

Expanding Your Practice:

Integrating Learners into Your Practice Setting

The Empire Experiential Education Consortium



Objectives:

1. Define the PPCP
2. Identify opportunities to engage students in experiential practice activities that meet a patient care need
3. Evaluate the operational impact of Pharmacy students in the Pharmacy

Pharmacists' Patient Care Process (PPCP)

Students develop the skills to participate in direct patient care using the PPCP. At the core of the process, students will continually practice the skills necessary to collaborate, document, and communicate with physicians, other pharmacists, and other health care professionals in the provision of safe, effective, and coordinated care.



Evidence of Student Pharmacist Interventions in Practice Settings

Literature Citation	Evidence Found
<p>Mersfelder TL, Bickel RJ. Inpatient medication history verification by pharmacy students. <i>Am J Health-Syst Pharm</i>, 2008; 65: 2273-5.</p>	<p>This was a prospective study conducted from January to April 2007 at a 424-bed community teaching hospital with pharmacy students completing an internal medicine rotation. The students had one or two patients assigned to them each day and they had to complete medication reconciliation by interviewing the patient and/or family member, calling the patient's community pharmacy to verify all medications, reconciling any differences with the patient, and reviewing the final list with the preceptor. A total of 326 charts were included in the analysis, with an average of 7.39 medications per chart. A total of 440 prescription medications and 414 nonprescription medications (OTCs, natural products) for an average of 1.35 prescription medications and 1.27 nonprescription medications per chart. The study concluded that pharmacy students were valuable in reaching the eighth National Patient Safety Goal established by the Joint Commission to, "accurately and completely reconcile medications across the continuum of care."</p>
<p>Lancaster JW, Grgurich PE. Impact of student pharmacists on the medication reconciliation process in high-risk hospitalized general medicine patients. <i>Am J of Pharmaceutical Education</i>, 2014; 78(2): 1-5.</p>	<p>This study compared the accuracy of medication lists obtained by APPE student pharmacists versus nurses and physicians, quantifying the discrepancies. The study was conducted from May to July of 2012 in a 350-bed tertiary academic medical center. Physicians and/or nurses conducted medication reviews for patients at the time of admission, then student pharmacists conducted medication reconciliation. A total of 52 patients were involved in the study. When the students' medication lists were compared to their physician/nurse lists, there were 268 discrepancies and only 20% of the cases had 100% agreement on the entire medication list. The average agreement rate amongst the lists was 57.6%. Student pharmacists identified 532 prescription and nonprescription medications, while 355 were identified by nurses and 368 were identified by physicians. Student pharmacists identified significantly more medications per patient (10.2) than nurses (6.8) and physicians (7.1), $p=0.006$. Students made 28 interventions in 18 patients, with more than 50% of the student interventions being deemed significant, meaning that they would "bring care to a more acceptable and appropriate level." The authors concluded that student pharmacists can be used to complete the medication reconciliation process, freeing time of the precepting pharmacist for other tasks, while providing a strong learning experience for the student.</p>

<p>Woolley AB, Berds CA, Edwards RA, et al. Potential cost avoidance of pharmacy students' patient care activities during advanced pharmacy practice experiences. <i>Am J of Pharmaceutical Education</i>, 2013; 77(8): 1-8.</p>	<p>This study evaluated the potential cost avoidance of student interventions documented by APPE students in both inpatient and outpatient settings. The study was performed over the 2011-2012 APPE cycle with 87 students at Bouvé School of Pharmacy at Northeastern University using the web-based E-Value intervention system for documentation of interventions and Quantifi software for estimation of cost avoidance. There were 5,775 interventions recorded (2,557 in ambulatory care, 200 in community, and 2,998 in inpatient hospital). The most common categories of interventions were patient education, health provider education, drug information to patients, health promotion and disease prevention, and therapeutic dose adjustment. Only 3% of the interventions that involved changing medications were rejected by the prescriber. The estimated cost avoidance was estimated for 4,741 interventions as there were no cost estimates for the remaining interventions provided in the literature assessed. The estimate of total cost savings was \$908,800. The cost avoidance was \$10,445 per student, with students averaging 66.4 interventions each. The authors concluded that APPE students and their preceptors positively impacted patient care during their APPEs by providing patient and provider education, dose adjustments, health promotion, and disease prevention services, while also significantly reducing healthcare costs.</p>
<p>Shaver A, Morano M, Pogodzinski J, Fredrick S, Essi D, Slazak E. Impact of a community pharmacy transitions-of-care program on 30-day readmission. <i>J Am Pharm Assoc</i>. 2019;59:202-209.</p>	<p>This study evaluated the impact of a transitions-of-care (TOC) program on both all-cause and related 30-day hospital readmission. The study occurred from June - November 2017 Methods: A TOC program in an outpatient pharmacy, driven primarily by student pharmacists, provided telephone-based counseling to recently discharged patients. The calls were conducted within 2 to 7 days after discharge and focused on medication counseling and reconciliation, as well as promotion of a physician follow-up visit. The goal of this program was to decrease hospital readmissions among patients discharged with a cardiovascular-related diagnosis. Results: A total of 1219 encounters were examined. Compared with those patients without TOC participation, those who used the TOC program had a 67% decreased odds of all-cause 30-day readmission (odds ratio [OR] 0.33, 95% confidence interval [CI] 0.22-0.48; P<0.0001) and a 62% decreased odds of a related readmission (OR 0.38, 95% CI 0.1800.82; P=0.008). Conclusion: Community pharmacists and Advanced Pharmacy Practice Experience level student pharmacists have the potential to make a significant impact on reducing hospital readmission rates.</p>

Suggested Site Based Activities

While at your site, the student could:

- Participate in:
 - Medication reconciliation and/or discharge counseling program
 - Antimicrobial/anticoagulation stewardship
 - Sterile and/or non-sterile compounding

The site could develop:

“Informatics” rotation for MUEs, EMR optimization, etc.

“Management” rotation to assist with P&T & other committee/leadership responsibilities

This Doesn't Have To Hurt!

- ❖ Share responsibilities among different preceptors
- ❖ Create a schedule for exposure to different areas of practice within the department
 - Include interprofessional meetings, rounds and conferences
- ❖ Prepare a library of patient cases and DI questions to assign as needed
- ❖ Introduce layered learning (medical model) with senior student/resident
- ❖ Create a list of new drugs and/or guideline updates for student review and presentation

WIIFM or WIIFY??

- Project assistance
- Exposure to quality students for potential residency/employment positions
- Giving back to the pharmacy community
- Getting your name/organization exposure
-and above all,
- The chance to have a career changing experience with an impressionable student

Tips for a successful rotation

- Make sure expectations are set at the beginning of the experience
 - Both verbally and in writing
- Communicate! (Before, during, after)
 - Select specific times to meet
 - Give both formal and informal feedback often
 - For every criticism, find a positive (sandwich method)
- Include and interact with students in professional organizations/meetings
- Discuss with other preceptors and the school on tips and tricks to keep the experience “refreshing” with different activities
 - Jeopardy!, white board, lunch

Which of the following can facilitate the integration of pharmacy student learners into a busy practice?

- a. Provide a detailed orientation to your role, the site, employees and rotation goals
- b. Select specific times to meet and review the daily site based activities
- c. Prepare and discuss a rotation schedule with your co-workers and site leadership to garner support and buy-in
- d. All of the above