An Analysis of Self Assessed Confidence Pre and Post APPE Rotation in the Ambulatory Care Setting

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Background & Significance

- Ambulatory care pharmacists are essential members of the health care team who help improve patient outcomes by optimizing medication regimens, managing chronic disease states, and promoting health and wellness.
- Assessment of student’s knowledge and skills related to the ambulatory care practice setting is crucial to prepare practicing-ready pharmacists.
- The Accreditation Council for Pharmacy Education (ACPE) 2016 Accreditation Standards outline expectations of student competency in the ambulatory care practice setting.¹
- Northeastern University (NU) School of Pharmacy student pharmacists begin to gain first-hand experience in other areas of pharmacy practice (institutional and community) early on in the pharmacy program through required cooperative educational experiences (co-ops/IPPEs), but generally do not get exposed to ambulatory care pharmacy practice until they enter their advanced pharmacy practice experience (APPE) curriculum.

Objectives

The primary objective of this study was to assess if there was an increase, decrease, or no change in students' self-reported confidence regarding ambulatory care-related knowledge and skills after completion of a six-week ambulatory care APPE rotation. The secondary objective was to determine whether more exposure to ambulatory care pharmacy practice is needed in the NU School of Pharmacy didactic curriculum.

Methods

Survey Key

| CMTM | Comprehensive Medication Management |
| CDTM | Collaborative Drug Therapy Management |
| MTM | Medication Therapy Management |
| BP | Blood Pressure |
| RR | Respiratory Rate |
| HR | Heart Rate |
| BG | Blood Glucose |
| INR | International Normalized Ratio |
| A1c | Glycosylated hemoglobin |

Survey

I am a (please check one): APPE student (P4), Montreat College student (P3) __ __
I am completing this survey as (please check one) pre-survey __ __ post-survey __

Survey

Total surveys n=118

Pre-survey n = 36
Post-survey n = 82
Paper survey participants:
- Invited to participate during the 2016/2017 academic year
- Not provided consent
- Incomplete survey

Electronic survey participants:
- Administered via Blackboard
- Excluded n=16 - incomplete survey
- Did not provide consent

Results

- Completion of an ambulatory care APPE rotation resulted in an upward trend of increased confidence in all areas assessed.
- Pre-survey results indicated that the majority of students (<50%) strongly agreed or agreed that ambulatory care pharmacists conduct face-to-face visits and complete postgraduate training.
- Electronic post-surveys showed almost 40% of students were found to be not confident or somewhat confident in defining CDTM, MTM, and MM, explaining how they interrelate, and explaining the difference between credentialing and privileging. Only 1 participant (<.05%) expressed this in the post-survey. It is possible that a wider variety of confidence levels in defining these terms was demonstrated in electronic post-surveys because of the larger sample size encompassing multiple preceptors. Some NU preceptors dedicate a topic discussion to defining ambulatory care terminology, while others do not.
- Greatest areas of change in confidence included hands-on activities such as measuring vital signs and performing POC testing (BG, A1C, and INR). These skills can be more easily learned in an experiential setting versus a didactic setting.

Conclusions

- Survey results show that a majority of NU pharmacy students lack confidence in knowledge and skills specific to ambulatory care pharmacy prior to entering their ambulatory care APPE rotation.
- These findings will be used to recommend changes in the delivery of ambulatory care pharmacy education in the didactic setting at NU. Options for improvement may include: expanded access to an elective course in ambulatory care pharmacy, a required introductory ambulatory care pharmacy course, or the addition of more intensive ambulatory care focused activities in skills lab.
- The greatest limitation of this study was the small sample size. It would be beneficial for future studies to recruit a larger sample size by exclusively utilizing electronic surveys available to all students on ambulatory care APPE rotations.

References