

# Student Specific Remediation Plans for Introductory Pharmacy Practice Experiences

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## OBJECTIVES

To identify student deficiencies and create specific remediation plans to raise students to the level of competency needed for Advanced Pharmacy Practice Experience (APPE)-readiness.

## BACKGROUND

The Accreditation Council for Pharmacy Education (ACPE) "Standards 2016" states that schools must have policies and procedures related to remediation<sup>1</sup>. However, no specific guidance is given on how to best address competencies that require remediation and variability in programs and student populations makes it difficult to impose a generalized remediation plan<sup>2,3</sup>. There is also difficulty in identifying students that could benefit from remediation as preceptors may not be trained to address deficiencies and their demanding schedules may not allow for sufficient intervention<sup>2,3</sup>.

Previous work has been done to identify categories of interventions to ensure student success. These categories include primary, secondary, and tertiary prevention methods. Remediation approaches fall under the secondary prevention category, which address student deficiencies as they arise<sup>2</sup>. A review of experiential remediation plans found that a variety of approaches may be used including observation and feedback, practice with standardized patients, and additional didactic work<sup>3</sup>. Deliberate practice, simulation, reflective writing, and case presentations are other teaching techniques that have been used to create individualized remediation plans<sup>2</sup>. While there are many approaches to remediation, individualized, student directed remediation has been shown to have the greatest impact on students<sup>3</sup>. These plans provide added learning opportunities to enhance success on future APPE experiences and in their future practice of pharmacy.

## METHODS

At the completion of the Community and Institutional Introductory Pharmacy Practice Experiences (IPPE), preceptors evaluated students on several competencies within three domains: Provide Patient Centered Care, Communication, and Professionalism. Competencies were evaluated using a four-point scale:

- Exceeds Competency
- Meets Competency
- Needs Improvement (NI)
- Significant Deficiency (SD).

Students receiving at least one NI or SD, while still receiving a passing grade for the IPPE, were identified as needing remediation. Faculty from Experiential Education (EE) and Pharmacy Skills (PS) courses determined corresponding activities for each competency requiring remediation. Students received individual remediation plans tailored to the competencies that were evaluated as a NI or SD.

### Community IPPE

Remediation activities included additional practice in the College's student operated pharmacies, simulated encounters with standardized patients, review of the most frequently prescribed medications, and Experiential Success Plans (ESP). ESPs were assigned for competencies that could not be simulated, or when the student would benefit from competency reflection. Reflective writing in the form of an ESP allowed for students to look deeper into the deficiency by developing a personal plan to achieve competency in the future.

## METHODS

At the College's student operated pharmacies, students spent time practicing the dispensing process, reviewing medication orders, contacting prescribers and third party payers, and counseling patients on prescription and OTC medications. Time spent at the pharmacy varied based on student-specific needs, rate of topic comprehension, and number of competencies to be addressed.

### Institutional IPPE

Remediation activities included written exercises, simulated encounters with standardized providers, and ESPs. Written exercises consisted of answering drug information requests, journal article evaluations, identifying and documenting medication related problems or medication occurrence reports, review of patient medication profiles, and SOAP notes.

### Community and Institutional IPPE

Students in both Community and Institutional IPPEs that required remediation of communication skills completed simulations in the pharmacy skills lab. Simulated encounters focused on verbal and non-verbal communication skills, with a comprehensive debrief of the student's performance.

Students completed remediation activities during the semester following identification of the deficiencies. Experiential Education faculty evaluated written exercises and ESPs, while pharmacy practice faculty evaluated simulated exercises.

## RESULTS

Table 1

	Domain	Provide Patient Centered Care						Professionalism	Communication	
Community IPPE	Activity	Additional Time in College's Community Pharmacy	Review Third Party Payer Requirements and Contact as Needed	Review 25 Prescription Medication Orders	Chart Creation and Review of 30 of Top 250 Drugs	Experiential Success Plan	Simulation Activity with Standardized Patient	Experiential Success Plan	Additional Time In College's Community Pharmacy	Simulation Activity with Standardized Patient
	Quantity	6	2	3	1	5	2	2	3	1
Institutional IPPE	Activity	Drug Information Request Write-Up	Journal Article Evaluation	SOAP Note	Medication Related Problem Activity	Patient Medication Review	Medication Occurrence Report	Experiential Success Plan	Simulation Activity with Standardized Provider	
	Quantity	6	5	2	7	1	1	8	5	

Figure 1

Community IPPE - Distribution of Performance Deficiencies by Competency Domain

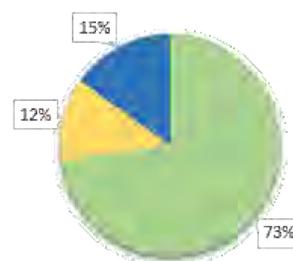
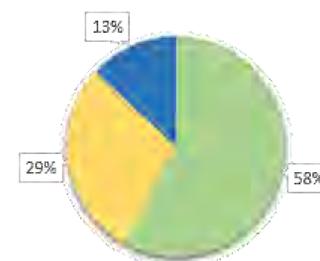


Figure 2

Institutional IPPE - Distribution of Performance Deficiencies by Competency Domain



■ Provide Patient Centered Care ■ Professionalism ■ Communication ■ Provide Patient Centered Care ■ Professionalism ■ Communication

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## RESULTS

Table 2

	Total # of Students	# Students Identified for Remediation	Total # NI	Average # NI/Student
Community IPPE	212	13 (6%)	33	2.5
Institutional IPPE	220	20 (9%)	38	1.9

- 33 (7.6%) students were identified for remediation.
- Institutional IPPE students that were identified as needing remediation had not been previously identified on their Community IPPE.
- Table 1 illustrates the domains under which student deficiencies were noted. Specific activities and the corresponding quantity are provided for both the Community and Institutional IPPEs. All students successfully completed their remediation plans.
- Table 2 illustrates the number of students identified for remediation in the Community and Institutional IPPEs, along with the number of competencies identified.
- Figure 1 illustrates the distribution of performance deficiencies by competency domain for the Community IPPE.
- Figure 2 illustrates the distribution of performance deficiencies by competency domain for the Institutional IPPE.
- A larger number of deficiencies under the domain Provide Patient Centered Care were seen in the Community IPPE as compared to the Institutional IPPE. As the Community IPPE is the first practical pharmacy experience for most students, it is expected that fewer deficiencies would be seen on the Institutional IPPE.

## IMPLICATIONS

Students that were offered additional instruction and practice opportunities are more likely to succeed on future IPPEs and APPEs. Students that complete specific remediation plans will be tracked throughout the remainder of the experiential curriculum to identify any further deficiencies or success. A continued pattern of deficiencies may necessitate repetition of an experiential course, while identification of a new deficiency may be addressed by a new specific remediation plan.

While Community IPPE competencies could be replicated at the College's student operated pharmacies, no clinical site was available to remediate Institutional IPPE competencies. With the addition of a simulated electronic health record, more real-world exercises can be created for students to complete.

## REFERENCES

1. Accreditation Standards and Guidelines 2016 [Internet]. Acpe-accredit.org. 2016 [cited 19 June 2018]. Available from: <https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf2>.
2. Davis L, Miller M, Raub J, Gortney J. Constructive ways to prevent, identify, and remediate deficiencies of "challenging trainees" in experiential education. American Journal of Health-System Pharmacy. 2016;73(13):996-1009.
3. Maize D, Fuller S, Hritcko P, Matsumoto R, Soltis D, Taheri R et al. A Review of Remediation Programs in Pharmacy and Other Health Professions. American Journal of Pharmaceutical Education. 2010;74(2):25.