

Addressing vaccine hesitancy through health behavior models and motivational interviewing – The student perspective

Goodman M, Blake EW, Davies A, Tucker SB, Hastings TJ

University of South Carolina, Department of Clinical Pharmacy and Outcome Sciences, Columbia, SC, USA
Contact information: Macie Goodman, PharmD, PhD Student macieg@mailbox.sc.edu



Background

- Vaccine hesitancy is one of the top 10 threats to public health¹
- One of the strongest predictors of vaccine acceptance is a recommendation from a healthcare professional^{2,3}
- Pharmacists have an important role as they are easily accessible with 90% of the population living within five miles of a pharmacy⁴
- Training student pharmacists to provide vaccine recommendations and address vaccine hesitancy is critical

Objective

Assess pharmacy students' perceptions of their ability to address vaccine hesitancy using health behavior models and motivational interviewing after completion of a vaccine hesitancy assignment.

Methods

- First-year Introduction to Pharmacy Practice course (2 credit hours) included instruction on the following topics:
 - Vaccine Hesitancy
 - Motivational Interviewing
 - Health Behavior Models
 - Health Belief Model
 - Transtheoretical Model
- Students were presented with vaccine hesitancy scenarios and asked to respond to questions including:
 - Identification of patient's stage of change
 - Management strategy
 - Health belief model construct to be emphasized
 - Motivational interviewing technique to be used
 - Communication plan
- Assignment Objectives:
 - Incorporating health belief model and motivational interviewing into various patient scenarios
 - Examining public and population health concepts in current pharmacy issues and applying them to patient scenarios
 - Employing an approach to patient communication and engagement
- Student perceptions were solicited via a brief and anonymous six question Likert type-item Qualtrics survey in 2022 and 2023 at the end of the semester

Example Scenario: Lucas (12 years old)

Lucas is a 12-year-old boy diagnosed with asthma who comes to your pharmacy with his father to pick up his Symbicort. You check his immunization record in SIMON and see he has received the Tdap and MenACWY vaccines at age 11. Today, he needs his HPV and influenza vaccines.

You open the conversation with Lucas' father using a presumptive statement, "I see Lucas is due for the HPV and influenza vaccines today. I have both vaccines in stock and can administer them today."

Lucas' father reacts to your recommendation with surprise and says he didn't know pharmacists could administer vaccines. Lucas' father says he would like Lucas to receive the influenza vaccine but doesn't think his son needs the HPV vaccine. He steps toward the side of the counter asks Lucas to wait on the other side of the room so he can speak with you privately. He says he thought the HPV vaccine was only for girls and it seems too early as Lucas is not sexually active. He doesn't see the need for Lucas to receive the HPV vaccine and doesn't want to send a message encouraging sex.

Results

Table 1: Respondent Characteristics (N= 97) *Select all that apply

Respondent Characteristics	N (%)
Undergraduate Degree	16 (16%)
No Undergraduate Degree	81 (84%)
Type of Undergraduate Degree	
Chemistry	3 (19%)
Biology	8 (50%)
Biochemistry	1 (0.06%)
Other	4 (25%)
Pharmacy Experience	66 (68%)
No Pharmacy Experience	31 (32%)
Type of Pharmacy Experience*	
Chain or corporate-owned	40 (61%)
Independent Community Hospital	19 (29%)
Long Term Care	2 (0.03%)
Pharmaceutical Industry	6 (0.09%)
Other	1 (0.02%)

A total of 97 students across the two years completed the student perception survey (Response Rate = 53%)

Table 2: Student Perceptions (N = 97)

	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
Improved understanding of the pharmacists' role in addressing vaccine concerns	68 (70.1)	25 (25.8)	4 (4.1)	0	0
Improved understanding of the Health Belief Model	61 (62.9)	32 (33.0)	4 (4.1)	0	0
Improved application of motivational interviewing	71 (73.2)	21 (21.6)	4 (4.1)	0	1 (1.0)
Improved understanding of the transtheoretical model	60 (61.9)	32 (33.0)	5 (5.2)	0	0
Overall valuable to learning experience	70 (72.2)	24 (24.7)	3 (3.1)	0	0
Vaccine hesitancy assignment should be continued in the future	71 (73.2)	22 (22.7)	4 (4.1)	0	0

Conclusion

Students had positive perceptions of their ability to address vaccine concerns in this application of communications approaches. Future iterations may incorporate more active role play to test the effectiveness of these interactions.

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Disclosure

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