

Characteristics And Beliefs Associated With COVID-19 Vaccination Acceptance In Parents Of Pediatric Emergency Department Patients



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Introduction

- Despite widespread SARS-CoV-2 (COVID-19) vaccine availability, vaccine acceptance has remained low in certain populations.¹⁻³
- Some have postulated that racial and ethnic factors play a major role in vaccine hesitancy, whereas others believe that additional, yet unknown, factors are associated with COVID-19 vaccine acceptance.

Objective

- We hypothesized that parental trust in scientists, trust in the media, and belief that children can infect others would also be associated with COVID-19 vaccine acceptance for themselves.

Methods

Study Design

- Secondary analysis of a cross sectional study
- IRB approved and participants provided verbal informed consent

Setting

- Cooper University Hospital, Camden, NJ
- St. Christopher's Hospital for Children, Philadelphia, PA
- Urban, academic, university hospital pediatric EDs
- Data collected 6/21-8/21

Patient Population

- Parents (≥18 years) of children aged 3-16 yrs presenting to one of the two pediatric EDs
- Only one parent per child was enrolled; no repeat enrollments
- Data collected pertained only to the presenting child

Survey items

- English and Spanish surveys were utilized
- Data collected included:
 - Parental demographics
 - Vaccination history
 - Socio-economic data
 - Parental beliefs

Methods (continued)

Survey Items

- Parents were also asked to rate their agreement (scale of 0-10) with the following items:
 - I believe that children infected with COVID-19 can infect others
 - I trust the information from scientists about the safety of the COVID-19 vaccines
 - I trust the information from the media about the safety of the COVID-19 vaccines

Analysis

- Summary statistics
- Univariate analysis (odds ratios, OR) and multivariable regression (adjusted odds ratios, aOR) with corresponding 95% confidence intervals (95% CI) to determine which factors were associated with parental COVID-19 vaccination

Results

- 438 parents were enrolled
- 84% Female, 41% Hispanic, 38% African American/Black
- Median parental age: 34 (IQR 29-39) years
- 14% did not complete high school
- 41% reported an annual income < \$25,000
- 60% reported influenza vaccination in the past 2 years

Parental COVID-19 Vaccination Status	
Status	N = 438 n (%)
Vaccinated	181 (41)
Very likely to vaccinate	28 (6)
Likely to vaccinate	32 (7)
Neither likely nor unlikely to vaccinate	73 (17)
Unlikely to vaccinate	27 (6)
Very unlikely to vaccinate	96 (22)

Results (continued)

Variables Associated with Parental COVID-19 Vaccination		
Variable	OR (95% CI)	aOR (95% CI)
Trust information from scientists about the safety of the COVID-19 vaccines (agreement ≥ 7)	6.21 (4.07 – 9.47)	4.45 (2.64 – 7.51)*
Income (< \$25,000, reference)	4.99 (2.83 – 8.82)	3.41 (1.68 – 6.94)*
Trust information from the media about the safety of the vaccine (agreement ≥ 7)	3.58 (2.20 – 5.83)	1.65 (0.90 – 3.04)
Education (college degree vs none)	3.09 (1.84 – 5.18)	1.72 (0.90 – 3.04)
Belief that children infected with COVID-19 can infect others (agreement ≥ 7)	2.82 (1.56 – 5.12)	1.28 (0.65 – 2.52)
Increasing parental age (18-34 yrs, reference) 35-44 yrs, ≥ 45 yrs	1.76 (1.33 – 2.34)	1.48 (1.06 – 2.07)*
Influenza vaccine in the past 2 years	1.18 (1.01 – 1.38)	1.15 (0.97 – 1.36)
African American/Black race	0.49 (0.33 – 0.74)	0.65 (0.40 – 1.05)

Female sex and Hispanic/Latinx ethnicity did not demonstrate an association with parental COVID-19 vaccination in univariate analysis
 * Demonstrated significance in the multivariable regression

Limitations

- 2 site study, so results may not be generalizable
- Other factors, which we did not include, may also be associated with COVID-19 vaccination

Conclusions

- A minority of parents were vaccinated against COVID-19
- Our multivariable logistic regression findings differed from prior studies in that sex, race, and ethnicity were no longer associated with vaccination due to the inclusion of our "trust" variables.
- For parents, COVID-19 vaccine acceptance was most highly associated with trust in scientists about vaccine safety.

References:

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