

African American Nurse's Hesitancy to Obtain COVID-19 Vaccinations

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ABSTRACT

It has been over a year since the first laboratory-confirmed case of the Coronavirus -19 disease (COVID-19) was detected in the United States. Since then, according to the Kaiser Family Foundation, there have been over 31, 023,000 citizens diagnosed with the disease, resulting in over 560,315 deaths. Although the rate of citizens being diagnosed with the virus as well as the number of deaths has slowed down since the use of the vaccine, there are still concerns regarding sections of communities and various minority groups who are resistant to obtaining the vaccines. Vaccines first became available in November 2020 in response to this pandemic, but distribution issues and problems with compliance soon became evident and demonstrated an extreme gap in health disparities. As of March 31, 2021, the Kaiser Family Foundation reported that in the District of Columbia, African Americans (AA) make up 46% of the population but 45% of the infected cases as compared to whites who make up 31% of the population but only 26% of the infected cases. Anecdotally, it has been reported that AA nurses are hesitant to obtain the COVID-19 vaccine for a variety of reasons, including fear and mistrust of the medical community. The purpose of this pilot study was to survey a small group of AA nurses to refine a tool that will be used to obtain information on factors contributing to their hesitancy to obtain the COVID-19 vaccination. A secondary purpose is to create educational tools that would be effective in developing messages targeting the concerns of African American nurses.

Keywords: African American Nurses, pandemic, vaccination.

1 Introduction

This research project proposes to identify factors that contribute to barriers to African American (AA) nurses obtaining the COVID-19 vaccine. A basic hypothesis is that AA nurses who are knowledgeable about the effect of COVID -19 on patients and observe frequent patient deaths would be more than willing to accept the vaccine. This pilot study was conducted to refine a survey tool that can be used to identify barriers to obtaining the COVID-19 vaccine. The findings of the pilot study will be used to understand factors that may influence participation by AA nurses in the vaccination program, thereby impacting immunity in the AA community, at large.

2 Methodology

Various factors contributed to the barriers to AA nurses obtaining the COVID-19 vaccine. A basic hypothesis is that AA nurses who are knowledgeable about the effect of



COVID -19 on patients and observe frequent patient deaths would be more than willing to accept the vaccine.

This pilot study was intended to test the appropriateness of the survey tool that will be used to measure the hesitancy of AA nurses to obtain the COVID-19 vaccination. The sample of 11 AA nurses was obtained using convenience sampling of nurses who were members of a professional nursing organization. They were selected randomly to complete the pilot test and to provide feedback on the proposed questions or to suggest additional questions for the survey.

The surveys were distributed electronically. Data was collected using a demographic form, and quantitative questions. The survey contained 17 forced answer questions. The first five (5) questions in Section I included demographic questions designed to obtain nominal data on age, employment, education level, and types of clinical practice. The questions in Sections II 1-17 addressed factors that may impact nurses' decisions to obtain or not obtain the COVID-19 vaccination. The factors were derived as a result of media reports, anecdotal conversations, and general concerns expressed by AA nurses. The survey was distributed to select members. Confidentiality was maintained with the returned surveys by limiting access to their response to the PI only. No names or other identifiers were placed on the surveys. Data were analyzed using frequency distribution. The questions are included in Appendix A.

One question in the study inquired whether AA nurses obtained other immunizations before the advent of the COVID-19 pandemic, including influenza, shingles, and hepatitis. The sample participants were asked which of the COVID-19 vaccines they would opt to have if any. Additional questions addressed their education or knowledge regarding COVID-19 vaccinations. Follow-up questions solicited information on how they received information about the various vaccines, such as through television, the internet, educational media, and educational sessions from churches, government agencies, medical, and/or social organizations. The participants would select all that applied in response to this question. Two critical questions provided the foundation for the study:

- What reason(s) do you have for not obtaining the vaccine? (Select all that apply.)
- Are you more likely to obtain the vaccine if the message is delivered by: (Select all that apply.)

The first question sought to capture information about the distrust of the government, which included the previous President, fear of the "rapid" clinical approval process, and the medication itself. All of these reasons had been mentioned in discussions with other medical providers. Responses to the second question were developed as a result of the various means by which the messages to minority communities are being delivered, such as African American physicians or nurses, minority providers with previous experience with clinical trials or vaccines, and government agencies or representatives.

Section III explored the experience AA nurses had with the COVID-19 virus either directly or indirectly. Direct experience is defined as whether the participants had been tested for COVID-19 or developed the disease. Indirect experience is defined as whether the participant had a family member, friend, or colleague who had been diagnosed with COVID-19 and subsequently developed the disease. The follow-up question was whether anyone close to the participant, i.e. family member, friend, or colleague had died from COVID-19.

The last question asked the participants whether they planned to ever obtain a COVID-19 vaccine. The survey also solicited any other comments they would like to add to expound on their experience with COVID-19 vaccination or the disease itself.

3 Results

The results of this pilot study were analyzed using frequency distribution. There was a 100 % return on the surveys. Overall, this was an older, well-educated sample of female AA nurses with 82% of the sample respondents being over the age of 60. Specifically, 36% percent of the respondents were over 70, 36% were retired, 64% percent were employed full-time, 2% of the sample had terminal degrees, 27% had master's degrees, and 45% percent had BSN degrees. None of the samples were in positions providing direct care to patients. They were or had been predominately in supervisory positions or positions as educators or faculty in schools of nursing. Three participants did not respond to this question.

Moreover, 45% of the respondents were compliant with obtaining all three recommended adult immunizations, i.e., annual flu vaccine, and hepatitis and shingles immunizations. While 90% of the sample obtained the annual influenza immunizations, 50% and 40% of the sample had obtained the shingle and hepatitis vaccines. None of the respondents who were currently employed were mandated to obtain the COVID-19 vaccine. When respondents had a choice of which vaccine they preferred, 82% percent chose the Moderna vaccine. There was no follow-up question regarding why they preferred one brand over another. At the time of the survey, the single-dose vaccine was unavailable. All of the respondents had received some type of education regarding vaccines. The sample cited their most frequent sources of education were the internet, government agencies, (CDC and NIH), and professional medical organizations. This information can be used when developing outreach programs or public service announcements as the most trusted sources of information used by nurses. The most frequently cited reason for not obtaining the vaccine was feelings of distrust. There was a distrust of not only the previous Presidential administration but also a distrust of the FDA approval process and the medical community's history of providing unequal treatment. They did not name any specific examples of unequal treatment, such as the Tuskegee Syphilis Experiment. One person wrote in the survey that they are planning to obtain the vaccine at a later date when it opens for their age group. They recommended that a question should be included as to whether they ever intended to obtain the vaccination. One aim of the study is to also identify the most effective means of delivering the message about the COVID-19 vaccine. Most of the sample, 82%, preferred to receive information about the vaccine from the CDC, NIH, and Dr. Fauci. One participant would like to hear from a minority nurse who had participated in clinical trials. One subject did not respond.

It was difficult to measure the impact that direct or indirect exposure to the COVID-19 virus would have on determining whether a person would obtain the vaccine due to the small sample size and the type of analysis applied to the data. Only one person in the sample had previously tested positive for COVID-19. One participant wrote in the survey that they had no hesitation about taking the vaccine. They were only waiting until it was available for their age group.

4 Conclusion

This pilot study proposed to identify factors that contributed to barriers to African American (AA) nurses obtaining the COVID-19 vaccine. Due to the small sample size, the results of the pilot study did not identify any factors which directly contributed to understanding the barriers to AAs obtaining the COVID-19 vaccine. There were also no recommendations to change the structure of the survey questions within this pilot study. One participant recommended the addition of a question that allowed the respondents to select, "I plan to obtain the vaccine". There were also minor editorial changes to the survey. As more attention is given to outcome disparities related to COVID-19, more attention will be given to how to reduce barriers and increase the rate of obtaining the COVID-19 vaccine. This is true for health providers as well as for the general public.

5 Declarations

5.1 Acknowledgment

I would like to acknowledge the support of the Black Nurses Association of Greater Washington, DC, Inc. for their participation in this pilot study.

5.2 Competing Interests

The author certifies that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureau's membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

5.3 Publisher's Note

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Reference

Kaiser Family Foundation Covid Tracker Retrieved April 10, 2021, from <https://www.kff.org/other/state-indicator/covid-19-deaths-by-race>

Appendix A

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SURVEY PILOT TESTING

Please complete the demographic and questionnaire section of this survey. **Do Not** place your name or other identifiers on the questionnaire. The completed surveys will be kept in a locked file cabinet. Only the PI (Dr. Broadnax) will have access to the completed surveys. The data will be reported only as grouped data without the ability to trace the responses back to the participants.

Thank you for your cooperation.

Section I - Demographic Data

1. Year of Birth _____

2. Employment Status

- a. Student
- b. employed – full-time
- c. employed – part-time
- d. retired
- e. graduate student

3. Highest Education in Nursing

- a. Student
- b. LPN/LVN
- c. Diploma
- d. Associate Degree
- e. BSN
- f. MS/MSN
- g. Midwifery
- h. NP
- i. DNP
- j. PhD

4. If employed, what type of position?

- a. Executive/Administrator
- b. Supervisor
- c. Staff Development
- d. Staff Nurse/Direct Care
- e. Staff Development/Nurse Educator
- f. Faculty
- g. Consultant
- h. Other _____

5. Type of Setting

- a. Critical Care
- b. Emergency Room
- c. Psych/Mental Health
- d. School Health
- e. Ambulatory Care
- f. Academic Setting

- g. Long-term Care
- h. Rehabilitation Center
- i. Health Policy Advisor
- j. Government Facility
- k. Military Instillation

Section II – Immunization Status and Education Information

Please answer the following questions to the best of your ability.

1. Do you obtain annual influenza vaccines? _____ yes _____ no
2. Have you received the hepatitis immunization? _____ yes _____no
3. Have you obtained a shingles immunization, as indicated? _____ yes _____no
4. If employed, has your employer mandated that you obtain the COVID-19 vaccine? _____yes _____ no
5. If you chose to receive the COVID-19 vaccine, which one would you select?
 - a. Pfizer _____
 - b. Moderna _____
 - c. Astra Zenica _____
 - d. Other _____
 - e. None _____
6. Have you received education on the vaccines? _____ yes _____no
7. If so, how did receive this information? (**Select all that apply**)?
 - a. television _____
 - b. internet _____
 - c. webinar _____
 - d. information from church _____
 - e. newspaper _____
 - f. CDC _____
 - g. NIH _____
 - h. local government _____
 - i. Professional medical organization
 - j. social organizations
8. What reason(s) do you have for not obtaining the vaccine? (**Select all that apply**)
 - a. Distrust of the former Presidential administration _____
 - b. Distrust of the current clinical trial process. _____
 - c. Distrust of the current FDA approval process _____
 - d. Fear of the medication's effect _____
 - e. I have multiple chronic health problems _____
 - f. Distrust of the medical system _____

- g. Observation of unequal treatment by the healthcare system. _____
- h. I believe I have a low risk of exposure to COVID-19. _____
- i. I believe the COVID- 19 is a government conspiracy. _____
- j. I plan to obtain the vaccine _____

9. Are you more likely to obtain the vaccine if the message is delivered by:

- a. An African American physician _____
- b. Media message delivered by a minority provider _____
- c. CDC
- d. NIH
- e. Dr. Fauci
- f. An AA nurse who participated in the clinical trial
- g. An AA nurse who received a vaccine.
- h. other (specify) _____

Section III – COVID – 19 Exposures

10. Have you had a family member diagnosed with COVID-19? _____ Yes ___ No

11. Have you had a friend diagnosed with COVID -19? _____ Yes _____ No

12. Have you had a co-worker diagnosed with COVID-19? _____ Yes _____ No

13. Have you had a close family member or co-worker die as a result of COVID-19 _____ Yes
_____ No

If so who? Family member _____ Friend _____ Co-worker _____

14. Have you been tested for COVID-19? _____ Yes _____ No

15. How many times? _____

16. Have you been diagnosed with COVID-19? _____ Yes _____ No

17. Do you plan to ever obtain a COVID-19 vaccine _____ Yes _____ No

Other Comments: _____