



Use of a Pre-Rotation Survey to Enhance Pharmacy Student Engagement in an Underserved Population

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BACKGROUND

- The Accreditation Council for Pharmacy Education (ACPE) Standards 2016 require implementation of teaching methods that actively engage student learners throughout the curriculum.¹
- Studies have evaluated methods toward engaging or enhancing student experiences while providing care to an underserved population.²⁻³
- Pharmacy student rotations are available within diverse and/or underserved populations; however, limited information is available comparing and contrasting pharmacy student knowledge prior to and following completion of underserved patient care rotations.

OBJECTIVES

- To evaluate the effectiveness of using a pre-rotation survey to successfully identify students' perceived knowledge gaps, and subsequently tailor specific learning opportunities that best meet their needs over the course of a Federally Qualified Health Center (FQHC) Ambulatory Care rotation.

METHODS

- Prior to a 6-week experiential rotation in an FQHC, pharmacy students were provided an optional pre-rotation survey to gauge knowledge and confidence levels within:
 - 17 ambulatory care disease states,
 - 5 interprofessional tasks, and
 - 9 underserved patient care tools and barriers

METHODS

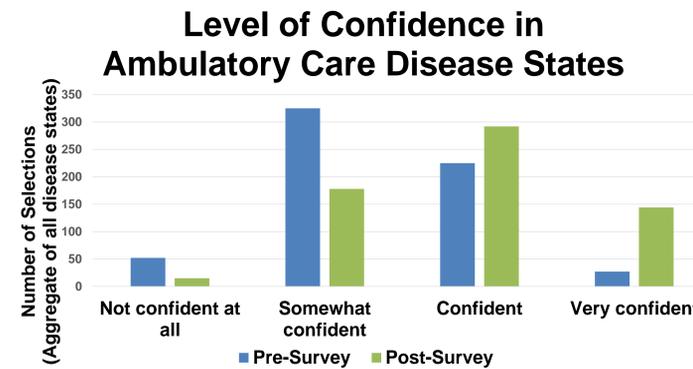
Ambulatory Care Disease States	Interprofessional Tasks	Underserved Barriers/Knowledge
Cardiovascular • Dyslipidemia • Hypertension • Primary & secondary prevention of cardiovascular disease	Providing education for non-pharmacist healthcare professionals	Medication access • 340B drug program • Patient assistance programs • CO Medicaid's preferred drug list • Barriers to medication adherence
Endocrine • Thyroid disorders • Type 2 diabetes	Preparing a professional handout for healthcare providers	Patient barriers to seeking care
Psychiatric • ADHD • Anxiety disorders • Bipolar disorder • Depression	Preparing a professional handout for patients	Assessing health literacy
Respiratory • Asthma • COPD	Presenting a journal club	Cultural beliefs & the effect on provision of care
Other • Anticoagulation • Contraception • GERD • Migraines • Smoking cessation	Presenting a formal case study	Pharmacy practice • Clinical pharmacy practice in Community Health Centers • Pharmacists' role in addressing health disparities

- The pre-survey open-ended responses guided topics selected for student case presentations, journal clubs, and topic discussions presented to fellow FQHC students, residents, and preceptors.
- Following completion of the rotation, students completed an optional post-rotation survey allowing for self-reflection of growth and development. Survey completion, or lack thereof, did not impact the students' grades.
- A Wilcoxon Signed Ranks Test was used to compare pre- and post-survey knowledge levels of underserved patient care tools/barriers.

RESULTS

- Thirty-seven students completed both the pre- and post-survey.
- Following the 6-week rotation, students' level of confidence improved within most ambulatory care disease states and patient care tasks assessed throughout the survey.

RESULTS



- Students demonstrated improvement in knowledge levels of underserved patient care tools/barriers following an FQHC rotation.

Underserved Patient Care Tools/Barriers	p-value
Barriers to seeking care	p < 0.0218
Barriers to medication adherence	p < 0.0072
340B drug programs	p < 0.0111
Patient assistance programs	p < 0.0008
Colorado Medicaid's preferred drug list	p < 0.0003
Assessing health literacy	p < 0.0001
Cultural beliefs and their effect on provision of care	p < 0.0151
Clinical pharmacy practice in Community Health Centers	p < 0.0001
Pharmacist's role in addressing health disparities	p < 0.0001

- In addition to student projects and presentations, students shadowed various clinic providers (e.g., pediatricians, behavioral health providers, etc.) based on the students' interests.

DISCUSSION

- The surveys helped to facilitate conversation regarding rotation interests, strengths, and limitations providing an opportunity to tailor the rotation based on the students' interests. This allowed the opportunity for students to continue building upon perceived strengths in addition to increasing patient care experiences within areas of the students' perceived limitations.
- As the surveys were optional, not all students completed both the pre- and post-surveys. This may have diminished the scope of discussion between the preceptor and student regarding rotation student knowledge, confidence, and/or rotation goals. However, despite survey completion, preceptors would regularly provide feedback and assess progress of student goals throughout the rotation.

IMPLICATIONS

- A pre-rotation survey allows opportunity to identify students' perceived knowledge gaps and subsequently tailor learning activities.
- By the completion of their rotation, students' overall confidence improved in ambulatory care topics, patient care tasks, and knowledge of barriers when treating the underserved.

REFERENCES

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