

Influenza vaccination perceptions among pharmacy students during the COVID-19 pandemic

Danielle DeCuir¹, Gabby Duenas¹, Mallory Miller¹, Taylor Tellez¹, Samantha Zimmerman¹

University of Arizona R. Ken Coit College of Pharmacy¹



Pharmacy



THE UNIVERSITY OF ARIZONA
R. Ken Coit
College of Pharmacy

Background

- Influenza is a respiratory illness that affects about 8% of the United States' population each winter.¹
- Shift in focus from influenza to the Coronavirus Disease 2019 emergency once pandemic levels had been reached on March 11th, 2020.²
- Increase of influenza prevalence compared to the previous 2020-2021 influenza season, which was around the start of the pandemic.³
- Since the pandemic, the incidence of influenza vaccination acquisition is starting to decrease among healthcare workers; however, it is unknown if influenza vaccination rates have decreased among pharmacy students.
- The COVID-19 pandemic has polarized and politicized the way people approach vaccines and may have influenced student pharmacists' rationale for receiving or denying the influenza vaccine despite being enrolled in a graduate healthcare program.

Objectives

- Perceptions about the influenza vaccine and vaccination status during the COVID-19 pandemic among student pharmacists.
- If vaccination decisions were perceived to have impacted students' overall health and wellness.

Methods

- This study is a qualitative evaluation of students' responses given during investigator-led focus groups. Invitations to participate in the focus groups were sent to all current P1-P3 students (n=384).
- 25 student pharmacists participated in a total of four focus groups (6.5%).
- Inclusion criteria: participants had to be at least 18 years of age and enrolled in didactic education at the University of Arizona R. Ken Coit College of Pharmacy during the Spring 2022 semester.
- Exclusion criteria: students who did not participate in the focus groups and the class of 2022, as they were not enrolled in didactic education.
- Conversation within the focus groups was initiated with open-ended questions pertaining to vaccination decisions and perceptions about the potential impact on overall health and wellness.
- After concluding the focus groups, the audio recording was transcribed and analyzed for any recurrent themes.

Results

A total of 25 student pharmacists participated, all were vaccinated during the Fall 2021/Spring 2022. The average age of participants was 26.4 years and 80% identified as female (n=20). Seven main themes were identified:

- Altruism
- Necessity
- Risk reduction
- Routine
- Vaccine knowledge expanded through pharmacy school
- Advocacy
- Hesitancy

Figure 1: Main Themes Identified During Focus Groups

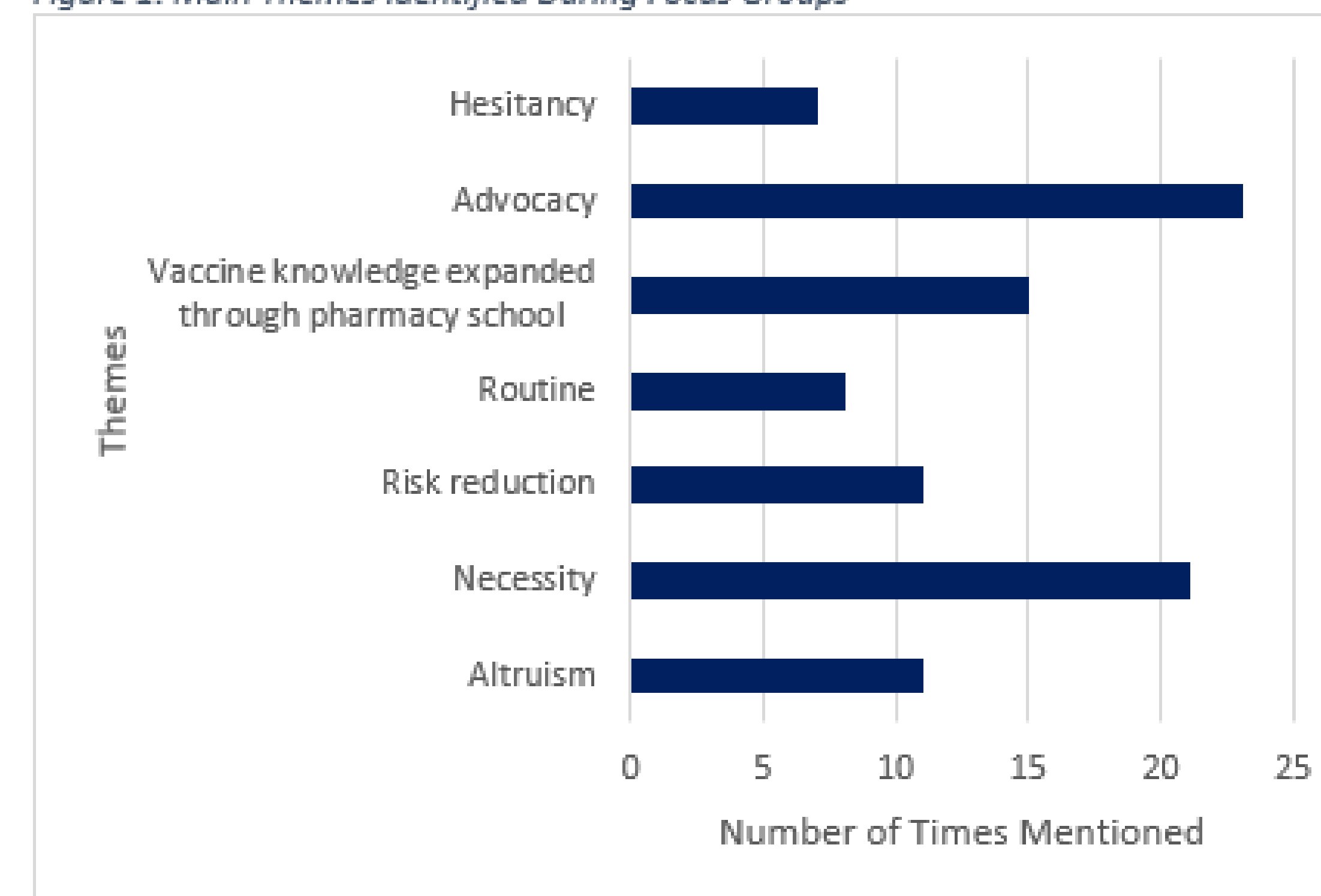


Table 1: Vaccination Status Demographics

Characteristics	Yes n = 25 (%)	No n = 0 (%)	Overall n = 25 (%)
Age, yrs			
Mean (SD)	26.4 (4.02)	0.0 (0.0)	26.4 (4.02)
Median (IQR)	25.0 (4.0)	0.0 (0.0)	25.0 (4.0)
Range			
<24	9 (36.0)	0 (0.0)	9 (36.0)
25-29	12 (48.0)	0 (0.0)	12 (48.0)
≥30	4 (16.0)	0 (0.0)	4 (16.0)
Sex			
Male	5 (20.0)	0 (0.0)	5 (20.0)
Female	20 (80.0)	0 (0.0)	20 (80.0)
Campus			
Phoenix	14 (56.0)	0 (0.0)	14 (56.0)
Tucson	10 (40.0)	0 (0.0)	10 (40.0)
No Answer	1 (4.0)	0 (0.0)	1 (4.0)
Race			
Asian	8 (32.0)	0 (0.0)	8 (32.0)
Black	1 (4.0)	0 (0.0)	1 (4.0)
Indigenous	1 (4.0)	0 (0.0)	1 (4.0)
Mixed	1 (4.0)	0 (0.0)	1 (4.0)
White	12 (48.0)	0 (0.0)	12 (48.0)
No Answer/Prefer Not to Answer	2 (8.0)	0 (0.0)	2 (8.0)
Ethnicity			
Hispanic/Latino	6 (24.0)	0 (0.0)	6 (24.0)
Not Hispanic/Latino	18 (72.0)	0 (0.0)	18 (72.0)
No Answer	1 (4.0)	0 (0.0)	1 (4.0)
Political Views			
Democrat	15 (60.0)	0 (0.0)	15 (60.0)
Independent	7 (28.0)	0 (0.0)	7 (28.0)
Republican	1 (4.0)	0 (0.0)	1 (4.0)
Prefer Not to Answer	2 (8.0)	0 (0.0)	2 (8.0)

Table 2: Themes Identified and Representative Quotes from Focus Group Discussions

Theme	Representative Quote
Theme 1 Altruism	"...for my own protection, and then also for the protection of other people around me..." "...taking precautions for myself and the people around me." "I just got vaccinated to protect the people around me and the types of patients I'm seeing..." "A lot of my family has chronic illnesses so doing my part and just trying to keep everyone safe." "...make sure everyone that was around me was safe." "...telling people and making people understand that vaccination isn't just about them. And that it's about other people and the people around them and their communities."
Theme 2 Necessity	"...required by school, by work..."
Theme 3 Risk reduction	"I can't afford to get sick, and I feel like I have less odds of getting sick with it than without it..." "...reduction of risk and decrease in severity of illness if I was to get sick."
Theme 4 Routine	"I've always gotten it..." "I usually get it every year."
Theme 5 Vaccine knowledge expanded through pharmacy school	"...learned a lot more going into pharmacy school..." "...learned more since I was in [pharmacy] school..." "It's a privilege to have the knowledge we have and to do what we do..."
Theme 6 Advocacy	"...wanting to be that role model." "...exciting opportunity to educate..." "...advocate now for all sorts of vaccines."
Theme 7 Hesitancy	"I pushed back my flu vaccine a little later than I usually do get it just because I didn't know." "I feel like some people are sometimes hesitant about getting vaccines just because of side effects. So, they avoid it."

Discussion

- Participants considered receiving the influenza vaccine as something that concerned more than just themselves and viewed it as an important determinant for severity of illness.
- Although the influenza vaccine is a requirement for enrollment in the pharmacy program, most participants stated they received the influenza vaccine annually regardless.
- Prior to enrollment, participants stated they had a decent understanding regarding the influenza vaccine, but the college of pharmacy program did in fact expand their knowledge.
- Student pharmacists took it upon themselves to be an advocate for vaccinations and wanted to be viewed as a role model for their patients, families, and communities.
- There was little to no hesitancy to receive the influenza vaccine during the COVID-19 pandemic.
- Influenza vaccination status was not perceived to have impacted the participants' overall health and wellness.

Limitations

- The number of participants
- We did not have any participants who had not received the influenza vaccine during the Fall 2021/Spring 2022.

Conclusion

During the COVID-19 pandemic, pharmacy students considered themselves advocates/role models for their communities regarding receiving the influenza vaccine. Their overall health and wellness did not appear to have been impacted. These findings demonstrate the potential for future studies to evaluate other factors that could influence vaccination rates among different populations.

References

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