

Pharmacy Careers Program

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Background

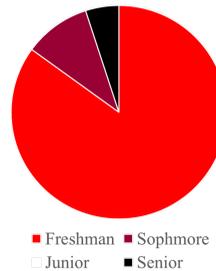
- In 2018, the American Association of Colleges of Pharmacy (AACP) released a strategic plan that had a goal that targeted expanding national pharmacy pipeline development programs.
- This could be in response to the declining number of applicants to Schools of Pharmacy since 2013.
- In 2020, three PharmD Candidate at Southern Illinois University Edwardsville School of Pharmacy created a similar program under the supervision of a faculty member
 - The goal of this program was to teach students interested in pharmacy about building a professional image and learning about different focus areas of pharmacy.
- The objective of this study is to obtain a quality assurance of the implementation of the Pharmacy Careers Program, focusing on knowledge of focus topics and perception of completion of the course.

Methods

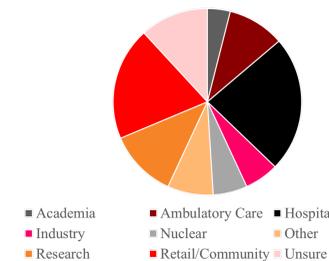
- The Course: Six 1.5-Hour modules given in person or virtually (asynchronously) offered to undergraduate students (aged 18-21) interested in pharmacy.
 - Focus Topics: Pathways in Pharmacy, Networking and Professionalism, Communication, Gastroesophageal Reflux Disease (GERD), Immunizations, and Diabetes.
- Research was conducted through pre- and post-program surveys and pre- and post module surveys.
 - Pre- and post-program surveys: Assessed demographics of students, reasons for taking part in the program and likelihood to choose a career in healthcare/pharmacy.
 - Pre- and post-module surveys: 4 questions each that asked 2 knowledge-based questions and 2 Likert-scale questions to assess comfort with the focus topics. The same survey was given before and after each module.
- Participation in modules was at no charge to students. Participation in research was completely option and anonymous for all students.
- Students were required to attend at least 4 of the 6 modules for completion of the program

Results

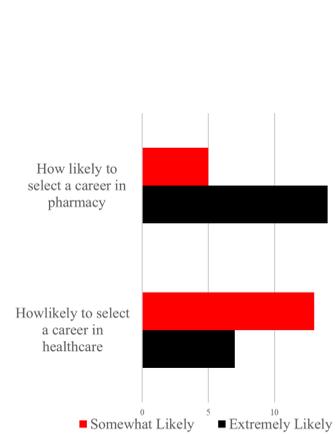
Current Year in School



Paths in Pharmacy students are currently interested in



Pre-Survey Likert Scale Questions (n=20)



Post Survey Likert Scale Questions (n=13)

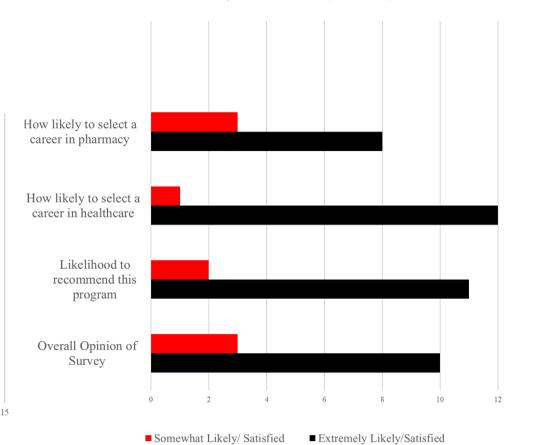


Table 2: Individual Modules Knowledge-Based Questions

	Pre-Survey: Number of Students that answered correctly (% correct)	Post-Survey: Number of students that answered correctly (% correct)
Module 1: Pathways in Pharmacy (n=21)		
What all is required to be a certified pharmacy technician? (Select all that apply)	8 (38%)	10 (47%)
What setting(s) do Pharmacist's practice within? (select all that apply)	13 (61%)	13 (61%)
Module 2: Networking and Professionalism (n=19)		
The best option for a professional resource to use on an application?	18 (94%)	19 (100%)
Which of these statements in regard to CVs and Resumes are true? (Select all that apply)	0 (0%)	15 (78%)
Module 3: Communication (n=17)		
In the state of Illinois, what information is required to be said to the information while counseling?	8 (47%)	14 (82%)
Who is allowed to counsel on a prescription in the state of Illinois?	10 (58%)	16 (94%)
Module 4: GERD (n=13)		
Risk Factors that can lead to GERD: (Select all that apply)	5 (38%)	11 (85%)
What options do we have for GERD treatment (select all that apply)	0 (0%)	9 (69%)
Module 5: Immunizations (n=13)		
What are the different vaccine types (Select all that apply)	2 (15%)	7 (54%)
Which of the statements below about immunity is true?	9 (69%)	8 (62%)
Module 6: Diabetes (n=11)		
What cells secrete insulin?	5 (45%)	10 (91%)
Which of these statements about diabetes is false?	3 (27%)	4 (36%)

Table 3: Individual Modules Comfort Based Questions

	Median Score of Likert Scale for Pre-Survey (Range)	Median Score of Likert Scale for Post Survey (Range)
Module 1: Pathways in Pharmacy (n=21)		
I have a good understanding of where the practice of pharmacy fits within the healthcare field.	4 (2-4)	5 (4-5)
I have a good understanding of the scope of practice of a pharmacist.	4 (3-4)	5 (4-5)
Module 2: Networking and Professionalism (n=19)		
I would feel comfortable knowing how to network/ask for resources.	3 (1-5)	4 (2-5)
I understand what impact appropriate attire can have on a professional environment	5 (3-5)	5 (4-5)
Module 3: Communication (n=17)		
I understand the importance of communication within pharmacy practice.	4 (3-5)	5 (5)
I understand the qualities that lead to improved communication.	4 (2-5)	5 (5)
Module 4: Gastroesophageal Reflux Disease (n=13)		
I understand the difference between Gastroesophageal Reflux Disease (GERD), heartburn and acid reflux.	2 (1-4)	5 (4-5)
I understand the physiology of how GERD works.	2 (1-4)	5 (4-5)
Module 5: Immunizations (n=13)		
I understand the difference between active and passive immunity.	3 (1-4)	5 (4-5)
I understand the role that pharmacist's play in immunizations.	4 (1-5)	5 (5)
Module 6: Diabetes (n=11)		
I understand the role that pharmacists play in the treatment of diabetes.	3 (1-4)	5 (5)
I understand what to do in a situation of a person having low blood sugar (hypoglycemia).	3 (1-5)	5 (5)

Likert Scale:
 1- Strongly Disagree, 2- Somewhat Disagree, 3- Neither Agree nor Disagree, 4- Somewhat Agree, 5- Strongly Agree

Discussion

- There is not much change in likelihood to choose a career in healthcare or pharmacy from pre- to post- program survey, but this could be that already motivated students attended the program.
- There was little to no change in people who were pharmacy technicians before and after program, showing that the program did not push students to become technicians.
- Students tended to have larger differences on their pre-and post-survey comfort level questions on disease state topic modules compared to modules focused on building professional skills.
- A larger percentage of students answered correctly on post-survey knowledge-based questions compared to pre-survey (with 2 exceptions), showing a gain in knowledge from the modules.
- While participation in the surveys decreased with each module, 18 out of 30 students attended at least 4 of the modules, showing participation in the modules did not decrease.
- Limitations of very small sample size, ability to offers the programs as multiple times leading to decrease in survey participation and survey bias.

Conclusion

- Overall, very high rates of satisfaction were reported among students.
- If given again, moving modules closer together, giving more offerings of each module, and offering the program to younger or more students would increase overall participation.
- I recommend more studies be done with this program in the future to compile more data for analysis.