Received: 15 January 2021 | Accepted: 24 February 2021

DOI: 10.1111/hdi.12922

LETTER TO THE EDITOR

COVID-19 vaccine hesitancy among African American hemodialysis patients: A single-center experience

To the Editor,

Presently, much of the American population remains reluctant to the voluntary receipt of the COVID-19 vaccine, despite numerous public health initiatives. Vaccines function as preventive life-saving measures and have been shown to reduce the incidences of disability and death globally.[1] Achieving a high vaccination rate is crucial to successfully reach herd immunity. Notably, about a third of African Americans remain hesitant to receiving the COVID-19 vaccine.[2] African Americans have also been disproportionately affected by COVID-19 in regard to hospitalizations and death. Scant amounts of literature illustrate the pattern of willingness to receive the COVID-19 vaccine among dialysis patients. This study was done to assess vaccine hesitancy and acceptance among patients at an urban dialysis center, which serves a predominately African American patient population.

Our study consisted of a paper-based survey that was administered to all patients receiving dialysis treatment. Participants were asked whether they were willing to be vaccinated with a COVID-19 vaccine, and if they responded no, further follow-up questions related to contextual, individual/group, and vaccine-specific issues were asked. Additional information collected included whether the patient had received an influenza vaccine this year, whether they knew of someone who had COVID-19, and whether they had discussed COVID-19 vaccine with a healthcare provider. A chi-square analysis was performed on these three responses and possible association with a willingness to receive a COVID vaccine.

A total of 90 patients responded, of which 54 (60%) were male, 75 (83%) identified as African American, and 15 (17%) identified as Hispanic/Latinx. Nearly half of patients (49%) indicated that they would be willing to receive a COVID-19 vaccine, 34% were unwilling to receive the vaccine, and 17% were unsure. Initially, we hypothesized that having a prior personal history of COVID-19 would be associated with accepting the vaccine; however, only the receipt of an influenza vaccine was associated with a willingness to receive the COVID-19 vaccine, $p < 0.001$. The reduced concerns about the necessity of a COVID-19 vaccine given recent memory of the morbidity and mortality of the disease is concerning. This showed the need for clarification regarding the driving factors behind the hesitancy. Furthermore, the association between receipt of the influenza vaccine and willingness to receive COVID-19 vaccine emphasizes familiar problems. In the United States, influenza vaccine is covered by many health plans, however, patients still denied influenza vaccines due to either misinformation, misconception, or lack of trust[3] and this most likely led them to make the same decision when considering a COVID-19 vaccine. This issue is prominent among ethnic minority patients. Danziger reported the facilities with higher proportion of African American patients had significantly lower influenza vaccine acceptance.[4] A recent rapid national assessment for COVID-19 vaccination showed the likelihood of participants getting the vaccine was more than 75%. However, there was a large proportion of hesitancy among African Americans and Hispanics.[2] Our findings showed only half of the respondents agreed to receive the vaccine. This disparity is not new and could be explained based on factors that existed before the COVID-19 pandemic including preexisting vaccine hesitancy, lower access and interaction with healthcare providers, lower participation of minorities in clinical trials, and cost-related concerns.[5] To address these persistent health disparities, healthcare providers caring for minority patients must collaborate with the partners trusted by the patients to establish trust and identify the best alternatives to enhance the quality of care among the affected population. These findings could help providers to more effectively target messaging around COVID-19 vaccination programs.

As shown in Table 1, a lack of trust and not having adequate information regarding safety and efficacy contribute greatly to the reasons for vaccine hesitancy. Arguably, trust is an intrinsic and potentially modifiable component of successful uptake of a COVID-19 vaccine. Findings from Hovland showed that trust in the authority is strongly associated with vaccine acceptance.[6] Similar to our findings, trusting issues with the authority should be clarified and made a priority to decrease the hesitancy. One study showed an endorsement by Dr. Fauci increased

TABLE 1 Reasons for vaccine hesitancy

Reasons for vaccine hesitancy	%
Contextual influences	
I have read many negative reports from social media	16.3
Religious leader/celebrity/social influencer I trust do not believe in the vaccine	5.4
I have heard about/witnessed negative historical events concerning vaccines	14.5
Receipt of vaccine opposes my religious beliefs	3.6
I do not completely trust of the federal government	36.4
I do not trust pharmaceutical companies to provide safe and effective vaccine	23.6
Total	100
Individual and group influences	
Past negative experiences due to vaccine	1.6
I believe there are better ways to prevent a disease	11.3
I do not have enough information about this vaccine and its safety	46.8
Information on side effects has not been openly shared by authorities	24.2
I do not believe that the vaccine will prevent this disease	8.1
My family/friends/colleagues are not willing to receive the vaccine	8.0
Total	100
Vaccine/vaccination specific influences	
I do not believe this vaccine will be safe for me	26.7
This vaccine has not been tried as rigorously as other vaccines/medications	26.7
This vaccine may cause pain	8.9
Receipt of the vaccine is not convenient	2.2
I do not trust the manufacturer of the vaccine	28.9
I am afraid the cost may be too great	2.2
I have had negative experiences with healthcare providers administering vaccines	4.4
Total	100

uptake and confidence in safety.[7] This strategy can be utilized by frontline healthcare personals working closely with dialysis patients. As stated by Schaffer, all individuals who interact with patients should be confident about the safety and effectiveness of COVID-19 vaccines.[8] This is critical for presenting a unified message of strong vaccination support from the medical community.

In conclusion, the uptake rate of COVID-19 vaccine among minority hemodialysis patients was suboptimal. Patient education to combat the misinformation is essential to increase vaccination uptake. To the best of our knowledge, this is the first study that evaluates COVID-19 vaccine hesitancy among dialysis patients and highlights the need for directed education focusing on the safety and efficacy to promote uptake of the COVID-19 vaccine.

ACKNOWLEDGMENTS

The authors would like to thank all patients for completing the survey. The authors also would like to thank Ms. Lenie Villanueva and all dialysis staff for coordinating the survey.

CONFLICT OF INTEREST

All the authors declare that there is no conflict of interest.

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