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## Perceptions of the COVID-19 Vaccination Within a Convenience Sample of Sudanese Americans

Jonathan Freese  
*University of Nebraska Medical Center*

Fatima Abuzaid MBBS  
*University of Gezira*

Mujtaba Abdellatif MD  
*Trinity Health*

Harlan Sayles  
*University of Nebraska Medical Center*

Nada Fadul  
*University of Nebraska Medical Center*

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# Perceptions of the COVID-19 Vaccine within the Sudanese American Community

Jonathan Freese, M3; Fatima Abuzaid, MBBS; Harlan Sayles; Mujtaba Abdellatif, MD; Nada Fadul, MD  
University of Nebraska Medical Center Omaha, NE 68198

## Introduction

- The WHO defines *Vaccine Hesitancy* as delay in acceptance or refusal of vaccination despite availability of vaccination services and recognized it as one of the top 10 global health threats in 2019.<sup>1</sup>
- COVID-19 vaccination rates for the US and Sudanese populations were 78% and 15%, respectively, and studies from both countries have identified hesitancy toward behaviors to protect from COVID-19.<sup>2,3,4</sup>
- Previous studies with Sudanese Americans have demonstrated low levels of health education.<sup>5</sup>
- This project aimed to characterize Sudanese American perspectives on the COVID-19 vaccine, an area that had not been studied before.

## Methods

- An anonymous, online, cross-sectional survey was directed toward Sudanese Americans and distributed through community leaders in May 2022.
- The following data was collected in REDCap: Demographics; COVID-19 vaccination status; Motives for vaccination, hesitancy, and barriers to uptake; Likert scale measures of knowledge/attitudes toward COVID-19 vaccination; Sources of information on the COVID-19 vaccine
- Primary outcomes were self-reported COVID-19 vaccination rates.
- Secondary evaluation looked for significant differences between vaccinated and unvaccinated groups using Fisher's exact and chi-squared tests.

\*The Sudanese American Public Affairs Association and the Omaha Sudanese American Community Organization

## Results

### Vaccine Uptake

- Our survey received 111 responses; 4 responses were excluded for failing to meet inclusion criteria.
- Of 107 respondents, our sample demonstrated **93% vaccine uptake**, with the primary motivation being to protect oneself from disease (64%).

### Vaccine Hesitancy

- The most cited reason for hesitancy was a belief **"it had not been studied enough,"** with 9/14 possible responses selected at least once.
- Motivations for vaccine hesitancy could not be analyzed due to sample size constraints.

### Figures

- Associations with vaccine uptake shown in **Table 1** below.
- Figure 1 (right)** demonstrates differences between vaccinated and unvaccinated groups responses to 3 Likert Scale questions

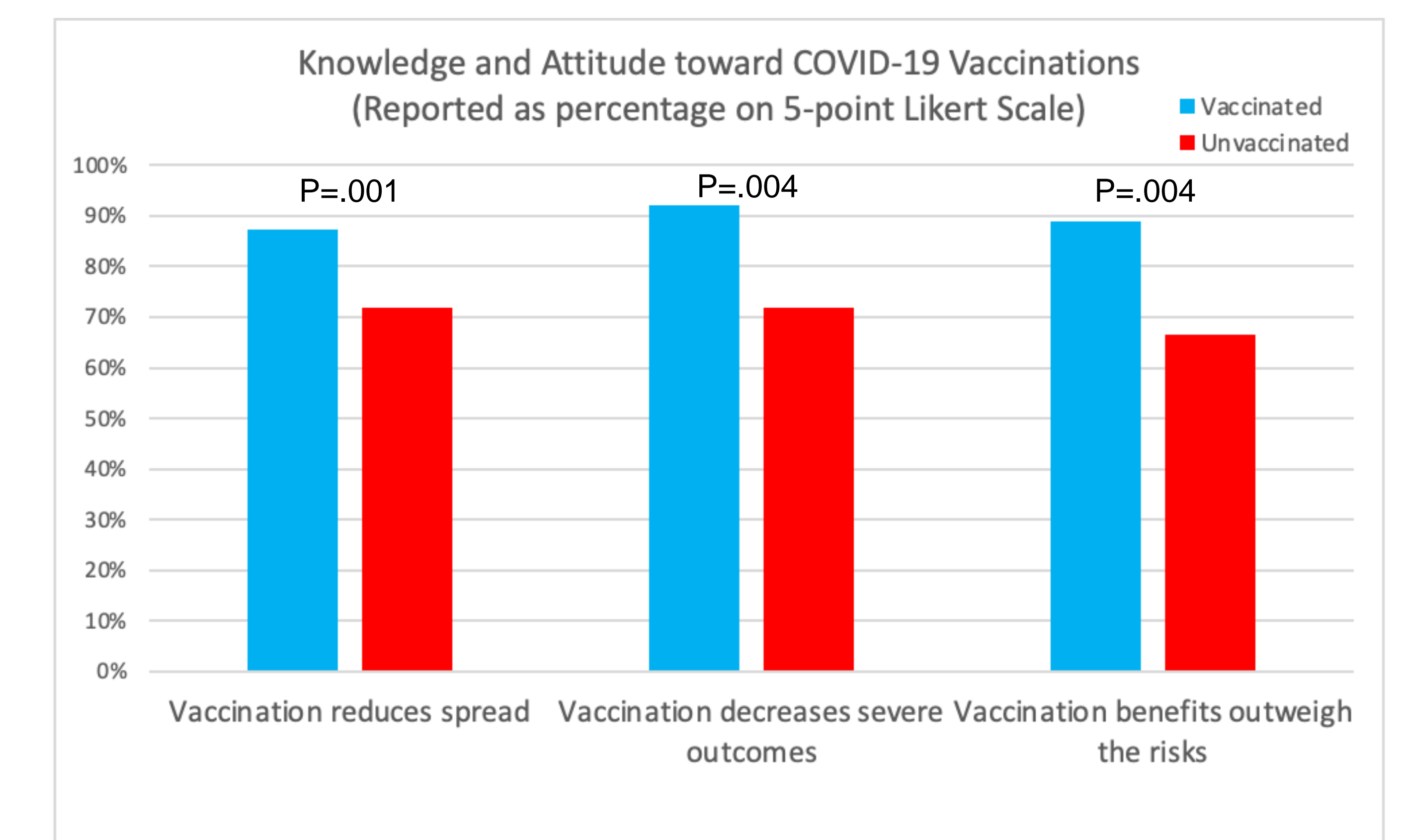
Table 1: Selected Associations with Vaccine Uptake

|  | Received Vaccination | Did not receive vaccination | Fisher's Exact ( $\chi^2$ ) |
|--|----------------------|-----------------------------|-----------------------------|
| <b>Highest Education</b>                                     |                      |                             | <b>.013*</b>                |
| Less than high school  | 0                    | 1 (12.5)                    |                             |
| High school  | 12 (12.12)           | 2 (25)                      |                             |
| University/Bachelor's  | 37 (37.37)           | 4 (50)                      |                             |
| Post-graduate  | 50 (50.51)           | 1 (12.5)                    |                             |
| <b>Previous State in Sudan**</b>                             |                      |                             | <b>.045*</b>                |
| Khartoum   | 70 (71.43)           | 4 (50)                      |                             |
| Non-khartoum district  | 22 (22.22)           | 4 (50)                      |                             |
| None   | 6 (6.12)             | 0                           |                             |
| <b>Report knowing a relative deceased due to COVID-19</b>    |                      |                             | <b>.038*</b>                |
| Yes  | 74 (74.75)           | 3 (37.5)                    |                             |
| No   | 25 (25.25)           | 5 (62.5)                    |                             |
| <b>Plan to vaccinate their own children</b>                  |                      |                             | <b>.038*</b>                |
| Yes  | 62 (62.63)           | 2 (25)                      |                             |
| No   | 19 (19.19)           | 2 (25)                      |                             |
| I do not have children                                       | 18 (18.18)           | 4 (50)                      |                             |
| <b>Primary source of information on the COVID-19 Vaccine</b> |                      |                             | <b>.005</b>                 |
| Social Media   | 8 (66.67)            | 4 (33.33)                   |                             |
| Not Social Media   | 91 (95.79)           | 4 (4.21)                    |                             |
| <b>Social Media Use</b>                                      |                      |                             |                             |
| Facebook   | 76 (76.76)           | 7 (87.5)                    | .68 (.49)                   |
| Twitter  | 46 (46.46)           | 3 (37.5)                    | .724 (.2396)                |
| Instagram  | 33 (33.33)           | 5 (62.5)                    | .129 (2.75)                 |
| Whatsapp   | 92 (92.92)           | 8 (100)                     | 1.00 (.61)                  |
| Other  | 8 (8.08)             | 1 (12.5)                    | .517 (.1876)                |

\*Based on p-value <.05

\*\*Reported based on regions to condense the tables but recorded by individual states in the survey.

Figure 1. Knowledge and Attitude toward COVID-19 Vaccinations by vaccination status as measured by questions on a 5-point Likert Scale.



## Conclusions

- This sample of Sudanese Americans reported high levels of vaccine uptake.
- Lack of trust and source of information could be primary factors in a multifactorial model contributing to COVID-19 vaccine hesitancy.
- Limitations include sample size and method, inability to evaluate vaccine hesitancy, and response bias.

## References

- Wellcome. Vaccines: A world equipped to combat infectious disease. <https://wellcome.org/what-we-do/our-work/vaccines> [accessed 20 September 2021];
- Mathieu, E., Ritchie, H., Ortiz-Ospina, E. et al. A global database of COVID-19 vaccinations. *Nat Hum Behav* 5, 947–953 (2021). <https://doi.org/10.1038/s41562-021-01122-8>
- Aw J, Seng JJB, Seah SSY, Low LL. COVID-19 Vaccine Hesitancy-A Scoping Review of Literature in High-Income Countries. *Vaccines (Basel)*. 2021 Aug 13;9(8):900. doi: 10.3390/vaccines9080900. PMID: 34452026; PMCID: PMC8402587
- Mohamed AAO, et al. Knowledge, attitude and practice of the Sudanese people towards COVID-19: an online survey. *BMC Public Health*. 2021 Feb 3;21(1):274. doi: 10.1186/s12889-021-10319-5. PMID: 33535995; PMCID: PMC7856621.
- Tompkins M, Smith L, Jones K, Swindells S. HIV education needs among Sudanese immigrants and refugees in the Midwestern United States. *AIDS Behav*. 2006 May;10(3):319-23. doi: 10.1007/s10461-005-9060-8. PMID: 16479412.



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