



Student Perceptions of Comfort of Immunization Administration Related to Experience

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INTRODUCTION

- The American Pharmacists Association Pharmacy-Based Immunization Delivery Certificate Program was taught to pharmacy students in the Spring semester of their third professional year just prior to starting their Advanced Pharmacy Practices Experiences (APPEs).
- As part of the certificate program students must correctly administer one subcutaneous and two intramuscular injections to another person.
- West Virginia legislation was changed allowing pharmacy interns to provide immunizations. This study assessed differences between the students that were permitted to immunize in West Virginia and those that were not.
- Research has shown that the confidence of student pharmacists providing immunizations increases with utilization of this skill while providing immunizations during an introductory pharmacy practice experience.¹

OBJECTIVES

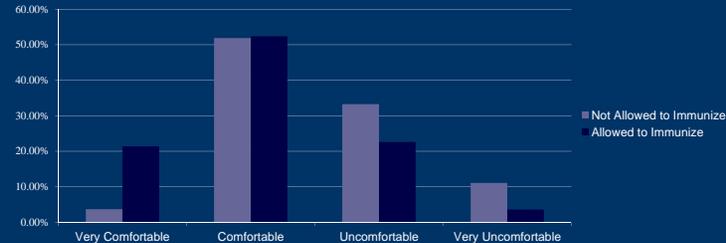
- Determine if practicing vaccine administration during APPEs improves student comfort level.
- Assess if students are providing immunizations during their APPEs.

METHODS

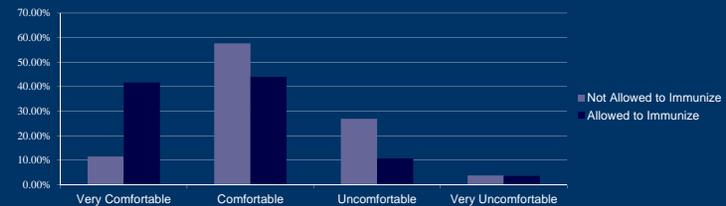
- This study was approved by the West Virginia University IRB.
- A comparative study of the students who were able to immunize during rotations and a group that was unable to immunize was conducted.
- An anonymous survey was administered to both groups to assess their readiness to perform immunizations before and after rotations.
- Data was gathered through an anonymous survey that was administered to students after the completions of their APPEs and prior to graduation.
- Data was analyzed using JMP 12.0 (JMP Version 12.0, SAS Institute Inc, Cary, NC).

RESULTS

Student Comfort Level Prior to APPE



Student Comfort Level Prior to Graduation



RESULTS

- A total of 111 students completed the survey.
- There was no statistically significant difference between the comfort levels in administering immunizations between the two groups of students.
- Comfort levels of the students who actually administered immunizations during their APPEs was statistically higher than those who did not administer immunizations during the same year ($p=0.0310$).
- Of the groups of students that were legally able to provide immunizations ($n=84$), only 44 students (52.3%) actually provided immunizations during their APPEs.
- Seventy percent of the total students completing the survey planned to practice in settings where immunizations are frequently provided.

IMPLICATIONS

- The results of this survey demonstrated that practice increases student comfort level for administering immunizations even though their baseline didactic learning and opportunity to practice immunizations was the same.
- It is concerning that although students were legally permitted to provide immunizations, only approximately half of the students actually administered them.
- These observations demonstrate a gap that should be addressed in APPE curriculum requirements to ensure students have the opportunity to practice this valuable skill.
- Since this study was conducted, the School has implemented a new curriculum and the certificate program is now taught in the first professional year allowing students to immunize during the Introduction to Pharmacy Practice Experiences (IPPEs), APPEs, and internships.

REFERENCES

1. Turner CJ, Ellis S, Giles J, Altieri R, Sintek C, Ulrich H, Valdez C, Zadovny E. An introductory pharmacy practice experience emphasizing student-administered vaccinations. *Am J Pharm Educ.* 2007; 71(1) Article 03.