quarterly for each of our 11 PGY1 residents. This process was repeated until the resident was deemed independent for clinical activities in the P-ROC LE and continued for the full residency year in the PPD LE. This resulted in evaluation of each 2016-17 PGY1 resident's SA skills at least 4 times in the first 3 quarters of the residency year. In addition to this, SA skills were also addressed during a formative evaluation after each presentation completed under the PPD LE. Although the customized evaluation in PA standardized the longitudinal evaluation process for both residents and preceptors, some documentation inconsistencies were identified. This will be an area for improvement for the incoming 2017-2018 PGY1 residency class.

Conclusion: We describe a method by which programs may implement a formal process for evaluating resident SA skills using customized PA evaluations in two different LE. Self-assessing the ability to provide direct patient care through clinical decision making can be evaluated in an on-call program for the first two quarters of residency and as needed after independence is granted. Programs can use quarterly summative evaluations in PA for residents to SA skills used less frequently during residency, such as formal presentation skills, with additional formative evaluations as needed. Preceptors should receive feedback on their ability to develop a resident's SA skills.

Poster Title: Evolution of an education forum

Poster Type: Descriptive Report

Primary Author: Mackie King, **Organization:** New Hanover Regional Medical Center; **Email:** mackie.king@nhrmc.org

Additional Authors:
Amanda Dubil

Purpose: Education Forum was developed at New Hanover Regional Medical Center (NHRMC) to serve as a monthly opportunity where residents and students could practice their presentation skills. Additionally, the mission statement included goals to help develop residents' ability to provide feedback to students. In 2015, Education Forum was 3.5 hours filled with 30 minute presentations. Based on survey results from students and feedback provided through residents' biannual residency retreat document, Education Forum was not meeting its intended goal. As a result, an improvement process was initiated to further develop the experience of Education Forum.

Methods: Feedback provided indicated that Education Forum was too long, presentations became monotonous, and the students did not clearly understand the purpose of Education Forum. Students perceived the feedback process to be awkward, with the moderators observing the residents give feedback to students, and residents struggled with identifying the value. Feedback from preceptors to the department indicated all of the educational activities combined (including Education Forum) took too much time away from rotation. This led to the first major change. In Education Forum version two, the number of didactic presentations was reduced. These were replaced by incorporating small group discussions, a separate residency requirement, into Education Forum. These repeating topic-based discussions were prepared by the residents and required students to complete pre-reading in preparation. In an effort to ensure successful completion, standard work was created that outlined requirements and deadlines. Similar standard work was also created for journal club presentations after some previous residents had to repeat this activity. As a part of this standard work, each resident was assigned a journal club mentor. A statistic curriculum was added to journal club and taught by the residents. The mentor assisted in choosing an appropriate article, observed a practice-run through of the journal club prior to Education Forum, and helped with the statistic topic. A debate on ethical topics was added at the end of the year.

Results: With the introduction of standard work to Education Forum, all residents have successfully completed their requirements surrounding small group discussions and journal clubs. No resident has had to repeat their experience and the standard work has ensured that all deadlines were met. Additionally, residents have indicated they feel much better prepared to serve as the expert in their journal club requiring little intervention from the moderators. Preceptors also appreciated that there was less time taken away from rotation. Although feedback was positive regarding Education Forum, similar critique regarding length of Education Forum, monotonous didactic presentations, and the purpose for students persisted. Importantly, occasionally students did not come prepared for small

group discussions, having not read the pre-reading or completed the cases. Frequently, email problems were cited as the reason. In its current state, there was no way to hold students accountable for this lack of participation. Finally, although residents enjoyed the ethics debate, enthusiasm waned with this activity taking place in the last month of their residency.

Conclusion: Education Forum version three has a new mission statement focused on resident teaching skills. Didactic presentations have been removed; residents are no longer required to provide formal feedback in this venue. Education Forum is now reduced to a maximum of two hours and no pre-reading will be required of students. Each month, there will be a disease-state theme around which small groups and journal club will be centered. The focus is on team dynamics and active learning. With fewer requirements of students and a greater emphasis on interactive teaching, Education Forum should better meet its mission statement at NHRMC.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Utilizing a structured timeline with peer and resident evaluations in the preparation of APPE case presentations at a non-teaching hospital

Poster Type: Evaluative Study

Primary Author: Maria Leibfried, **Organization:** Fairleigh Dickinson University School of Pharmacy and Health Sciences; **Email:** mleibfri@fdu.edu

Additional Authors:
Sasha Falbaum
Terri Marxen

Purpose: Direct patient care Advanced Pharmacy Practice Experience (APPE) rotations are an opportunity for students to present formal case presentations, which are utilized at our School of Pharmacy for summative assessments of skills in patient assessment, care-planning, drug information, critical thinking, and communication. The purpose of this project is to provide a structured timeline and formative assessments for students during formal case presentations in order to increase the students' preparedness and comfort level during their presentations. Resident pharmacists are incorporated to practice evaluating cases, and providing feedback to students as part of their longitudinal pharmacy education rotation.

Methods: At Fairleigh Dickinson University School of Pharmacy and Health Sciences, APPE rotations are five weeks in duration and students are required to present a formal case presentation. The Valley Hospital, a non-teaching community hospital, has two full-time clinical faculty and two postgraduate year one resident pharmacists. Timing of presentations was dependent on student and preceptor agreement, and conference room availability. This format offered varying guidance, instructions, and preparation time. Anecdotal observations identified that students revised slides until their presentation time, and were not practicing their presentations aloud. Additional weaknesses were noted in their ability to anticipate and answer questions. A timeline was developed to structure and standardize the preparation time and guidance for the case presentations: the first draft of slides is due on Monday morning of the last rotation week; a conference room is reserved for that afternoon for students to practice their presentations to each other, with formative peer evaluations utilizing discussions and the preceptor evaluation rubric developed by the School. The second draft of slides is due on the following day, when they present to the resident pharmacists, who provide formative evaluations utilizing discussions and the preceptor evaluation rubric. Final slides are due on Wednesday morning, and case presentations are on Thursday. Students completed questionnaires after the formal case presentation to evaluate their perceptions of the helpfulness of this program.

Results: This project was implemented in the fourth through eighth APPE timeframes (October 2016 through April 2017). Fourteen students completed APPEs and participated in the project. Eleven students returned questionnaires (response rate 78.6 percent). Seven students felt that the peer evaluations made their presentation better (63.6 percent) and eight students felt that the resident evaluations made their presentations better (72.7 percent). Eight students felt that they practiced the

presentation more times than they would have otherwise and seven students edited the presentation more times than they would have otherwise (72.7 percent and 63.6 percent respectively). Eight students also felt that this program gave them more confidence in presenting, and nine students stated that their ability to answer questions was better compared to if they had not had the timeline and feedback (72.7 percent and 81.8 percent respectively). Students reported that peer evaluations and resident evaluations identified areas of improvement in the content (63.6 percent and 90.9 percent respectively), organization (54.5 percent and 90.9 percent respectively), and visual slides (63.6 percent and 80 percent respectively). Five students (45.5 percent) felt that peer evaluations identified areas of improvement in verbal and non-verbal skills, while three reported this for resident evaluations (27.3 percent).

Conclusion: Implementing a structed timeline that incorporates formative peer- and resident-evaluations offered opportunities for students to practice their formal case presentations and identified areas for improvement. Students also felt more confident to present and better prepared to answer questions.

Poster Title: Organized chaos: precepting in a community hospital emergency department

Poster Type: Descriptive Report

Primary Author: Kimberly Levang, **Organization:** Mercy Hospital - part of Allina Health; **Email:** kimberly.levang@allina.com

Purpose: Emergency departments (ED) have a dynamic unlike any other unit in a hospital. Patients are constantly improving, declining, moving, stabilizing, discharging or being admitted. Pharmacy presence in ED's is sparse throughout the country and seasoned preceptors in established programs are even less common. The intention of this information is to provide our organized approach to precepting students and residents, in a community hospital ED, for other institutions to successfully initiate or improve their own programs.

Methods: To prepare the learner for the best possible emergency medicine (EM) experience, the primary preceptor sends out several documents for review prior to the rotation. This includes learning experience outline and expectations, relevant primary literature and rotation schedule. Acknowledgement of the receipt of documents is requested to ensure baseline expectations are understood. Orientation includes review of the aforementioned documents and familiarization with commonly used EM pharmacy resources. Introduction of staff, computer system and physical space in the inpatient pharmacy and the ED is also provided. Communication of typical ED experiences is vital for rotation success. A learning environment with high volume verbal orders, unpredictable patient presentations and multiple rapid physician questions where the learner has few correct answers is daunting. Acknowledging the inconsistencies, volatility, emotions and varying professionalism is important for learners potentially uncomfortable in that setting. Consistent, on-the-spot feedback with each interaction is important to close loops and ensure the environment is not overwhelming.

Results: Mercy Hospital's EM dedicated pharmacy service was established in 2007 along with an elective residency rotation. The student rotation was added in 2010. Seventeen students and twenty-eight residents have successfully completed the rotation since implementation. The solid structure of the rotation has enabled learners of vastly different skill levels and interests to have success in this unique rotation experience. Our residency program changed the EM rotation to required as the demand has significantly increased and residents are seeking out our program specifically for the EM rotation. The pharmacist that initiated the EM program & rotation was also awarded 'Preceptor of the Year' from the Minnesota College of Pharmacy in 2011.

Conclusion: An organized and consistent approach in preparing and orienting students/residents in an ED is necessary for success. Discussing the nuances and difficulties of the environment beforehand and maintaining purposeful communication throughout the experience has proven vital for the demands of the rotation. This rotation is a successful and sought after experience in learners of varying levels of education and EM interests. Pre-rotation exposure of content and expectations form the foundation with immediate feedback and consistent communication enhancing the learning and making the overall experience successful.

Poster Title: You've got a friend in me: developing a pediatric pharmacy residency mentorship program

Poster Type: Evaluative Study

Primary Author: Taryn Mancarella, **Organization:** Norton Children's Hospital; **Email:** taryn.mancarella@nortonhealthcare.org

Additional Authors:
Madeline O'Bryan

Purpose: Pharmacy residents receive multifaceted guidance and education from multiple sources. Mentorship in pharmacy residency can provide benefits above that received during rotation experiences including assisting residents in expanding their professional network, refining clinical skills, and navigating their career path. Norton Children's Hospital provides a training site for post-graduate year one (PGY1) and post-graduate year two (PGY2) pharmacy residents. Feedback from previous residents prompted the development of a formal mentorship program at Norton Children's Hospital. The purpose of this project was to evaluate the mentorship program, guide process improvement, and aid in documenting formal guidelines for the future.

Methods: One year after implementation of the mentor program a survey was administered to the 4 pharmacist mentors and 4 pharmacy resident mentees to collect feedback on the program. A 10-question, anonymous survey was electronically sent to the pharmacy resident mentees and the pharmacist mentors. The survey consisted of open-ended, yes-or-no, or Likert-scaled responses. Included were questions on mentor-mentee matching process, importance of mentorship, amount of mentorship desired and suggestions for improvement.

Results: All 8 participants in the mentor program completed the survey. The majority of participants (88%) felt that the pre-workshop activity was helpful in selecting a mentor-mentee relationship. Mentees agreed that having a professional mentor was beneficial as part of their residency. All mentors indicated that they gained personally from this relationship. Furthermore, all of the respondents planned on remaining in contact with their mentor after residency. The mentee and mentors indicated that they met either monthly, or a few times per month, and participants were satisfied with the amount of time dedicated to the partnership. The mentors indicated that their mentor responsibilities were either very clear (50%) or moderately clear (50%). Suggestions for improvement included formal training for mentors, increased informal interaction amongst mentor-mentee participants throughout the duration of the program, and quality assurance.

Conclusion: Implementation of a mentorship program during post graduate year one and two of pediatric residency training was viewed as beneficial for all residents that participated in the program. Input from survey participants will be used to guide program development for future classes of residents. In addition, the mentor program could serve as a model for other residency programs to enhance and extend the formal and informal guidance provided to residents throughout the year.

Poster Title: Implementation of a standardized process to improve resident and preceptor feedback for staffing

Poster Type: Descriptive Report

Primary Author: Charity McGannon, **Organization:** Indiana University Health Bloomington; **Email:** cmcgannon@iuhealth.org

Additional Authors:
Derek Fields

Purpose: Residents in the 2015-2016 class of our PGY1 program identified a need for improved feedback from both preceptors and non-preceptor staff when fulfilling both clinical and non-clinical (distributive) staffing learning experiences. Both preceptors and non-preceptor staff identified varying degrees of discomfort with providing feedback and confidence in the residents' abilities to staff. A new staffing model and structured feedback program was put into place and evaluated.

Methods: 2015-2016 PGY1 residents were surveyed regarding comfort level with staffing and frequency and quality of feedback provided. Staff and clinical pharmacists (preceptors and non-preceptors) were surveyed regarding comfort level with providing feedback and confidence in residents' abilities to staff. The staffing model was changed from distributive/clinical split shifts throughout the residency year to concentrate on dedicated distributive shifts during the first half and dedicated clinical shifts during the second half of the residency year. Formal feedback forms were used to document both residents' self-evaluation and evaluation by the primary co-pharmacist working the shift. Co-pharmacists and residents were expected to verbally review their feedback with each other before the end of each shift. Feedback was reviewed with the resident by the staffing learning experience preceptor as soon as possible during the week following each staffing shift. Resident learning needs were addressed in a timely manner. Feedback was categorized as Basic Skills (standard order entry procedures, protocol-based and frequent tasks), Advanced Skills (less frequently used order entry procedures, non-protocol based tasks), Professionalism/Attitude (confidence, communication, working independently), and Professional Judgment (prioritizing work, making recommendations for care, considering the patient as a whole). Categories were tracked through the 2016-2017 residency year for trends. 2016-2017 residents, preceptors, and non-preceptors were surveyed in May of the residency year and results were compared with those from the 2015-2016 survey.

Results: All residents surveyed agreed the staffing learning experience was a very beneficial experience for the resident. While all residents stated they felt "very prepared" to staff as a clinical pharmacist at the end of the residency year, residents responses changed from "somewhat prepared" to "very prepared" with regard to staffing as a distributive pharmacist after changes were made to the staffing and feedback model. Residents also stated feedback was provided by co-pharmacists more frequently and was more specific and constructive after changes were made. Nineteen co-pharmacists completed the survey for 2015-2016, while 16 co-pharmacists completed the survey for 2016-2017. Co-pharmacists (both preceptors and non-preceptor staff combined) reporting they were "comfortable" with each

category increased after changes were made (2015-2016 vs. 2016-2017): providing feedback for distributive work (78% vs. 88%), providing feedback for clinical work (53% vs. 70%), confidence in residents' distributive abilities (37% vs. 75%), and confidence in residents' clinical abilities (53% vs. 92%). Improvement was shown for both preceptors and non-preceptors separately. Composite "comfortable" in all areas improved from 25% to 56%. Feedback forms were collected for 67 shifts. Co-pharmacist feedback regarding Basic Skills decreased through the year, while Advanced Skills increased. Professionalism/Attitude and Professional Judgment remained flat.

Conclusion: A standardized process for feedback is a strategy to improve the staffing learning experience for residents and co-pharmacists, including both preceptors and non-preceptors. Changes in the feedback process led to improvement in frequency and quality of feedback provided to residents, as well as comfort level for co-pharmacists in providing feedback and with regard to residents' abilities to staff. The staffing learning experience preceptor was able to more readily address needs for training and follow up as identified by residents and co-pharmacists.

Poster Title: Facilitating communication using one-on-one meetings at a community hospital PGY1 residency program

Poster Type: Descriptive Report

Primary Author: Jennifer McKenna, **Organization:** Olathe Medical Center; **Email:** jennifer.mckenna@olathehealth.org

Purpose: All relationships are built on the quality and quantity of communication between individuals. One-on-one meetings are a leadership tool designed to help managers develop solid relationships with direct reports. The concept of the one-on-one meeting was adapted for a residency program and implemented at a community hospital to improve communication between the residency program director (RPD) and her direct reports, specifically the residents, preceptors and residency program coordinator (RPC).

Methods: The RPD meets weekly with each of the two residents, each preceptor with residents during the current month, and with the RPC. The meetings are scheduled on the calendar for 30 minutes in length. The format of the meeting gives approximately equal time to the direct report, RPD and future planning. The priority, however, is given to the direct report's agenda. They are allowed to take the time they need to talk about what is important to them. As time allows, the RPD is able to address her agenda and time can be spent on discussion about the future. Meetings are scheduled early in the week, so they can be rescheduled later that same week should conflicts arise.

Results: The resident's agenda frequently includes questions related to projects, procedures or processes. Residents may ask for assistance with project management or communication issues, and they often seek counsel with career planning. Preceptors generally provide updates on resident progress. They may look for guidance providing meaningful feedback or navigating objectives and evaluations. The RPC agenda often focuses on administrative aspects of the program, including learning experiences, preceptor development and quality improvement opportunities. Commonly, the RPD agenda overlaps with the needs of direct reports; however, the RPD may use remaining time to assess a number of needs including objectives for the Practice Management learning experience, program completion requirements, resident/preceptor development and status of evaluations. Holding regular one-on-one meetings gives the RPD an awareness of resident progress, strengths & weaknesses, and emotional well-being. For the RPD, one-on-ones reduce multiple interruptions and small questions throughout the week and help identify quality improvement opportunities. Challenges encountered include lack of an agenda by a participant, setting aside the RPD agenda, and balancing the development of a relationship with the need to evaluate resident progress. In addition, a full spectrum of emotions may be observed by the residents, some requiring additional time and support.

Conclusion: One-on-one meetings are a commitment to build relationships and improve communication. They can effectively be incorporated into a small residency program, and the benefits are realized by residents, preceptors and residency program administrators. One-on-one meetings are not without challenges; however, these can be overcome with adequate preparation, setting ground rules and expectations, and establishing a safe environment for communication.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Benefits of pharmacy residency preceptor development through a preceptor retreat

Poster Type: Descriptive Report

Primary Author: Jessica Mitchell, **Organization:** VA Black Hills Health Care System; **Email:** jessica.mitchell12@va.gov

Purpose: Strong preceptors are key to a successful pharmacy residency program. It can be difficult to balance staffing demands with time for preceptor skill development. Preceptors at the VA Black Hills Health Care System (VABHHCS) meet monthly. During preceptor meetings, resident progress is discussed, overdue evaluations are reviewed, and preceptor development activities are completed. It is challenging to adequately cover all materials during these one hour meetings, especially preceptor training and program quality improvement. To combat this issue, a preceptor retreat was scheduled. The purpose of this descriptive project is to describe the benefits of a preceptor retreat.

Methods: Preceptors were surveyed to determine the optimal time to hold the retreat. Based on the responses received, a four hour retreat was scheduled on a weekday afternoon/evening. The retreat was scheduled for one hour during normal duty hours and three hours of off-duty time. Preceptors were compensated for off-duty hours. The retreat was held in an on-site education building away from the main pharmacy and hospital with a computer lab available. High-priority topics covered during the retreat included: resident end of the year feedback, program structure and schedule, learning experience descriptions, effective feedback, and resident self-assessment skills. One hour of continuing education was authorized through the South Dakota State Board of Pharmacy for the review of preceptor roles, effective feedback, and resident self-assessment skills. At the end of the retreat, preceptors were asked to complete an evaluation to determine if the information covered was beneficial, if the location was suitable, and to help identify additional preceptor development needs.

Results: Every preceptor at VABHHCS was able to attend the retreat, and all but two preceptors were able to attend the retreat in its entirety. Preceptors engaged in the topics presented to the extent that the retreat timeline had to be adjusted to accommodate the lively yet productive discussion. When asked to identify the most helpful information covered during the retreat, preceptor responses included, "time for discussion and support of the program overall", "going through some of the residents' feedback and brainstorming about changes for the program", "info about giving good feedback", "feedback/self-assessment", and "learning experience update". All preceptors felt the location of the retreat was appropriate.

Conclusion: The preceptor retreat met the objective of providing time for program quality improvement and preceptor skill development. Preceptors appreciated the time away from normal duties to focus on the residency program. Requesting input from preceptors prior to scheduling the retreat resulted in high attendance. Scheduling the retreat primarily during off-duty hours helped to minimize the impact on staffing in the pharmacy. Preceptors were compensated for their personal time by receiving one hour of South Dakota continuing education as well as earning overtime or compensatory time for off-duty hours.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Fostering a resident's independence in an emergency department experience

Poster Type: Descriptive Report

Primary Author: Steven Nakajima, **Organization:** New Hanover Regional Medical Center; **Email:** steven.nakajima@gmail.com

Purpose: The emergency department's (ED) many facets of patient care provide a challenging environment for learners. On a single day, a pharmacy resident could be expected to attend a traumatic arrest, provide a treatment recommendation for a 3-month-old with pneumonia, assist in administering tPA to a stroke patient or perform counseling on anticoagulation, just to name a few. Given the large breadth of disease states in the ED, it is often challenging to facilitate a resident's independence as a pharmacist. We outline the steps taken to ensure that residents are competent and independent during a clinical rotation in the emergency department.

Methods: With the goal of independence in the ED, the journey begins during the pharmacy resident's 6-week orientation. During this time, residents are certified in ACLS and provided additional learning material and simulation labs to gain competency in code blue, code stroke, code sepsis, out of hospital cardiac arrest and trauma activations. Longitudinally, residents are exposed to emergency activations during their clinical service component where they are expected to attend all codes. Code simulations are also offered monthly. At the beginning of their ED rotation, the resident's previous experiences are evaluated and areas of inexperience are identified. Topic discussions critical to ED practice (i.e. RSI, stroke, resuscitation) are "front loaded" to ensure the resident has the tools to succeed independently. Initially, the preceptor attends at least one of each code situation to ensure that the resident is competent, then facilitates code response from an available, yet separate space in the department. All critical situations are debriefed to provide feedback to the resident, and to allow the preceptor to gain insight into the resident's thought processes without actually being physically present. The resident and preceptor communicate often to establish new boundaries for the resident's independence. By the 3rd or 4th week of the experience, the resident should cover additional responsibilities of the ED pharmacist including providing clinical recommendations, prospective chart review, resolving distributive issues, and order verification.

Results: Last year, our ED admitted over 2000 trauma activations, 498 code strokes, and 121 out of hospital cardiac arrests. This high volume of code activations provides ample opportunity for our residents to learn. In a separate study at our institution, overall resident confidence in their ability to respond to codes improved after the incorporation of the code simulations. Via feedback, residents are overall satisfied with the autonomy and facilitation provided through this style of precepting during the ED rotation. Residents are utilized more for their input, and are forced to think critically and quickly, rather than deferring or being completely overlooked by providers who are more familiar with the preceptor. Residents tend to learn more when they have to perform a task independently instead of having someone else there to walk them through each step. Residents appreciate having back up when needed, especially if a situation becomes too complicated or requires an additional level of expertise

that they do not have; therefore being accessible, especially during critical situations, is paramount to the success of their learning experience.

Conclusion: Independence as a pharmacy resident in the ED requires a broad set of skills that are often unable to be obtained in just a single month-long rotation. Our method of training residents for code response during orientation, providing monthly refresher simulation labs and providing a longitudinal clinical service requirement, which incorporates code response, has improved the resident's comfort and competency from day one of their ED rotation. This allows the resident to be trained faster, and reach a level of independence during the rotation that is beneficial to both their learning and their growth as a pharmacist.

Poster Title: Development of a patient care activities tracking tool to meet the newly revised (2016) post graduate year 1 (PGY-1) managed care residency standards

Poster Type: Descriptive Report

Primary Author: Donna Lynn Obra, **Organization:** Aetna Medicaid; **Email:** obrad@aetna.com

Additional Authors:
Jillian Ingram
Faren French
Neeketa Sheth
Stephanie Saba

Purpose: To develop a method to help residents document and track patient care activities.

Methods: In September 2015, Aetna Medicaid applied for accreditation of a new PGY-1 managed care residency. Although not approved at the time, the Residency Program Director (RPD) was aware that the managed care residency standards were under revision. Expecting that the new standard will require at least 66% patient care activities as the 2014 PGY-1 pharmacy residency standards does, the RPD required the first year class to document patient care activities on an Excel spreadsheet. On a weekly basis, residents documented the total number hours spent on patient care activities and a short description of the type of activity. This data collection allowed the RPD to assess the type and frequency of patient care activities and to adjust the program in order to meet the new standards. The second year class further refined the patient care activities tracking tool to better reflect the new standards approved in 2016. In addition, the RPD educated residents and preceptors on what patient care activities encompasses and encouraged residents to seek out patient care activities in all learning experiences.

Results: Class of 2016 residents documented an average of 95% of time on patient care activities using 2007 managed care residency standards. Class of 2017 residents documented an average of 71% of patient care activities through May 2017. During the first year, patient care activities included: prior authorization (PA) reviews, comprehensive medication reviews, telephonic medication reconciliation post-hospital discharge, development of patient education for quality improvement program in hypertension, provider outreach for targeted medication reviews (telephonic, fax, in-person). During the second year, additional patient care activities included home visits with case managers, education of health care professionals, creation and/or revision of PA guidelines, new drug reviews and presentations at Pharmacy and Therapeutics Committee meetings, therapeutic drug class reviews, formulary management, post-implementation benefit testing, and quality measure interventions (Healthcare Effectiveness Data and Information Set & Medicare Star ratings). The onsite accreditation survey conducted in May 2017 affirmed that the residency is meeting the patient care activities requirement. Patient care activity tool was cited as a best practice by surveyors.

Conclusion: Early adoption of new patient care activities standards allowed the Aetna Medicaid PGY-1 managed care residency to implement improvements to meet patient care activities during the American Society of Health-Systems Pharmacist onsite accreditation survey. Education of residents and preceptors was essential to meeting the patient care activities requirement.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Intergenerational differences in student preceptor engagement at Kaiser Permanente Colorado

Poster Type: Descriptive Report

Primary Author: Catherine Riggs, **Organization:** Kaiser Permanente Colorado; **Email:** catherine.s.riggs@kp.org

Additional Authors:
Rachana Patel
Dulline Ibarra
Sheila Botts

Purpose: Kaiser Permanente Colorado (KPCO) is an integrated care delivery model serving approximately 670,000 members in Colorado. The KPCO Pharmacy Department includes primary care and specialty ambulatory care pharmacists as well as outpatient pharmacy services at 29 medical offices. Student learning experiences are offered in all of these areas. During the 2016/2017 academic year, the department hosted 70 students completing advanced pharmacy practice experiences (APPEs) and 40 students completing introductory pharmacy practice experiences (IPPEs). A preceptor engagement survey was developed to understand the value and importance of student precepting within the department and to explore intergenerational differences in these areas.

Methods: All KPCO Pharmacy Department student preceptors were invited to complete an online survey. The 21-item survey was developed by the Academic Affairs Committee to evaluate preceptor experience, interest, challenges, and perceived value. Respondent demographics included the number of IPPE and APPE students precepted in the past 12 months as well as the number of years the preceptor had been in practice. Preceptor practice experience was categorized as 0 to 1 years, 2 to 5 years, 6 to 10 years, or 11 or more years, and paralleled the age distribution of preceptors. A link to the survey was provided to the preceptors via email in February 2017 with a 2 week time frame for completion. Estimated time to complete the survey was 10 to 15 minutes, participation was voluntary, and all responses were recorded anonymously. A reminder e-mail about the survey opportunity was sent to all preceptors at 1 week. Survey responses were recorded using several methods based on question content including Likert scales, multiple choice questions, and open-ended questions. To determine intergenerational differences, years in practice was used to categorize survey respondents.

Results: Sixty-nine of 127 survey responses were received. Fourteen respondents had been in practice for 2-5 years, 24 for 6-10 years, and 31 for 11 or more years. Preceptors with 2 to 5 years in practice responded differently than preceptors with 6 or more years in practice. Preceptors with 2 to 5 years in practice had a greater interest in precepting IPPEs than their more experienced colleagues. They also indicated the opportunity to precept, teach, and mentor students was more important to their job satisfaction than their peers. Interest in precepting APPEs was similar across all groups. The 2 to 5 years in practice group more frequently indicated that IPPE and APPE students brought value through improving the quality of patient care, increasing staffing capacity, freeing up the preceptor to do higher

level work, and allowing the preceptor to provide additional education and training to colleagues and patients. These preceptors were also more likely to state that students brought value by providing a networking opportunity with the schools of pharmacy and helping preceptors keep up-to-date on current knowledge and skills. Preceptors with 2 to 5 years in practice had a lower comfort level precepting both IPPEs and APPEs than their colleagues.

Conclusion: Preceptor engagement within our organization is at its highest amongst preceptors with 2 to 5 years of experience. While this group of preceptors endorsed a strong interest in precepting and felt students brought value to their practice sites, they also reported lower comfort levels with precepting both IPPEs and APPEs. Future education and training within our department should focus on supporting and improving the comfort level of this most engaged group of preceptors.

ASHP 2017 Poster Abstracts for National Pharmacy Preceptors Conference

Poster Title: Preparing your students for post-PharmD industry fellowship interviews: Survey results from 2017 postdoctoral candidates

Poster Type: Evaluative Study

Primary Author: Sagar Shah, **Organization:** MCPHS University; **Email:** sagar.shah@mcphs.edu

Additional Authors:
Bridget Cloonan
Kishan Mistry
Jennifer Baird
Christina Zhao

Purpose: To understand how post-PharmD industry fellowship candidates prepare for face-to-face interviews held at the 2016 American Society of Health-Systems Pharmacists Midyear Clinical Meeting (ASHP Midyear). These trends may provide valuable insights for advanced pharmacy practice experience (APPE) preceptors with pharmacy students interested in entering the pharmaceutical industry upon graduation. Insights learned from this research can best be used to guide students as they prepare for fellowship interviews at ASHP Midyear.

Methods: Anonymous surveys were distributed to candidates being interviewed for a Sanofi Genzyme/MCPHS University Biopharmaceutical Industry Fellowship Program as part of the 2016 ASHP Midyear Personal Placement Service (PPS). These surveys were distributed to students upon check-in for their interviews at the Sanofi Genzyme booth. Respondents were asked a series of questions to assess their Midyear preparation experience. Surveys contained multiple-choice, Likert rating scales and open-ended questions; results were analyzed using descriptive statistics. Respondents could return the survey anytime during PPS business hours.

Results: Anonymous surveys were distributed to 215 fellowship candidates interviewing for a Sanofi Genzyme/MCPHS University Biopharmaceutical Industry Fellowship Program at ASHP Midyear; 40% (N=87) were completed and returned during the survey period (December 4 ?" 6, 2016). Results indicated that the MCPHS University Biopharmaceutical Industry Fellowship Program (100%, n=87), Rutgers Pharmaceutical Industry Fellowship Program (72%, n=63), and The Visiting Scientist Fellowship at Eli Lilly and Company (36%, n=31) were the most popular fellowship programs among interviewed candidates. Survey respondents indicated interest in a variety of post-PharmD fellowship programs; the majority of candidates interviewed with >3 different programs (75%, n=65) and 5% (n=4) of candidates interviewed with only one program. While programs utilize different methods to schedule candidate interviews, survey respondents preferred pre-scheduling interviews before ASHP Midyear (99%, n=86) versus waiting to request interviews onsite (1%, n=1). The most common tools used to prepare for fellowship interviews were: the PPS website (87%, n=76), individual program brochures (86%, n=77), and individual fellowship program websites (79%, n=69). When gathering information about the most popular programs, the majority of candidates found that program websites provided complete information about the individual fellowship program and application process.

Conclusion: Anonymous surveys were distributed to candidates seeking post-PharmD industry fellowships to assess methods for obtaining program information in preparation for the ASHP Midyear interview process. Overall, candidates applied to a variety of programs, with 75% of survey respondents applying to 3 or more positions. Prior to attending Midyear, candidates most commonly obtained information through program-specific brochures, the PPS search engine, and fellowship program websites. For preceptors guiding postdoctoral candidates in preparation for fellowship program interviews, direct your students to the outlets identified above to increase their knowledge of fellowship opportunities in advance of ASHP Midyear.