

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

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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 Standards¹

Objective

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

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

Results

Figure 1: Pharmacy Student Change in Confidence Scores

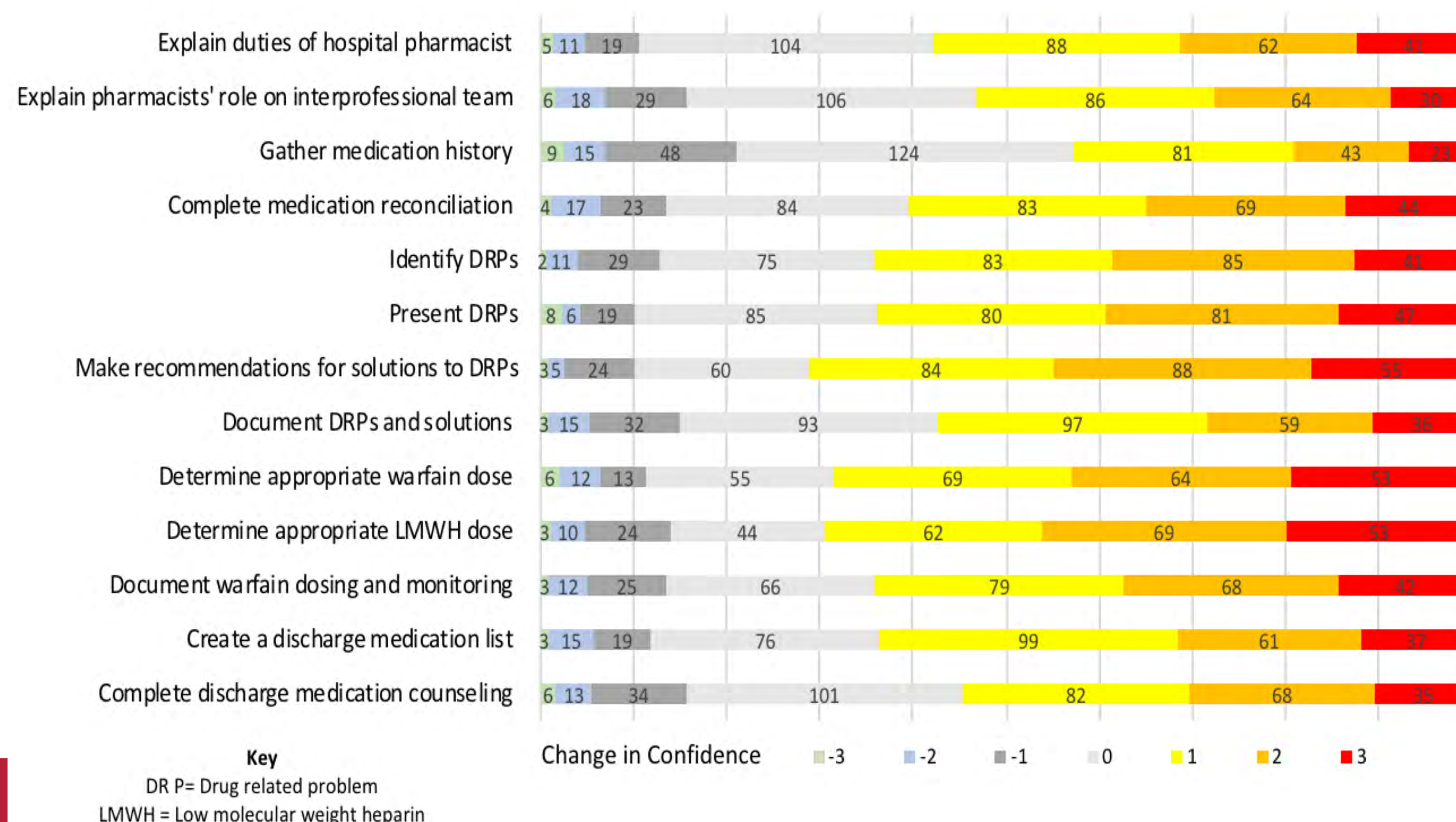
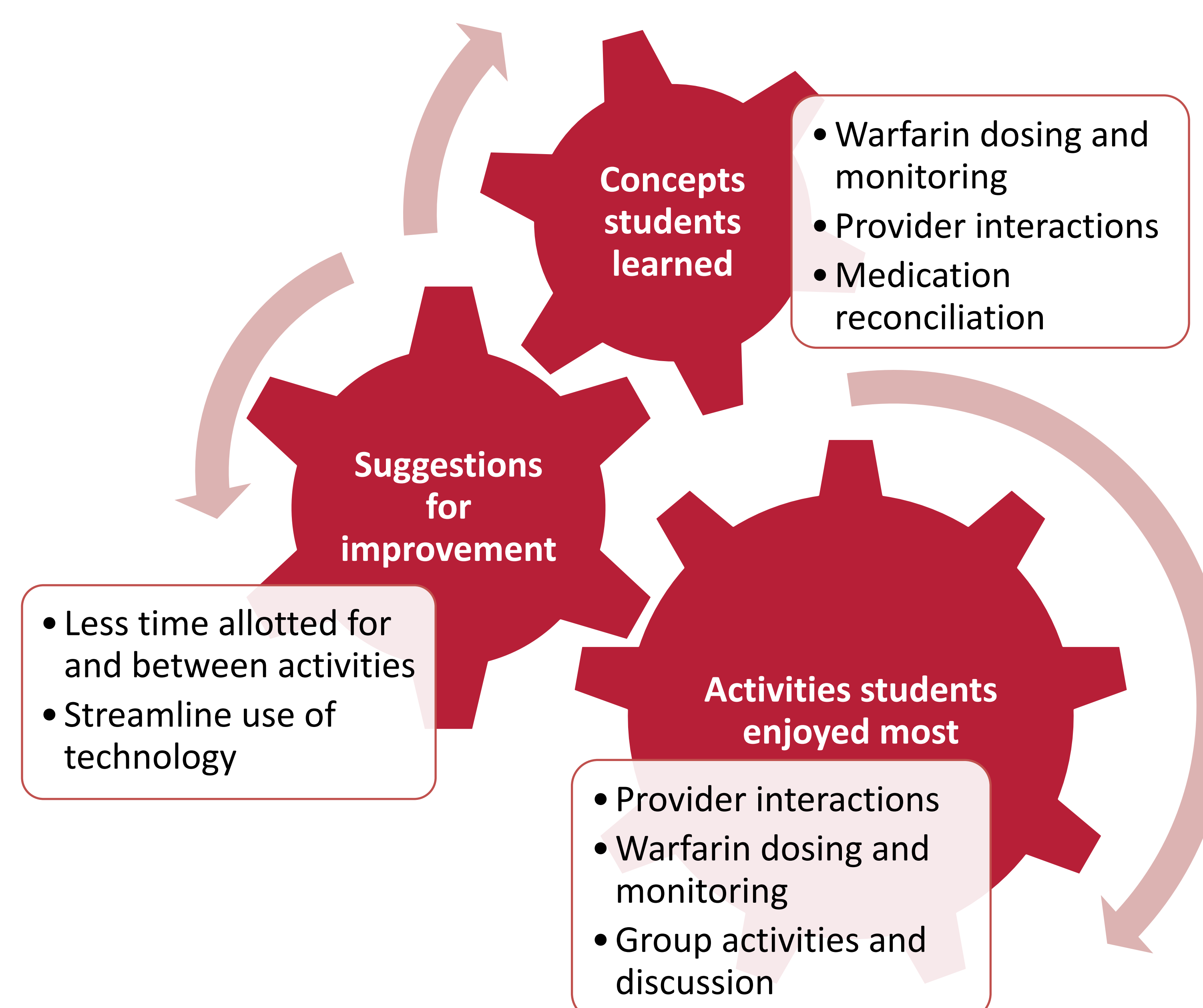


Figure 2: Themes Extracted from Student Responses



- 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

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

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

References

- Accreditation Council for Pharmacy Education. Guidance for the accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree. Guidance for Standards 2016. <https://www.acpe-accredit.org/pdf/GuidanceforStandards2016FINAL.pdf>. Accessed June 12, 2018.