Assessing Student Pharmacists’ Attitudes Towards Using a Certificate Program to Teach Immunizations

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Background
• In 2008, immunization training was incorporated in the University of Iowa College of Pharmacy (UICOP) curriculum and instruction of the training was up to the discretion of the lab coordinator
• In 2015, the UICOP started utilizing the Collaborative Education Institute’s (CEI) program for immunization administration training of their students
• No previous studies performed on the training

Objectives
• Primary: Assess student pharmacists’ attitudes towards receiving immunization training in a didactic course, determine the impact this training had on their ability and confidence to discuss eligibility and appropriately administer immunizations
• Secondary: Use data to improve the immunization training curriculum at UICOP

Methods
• Approved by University of Iowa IRB
• A voluntary, anonymous survey was administered via Qualtrics® during Spring 2017 to second year pharmacy students at UICOP (n=105)
  • 14 questions about perceptions using 5-point Likert scale
  • 1 question collected self-reported number of immunizations administered since certifications
  • 2 questions allowed for improvements and suggestions
  • No statistical analysis performed

Survey Question | Strongly disagree | Moderately disagree | Neither agree or disagree | Moderately agree | Strongly agree
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The training was easy to follow and understand | 0% (0) | 1.67% (1) | 1.67% (1) | 30% (20) | 66.67% (40)
Having the training as part of the curriculum was convenient | 1.64% (1) | 1.64% (1) | 0% (0) | 9.84% (6) | 86.89% (53)
The training was provided at a time in the curriculum that aided my learning and applications of immunizations | 1.64% (1) | 3.28% (2) | 0% (0) | 26.23% (16) | 68.85% (42)
I feel confident in my ability to assess a patient’s eligibility for a specific immunization | 0% (0) | 6.45% (4) | 9.84% (6) | 54.1% (33) | 29.51% (18)
I feel confident knowing which needle to use for subcutaneous and intramuscular injections | 1.64% (1) | 1.64% (1) | 1.64% (1) | 36.07% (22) | 59.02% (36)
I feel confident administering subcutaneous injections to patients | 0% (0) | 6.56% (4) | 4.92% (3) | 31.15% (19) | 57.38% (35)
I feel confident administering intramuscular injections to patients | 0% (0) | 1.64% (1) | 1.64% (1) | 13.11% (8) | 83.61% (51)
I plan to use my certification to give immunizations to patients in the future | 1.64% (1) | 1.65% (1) | 0% (0) | 4.92% (3) | 91.8% (56)
I feel confident discussing with a patient about immunizations for which he/she is eligible | 4.92% (3) | 6.56% (4) | 11.48% (7) | 50.82% (31) | 26.23% (16)

Results
• 61 students responded to the survey
• 83.6% strongly agreed that they feel confident administering intramuscular injections
• 91.8% strongly agreed that they plan to use their immunization training to administer vaccinations in the future
• 29.5% strongly agreed that they felt confident in their ability to assess a patient’s eligibility to receive a vaccine
• The majority of students (87%) have administered at least one immunization

Conclusion
• Strengths of using a certificate program include ease/convenience of having training as part of the curriculum, confidence in intramuscular administration technique, and knowledge of discarding hazardous materials
• Weaknesses were confidence in subcutaneous injection technique and determining immunization eligibility of patients

Limitations
• Difficult to apply results to college of pharmacy curriculums outside of the University of Iowa

Application
• Changes in curriculum: one additional subcutaneous injection administration practice and extra review session related to patient eligibility annually
• Future studies for incoming students to assess the impact of changes made and to continually improve training