



(REVIEW ARTICLE)



## Misconceptions and mistrust of COVID-19 vaccines among Black people

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Magna Scientia Advanced Research and Reviews, 2021, 02(01), 055–059

Publication history: Received on 10 May 2021; revised on 14 June 2021; accepted on 17 June 2021

Article DOI: <https://doi.org/10.30574/msarr.2021.2.1.0049>

### Abstract

Globally, vaccination for any disease results in varying degrees of misconceptions among different socioeconomic strata, ethnic groups, and races. However, a focus on black people is crucial due to predominant societal concerns, such as white supremacy, racism, conspiracy beliefs, and inequality among others. This paper focuses on the misconception and mistrust of vaccines that is predominant among black people in the United States. After a concise review of the literature, the author(s) found that disinformation and inequality-driven mistrust are two primary factors surrounding vaccine acceptance among black people. These factors which lead to the erosion of trust in vaccines include critical media reports, vaccine recalls, social media stories/rumors, and new critical studies. Conclusively, the existing mistrust and misconception of vaccines among black people are speculated to continue by a few researches, especially in the face of the ongoing Severe Acute Respiratory Syndrome Corona Virus Disease COVID-19 pandemic. Bridging the mistrust gap, addressing racism, and framing the right message are recommendations for dealing with this issue among black people.

**Keywords:** COVID-19; Vaccine mistrust; Misconception; Black people; United States

### 1. Introduction

Globally, it is estimated that vaccination prevents about 2 to 3 million deaths every year, especially among children less than 5 years of age [1]. Despite vaccination efficacy as a tool for the prevention of infectious diseases, some people are hesitant in accepting this life-saving service due to different factors [2]. These factors include poor health literacy or educational attainment [3], the unprofessional attitude of service providers, complex belief systems, and fears of vaccine safety [4].

Medical researchers have raised concern regarding vaccine mistrust and misconceptions, a phrase that vastly relates to flawed beliefs, unreasonable expectation, or insufficient knowledge regarding the reason for conducting clinical examinations among patients to be examined [5]. These mistrust and misconceptions of vaccines have been detected in several clinical trials conducted in Sub-Saharan Africa [6]. After the 2014 Ebola outbreak in West Africa, vaccine mistrust and misconceptions were identified as potential problems for Ebola vaccine research development in research communities with low literacy [7,8].

The solutions required to fully stimulate clinical and public health responses are not readily understood, making mistrust of the Severe Acute Respiratory Syndrome Corona Virus Disease COVID-19 efforts extremely liable, leading to what is commonly known as conspiracy beliefs and theories [9,10]. Disinformation (strategically and deliberately spread false information), misinformation (false information, not necessarily with intent to mislead), and mistrust (more than the lack of trust, suspicion of ill intent) are multi-faceted phenomena with heterogeneous, underlying, and motivating factors [10]. This commentary calls for an understanding of the causes and contributions of disinformation, misinformation, and medical mistrust to a relevant component of the COVID-19 public-health response. This

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understanding is especially critical when considering the pandemic's effect on communities of color, inclusive of Asian communities who have been blamed and accused of introducing SARS-CoV-2 to the U.S., [11] and Black communities who have been blamed for higher fatality rates among Black populations.

COVID-19 disinformation appears to reflect agendas of white supremacy [12,13] anxiety over social and economic instability [14], opportunistic unrestrained capitalism, and the cult of personality regarding the president [15,16]. This is a contrast to the inequality-driven mistrust held by people who continue to experience disenfranchisement [17,18]. In the COVID-19 pandemic, beliefs about deliberately withheld vaccines [19] and the intentional human fabrication origins of SARS-CoV2 appear to be emerging in some Black communities [20].

Medical mistrust is well documented among Black people and other populations placed at risk [21]. For example, endorsement of HIV-related conspiracy beliefs is associated with worse HIV-related outcomes among some Black populations [22,23]. This presence of HIV-related mistrust can include the claims that the U.S. federal government supposedly engineered or disseminated HIV as a form of genocide against people of color, that anti-retroviral remedies are damaging, and that a remedy is available but is being secretly retained by the government and pharmaceutical companies [24]. Likewise, disparity-driven mistrust around COVID-19 might prevent people from seeking COVID-19-related medical care or adherence to evidence-based COVID-19 prevention guidelines, such as social distancing and self-isolation.

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## 2. Evidence on vaccine misconceptions

The rollout of the first authorized coronavirus vaccine kicked off on Dec. 14, 2020, marking an important period in the U.S. war against increasing COVID-19 cases. Dispatch of *Modernas* vaccine was approved for emergency use on Dec. 19, 2020; the vaccination dispatch started the next week. For these vaccines to reverse the pandemic outcome, there must be global receptiveness among Americans towards the vaccine [25]. There is still uncertainty about the exact number of Americans that must be vaccinated to attain herd immunity in which the virus no longer spreads through the population. Dr. Anthony Fauci, the Director of the National Institute of Allergy and Infectious Diseases, projected at a recent Harvard event that the number will need to be somewhere between 75 to 85% [26]. Meanwhile, there is a major concern that the distrust of public health officials faced with Black Americans could influence the country's ability to reach that goal. Relating to a late-August or early-September 2020 poll conducted by the Kaiser Family Foundation and The Undeclared, approximately 70% of Black Americans believe that individuals are addressed partially based on race or ethnicity when acquiring medical care. It is an impression that arises from unequal access to care and worsened by the pandemic, which is undoubtedly affecting Black lives, both physically and economically [27].

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## 3. Evidence on mistrust

Overall, low trust has been identified in the US healthcare system due to current and past experiences. Findings also uncovered disparities by race/ethnicity and disability status. The non-Hispanic White community explained positive healthcare experiences; members' negative experiences were expressed profusely by African Americans and those that had a hearing disability. Healthcare complexities and underserved populations' research mistrust are recorded [28]. The uncovered themes demonstrated striking differences in the experiences among African Americans, which influenced attitudes, beliefs, values, and trust in healthcare institutions and biomedical studies. In juxtaposing against non-Hispanic White participants, the expressed attitudes, concerns, and barriers to the optimal health of the Black people reveal intrapersonal level barriers to trusting relationships with health providers including researchers regarding their true intent (i.e., income accumulation income over patient care), beliefs that doctors receive compensation for prescribing certain medications, and concerns about biomedical research and participant exploitation [28].

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## 4. Factors that facilitate vaccine mistrust and misconceptions

Factors abound which sustain the ability to erode trust in vaccines and the authorities supplying them. While some of these factors are rooted in vaccine safety and adverse events following immunization; others are rooted in changes in the immunization program [28], which may sprout public uncertainty, while other factors are traceable to the public and media debate [29]. Some of these events may include vaccine reactions, events that are not causally linked with vaccination but are believed to be so (by the public, media, or health workers), critical media reports, social media stories/rumours, new critical studies, vaccine recalls or vaccine-temporary suspensions, or the replacement of one vaccination product with another [28,29].

Factors that may intensify negative impact include uncertainty (about the cause of events), emotions and fears, extensive media attention, event magnitude (affecting so many persons), involvement of children and/or pregnant women, similarities to past events that caused a crisis, political influence, misuse of the event to strengthen political profiles, and occurrence during sensitive times (e.g. a pandemic or outbreak situation, a mass immunization campaign, the introduction of a novel vaccine, political unrest, civil crises, or unstable situation, etc.) [28,29].

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## 5. Global Health Implications

### 5.1. Bridging the mistrust gap

It is the researchers' and clinicians' responsibility to better comprehend misconceptions and to more effectively bridge the distrust gaps [29]. Public health and medical professionals can use a Social Determinants of Health framework to address the impact of population-level inequalities on health outcomes in addition to facilitating enhanced understandings of how social and economic conditions influence inequality-driven mistrust [30]. It is expedient to consider how people, as individuals and as groups, experience and interpret social and economic disparity and how these experiences impact their trust in evidence-based public health messaging, as well as their enthusiasm to accept promulgated misinformation or disinformation [29,30].

### 5.2. Addressing racism

Public health and medicine should be used to directly address structural racism. Health-care practitioners must recognize the complex dimensions of mistrust through effective public health responses to the pandemic and its disproportionate impact on communities of color and other vulnerable populations [30]. Addressing this would demand apt attention to the issues of structural racism and systematic discrimination, which result in mistrust and influence people's acceptance or refusal of misinformation or disinformation. The inability to fully address differential risk at the community and structural level and among Black people fosters mistrust, which further strengthens mistrust arising from their experiences of racism, classism, and stigma [30]. Research training and care for marginalized populations must be fully integrated into public health and medical education.

### 5.3. Framing the message

Eschewing terms, such as "conspiracy theories" may help us more effectively address misconceptions, misinformation, and inequality-driven mistrust that has emerged during this pandemic. Referring to ideas as "conspiracy beliefs" risks obscure and deny meaningful aspects of people's experiences, particularly regarding inequality-driven mistrust, and is an ethical and strategic mistake for public health [29,30]. Thus, we propose that public health practitioners abandon this term and instead, endeavor to identify and distinguish the underpinnings of such beliefs. Thus, highlighting how false information may be driven either by agendas of power and racism or by mistrust deriving from ongoing social and economic exclusion.

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## 6. Conclusion

- The distribution of the first authorized COVID-19 vaccine in the US began in December 2020 aimed at combating the pandemic.
  - Misconceptions and mistrust about the COVID-19 vaccine have been detected and problematized as a major pushback to vaccine acceptance, especially among black people
  - Bridging the mistrust gap and rightly framing messages will increase COVID-19 vaccine acceptance and uptake among black people.
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## Compliance with ethical standards

### *Acknowledgments*

This is a review work done solely by the authors and we wish to acknowledge no one.

### *Disclosure of conflict of interest*

The authors declare no conflict of interest.

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