Impact of an Implementation Science–Based Project to Address COVID-19 Vaccine Hesitancy

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INTRODUCTION

Rapid advances in COVID-19 vaccine development and deployment have been accompanied by high levels of misinformation, confusion, and distrust surrounding the vaccines among the public on subjects ranging from understanding risks associated with COVID-19 itself to the safety and efficacy of vaccines.[1,2] As a trusted and accessible source of vaccine information, health care professionals (HCPs) play an important role in educating patients and encouraging vaccination. However, to be effective vaccine advocates, HCPs must be given evidence-based training and the tools they need to provide patient-centered care.[3]

To address this need, we sought to: (1) evaluate the impact of a regional education series in which HCPs delivered evidence-based information on COVID-19 vaccination to a group of their own patients, and (2) identify reasons for vaccine hesitancy.

METHODS

Between September 2021 and January 2022, live in-person and/or virtual patient education programs were held in community centers/clinics in North Carolina and Georgia.

The sessions were led by the clinics' own HCPs. The education materials covered core concepts in COVID-19 vaccination, including benefits and risks, and provided opportunities for patients to ask questions.

Surveys were administered to patients immediately before and after the sessions, and again 3 weeks later.

Data from respondents were analyzed using Chi-square tests or Fisher's exact tests to assess the statistical significance of pre/post differences.

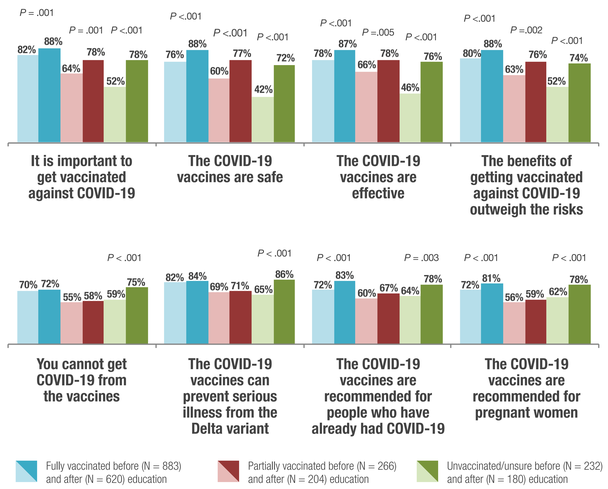
RESULTS

Table 1. Participant Characteristics

Patients (N = 1,381)	
Average age (years)	33
Gender	
Female	43%
Male	49%
Transgender	8%
Race/ethnicity*	
Asian/Pacific Islander	18%
African American/Black	34%
Hispanic/Latinx	17%
Native American/Alaska Native	10%
White	25%
COVID-19 Vaccination Status	
Fully vaccinated	64%
Partially vaccinated**	19%
Unvaccinated	14%
Unsure	3%
HCPs (N = 28)	
Discipline	
Physician	68%
Advanced practice provider	11%
Nurse	14%
Counselor	7%

*Participants could select multiple options
**Received 1 of 2 primary doses

Figure 1. Patient Attitudes and Knowledge About COVID-19 Vaccination



Key Takeaways:

- Patients' baseline attitudes and knowledge varied by COVID-19 vaccination status.
- After the education, patients who were unvaccinated/unsure had the greatest gains in positive attitudes about COVID-19 vaccines.

Figure 2. Patients' Top Reasons for Not Getting Vaccinated

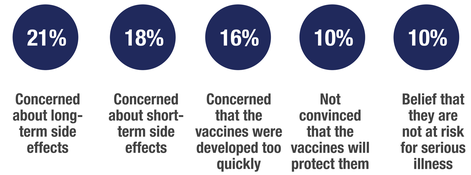
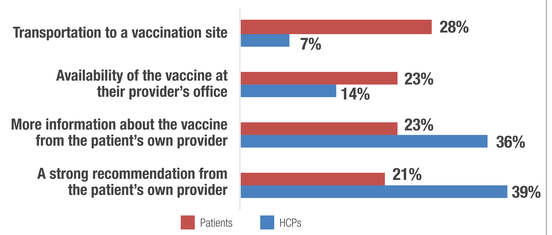


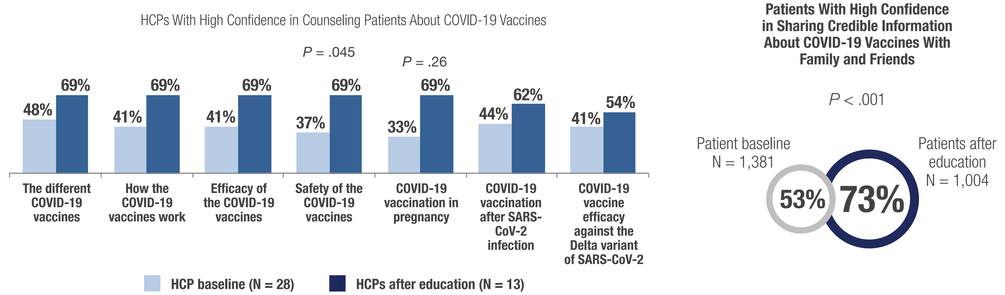
Figure 3. Patients' and HCPs' Views of Facilitators of COVID-19 Vaccination



Key Takeaways:

- Patients' reasons for not getting vaccinated centered on concerns about vaccine safety and efficacy, and complacency about personal risk.
- Providers felt that recommendations and education from HCPs were most likely to improve vaccine acceptance. In addition to these factors, patients also identified transportation and vaccine availability at their provider's office as equally important.

Figure 4. HCP and Patient Confidence in Educating Others About COVID-19 Vaccines

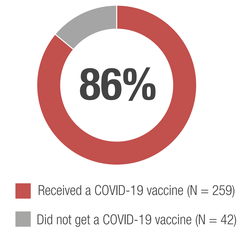


Key Takeaways:

- HCPs who participated in leading the sessions gained confidence in patient counseling about COVID-19 vaccines.
- Patients also gained confidence in sharing credible vaccine information with others.

Figure 5. Patient-Reported Receipt of COVID-19 Vaccine After the Education

Patient follow-up survey sent 3 weeks after the education session



Key Takeaways:

- A large number of patients reported getting a COVID-19 vaccine after the education.

CONCLUSIONS

While gains in patient knowledge about COVID-19 vaccines were variable, patient attitudes toward COVID-19 vaccines consistently improved, regardless of vaccination status or baseline attitudes. Vaccine uptake was high following the program.

Patients' reasons for not getting vaccinated and views on facilitators for vaccine acceptance fit within established frameworks of vaccine hesitancy rooted in convenience (vaccine accessibility), complacency (perception that vaccines are not valuable), and confidence (concerns about vaccine safety and efficacy, or lack of trust in agencies that are promoting vaccination).[4]

Importantly, the education increased both HCP and patient confidence in sharing credible information about COVID-19 vaccines with others. Thus, the educational model may be useful for expanding the number of individuals who can help to spread evidence-based information on COVID-19 vaccines within local communities.

Study Limitations:
Patients who were more receptive to credible information on COVID-19 vaccines may have been more likely to participate. A control group was not available, and causality between the education and vaccine uptake cannot be determined.

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DISCLOSURES

The study reported in this abstract was funded by educational grants from Janssen Therapeutics, Division of Janssen Products, LP and Moderna. The grantors had no role in the study design, execution, analysis, or reporting.

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