A Cross Sectional Survey of Student Pharmacists' Vaccine Hesitancy Perceptions at a United States College of Pharmacy



Aqel O, BPharm, Alfayoumi I, BPharm, David R. Axon, PhD, MPharm, MS, MRPharmS

¹University of Arizona College of Pharmacy



BACKGROUND

- Evidence demonstrating the benefits of vaccination is numerous.¹
- However, vaccine hesitancy is starting to spread rapidly through different populations.²
- As future healthcare professionals, student pharmacists have a role in educating patients about vaccines and helping reduce vaccine hesitancy.³
- However, student pharmacists' perceptions of vaccine hesitancy have not been investigated.

OBJECTIVE

• This study aimed to assess third- and fourth-year student pharmacists' perceptions of vaccination hesitancy.

METHODS

Study design & data collection method

- Cross-sectional study.
- An online questionnaire was administered to all third- and fourth-year student pharmacists (N=256) at one college of pharmacy in the US.



Questionnaire

• The questionnaire consisted of 10 Likert-type perception statements (developed from items in the literature) with response options of strongly disagree, disagree, agree, or strongly agree and two descriptive items (academic year, gender).



Data analysis

• Descriptive analysis using frequency and percentage was conducted.

TABLE 1

Table 1. Student pharmacists' level of agreement with vaccination hesitancy perceptions (N=59)

hesitancy perceptions (14–39)				
Statements	Strongly Disagree N (%)	Disagree N (%)	Agree N (%)	Strongly Agree N (%)
The benefit of vaccinations outweighs the risk of vaccinations	0 (0)	0 (0)	13 (22.0)	46 (78.0)
New vaccines carry more risks than older vaccines	27 (45.8)	22 (37.3)	9 (15.3)	1 (1.7)
The information I receive about vaccines from the vaccine programs is reliable and trustworthy	0 (0)	1 (1.7)	14 (23.7)	44 (74.6)
Vaccinations are generally safe	0 (0)	0 (0)	12 (22.0)	47 (78.0)
I am concerned about having a serious adverse event from vaccinations	18 (30.5)	20 (33.9)	21 (35.6)	0 (0)
Developing immunity by getting sick is better than getting vaccinated	43 (72.9)	15 (25.4)	1 (1.7)	0 (0)
Getting vaccinated is important to protect others	0 (0)	1 (1.7)	5 (8.5)	53 (89.8)
I do not need vaccines for uncommon diseases	35 (59.3)	23 (39.0)	1 (1.7)	0 (0)
Getting vaccinated is important to protect myself	0 (0)	1 (1.7)	5 (8.5)	53 (89.8)
Vaccinations are not that beneficial	54 (91.5)	5 (8.5)	0 (0)	0 (0)

RESULTS

- Fifty-eight students (third-year n=31, fourth-year n=28; female=58%) completed the survey (23% response rate).
- All respondents agreed/strongly agreed that: the benefits of vaccinations outweigh the risk of vaccinations; and vaccinations are generally safe. Almost all respondents (98%) agreed/strongly agreed that: the information received from vaccine programs is reliable and trustworthy; getting vaccinated is important to protect themselves; and getting vaccinated is important to protect others.
- Approximately one-third (36%) of respondents agreed that they were concerned about having a serious adverse event from vaccinations, and 17% agreed or strongly agreed that new vaccines carry more risks than older vaccines.

CONCLUSION

• Findings from this study show that third- and fourth-year student pharmacists at one United States college of pharmacy typically had positive perceptions about vaccinations. Further research is required to determine if these findings are replicated among the wider student pharmacist population.

REFERENCE

- 1. Rodrigues CMC, Plotkin SA. Impact of Vaccines; Health, Economic and Social Perspectives. Front Microbiol. 2020;11:1526. Published 2020 Jul 14. doi:10.3389/fmicb.2020.0152
- 2. Kennedy J. Vaccine Hesitancy: A Growing Concern. Paediatr Drugs. 2020;22(2):105-111. doi:10.1007/s40272-020-00385-4
- 3. Lin C, Mullen J, Smith D, Kotarba M, Kaplan SJ, Tu P. Healthcare Providers' Vaccine Perceptions, Hesitancy, and Recommendation to Patients: A Systematic Review. Vaccines (Basel). 2021;9(7):713. Published 2021 Jul 1. doi:10.3390/vaccines9070713