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Mini Review

Public confidence and vaccine hesitancy among African Americans

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Accepted 06 December, 2021

COVID-19 has disrupted every sphere of life. There is no end in sight due to significant barriers to reaching herd immunity. Vaccine hesitancy is a complex problem with many corollaries including economic, political, religious, racial, sex and socio-economic factors. Blacks are disproportionately impacted by the COVID-19 virus. There is a higher rate of disease, mortality, and rejection of the COVID-19 vaccine among this highly vulnerable population. Vaccine hesitancy among blacks is well documented in the literature. The implications of vaccine hesitancy among blacks are not limited to the black community. But, has consequences for the larger society. Reducing the rate of vaccine hesitancy and increasing the level of vaccine acceptance is a significant challenge. The historical backdrop of “scientific racism” continues to cast a pall over every aspect of healthcare including but not limited to biomedical research, vaccine trials, and vaccine acceptance in the United States. Until the distrust of blacks regarding COVID-19 vaccines is addressed there will be an increased resistance and decreased vaccine uptake.

Key words: Community health centers, mortality, healthcare

INTRODUCTION

The unprecedented impact of COVID-19 has significantly disrupted every sector of society. There has been an inundation of information and misinformation regarding the importance of COVID-19 vaccines. The problem of vaccines hesitancy is exacerbated by the ongoing, and often contentious, debate between the scientific community and the political arena regarding responses to the current pandemic. The confusion within the business community, schools, and public places over mask mandates poses an ongoing dilemma as well. In this climate of confusion, the general public struggles with what recommendations to comply with. Blacks are particularly hesitant to become fully vaccinated due to a number of historical, cultural, and socio-economic factors. Thus, blacks are more likely to display mistrust toward vaccine recommendations and the healthcare establishment in general.

LITERATURE REVIEW

There has been a long history of mistrust of the medical establishment among blacks. Attitudes toward health care in general are shaped by the historical experience of blacks. During slavery there were numerous pseudo-scientific theories devised to establish the inferiority of blacks. Pseudo-theories

such as phrenology were used to justify the enslavement of blacks throughout the Americas and the Caribbean. Phrenology assumed that the human skull held the secret to the assumed inferiority of blacks. The pseudo-theory of racial inferiority is known today as “scientific racism.” The 1932, Tuskegee Experiment has also influenced black attitudes, perceptions, and behaviors regarding healthcare and the scientific community. This experiment is a classic example of unethical research conducted upon 600 black males. For over eight decades black grandparents and parents are reminded of how they were treated by the U.S. Public Health Service. It is understandable that blacks would be highly suspicious of biomedical research given their historical relationship with the healthcare profession (Kennedy, et al. 2016).

The underrepresentation of blacks in biomedical research is a significant problem. The National Institutes of Health Revitalization Act of 1993 requires the inclusion of minorities in human subject research. Grantees are required to investigate the barriers to minority participation and develop strategies to improve their participation in medical research. There have been studies regarding to participation of Hispanics in biomedical and behavioral research. To understand the problem of low participation and improve this participation it is important to examine the historical context of blacks and biomedical research as stated above (Shavers-Hornaday, et al. 1997). The history of racial bias toward blacks within the

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medical profession and their lack of access to quality healthcare continue to impact their attitudes and perceptions of all things pertaining to health to date. Problems such as vaccine hesitancy are embedded within a cultural value of distrust among blacks in the United States.

For many blacks, there is a perception that the healthcare system views them as merely guinea pigs. They are less likely to participate in biomedical research due to this perception. (Kennedy, et al. 2007) This is despite the fact that their participation can potentially yield important information to inform their healthcare decisions specific to the black community. Studies have shown that blacks have a more significant distrust of doctors compared with whites. A historical analysis of black attitudes toward healthcare must be addressed to overcome vaccine hesitancy in the black community (Thompson, et al. 2021).

Studies have shown evidence of racial bias toward blacks in their encounters with the healthcare profession. This is particularly the case of interracial encounters between white doctors and black patients. Studies of prejudice have examined the social psychological factors that impact black perceptions of healthcare and biomedical research (Dovidio, et al. 2008). As a consequence of racial bias in healthcare blacks tend to receive substandard healthcare services in the present delivery system. International studies have shown that there is a distrust of government that impacts healthcare. There is a lack of respect and trust between “science and society.” The general public perceives that the scientific community has little respect for them (Palamenghi, et al. 2020). Thus, this poses a barrier to communication between the scientists and the public. There is a need for mutual understanding and respect between science and society to overcome problems such as distrust that leads to vaccine hesitancy.

Disparities in access to quality healthcare continue to have a disproportionate impact upon racial/ethnic minorities. Studies have shown that racial/ethnic minority patients at health centers are less likely to experience disparities in quality healthcare. However, disparities in non-health center settings continue to exist. Health centers tend to reduce disparities in healthcare for racial/ethnic minorities compared with non-health centers (Shi, et al. 2009). These disparities in quality healthcare reinforce the historical experience of blacks that leads to distrust. Until the historical disparities in healthcare are addressed, there will little progress in reducing distrust and specifically vaccine hesitancy among blacks (Wheeler, 2017).

It was found that “racial and ethnic minorities were disproportionately impacted by COVID-19” (Nguyen, et al. 2021). In their analysis of the U.S. and U.K. participants there was a persistent disparity in the willingness to be vaccinated. The most significant disparity was between Blacks and all other racial/ethnic groups. The willingness of blacks to be vaccinated cannot be ignored with regard to addressing vaccine hesitancy as a problem in the larger society. Similarly, it was found that there is an increased unwillingness to be vaccinated among black Americans (Yasmin, 2021). Factors such as race, sex, age, and educational levels were significant determinants to vaccine uptake or the willingness to be vaccinated among

the varied subgroups of society. It was also noted that the highest rate of hesitancy was not only among blacks. Pregnant or breastfeeding women were also found to have a relatively higher rate of vaccine hesitancy compared with a low level of hesitancy among males. There is a universal agreement among the biomedical community that vaccines are the single most important factor in reducing mortality rates. This is especially critical among vulnerable populations. The delay or refusal to accept the COVID-19 vaccine among blacks is a highly complex issue that warrants continued analysis. Yasmin proposes “outreach programs” that specifically address the history of racial injustice toward blacks.

Studies show that the willingness to be vaccinated is a multivariate problem (Dorman, et al. 2021). Survey analysis of 26,324 subjects regarding willingness to accept the COVID-19 vaccine was conducted. They examined five key factors related to vaccine acceptance, namely:

1. Confidence in vaccine safety
2. Complacency about the disease
3. Convenience of vaccination
4. Calculation of risks versus benefits of vaccination
5. Concern for others

This study found that there were significant differences on these factors by race, occupation and education. Among their findings, Asians were more willing to be vaccinated. It should be noted that there are other correlates such as education. Asians also tend to have higher rates of college graduation compared to whites. Non-Hispanic whites also tend to have higher rates of vaccine acceptance. The lowest level of vaccine acceptance is among non-Hispanic blacks. With regard to occupation, the retired and students tend to be more willing to be vaccinated than all other occupations. The least willing to be vaccinated was among First Responders. Non-Hispanic whites scored significantly higher than all other groups regarding concern for others. All groups demonstrated that confidence in the safety of the vaccine was a significant factor in vaccine acceptance. Finally, the college educated, non-Hispanic whites, and first responders scored higher on complacency regarding contracting the disease. The results of this student have implications for designing programs to address the problem of vaccine hesitancy, especially among black populations.

Researcher have found that sociodemographic factors, health literacy, fear of COVID-19 infection, trust of vaccines and COVID-19 hesitancy were keys to reducing the rate of disease in the population. Again, it is noted that blacks display the highest level of hesitancy in the population (Willis, et al. 2021). Households with incomes less than \$25,000 and individuals with some college were less fearful of contracting COVID-19. The level of fear of infection and the level of trust of the vaccine were the most significant factors related to vaccine hesitancy.

Blacks are more critical of medical information regarding COVID-19 vaccines. As stated above this is understood regarding the history of “medical racism” and miss trust of the healthcare establishment in general (Manning, 2020).

The vaccine hesitancy of blacks brings into question the likelihood of reaching “herd immunity” in the larger society. Without addressing the structural factors that have contributed to limited access to healthcare, historical racism within the scientific community and economic inequality communities of color will continue to display an increased level of distrust of vaccines. This problem has far reaching implications beyond black communities to the larger population (Stoler, et al. 2021). Blacks will continue to reject participation in clinical trials, vaccine uptake, and increased vaccine hesitancy until healthcare disparities are adequately addressed. The most challenging problem is to address critical questions regarding a healthcare system that does not acknowledge the legitimacy of black distrust of the medical establishment. Further, adjusting the practice of biomedical research that adequately includes the poor, blacks, women, and ethnic minorities is difficult to achieve.

CONCLUSION

Historical, social psychological and cultural factors such as distrust cannot be overemphasized in efforts to address pressing barriers to vaccine delivery in a global pandemic. The problem of addressing vaccine hesitancy is a complex problem, specifically among racial and ethnic minority populations. There is no quick fix to the problem of vaccine hesitancy among racial and ethnic groups such as blacks. Historical inequalities continue to be a significant challenge in the response to vaccine hesitancy in the age of COVID-19.

The medical establishment has a difficult task in overcoming the legacy of “scientific racism.” Blacks have a collective memory of the history of unethical and pseudo-scientific experiments conducted by prestigious universities and the U.S. government. There is a need for more purposeful efforts to conduct biomedical research, include racial/ethnic minorities, and present research findings that has credibility within underclass and minority communities. Institutions of health should also ensure that minorities such as black scientists are included in biomedical research. Finally, black institutions such as black churches, black media, and community leaders are a valuable resource in addressing a wide range of community problems not limited to vaccine hesitancy.

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