Student Confidence in Hospital Pharmacist Roles After Participation in a Pharmacotherapy Skills Laboratory

Meredith Frey, PharmD Candidate 2019; Andrea Porter, PharmD; Amanda Margolis, PharmD, MS, BCACP; UW-Madison School of Pharmacy, Pharmacy Practice Division

Background

• The University of Wisconsin – Madison School of Pharmacy Doctor of Pharmacy program requires four, one-credit Integrated Pharmacotherapy Skills Laboratory courses in a sequence that begins in the fall of the second professional year.
• Courses have a one-hour discussion and 2-3 hour laboratory section which meet most weeks of the semester.
• A pharmacotherapy skills lab was created for the spring semester of the second year to introduce students to hospital pharmacist activities.
• These activities meet the pre-advanced pharmacy practice experiences (APPE) Performance Domains and Abilities of the 2016 Accreditation Council for Pharmacy Education Accreditation Standards.

Methods

• Pharmacy students participated in a laboratory experience from 2015 through 2017 that followed a patient throughout their hospital stay.
• Students voluntarily completed a pre/post online 13-question survey.
• Confidence levels were rated on a 10-point scale: 1 = no confidence, 10 = complete confidence.
• Open-ended questions on student perceptions of concepts learned, activities students enjoyed, and suggestions for improvements were assessed using content analysis.
• Wilcoxon Signed-Rank Test was used to determine statistical significance of change in confidence.

Objective

To assess student confidence in understanding and performing hospital pharmacist activities before and after completion of a laboratory experience.

Results

• Over three years, 363 of 475 students completed both the pre-and post-surveys (76.42%).
• Confidence improved within all questions from pre- to post-survey (p <0.001).
• The cumulative confidence score increased by 22.6% from baseline (p <0.001).
• The greatest change in confidence was observed in determining appropriate dosing for LMWH (48.6%) and warfarin (47.6%) and making recommendations to providers for solutions to DRP, (29.3%).

Limitations

• Minor changes were made to the laboratory experience over the three-year period, which may have impacted student survey responses.
• Students gained confidence in completing hospital pharmacist activities.
• Skills with the greatest gain in confidence were those which students had less exposure to in the curriculum prior to this laboratory activity.
• A simulated experience on hospital pharmacy provides an opportunity for students to practice complex skills and topics in the curriculum, and assist in their preparation for experiential education rotations.
• Activities that students enjoyed most were those which students thought would be particularly beneficial to them in the future.

Future Directions

• Provide additional opportunities for students to reinforce skills and further increase confidence through laboratory experiences.
• Optimize technological tools to assist in completion of activities.

Conclusions

• Students gained confidence in completing hospital pharmacist activities.
• Skills with the greatest gain in confidence were those which students had less exposure to in the curriculum prior to this laboratory activity.
• A simulated experience on hospital pharmacy provides an opportunity for students to practice complex skills and topics in the curriculum, and assist in their preparation for experiential education rotations.
• Activities that students enjoyed most were those which students thought would be particularly beneficial to them in the future.

References