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Black American Experiences in Healthcare: Past, Present, and (Improving the) Future

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Black American Experiences in Healthcare:
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by

Kimberly Janay Martin

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ABSTRACT OF THE DISSERTATION

Black American Experiences in Healthcare:
Past, Present, and (Improving the) Future

by

Kimberly Janay Martin
Doctor of Philosophy in Psychology
University of California, Los Angeles, 2022
Professor Kerri Johnson, Co-Chair
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Black Americans presently and have historically faced disproportionately negative experiences in the U.S. healthcare system, as spotlighted by the COVID-19 pandemic. In my dissertation, I employ diverse methodologies, including quantitative analyses of nationally representative data, qualitative analyses of focus groups, and experimental methods aiming to understand and illuminate potential ways to address Black Americans' experiences of injustice in healthcare. The introduction (Chapter 1) builds upon previous research to illustrate a model which emphasizes the importance of individuals and systems (and the histories of individuals and systems) to better understand racial injustice in healthcare. In Chapter 2, I provide a narrative review of the present and historical experiences of Black Americans in the healthcare system. Next, in Chapter 3, across two studies (N=13,054), including a nationally representative sample of Black and White Americans during the COVID-19 pandemic, Black (relative to White) Americans reported less positive experiences in healthcare, which explained early COVID-19 vaccination hesitancy and lower medical system trust. Current knowledge of the Tuskegee

Syphilis Study was not related significantly to medical trust or vaccination intention, however. In Chapter 4, qualitative data and thematic analysis were used to interrogate the quality of healthcare provider-Black patient interactions in a sample of 37 Black American women who had been diagnosed with breast cancer. In a community-academic collaboration, three focus groups were conducted across California. Results demonstrated that participants experienced discrimination, stereotyping, and hostility from healthcare providers and within the healthcare system which undermined their medical trust. Further, participants offered suggestions for improving the healthcare experiences of Black women diagnosed with breast cancer. A critical step toward dismantling racial injustice is acknowledging its existence. Thus, in Chapter 5, I tested specific ways to shift dominant group members' perceptions to recognize both individual and systemic racism and how to increase behavioral intentions to combat injustice in healthcare. Results from this online experiment conducted with 1853 adults suggested that when White Americans learned about critical Black history in healthcare (i.e., history of injustice) vs. celebratory Black history (i.e., history of achievement) or control information, they reported significantly more perspective-taking with Black Americans, which in turn predicted more individual and systemic racism recognition and support for anti-racist policies in healthcare. Ultimately, my dissertation studies highlight specific experiences of injustice that Black Americans face in healthcare and identifies a mechanism to increase White Americans' recognition of and support for addressing injustices toward Black Americans.

The dissertation of Kimberly Janay Martin is approved.

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2022

My dissertation is lovingly dedicated to my Aunty Kimberly Maxine Johnson. Thank you, Aunty, for your love, support, guidance, positivity, and our connection which is so strong that not even death can phase it. Your life and your legacy inspire my life and my research.

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To my mother, Jerri Martin, thank you for keeping me grounded and reminding me to bring my authentic self to everything I do, including and especially my research. Thank you for your magic, prayers, encouragement, and all you’ve done and sacrificed for our family. Because of you, I am. To my sister, Jasmine Martin, I am so grateful for our connection that grows and expands year after year. Thank you for reminding me to have fun, watch silly TV, laugh, and play. Mom and Jazz, your continued love and support provide me with the foundation to courageously pursue my dreams.

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Chapter 1: Introduction

"Of all the forms of inequality, injustice in health is the most shocking and the most inhuman because it often results in physical death" (Martin L. King, 1966).

These words, spoken by Martin Luther King Jr. at a press conference in Chicago in 1966, illustrate a consistent reality for Black Americans. For centuries, research and historical records have documented that Black Americans experience poorer health in many domains, relative to other races, particularly White Americans. Individual and systemic racism contribute to these health disparities (Gee & Ford, 2011).

The COVID-19 pandemic and the murders of Black Americans by police (including George Floyd, Breonna Taylor, and Elijah McCain) magnified how racial injustice negatively impacts the health of Black Americans. Importantly, these experiences and outcomes for Black Americans began long before the COVID-19 pandemic. In my dissertation, I investigate the experiences of Black Americans in the healthcare system to provide a comprehensive understanding about racial injustice in healthcare toward Black Americans. This investigation includes an examination of historical and current healthcare experiences, the consequences of experiencing injustice in healthcare on Black Americans' medical trust and well-being, and how to enhance White Americans' racism recognition and willingness to address racial injustice in healthcare.

This introduction discusses a specific framework to gain a deep understanding of the experiences of Black Americans in healthcare. First, current gaps in the research on racial healthcare disparities are identified. Next, specific levels of analysis through which healthcare experiences have previously been examined are explained. Finally, a model is illustrated which aims to provide a nuanced understanding of racial injustice in healthcare.

Previously Identified Gaps in the Psychological Study of Healthcare and Health Disparities

The current literature on health disparities and experiences of injustice for Black Americans can be divided into the following categories: (1) historical analysis, (2) present individual-level social interactions, and (3) current systemic problems that facilitate and exacerbate health inequity and practices. The focus on these categories has a long history. Indeed, more than a century ago, W.E.B. Du Bois emphasized the importance of considering both history and systemic problems to understand and study Black Americans' health (Du Bois, 1900). More recently, scholars have also recognized that research on health disparities often fails to consider the impact of systemic level or historical factors (e.g., Feagin & Bennefield, 2014; Gee & Ford, 2011; Trawalter et al., 2020).

Trawalter et al. (2020) also highlighted these three themes, proposing that psychological studies generally have ignored historical and systemic-level factors. Trawalter et al. (2020) suggested that it is essential to consider history and systems when studying individuals in social interactions because such consideration leads to a deeper understanding of psychological processes. They propose utilizing socio-ecological psychology to deepen the understanding of psychological and social processes (e.g., racial bias) in important settings (e.g., healthcare; Trawalter et al., 2020). The study of socio-ecological psychology is the scientific study of how individuals' perceptions and behavior shape and interact with the environment and how the environment shapes and interacts with individuals (Oishi & Graham, 2010). Thus, to gain a deep understanding of the experiences of Black Americans in healthcare, shifting focus from studying individual-level interactions in isolation to an integration of multiple levels of analysis that includes history and how individuals currently interact with the social environment (and vice versa) is critical (Trawalter et al., 2020).

Historical Socio-ecological Psychology Framework

The present paper will refer to the integration and relationship between historical, individual, and systemic level factors as the historical socio-ecological psychology (HSP) framework. Here, I take an HSP approach to review the literature and understand the experiences of Black Americans in healthcare. Thus, I aim to explore racial injustice in healthcare, physician-Black patient interactions, and perceptions and practices in healthcare with a lens that considers individual experiences and social interactions, systems, and the deeply rooted histories including people's personal histories, cultural history, and the histories of systems. Below, each level of analysis is defined. Additionally, a new visualization of the HSP framework is presented to provide additional detail and highlight the framework's importance in studying Black Americans in healthcare.

Historical Level of Analysis

Historical analyses include narratives and examinations that focus on understanding the past (Thorpe & Holt, 2011). This level of analysis seeks to uncover the facts of what has happened in the past, identify reasons for why these occurrences took place, and acknowledge that the historical narrative may be missing certain information or perspectives (Thorpe & Holt, 2011).

As an example, historically, medical doctors benefitted financially and professionally from the enslavement of Black people primarily because: (1) some medical doctors were enslavers themselves (Holland, 2018), (2) medical doctors were hired by enslavers to treat enslaved Black people with a primary goal of getting them back to work (not getting them healthy) (Breeden & Savitt, 1979), and (3) medical doctors preyed on enslaved Black people to conduct unconscionable medical research (Thomas & Casper, 2019). Legalized slavery was, in fact, very profitable. In 1860, there were four million enslaved Black people in the U.S. that would be "worth" four billion dollars in today's dollars, and many medical doctors received most of their income from treating enslaved Black people (Washington, 2007).

Individual Level of Analysis

At an individual level of analysis, decades of research on people's perceptions and behaviors in the healthcare setting provides insights into the current experiences of Black Americans. Specifically, studies in various fields, including medicine, public health, and social psychology demonstrate that factors such as doctor-patient race concordance and racism are significant predictors of health outcomes and experiences. Individual-level racism, specifically, has been defined as the thoughts and behaviors of individuals that subordinate and exhibit power over specific racial groups (Ture & Hamilton, 1967).

Considering the social psychology of healthcare experiences of Black Americans may be particularly helpful at this level of analysis. Social psychology seeks to understand human behavior and mental processes by scientifically studying social interactions amongst individuals (American Psychological Association, 2014; Gilovich et al., 2018, p. 5). As an example, a social psychological approach affords considering Black patients' perceptions of physicians, physicians' perceptions of Black patients, and how these potentially distinct perceptions impact behavior and outcomes within the social context of the physician-patient interaction. Social psychological approaches also offer specific insights into the social context's impact on biased perceptions in social interactions. For example, Onyeador et al. (2020) found that, for non-Black doctors, experiencing a better quality of intergroup contact with Black people predicted less anti-Black explicit and implicit racial bias.

Systemic Level of Analysis

A systemic level of analysis acknowledges and examines the authoritative, common, and respected practices, beliefs, policies, and institutions that are upheld in society and impact outcomes (Ture & Hamilton, 1967). While systemic factors can be just as, if not more, harmful than individual factors, systemic factors (1) receive less attention, (2) are viewed as less abhorrent, and (3) may be more challenging to define and address than individual factors because there may not be a specific individual to blame for damaging outcomes (Ture & Hamilton, 1967). Systemic racism, specifically, is defined as how practices, beliefs, policies, and institutions interact to establish and maintain power over particular racial groups (Gee & Ford, 2011; Ture & Hamilton, 1967).

Research on healthcare experiences has primarily focused on individuals (Feagin & Bennefield, 2014). However, much less research has focused on the common practices, policies, and institutions that create and perpetuate racial health and healthcare disparities and how dominant group members benefit from these systemic inequities (Feagin & Bennefield, 2014). For example, a recent literature review (Gee & Ford, 2011) highlighted that racial segregation is still quite prevalent in the U.S. and it negatively impacts racially minoritized groups by localizing resources (e.g., healthcare facilities) and accessibility to dominant-group locations.

Importantly, socio-ecological psychology includes both individual and systemic level factors and highlights the importance of considering the bidirectional relationship in how individuals and contexts impact and support one another (Oishi & Graham, 2010). For example, suppose a specific medical doctor holds anti-Black racist beliefs and engages in racist practices. In that case, this doctor's behaviors may have specific and detrimental implications for the Black patients who interact with that specific doctor. In addition, without accountability, that doctor's behavior is likely to be upheld by the policies and practices of their employer (institution), which could be an indication of a more extensive problem with that medical care facility at large. Additionally, the doctor actively shapes the environment of that healthcare facility through their actions. If we follow the recommendations of previous research (e.g., Gee & Ford, 2011; Trawalter et al., 2020), we would also consider the role that history plays in this context. What is the history of the policies of this healthcare facility? What is the history of physician-Black patient relations that established the active or tacit acceptance of this behavior in this present moment?

Previous Models

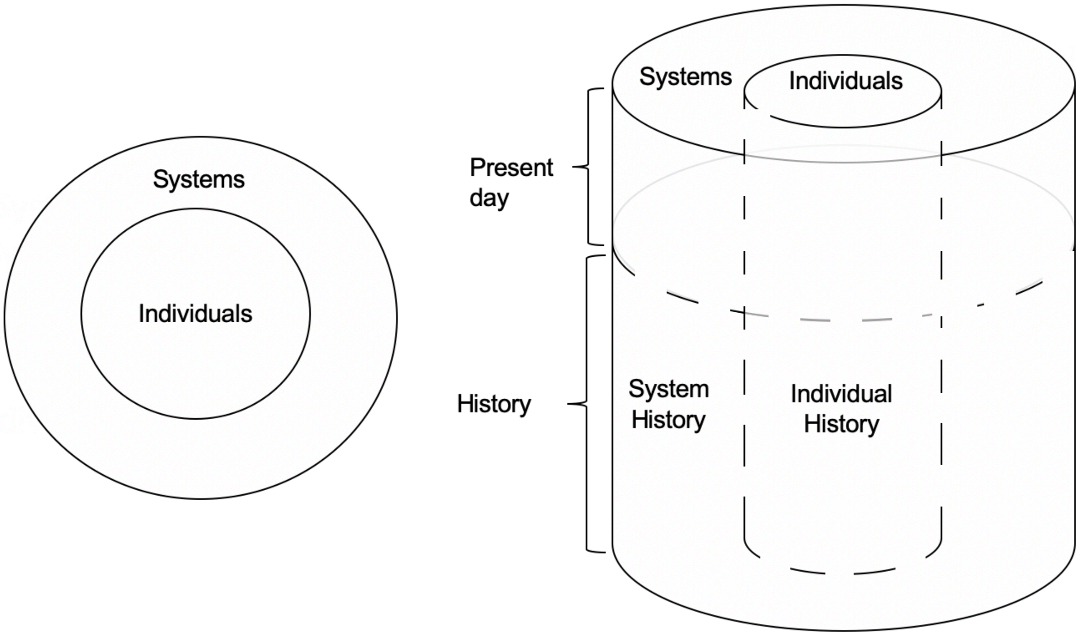
Notably, there are other frameworks and models used to understand individual and systemic issues and experiences. For example, the field of sociology uses a micro-meso-macro framework to explain how small (e.g., families), medium (e.g., organizations), and large (e.g., countries) levels of society operate and interact (Giddens et al., 2019). As another example, previous work has used an iceberg to metaphorically describe the difference between individual and systemic levels of racism, emphasizing that individual-level racism is more visible and just a small part of the larger problem of racism in society (Gee et al., 2009). However, these frameworks do not center history as a primary level of analysis. Importantly, considering history helps to illuminate current perceptions and experiences that are critical to understanding, uplifting the experiences, and addressing the problems faced by Black Americans in the healthcare system.

Building Upon the HSP Framework

As noted above, previous work has called for considering how individual perceptions and experiences, specifically in the healthcare setting, are shaped by historical and systemic factors, and vice versa (e.g., Du Bois, 1900; Trawalter et al., 2020). Building upon the HSP framework, I propose the following model:

Figure 1

Historical Socio-ecological Psychology Model



The images above depict an integration of these varying levels of analysis. The first image on the left illustrates that individuals are nested within systems. This two-dimensional depiction focuses on current perceptions and experiences and highlights that history is often overlooked in research at both individual and systemic levels. Thus, it is essential to view the topics of inquiry from a different perspective (as depicted in the three-dimensional image to the right). Importantly, this model connotes that the historical context is the foundation upon which current systems and individual-level factors (e.g., perceptions, behaviors, interactions) are built.

Additionally, this model highlights that individuals have personal histories that shape perceptions and behaviors. Similarly, systems have histories that have important implications for the present moment. This model also seeks to highlight that all of these levels of analysis interact with and support one another. Individual actions can perpetuate systemic problems. Systemic factors promote individual actions. Furthermore, both individual histories and systemic histories provide deeply rooted foundations that allow particular historical legacies to continue into the present and beyond. My dissertation studies use the HSP framework such that each study aims to acknowledge and holistically investigate historical, individual, and systemic racism in healthcare.

Chapter 2: A Narrative Review of Healthcare Experiences of Black People in the U.S.

Abstract

The present chapter is a narrative review of current research on health and healthcare disparities experienced by Black people in the U.S. The review starts by identifying current and historical racial disparities in health outcomes (i.e., racial health disparities). Next, this review examines the first physician-Black patient interactions in the U.S. (i.e., interactions between White physicians and enslaved Africans) which provided a foundation for current injustice toward Black Americans in healthcare (e.g., healthcare disparities such that Black people are treated worse than White people in the U.S. medical context). Then, literature on physicians' perceptions of Black patients including stereotypes, mistreatment of Black Americans in the healthcare system, how this mistreatment may impact medical trust, and how systemic factors contribute to health disparities is highlighted. Finally, potential ways to reduce injustice are identified including: 1) considering Black people's perspectives, 2) relating to Black patients (e.g., by connecting with them personally), 3) creating medical cultures that address racism and 4) increasing accountability. The review ends with sharing specific stories of injustice endured by Black Americans in the healthcare system. Ultimately, this chapter aimed to shed light on injustice and uplift the experiences of Black Americans in healthcare with a goal to identify potential ways to reduce racial injustice.

Health Disparities

Health disparities between White and Black Americans are well documented. Research shows that in various areas of health, including infant mortality (Greenwood et al., 2020), life expectancy (T. J. Cunningham et al., 2017), breast cancer mortality (National Cancer Institute, 2020), and heart disease (Lavizzo-Mourey & Williams, 2016), to name a few, Black Americans are at a health disadvantage. Moreover, many of these health disadvantages have remained constant over time and are projected to continue (Medina et al., 2020).

Racial disparities in the incidence and mortality rates associated with the COVID-19 pandemic have magnified many problems in healthcare, particularly for Black Americans (Tai et al., 2021). Compared to White Americans, Black Americans are currently 2.4 times more likely to be hospitalized and 1.7 times more likely to die of COVID-19 (Centers for Disease Control and Prevention, 2022b). Dire and disproportionately negative health outcomes for Black Americans began long before the COVID-19 pandemic.

In his classic work *The Philadelphia Negro: A Social Study*, W.E.B. Du Bois (1900) posited that it is imperative to consider how both history (e.g., enslaved Black people surviving the middle passage) and systemic factors (e.g., lack of sanitation on plantations) contributed to current health disparities. Black African men and women were kidnapped, killed, tortured, enslaved, and monetized in the U.S. Because the lives and health of Black people in America were not originally considered beyond their enslavement, they were essentially set up to be at a health disadvantage. For example, in 1890, it was documented that there were drastic health disparities between Black and White Americans and that Black Americans were more likely to die of diseases such as heart disease (Du Bois, 1900). Unfortunately, that original and intentional disadvantage rooted in racism has continued to manifest as persistent health disparities in Black Americans today.

Further, in the 1890s, calls to action asked that health and death rate disparities for Black Americans should “spur effort and sound upbuilding and not [be used] as an excuse for passive indifference and increased discrimination" (Du Bois, 1900, p.163). Today, calls for changes to improve health disparities at institutional and individual levels persist, as health disparities are ever-present (Centers for Disease Control and Prevention, 2017a). While the reasons for these health disparities are varied, research has demonstrated that one primary contributor is a lack of high-quality experiences, both broadly and with physicians, specifically, for Black Americans in the healthcare system (Coughlin et al., 2015; Street et al., 2007). Disadvantaged groups are more likely to experience stressors (e.g., discrimination) and receive a lower quality of care in the healthcare system, thus perpetuating ongoing health disparities (Major et al., 2013). Thus, additional research is needed to better understand the differential treatment Black people experience in the medical encounter that contributes to these disparities.

The Foundation: The Quality of the First Physician-Black Patient Interactions in the U.S.

Historically, medical doctors have played a vital role in contributing to Black Americans' mistreatment and poor health. This history is often overlooked in the discourse on health disparities. When discussed, often one or two specific or more well-known examples (e.g., The Tuskegee Syphilis Study) are cited (Dembosky, 2021). These examples are used as a marker of a time when healthcare experiences may have been particularly awful for Black Americans (Bajaj & Stanford, 2021). Additionally, medical school curricula may be lacking in teaching physicians today the role of historical and systemic factors that perpetuate current health outcomes for Black people (Pasricha, 2021). Furthermore, historically, when Black American experiences in medicine are acknowledged, the lens of the White American experience often is adopted, thus ignoring, excusing, or rationalizing torture, mistreatment, and even murder as a means to make medical progress. By doing so, people justify racism and perpetuate the idea that Black Americans' health and well-being can be neglected and that it is acceptable to threaten, disregard, and kill Black people. These ideas have deep historical roots in the healthcare industry.

The initiation and continuation of slavery in the U.S. were bolstered by the medical system, broadly, and by medical doctors specifically. American physicians were instrumental and foundational to the promotion and business of slavery because they: 1) were brought to Africa to inspect the health of enslaved people who were kidnapped, 2) decided if enslaved people were healthy enough to survive the terrors of the middle passage or should be murdered by being thrown overboard slave ships, 3) were hired at “slave markets” to assess enslaved Black people for withstanding labor, current diseases, and (for women specifically) attractiveness and ability to bear many future generations of enslaved Black people (Washington, 2007).

It is important to note that this is the foundation upon which physician-Black patient social interactions in America are built. From the first Africans who were kidnapped, survived the Middle passage, and then arrived in America, medical doctors were not serving them or concerned with their health and well-being. Instead, doctors were active participants in worsening their health even to the point of murder. Doctors had the specific goal of being paid to assess if enslaved Black people would be good physical laborers and withstand the tortures of surviving the middle passage and the horrors of life as an enslaved person. The goal was not to keep Black people healthy. Rather, it was to keep them healthy enough to be laborers. Further, these individual behaviors from White medical doctors bolstered and promoted a system of White supremacy, and this system of White supremacy enabled and supported these doctors.

Physicians’ Perceptions of Black Patients

Dating back to Black people’s enslavement, White Americans have deemed them as biologically different and inferior in order to justify their mistreatment (Thomas & Casper, 2019). This history and its implications are often ignored. Physicians played a primary role in establishing, maintaining, and promoting reckless, harmful, deathly, and untrue stereotypes about Black people’s health which was used to justify Black people’s enslavement (Byrd & Clayton, 2001). Historically, it was common practice for U.S. medical professionals to teach and endorse Black biological inferiority and stereotypes about Black people (e.g., Black people feel less pain than White people; Hoffman et al., 2016)

As a direct example, 19th-century physician Robley Dunglison, deemed the father of American physiology, wrote and published a medical book entitled Human Physiology in 1841 which became a fixture in medical training and practice and promoted anti-Black racism (Byrd & Clayton, 2001). In this book, Dunglison posited that Black people were inferior to White people and just above orangutans, a clear and documented example of dehumanizing Black Americans. This example shows how the dissemination and perpetuation of racist stereotypes and perceptions had a significant impact on the medical field and how the medical field perpetuated these stereotypes. At an individual level, Dunglison certainly could impact individuals under his training. Further, on a systemic level, his popularity and the popularity of his textbook codified and justified stereotyping and mistreating Black patients. His book portrayed these false stereotypes as fact, and then these stereotypes were taught to generations of doctors.

Throughout U.S. history, White physicians continually used these stereotypes to justify unconsented and fatal medical research conducted on Black people. Examples include physicians secretly testing the effects of mustard gas on Black WWII soldiers (Dickerson et al., 2015) and the Tuskegee Syphilis Study, where medical researchers and physicians intentionally withheld lifesaving treatment from Black men with syphilis (Brandt, 1978).

Historical Stereotypes of Black Americans Influence Current Perceptions and Health Outcomes

This foundational history is essential in considering current perceptions and endorsements of stereotypes of Black patients by White doctors and current medical practices. Research conducted by Hoffman et al. (2016) tested and found that: 1) 73% of White laypeople and 50% of White medical students and residents believed false stereotypes about Black people having biological differences, 2) for laypeople and medical students/residents, endorsing more stereotypes was associated with being more likely to believe that Black (as compared to White) people feel less pain, and 3) when medical residents and students were given mock medical cases of Black and White patients, endorsing more false biological stereotypes predicted less accurate treatment recommendations for Black patients (as compared to White patients). This study illustrates that these beliefs, grounded in a history of racism, are continuing to negatively impact Black people on individual (perceptions and behaviors of individual laypeople and medical students and doctors) and systemic (common beliefs and practices) levels.

As another example, during the COVID-19 pandemic, there was a widespread rumor that Black people were immune to COVID-19 infection (Wells & Gowda, 2020). This rumor, while false and utterly ridiculous, fits squarely into the historical context. The endorsement of that rumor is historically linked to these continued stereotypes of biological differences of Black people.

Current medical textbooks provide another lens through which to consider these issues, as historically, racist medical practices were a part of medical school curricula. A recent study analyzed 4,146 pictures from the highest-selling and most frequently assigned medical textbooks in the U.S and demonstrated that medical textbooks overwhelmingly do not represent darker skin tones (Louie & Wilkes, 2018). Specifically, 75% of the depictions displayed a light skin tone (as compared to 21% medium skin tones and less than 5% dark skin tones) which has incredibly dangerous implications as doctors may not be trained to recognize diseases (e.g., Lyme disease and skin cancer) in patients of darker skin tones (Louie & Wilkes, 2018). This omission of dark skin tones in medical textbooks can and likely does have a direct impact on Black patients and could help to explain why Black patients are so often misdiagnosed (e.g., Geiger, 2003).

Taken together, these examples highlight that medical textbooks shifted from initially perpetuating and endorsing explicit racism to now adopting a colorblind approach that ignores race. In both cases, physicians fail to receive proper training for treating Black patients, at best, or are told explicitly to mistreat Black patients, at worst. Taking a colorblind approach (e.g., asserting that race is not important) predicts higher levels of racial bias; particularly when compared to taking a multicultural approach (e.g., acknowledging and celebrating racial backgrounds; Richeson & Nussbaum, 2004). Importantly, because medical endorsement of biological differences is still deeply rooted in medical professionals' perceptions (Hoffman et al., 2016), taking a colorblind approach perpetuates White supremacy in medicine. This approach allows these false beliefs to continue to affect the perceptions and behaviors of medical doctors without being addressed or corrected. These studies provide evidence of how disparities in the treatment of Black patients and stereotypes of Black people continue and are bolstered in medical education and within individual psychologies.

Evidence That Doctors Do Not Trust and Believe Black Patients

The endorsement of these false beliefs in biological differences provides evidence to help explain why so often Black patients are not believed by their medical doctors. Historically and presently, Black patients are perceived as untrustworthy, and their ailments are disregarded by medical professionals. Research demonstrates that medical doctors undertreat and deny Black Americans' pain compared to White Americans' pain (Hoffman et al., 2016), and they are 2.5 times more likely to use negative descriptors in the medical notes for Black patients than for White patients (Sun et al., 2022). Additional research has shown that in Black and White patients presenting to the emergency room with long bone extremity fractures, doctors were significantly less likely to prescribe pain medication to Black (as compared to White) patients (K. H. Todd et al., 2000). Doctors only prescribed pain medicine to Black patients 57% of the time yet prescribed pain medication to White patients 74% of the time, even though Black and White patients reported experiencing similar pain levels (K. H. Todd et al., 2000). As several studies continually document these disparities in pain perception and pain treatment, it is clear that this is not just a problem of individual doctors but also of the healthcare system.

Taking an HSP approach to understanding this problem, it is important to note the historical grounding of Black patients not being believed by medical doctors. Historically, enslavers' and medical doctors' primary concern was maintaining the slavery business, not the health and well-being of Black Americans, which motivated a common practice of disregarding and ignoring Black people's pain and, therefore, denying proper care (Breeden & Savitt, 1979). When an enslaved Black person became ill, enslavers made treatment decisions and assessed if they felt the life expectancy of the enslaved Black person was "worth" treating their ailments at all. In all of this, the outcome often was that being sick did not mean a reduction in labor or receipt of proper medical care (Breeden & Savitt, 1979).

Taken together, an important question is if people genuinely believed these stereotypes or if they state that they do to justify the neglect and mistreatment of Black people in healthcare. In either case, this legacy continues as numerous doctors still do not believe and continue to undertreat Black patients. This, in turn, negatively impacts the health of Black Americans.

Experiences of Black Patients: Not Just Health Disparities, Treatment Disparities

> “As painful as it may be to acknowledge, we must begin with the recognition that discrimination is routine and commonplace in society and likely to be similarly prevalent in medicine.” (Williams & Rucker, 2000, p. 79)
>
> “The preponderance of the evidence strongly suggests that among the multiple causes of racial and ethnic disparities in American health care, provider and institutional bias are significant contributors – a possibility raised repeatedly, if reluctantly, by many researchers.” (Geiger, 2003, p. 440)

Currently, Black Americans experience a lack of access to healthcare and worse treatment when they do receive it. For centuries, Black people have had limited access to medical options due to systemic factors such as racial segregation and widespread racial discrimination. When medical treatment is offered, it is often inferior to the treatment received by White Americans, and racist beliefs and attitudes have historically justified this discrepancy

(Byrd & Clayton, 2001). A vast research literature documents Black Americans' differential and discriminatory experiences in the healthcare system historically and presently.

Researchers have called for a shift in focus from health disparities to inequitable experiences in health (Lavizzo-Mourey et al., 2021). Focusing exclusively on racial health disparities, while ignoring inequity in healthcare, problematizes minoritized people as having health problems. Rather, we should problematize the individuals, systems and histories that led to these outcomes and allow them to continue. For example, coronary artery disease is the leading cause of death of Americans and Black Americans are 1.3 times more likely to die of heart disease than White Americans (The Office of Minority Health, 2021). Also, Black Americans between the ages of 18 and 49 are twice as likely to die of heart disease compared to White Americans (Centers for Disease Control and Prevention, 2017b). However, research demonstrates that over and above age and heart disease risk, Black people with identical symptoms of coronary artery disease are less likely than White people to be referred for cardiac catheterization (a procedure to investigate the health of the heart and diagnose the nature and severity of a patient's heart disease; American Heart Association, 2015; Schulman et al., 1999). Importantly, in the design of this study, the researchers hired and trained actors to portray patients, follow a script, and have the same mannerisms. Physician participants evaluated the films and made treatment recommendations (Schulman et al., 1999). Thus, even in a tightly controlled experimental design, this bias in treatment emerged.

Doctor-Black Patient Communication

Communication is a critical aspect of the healthcare provider-patient relationship. Verbally and non-verbally communicating with patients in ways that focus on supporting the patient’s needs and level of understanding is associated with several important psychosocial and health outcomes (Hamel et al., 2021). For example, having communication that is more patient-centered (e.g., making eye contact and avoiding interrupting patients) is associated with: higher levels of physical and emotional patient well-being, earlier cancer detection, improved doctor-patient relationships, an increase in patients feeling emotionally validated, and patients feeling as though they are a part of the decision-making process (R. Epstein & Street, 2007). Unfortunately, research demonstrates that physicians do not communicate with Black patients as effectively as they do with White patients and, worse, can be combative with Black patients.

In a study that videotaped doctor-patient interactions that unaware coders then analyzed, it was found that doctors were more contentious with Black patients as compared to White patients (Street et al., 2007). Further, doctors reported that Black patients were worse at communicating with the doctor and seemed less satisfied with the interaction (Street et al., 2007). However, the blind coding did not show this pattern of results and instead found no difference across race in patient communication and satisfaction with their doctor (Street et al., 2007). Thus, doctors' perceptions of Black patients were inaccurate and potentially negatively contributed to the social interaction.

Another study used similar (videotaped) methods and analyzed the medical encounters between 458 Black and White American patients with 61 medical doctors (Johnson et al., 2004). Medical doctors were significantly (33%) less likely to engage in patient-centered communication with Black patients (as compared to White patients) (Johnson et al., 2004a). Johnson et al. (2004) defined patient-centered communication as the ratio of the amount of time spent in socioemotional conversation vs. biomedical conversation. This study also found that doctors verbally dominated conversations more with Black (compared to White) patients by 23% (Johnson et al., 2004a). Blind coders rated doctors as showing significantly less positive affect (e.g., less positivity in their emotional tone in verbal communication) toward Black patients and Black patients as showing less positive affect toward their doctors (Johnson et al., 2004a).

Examples of Systemic Factors That Influence Black American Health

Beyond individual interactions between physicians and patients, it is also important to consider how systemic factors affect health disparities and medical treatment specifically for Black Americans (Gee & Ford, 2011). The previously-described studies add to a large literature that highlights disparities in the treatment of Black Americans in healthcare such that Black Americans are treated worse than White Americans. This indicates that bias in healthcare is not just an individual-level experience but a common practice and, in turn, a problem deeply embedded in the healthcare system.

Additionally, systemic factors such as segregation contribute to poorer health outcomes for Black Americans. For instance, an examination of records from 1951-1999 of the Savannah River Site (a federal nuclear weapons company in South Carolina) revealed that Black employees were systematically and intentionally placed in work areas with higher levels of radiation (Angelon-Gaetz et al., 2010). Further, Black people had 1.8 times higher levels of radiation doses detected than White employees and Black women specifically had the highest radiation doses (Angelon-Gaetz et al., 2010; Buncombe, 2014).

The Savannah River Site had over 20 lawsuits filed against them by Black employees who cited experiencing racism (e.g., graffiti on-site, nooses in locker rooms), discrimination (e.g., being denied promotional opportunities), and intentional harm (e.g., placing them in areas higher radiation exposure and denying requests to transfer areas; Washington, 2007). Black employees revealed that the company was intentional about putting Black employees in areas of the building known to have the highest radiation exposure and explicitly referred to these areas as “coon areas” (Buncombe, 2014). This example has historical underpinnings as research for over a century has highlighted that racial segregation has detrimental effects on Black American health (Du Bois, 1900).

As another example, a recent study collected data from 817 U.S. counties and found that explicit and implicit racial bias were associated with higher cases and higher death rates of Black people from COVID-19 (Cunningham & Wigfall, 2020). This study highlights the continued historical legacy of the association of racism and health outcomes for Black Americans. These examples illustrate how system-wide factors (employer practices, widespread bias) relate to Black health. Further, it is crucial to think of the lives and experiences of these Black Americans in these examples. What will their encounters be like in the healthcare system when they try to get treatment for their ailments? Will they truly be cared for in the U.S. healthcare system?

We cannot assume that every Black American will have a terrible experience in healthcare. However, the literature suggests that inequitable treatment of Black Americans by medical doctors is common both historically and presently. Thus, it is imperative that research continues to focus on individual and systemic injustice done to Black Americans in healthcare and how individuals and systems can uphold or eradicate these practices.

Trust and Trustworthiness

> "Our country has yet to comprehend adequately that overcoming racism is not primarily the responsibility of Black people; the racist ideas and practices that constitute today's "structural racism" were created, and have been sustained, primarily by White people. It would be wrong, as well as ineffective, to ask Black communities to simply be more trusting. Clinicians, investigators, and pharmaceutical companies must provide convincing evidence — sufficient to overcome the extensive historical evidence to the contrary — that they are, in fact, trustworthy." (Warren et al., 2020, p. 2)

Trust has previously been defined as the "psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (Rousseau et al., 1998, p. 395). Previous research documents that Black (vs. White) people have less trust in the healthcare system broadly and in physicians specifically, and it is no surprise that this is the case. Indeed, Black Americans' medical mistrust derives from the reality of their mistreatment (Thomas & Casper, 2019). Considering what Black people have historically and presently endure in healthcare, mistrust is a logical and justifiable conclusion. The Black experience in healthcare has not created the safety required for Black people to "accept vulnerability" or have "positive expectations" of healthcare professionals.

Previous research suggests that better verbal and nonverbal patient-centered communication is positively associated with higher levels of patient trust (Fiscella et al., 2004).

However, as noted previously, Black patients experience worse communication from their doctors (Ibilibor & Moses, 2021). Additionally, in a longitudinal study that assessed Black and White patients' perceptions of physicians at oncology and thoracic surgery clinics, Gordon et al. (2006) found that Black and White patients had no significant difference in trust of their physician before their doctor's appointment. However, after their appointment, significant differences in trust emerged, such that Black patients reported having less trust in their physician (Gordon et al., 2006). Importantly, Black participants in this study reported having physicians who provided less information, were less collaborative, and less supportive (Gordon et al., 2006). These three factors were collapsed into a patient communication score and found to be a significant predictor of post-visit trust (Gordon et al., 2006). The authors suggested that worse communication is a primary contributor to lower levels of medical trust for Black people (Gordon et al., 2006).

Another study that assessed Black and White patient experiences with specialist physicians (i.e., cardiologists and gastroenterologists) found that Black participants reported less trust in their physician (Keating et al., 2004). Further, the factors that predicted more patient trust included patients' reports of: receiving adequate medical information (e.g., information about follow-up care), being included in the decision-making process, having physicians who listened attentively, and being able to spend an ample amount of time (as much as they desired) with the specialist (Keating et al., 2004). However, this study did not assess if any of these factors were predictive for Black patients' trust specifically.

Another study tested race concordance and personal similarity as predictors of medical trust in Black, Latinx, and White patients (Street et al., 2008). Black and Latinx patients reported having more personal similarities (e.g., values and communication style) with same-race doctors (Street et al., 2008). Additionally, personal similarity significantly predicted patient trust, satisfaction, and treatment adherence (Street et al., 2008). However, race concordance was not a significant predictor in this model (Street et al., 2008). These results suggest the possibility that if communication and treatment of Black patients are improved, trust can also be improved.

Lack of medical trust in the Black community has become a large part of public discourse because of concerns about COVID-19 vaccination and recent reports that Black Americans are the racial group with the lowest intention of getting vaccinated (Funk & Tyson, 2021). Considerable attention has focused on how historical mistreatment may lead to present mistrust. Recent work suggests that this is a problematic way of framing this issue. While history is essential and foundational to understanding current experiences, attributing current mistrust to historical factors negates the continued and ever-present racism that Black Americans routinely endure in the U.S. (Bajaj & Stanford, 2021). It is dangerous to assume discriminatory, racist, and inequitable treatment by health professionals toward Black people is a remnant of the past.

Ways to Improve the Experiences of Black Americans in Healthcare

Respect and Connect with Patients

In a recent mixed-methods study that included a systemic review, interviews with physicians and patients, and observational data, Zulman et al. (2020) identified five recommendations for medical doctors to improve social interactions which centered respecting and connecting with patients. These recommendations were: “(1) prepare with intention, (2) listen intently and completely, (3) agree on what matters most (4) connect with the patient’s story, and (5) explore emotional cues” (Zulman et al., 2020, p. 76). Notably, many of these recommendations are in domains that the present narrative review highlighted as disparities in how doctors treat Black patients. Thus, doctors’ awareness of these treatment disparities and special attention to implementing these recommendations specifically with Black patients are critical.

Cultural Humility

Additional research suggests that medical professionals must practice cultural humility to address racial healthcare disparities. Cultural humility has been defined as a self-evaluative process that acknowledges one's privileges, recognizes inequity, and aims to support others through direct action and advocacy (Tervalon & Murray-García, 1998). A recent report identified what they entitled the “5 Rs” of cultural humility and provided recommendations to improve doctor-patient social interactions (Masters et al., 2019). The 5 Rs include (1) Reflection: during social interactions, medical doctors should be humble and welcome opportunities to learn from their patients, (2) Respect: doctors should attune their attention to ensuring that they are always demonstrating respect to their patients, (3) Regard: Doctors should acknowledge the negative role that bias (explicit and implicit) can play in social interactions with patients and aim to uplift the patients while actively working not to operate in a biased way, (4) Relevance: Physicians should acknowledge that cultural humility is relevant to every patient all the time, and (5) Resiliency: Doctors can utilize cultural humility to positively impact patient resiliency (Masters et al., 2019). Again, these recommendations, if implemented, seem particularly relevant to reducing treatment disparities for Black patients.

Consider Black Patients’ Experiences

Additional research suggests that considering the perspectives of Black patients can improve physician anti-Black bias and improve compassion toward Black patients. For example, a recent study was conducted with medical doctors to test for biases in pain treatment recommendations for Black people and those low of socioeconomic status (SES; Hirsh et al., 2019). Four hundred thirty-six medical doctors made treatment recommendations after watching videos with Black and White patients who indicated experiencing back pain (Hirsh et al., 2019). Of the original sample of 436 doctors, 50% showed a race or SES bias in treatment recommendations such that they gave less treatment to Black or low SES individuals (Hirsh et al., 2019). Then the researchers categorized doctors as racially biased or SES-biased (based on which bias was most significant) and randomly assigned biased doctors to an experimental or control condition (Hirsh et al., 2019). Those in the control condition did nothing further. In the experimental condition, the doctors interacted with a virtual avatar of a (Black or low SES) patient (depending on the doctor's bias; Hirsh et al., 2019). They were told to learn about how the pain the patient experienced impacted them socially, emotionally, and economically (Hirsh et al., 2019). These doctors also watched videos of these (avatar) patients describing their pain (Hirsh et al., 2019). One week later, the biased doctors (control and experimental group) were assessed again for treatment recommendations. Both racial and SES biases were significantly reduced for those in the experimental group (Hirsh et al., 2019). For anti-Black bias specifically, doctors had 85% lower odds of treatment bias than the control group and greater compassion for Black patients (Hirsh et al., 2019).

Necessity of Black Doctors

An important race-related factor that plays a role in patient perceptions, quality of healthcare experiences, and health outcomes of Black Americans is doctor-patient race concordance. A recent systematic review of the literature from 1995-2016 (Shen et al., 2018) found that both in observational studies and self-reports, Black Americans experience worse communication, receive less information, and are less included in decision-making than White patients. Further, this review found that when Black patients are cared for by Black doctors, there is better doctor-patient communication (Shen et al., 2018). Additionally, a recent study by Takeshita et al. (2020), which included reports from a diverse sample of 92,238 patients (12.7% Black), found that Black patients reported having worse experiences with White and Asian doctors as compared to Black doctors.

In another study, Black and Latinx participants watched videos of doctors discussing COVID-19 (Alsan et al., 2021). The researchers manipulated if the doctor matched the participant's race and whether or not the doctor acknowledged racism in healthcare and tested this manipulation's impact on information seeking regarding COVID-19 prevention (Alsan et al., 2021). Race concordance, but not acknowledging racism, increased information seeking (as measured by whether participants clicked a link to receive further information) (Alsan et al., 2021).

Further, evidence suggests that the effect of race concordance for Black Americans applies at all ages and is predictive of health outcomes and even mortality. For example, a recent study analyzed 1.8 million hospital records (between 1995-2015) to examine the association between race-concordance on infant mortality. The study found that Black (as compared to White) infants were three times more likely to die when cared for by a White doctor (Greenwood et al., 2020). Conversely, the mortality rates of White infants were not impacted by the physician's race (Greenwood et al., 2020).

Importantly, while Black patients routinely prefer and have better experiences and health outcomes with Black doctors, the likelihood of having a Black doctor is not high. While Black people currently represent 13% of the U.S. population, only 5% of medical doctors in the U.S. are Black (Ly, 2021). This underrepresentation has been consistent historically. For example, in 1940, the U.S. population was 9.7% Black and 2.8% of physicians were Black (Ly, 2021). Thus, in 80 years, there has only been about a 2% increase in Black representation in medical doctors. Additionally, reports show that for Black men specifically, there has been no statistically significant growth in the number of Black doctors between 1940 and 2018 (Ly, 2021).

Race concordance has been an important factor in the healthcare system and for the survival of Black people in the U.S. for hundreds of years. Historically enslaved Black people were justifiable fearful of being treated by White doctors and many preferred to see Black herbalists or midwives. During slavery, enslaved Black people had limited healthcare options when they were ill and if a Black person did reveal they were sick, this could put them in immediate and life-threatening danger, from angry enslavers and from the treatment they would receive from White medical doctors (Breeden & Savitt, 1979). Interestingly, long before Black doctors were permitted in the U.S., some Black people, such as midwives, became quite popular for their skills and successful methods but were also resented and demeaned by White medical doctors (Breeden & Savitt, 1979). Importantly, these methods used by enslaved Africans did indeed show success (at times at greater rates than White American medicinal techniques) (Breeden & Savitt, 1979).

Relate to Patients

Relating to patients is another factor that may improve physician-patient interactions. In a vignette study, 882 Black and White participants were told to imagine they were close to having high cholesterol levels and encouraged by a doctor to live a healthier lifestyle to improve their health (Nazione et al., 2019). The researchers manipulated whether or not the participant's race matched with the doctor as well as whether the doctor shared with the participant that they struggle with living a healthy lifestyle themselves (or not) (Nazione et al., 2019). For Black participants, race concordance predicted perceived patient similarity with the doctor (Nazione et al., 2019). Also, self-disclosure significantly predicted trust in the physician, likeability, similarity, and satisfaction for all participants (Nazione et al., 2019). However, this study did not specifically examine the predictors of trust for Black participants.

Increase Interracial Contact and Create Medical Cultures that Address Racism

Additionally, evidence suggests that increased interracial contact is associated with less physician racial bias. A recent study by Onyeador et al. (2020) considered individual social and systemic factors in understanding anti-Black racism in medical students. This longitudinal study assessed records of 3,134 non-Black medical students to test if interracial contact with Black people, the cultural climate of the medical school, and hours spent in diversity training were significant predictors of explicit and implicit racism (Onyeador et al., 2020). Interracial contact assessed previous and current amount and quality of contact with Black people in medical students’ lives and cultural climate was assessed by asking about perceived effort to address race, bias, and racial issues within medical school practices and curriculum (Onyeador et al., 2020). When controlling for interracial contact with Black people before medical school, the quantity and quality of interracial contact during medical school significantly predicted less implicit and explicit racial bias (Onyeador et al., 2020). Additionally, more equitable medical school racial climates predicted less explicit bias of medical students (Onyeador et al., 2020). Diversity training, however, was not related to racial attitudes (Onyeador et al., 2020). These important findings suggest the necessity of considering the individual and systemic factors that can improve the experiences of Black patients and reduce racism in healthcare. Specifically, changing the cultural climate in medical schools and other medical facilities may reduce anti-Black racism. Also, interacting with Black people beyond the patient encounter may be critical to reducing racism in healthcare (Onyeador et al., 2020).

Increase Accountability

Historical Lack of Accountability

There is a long history of individuals and systems not being held accountable for unconscionable actions in healthcare. Historically, doctors would take enslaved Black people (either by being enslavers or paying enslavers) to conduct medical research including performing surgeries without anesthesia that included using chisels, mallets and cauterization (Kenny, 2015). Medical researchers violently attacked Black people to improve the health of White people generally and boost White physicians' careers specifically. This reality offers examples of the deep roots of the lack of accountability in U.S. healthcare. Additionally, Black people did not get proper medical treatment even as they helped advance medicine and medical doctors' careers (e.g., by becoming practitioners and being forced into medical research). Again, this history laid a foundation for a lack of accountability in the healthcare system. It is essential that injustice in healthcare is acknowledged and that there is accountability for medical racism.

Highlighting the Need for Accountability: Blatant Racism

Importantly, throughout U.S. history, a culture of explicit racism has persisted which highlights the need for accountability. Historically, many White medical doctors blatantly described the racist acts they committed and how they advanced their careers, all while teaching racist methods and ideas to future generations of doctors (Washington, 2007). As an example, in a 1960s speech given at Tulane Medical School about conducting medical research, physician Harry Bailey stated, “[It was] cheaper to use Niggers than cats because they were everywhere and cheap experimental animals” (Washington, 2007, p. 10).

As another example, from 1960-1972, Eugene Saenger, MD, and Clarence Lushbaugh, MD, conducted unconsented and life-threatening radiation research that intentionally disproportionately used Black American participants (e.g., 75% Black samples) and was funded (over $850,000) by the U.S. Department of Defense (Washington, 2007). These doctors went on to be huge successes in the field of medicine in part because of conducting this research. Saenger went on to run a training program for radiology at the University of Cincinnati, received numerous awards, and retired from the University of Cincinnati after being named professor emeritus (University of Cincinnati College of Medicine, 2021). Currently, the University of Cincinnati has a Eugune L. Saenger fund to support radiology research (University of Cincinnati College of Medicine, 2021). Lushbaugh founded The Radiation Research Society, became the chair of Oak Ridge Associates Universities’ Medical Division, and became a consultant to government, medical, and industry corporations (Radiation Research Society, 2001). He also was an author of more than 150 scientific articles and won many awards, including the Landauer Award of the American Association of Physicists in Medicine (Radiation Research Society, 2001).

As for accountability, the victims' families filed a civil lawsuit against Saenger and won a settlement, with each family receiving around $50,000 (Dicke, 2007). Thus, in essence, the U.S. government funded Saenger, Lushbaugh, and their colleagues, and their actions and their legacies continue to be uplifted by institutions. The victims of the families received minimal payment, particularly in comparison to the amount of money received by the researchers and the University of Cincinnati to conduct the research. Many biographical accounts of Saenger and Lushbaugh celebrate them as innovators who advanced radiology with no mention of the Black lives they took and disregarded in their professional pursuits and blatant racism.

Specific Examples of Injustice Toward Black Americans in Healthcare

Sadly, the stories of Black people's experiences in the healthcare system are often ignored, silenced, and/or unknown by many Americans. To truly understand the depth of the problems for Black Americans in healthcare and to try to eradicate the injustices they face, it may be imperative to learn about injustice toward Black Americans. Below, I have provided specific examples of Black American stories to illustrate this point.

The Stories of Anarcha, Betsey, and Lucy

Numerous atrocities of White doctors torturing enslaved Black people and deeming it medical experimentation are documented. The stories of Anarcha, Betsey, and Lucy provide insights into such atrocities and lack of accountability. Anarcha, Betsey, and Lucy were three of ten enslaved Black women who were purchased by physician J. Marion Sims in Alabama in the 1840s (Vedantam & Gamble, 2016). The names of the other seven women are unknown. Sims performed dozens of non-anesthetized vaginal surgeries that lasted at least an hour on each enslaved woman (for instance, Sims performed over 30 surgeries on Anarcha alone; New York Historical Society, n.d.; Pimentel, 2021).

What were the outcomes for these unconscionable acts of racism? In 1849, Sims published a paper on his surgical techniques in the American Journal of the Medical Sciences, was deemed the father of gynecology, and he was elected president of the American Medical Association (Wailoo, 2018). In his article about his experiments, he included illustrations of patients, which he depicted as White women (Washington, 2007). He went on to perform surgeries on White women patients, in which he used anesthesia (Vedantam & Gamble, 2016).

What were the outcomes for Anarcha, Betsey, and Lucy? We may never know the answer. Historical and medical records of their experiences are gleaned mainly from the medical writings by Sims (Washington, 2007). As their stories were predominantly told from his perspective, their actual experiences were likely much worse than we will ever know. We do not know what their lives were like before or after being tortured by Sims. Sadly, the stories of these Black women have been silenced and their voices are not uplifted: not in medical teachings, not in monuments, and often not in the discourse on healthcare disparities and advances. Also, the experiences of these Black women illustrate a large and routine American practice of mutilating and torturing Black people and justifying it because of potential medical advancements and careerist ambition.

Notably, the acts of Sims did not only have damaging effects on an individual level (e.g., the lives of Anarcha, Betsey, and Lucy) but at the systemic level as well. As the American Medical Association (AMA) president, Sims had great systemic power to teach and continue to promote racism in healthcare. This history helped to provide the foundation that led to the AMA not officially banning racial discrimination and the barring of Black doctors until the Civil Rights Act of 1964 outlawed the practice (Baker, 2014). Additionally, several monuments were commissioned to honor Sims across the U.S. While one statue was taken down in 2018 after standing for over 100 years in New York's Central Park (Wailoo, 2018), other monuments still stand in such locations as Columbia, South Carolina (Historic Columbia, n.d.). Today, medical doctors still use some of Sims' techniques (Washington, 2007). There are debates about if Sims' behavior was ethical, with some continuing to silence the experiences of these Black women and placing Sims on a pedestal, absolving him of or denying any wrongdoing (Bellafante, 2018). There were no repercussions for Sims' actions; instead, there were plentiful rewards with individual and systemic level implications.

> “Until the Lion tells his side of the story, the tale of the hunt will always glorify the Hunter.” - African Proverb, notably spoken by novelist Chinua Achebe (1994).

The Story of Henrietta Lacks

Another and perhaps more well-known historical example of lack of accountability in healthcare is the story of Henrietta Lacks. Lacks was diagnosed with cervical cancer (Skloot, 2010). Physicians at Johns Hopkins Hospital, located in Baltimore, Maryland, took samples of her cells and gave them to medical researchers without her knowledge or consent (Skloot, 2010). Lacks died at age 31 in 1951; however, today, her cells are continually shared in medical, scientific, and biological research because of Lacks' cells' (named HeLa cells) unique ability to regenerate and survive (“Henrietta Lacks: Science Must Right a Historical Wrong,” 2020).

Presently, HeLa cells are used in medical advancements and lifesaving treatments. HeLa cells have been used in studies on cancer, hormones, the human genome, effects of radiation, immunology, and in developing the COVID-19 vaccine (“Henrietta Lacks: Science Must Right a Historical Wrong,” 2020; *The Legacy of Henrietta Lacks*, n.d.). The story of Henrietta Lacks highlights a lack of acknowledgment, atonement, and accountability. There were no repercussions for the doctors who stole her cells or the hospital where this took place ("Henrietta Lacks: Science Must Right a Historical Wrong," 2020). Also, there continues to be little or no acknowledgment of how her cells are routinely used in medical research to save lives (“Henrietta Lacks: Science Must Right a Historical Wrong,” 2020). For many years, doctors continued to use her cells without her family’s knowledge or consent; further, her medical records were publicly released to the media ("Henrietta Lacks: Science Must Right a Historical Wrong," 2020). Johns Hopkins Hospital, the institution responsible for stealing Lacks' cells, is considered one of the most prestigious hospitals in the U.S. (*The Johns Hopkins Hospital*, 2021).

In the story of Henrietta Lacks, much like the stories of Betsy, Anarcha, and Lucy, we see a lack of consequences and an “ends justify the means” approach to medical practice. So often, the lives of Black people and particularly Black women are negated in proclaimed pursuit of helping the many. These instances reflect primary examples of a common practice of using Black people for medical advancement, abusing power in the medical system to rip away Black people's decision-making ability in healthcare, and then continuing on as if their lives did not matter. However, U.S. culture and institutions uplift the advances and careers of scientists and medical professionals who commit these acts. As a reminder of how typical these practices were, at the same time that the HeLa cells were being stolen and distributed, the Tuskegee Syphilis Study was happening as well.

The Story of Reginald Relf

Today, examples continue of the disregard of Black lives in healthcare. Amidst the COVID-19 pandemic, even while HeLa cells were being used to advance the COVID-9 vaccine (“Henrietta Lacks: Science Must Right a Historical Wrong,” 2020), numerous accounts document Black people being refused medical treatment with COVID-19 symptoms and then subsequently dying (Eligon & Bursh, 2020). For instance, in May of 2020, The New York Times reported several such instances, including the story of Reginald Relf. Relf had a cough, fever, and trouble breathing, was taken to the hospital where he was not tested for COVID-19 and instead was sent home and told to quarantine, and subsequently died a week later (Eligon & Bursh, 2020). Relf’s family shared that Relf expressed medical mistrust and had reluctantly sought medical care for his COVID-19 symptoms (Eligon & Bursh, 2020). Even after seeking medical care, he did not receive proper care and ultimately was sent home to die instead of receiving necessary treatment that may have saved his life. Relf’s story is one of many that have emerged during the COVID-19 pandemic. These stories have gone viral on social media platforms, have been published in popular news sources, and have become a part of public discourse. Undoubtedly, there are many more stories from grieving Black families across America that do not get national attention. However, when it comes to medical practice, medical research, and the atrocities committed against the Black community (whether exploitation in research or medical treatment refusal or discriminatory treatment), the question remains: where is the accountability in healthcare?

Limitations of the Current Body of Research

A review of the current state of research on healthcare for Black Americans reveals particular limitations. First, more research should examine the unique experiences of Black Americans in the healthcare system. Much research on healthcare experiences has overlooked the experiences of Black Americans. For instance, research on experiences of women with breast cancer has largely included White samples and not considered the specific and differential experiences of Black women, who die at higher rates (Torres et al., 2016). More research must focus on acknowledging Black patients' voices, perspectives, and experiences. Importantly, future research and theory should be guided by Black voices. As historically and presently Black experiences are silenced by the dominant culture, this remains an ever-important aspect of scientific inquiry.

To do this, it is important to understand the depth (e.g., specific individuals) and breadth (e.g., averages) of healthcare experiences of Black Americans. After reviewing the literature, it is clear that while research has documented that Black Americans have disproportionately worse experiences in healthcare, current qualitative research would be enhanced by deeply examining the type of negative treatment that has been documented in news media (e.g., the story of Reginald Relf). More qualitative research (e.g., interviews and focus groups) with Black Americans that can specifically elaborate on negative encounters with medical staff is one way of addressing this gap. Conducting more qualitative research with Black Americans to understand the depth of their experiences would help to better reveal the fullness of the problems in the current healthcare system. Additionally, the research literature could be enhanced by having more studies that focus on what contributes to positive experiences in healthcare for Black Americans. Understanding what is going well in the healthcare setting for Black Americans is critical to illuminating pathways to create even more positive experiences.

Also, previous research shows that factors such as patient communication contribute to medical trust in Black Americans (Gordon et al., 2006). It would enhance the current literature if more research focused on other factors that may contribute to improving trust for Black

Americans. Specifically, it is essential to understand how healthcare experiences for Black Americans may lead to justifiable mistrust and affect health outcomes today.

Importantly, future research should be conducted to understand how medical systems and individuals can repair trust with Black people. For instance, a long-standing problem in U.S. culture is that racism is often not acknowledged particularly by White Americans (Glaude, 2019; Horowitz et al., 2020; Nelson et al., 2013). Future research is needed to address how to encourage acknowledgment of systemic injustice, and how to increase behaviors to address injustice in healthcare.

Additionally, medical systems also have a long-standing problem of not being held accountable for discriminatory treatment. Future research should examine how to hold individuals and institutions in healthcare responsible for discriminatory treatment. If medical systems acknowledged and were held accountable for discrimination and racism they may be able to rebuild trust and improve healthcare experiences for Black Americans. One way of addressing this could be to examine how healthcare policies can address holding medical staff and hospitals accountable for discriminatory experiences they inflict upon Black Americans. Doing this may increase Black patients' trust and provide specific insights for effective policy changes.

Conclusions

The current review highlights the importance of considering the role of history, individuals, systems, and their interactions to better understand present-day situations and problems. The HSP framework is a model that can be applied generally to understanding present day situations and experiences. For example, in other fields of study such as education and organizational behavior, conducting research using the HSP framework could promote a deeper understanding of the foundational history that allow for current policies and behaviors to occur in the present day. Further, the HSP framework could be particularly helpful in research that examines and addresses racial disparities, prejudice, and discrimination.

In this review, I aimed to highlight the significance of considering historical, individual, and systemic factors and their interactions within the context of the experiences of Black Americans in U.S. healthcare. In doing so, it is clear that Black Americans experience disparities in health and quality of healthcare. This has been true for Black Americans since White Americans first enslaved them. Individuals and systems uphold these treatment disparities, and their interaction allows disparities to continue. My dissertation studies aimed to address gaps in the literature whilst considering the influence of history, individual interactions and systems on Black American health and healthcare experiences.

My dissertation had the goal of investigating medical trust as a key contributor to current health perceptions, understanding Black experiences in physician-Black patient interactions that promote and erode medical trust, and investigating ways to promote the recognition of racism and bolster support for ways to address inequity in healthcare. Thus, my dissertation aimed to address three main questions:

- What are the experiences of Black Americans in healthcare and how does this influence medical trust and medical decisions?
- What specific healthcare interactions contribute to medical trust and perceptions of healthcare providers for Black Americans?
- When majority group members learn about stories of injustice in healthcare can this lead to increased perspective-taking and then behavioral intention to reduce inequity?

Chapter 3: Current Healthcare Experiences, Medical Trust, and COVID-19 Vaccination Intention and Uptake in Black and White Americans

Abstract

The COVID-19 pandemic spotlighted Black Americans' inequitable healthcare experiences. Across two studies ($N = 13{,}054$), we tested the associations between healthcare experiences, historical knowledge of medical mistreatment, medical trust, and COVID-19 vaccination intention and uptake in Black and White Americans. We hypothesized that Black Americans' worse current healthcare experiences (rather than historical knowledge) and lower medical trust would be associated with lower COVID-19 vaccination intention (Study 1) and that feeling less cared for by their personal physician would be associated with Black Americans' lower medical trust (Study 2). In convenience (Study 1, December 2020) and nationally representative samples (Study 2, March-April 2021) participants completed online surveys. In Study 1 ($N = 297$), Black (relative to White) Americans reported lower vaccination intention (*Cohen's* $d = -0.55$, $p < .001$) and lower medical trust (*Cohen's* $d = -0.72$, $p < .001$). Additionally, less positive healthcare experiences among Black participants (*Cohen's* $d = -0.33$, $p = .022$) were associated with less medical trust and in turn lower vaccination intention. Tuskegee Study knowledge was not associated with vaccination intention or medical trust. Study 2 ($N = 12{,}757$) data revealed no statistically significant racial differences in COVID-19 vaccination receipt or intention. Black (relative to White) Americans reported feeling less cared for by their personal physician (*Cohen's* $d = -0.44$, $p < .001$) which was associated with lower medical trust (*Cohen's* $d = -0.51$, $p < .001$). These results highlight factors that may contribute to Black Americans' vaccination hesitancy and medical trust.

Keywords: trust, public health, COVID-19, vaccination, vaccination hesitancy

Current Healthcare Experiences, Medical Trust, and COVID-19 Vaccination Intention and Uptake in Black and White Americans

For many Americans, the FDA authorization/approval of COVID-19 vaccines brought a sense of hope for the future (Robertson et al., 2020). There have been hundreds of thousands of deaths due to COVID-19 in the U.S. alone, with disproportionately higher mortality in Black Americans (Centers for Disease Control and Prevention, 2022a). Without considering cultural and historical contexts, one might hypothesize that such dire health statistics would compel Black Americans to be among those most likely to intend to get vaccinated. However, previous data (collected November 2020) showed that Black Americans were less likely than White Americans to intend to get a COVID-19 vaccine when it became available to them (Funk & Tyson, 2021). This early COVID-19 vaccination hesitancy led to questions about the reasons for the discrepancy.

Medical Trust and Health Decisions

Racial disparities between Black and White Americans in vaccination rates and vaccination intention are not restricted to COVID-19 vaccines. Indeed, Black Americans are less likely than White Americans to receive flu vaccines and more likely to be hospitalized due to flu complications, and these disparities have persisted throughout the COVID-19 pandemic (Centers for Disease Control and Prevention, 2022b). Importantly, trust in medical professionals is consistently identified as a key factor in people's health-relevant decision making, such as vaccinations decisions (Fu et al., 2017; Musa et al., 2009). As such, identifying the determinants of medical trust is paramount for promoting health. Perhaps not surprisingly, suboptimal healthcare experiences tend to erode medical trust (Smith, 2017), and this might be particularly prevalent in the experiences of Black Americans. Although factors such as positive physician affect are associated with greater medical trust for both Black and White Americans (Martin et al., 2013), Black Americans consistently report less trust in physicians than do White Americans (e.g., Keating et al., 2004). Ultimately, these experiences affect health-relevant decision making.

Black Americans who reported lower trust in their personal physicians were also less likely to utilize preventive health services (e.g., mammograms; Musa et al., 2009) which has the potential to further exacerbate disparities.

Within the context of COVID-19 vaccinations, research conducted with Michigan residents (collected from June – Dec 2020) found that Black Americans were less likely to get vaccinated than White Americans, and this association was partially mediated by Black Americans' lower levels of medical trust (Thompson et al., 2021). For Black Americans, intending to get a COVID-19 vaccine is predicated on trusting the very medical system that has contributed to the health and healthcare disparities they have faced both before and during the pandemic (Bajaj & Stanford, 2021; R. C. Warren et al., 2020). For instance, the New York Times reported instances in which Black Americans with COVID-19 symptoms who sought medical care were less likely than White Americans to be referred for COVID-19 testing (Eligon & Bursh, 2020).

Historical and Present Medical Mistreatment and Healthcare Disparities

Early in the pandemic, numerous news media reports speculated that Black Americans' medical mistrust stemmed from knowledge about historical mistreatment and drove the observed discrepancy in COVID-19 vaccination intention (Bajaj & Stanford, 2021). For example, many cited the Tuskegee Syphilis Study as a primary reason for vaccination hesitancy among Black Americans (Bajaj & Stanford, 2021). The Tuskegee Syphilis Study occurred between 1932-1972, and it is one of many examples of terrible mistreatment of Black Americans by healthcare providers and researchers. During the Tuskegee Syphilis Study, syphilis was studied in Black men without their knowledge or consent. Diagnosis and effective treatment for syphilis (once it was available) was intentionally withheld from Black men and (unbeknownst to them), they were instead given placebos. Ultimately, many of the men died from syphilis and related complications and transmitted syphilis to their families (Brandt, 1978).

Media focus on Tuskegee is clear from an examination of the University of California, Los Angeles Television News Archive, the largest searchable archive consisting of all major televised cable and network news programming in existence. It shows that Tuskegee was mentioned with COVID-19 and vaccinations 168 times between October 1, 2020 and November 30, 2021. In addition, Tuskegee was mentioned more than were other historical examples of medical mistreatment of Black Americans, such as the cases of Henrietta Lacks (Jackson & Utter, 2020; Skloot, 2010) and Fannie Lou Hamer (Public Broadcasting Service, n.d.). The Television News Archive contains mention of Henrietta Lacks only ten times and Fannie Lou Hamer only seven times in the context of COVID-19. Google trends data reveal that the Tuskegee Syphilis Study as a search term occurred more than two times as often as Henrietta Lacks and seven times more than Fannie Lou Hamer during the same time frame (Google, 2022).

Framing the reasons for Black Americans' medical mistrust and COVID-19 vaccination hesitancy as stemming from past mistreatment (and the Tuskegee Study specifically) overlooks two important considerations. First, such framing neglects the more proximate, current healthcare experiences of Black Americans that are likely to inform their health decisions (Bajaj & Stanford, 2021). Second, it presumes that Black Americans are deeply aware of historical injustices. A damaging narrative in popular media as a result of this framing is that if Black people would simply stop focusing on the past, they would get vaccinated.

In reality, Black Americans face a multitude of challenges in current, everyday interactions with physicians. These include having their pain disregarded and/or disbelieved (Green et al., 2003), experiencing a lack of empathy from physicians (Torres et al., 2016), and receiving little treatment information (Royak-Schaler et al., 2008). Black patients (relative to White patients) are also: treated with less patient-centered care (Johnson et al., 2004a), less likely to receive necessary medical treatment (Geiger, 2003), more likely to have ailments misdiagnosed (Geiger, 2003), and more likely to experience racial discrimination (Lewis et al., 2015). Focusing solely on past mistreatment allows disregard of the current experiences that contribute to mistrust from a community that has been historically and is presently treated worse in the healthcare system (R. C. Warren et al., 2020).

Current Studies

The present studies tested the relationships between historical and present-day healthcare experiences, medical trust, and vaccination intention (Study 1) and current experiences with healthcare professionals and medical trust (Study 2). Data from November 2020 revealed large vaccination intention differences such that Black Americans had lower COVID-19 vaccination intention (Funk & Tyson, 2021). Thus, in Study 1 (data collected in Dec 2020; *N* = 297), we aimed to identify factors that could explain this racial difference in vaccination intention. We hypothesized that Black Americans' (relative to White Americans') lower intention to get the COVID-19 vaccination would be explained by lower-quality personal healthcare experiences, which in turn would be associated with lower medical trust. Furthermore, because of the extensive societal focus on the Tuskegee Study, we tested whether knowledge of the Tuskegee Study influenced medical trust and vaccination intention. In Study 2 (data collected March-April 2021, *N* = 12,757), we examined factors that may explain racial differences in medical trust. To provide actionable insights for physicians, we hypothesized that Black Americans (relative to White Americans) would report less medical trust and that feeling less cared for by their personal physician would explain this difference. In Study 2, we also tested if there were racial differences in COVID-19 vaccination intention and uptake. However, as more recent data indicated that the racial gap in COVID-19 vaccinations was decreasing (Artiga & Hamel, 2021; Daly et al., 2021; Funk & Tyson, 2021), we explored whether COVID-19 vaccination intention and uptake differed by race in the Study 2 sample (rather than expecting it as in Study 1).

Study 1

Method

Transparency and Openness

We report all data exclusions and measures for both studies. Data were analyzed in R (4.0.2) and SPSS 26, Process model 6 (Hayes, 2018). Study questions, additional information, and analyses can be found in supplemental materials. Because data are part of larger ongoing projects about COVID-19, the data have not been made available via a third-party archive. Requests for data can be sent to the corresponding author.

Participants

Black and White American adults were recruited to take part in an online study hosted by Prolific, an online participant recruitment platform. Potential participants were invited to participate in an online study in which they would be asked to answer questions about events relevant to the U.S. today, including questions related to COVID-19. The study was restricted to Black and White Americans via Prolific's filtered recruitment system, and participants were not aware of racial demographic criteria for recruitment. Participants were compensated $2.25 for taking part. A sample size of 300 was calculated a priori to detect a medium effect size for racial group differences, .05 error probability (two-tailed), at 80% power. While we maintain that even small effects would be meaningful for understanding differences in medical trust and vaccination intention, we based the power analysis on a medium effect to ensure sufficient power to detect differences even after any exclusions. The present study (N = 297) included Black and White American participants (39.39% Black Americans; age: M = 35.63, SD = 13.43, range = 18-81; demographics in Table 1), after three participants were removed from analyses (one failed an attention check, two did not identify as Black or White).

Procedure and Measures

This study was approved by the UCLA Institutional Review Board. After completing online informed consent (and being told they had the option to skip any survey questions), participants answered study questions. To assess COVID-19 vaccination intention, participants were asked on a Likert-type scale (1 [Not at all] - 7 [Very]), "How likely are you to get a COVIID-19 vaccine as soon as it is available to you?". Medical trust was assessed by asking, "How much do you trust the medical community?” (1 [Not much at all] - 7 [Very much so]). Two items assessed the quality of their healthcare experiences: “How negative have your past experiences been in healthcare?” and “How positive have your past experiences been in healthcare?” (1 [Not at all] - 7 [Very much so]). Participants then answered questions regarding the Tuskegee Study, including whether or not they were familiar with the Study and four multiple-choice items (Cronbach’s alpha: 0.89) about the circumstances of the Tuskegee Study (e.g., “What illness was being studied in the Tuskegee experiment?”). Tuskegee Study knowledge scores were the sum of the number of correct items for each participant. Because four questions were asked, scores potentially ranged from 0 (no questions answered correctly) to 4 (all questions answered correctly). Finally, participants answered demographic items: race, age, gender, education level, and as a proxy for health status, “In a typical year, how often do you go to the doctor?” (1 [not often at all] - 7 [Very often]). Variables were recoded to start at zero for analyses (e.g., ranging from 0-6).

Data Analysis

Linear regressions in R (4.0.2) tested race-related differences in outcomes. Because the primary research question centered on identifying variables that would explain racial differences in COVID-19 vaccination intention, we conducted serial mediation analyses (SPSS 26, Process model 6; Hayes, 2018) to test the hypothesized explanatory model. Indirect path analyses were conducted in bootstrapped models with 10,000 samples. Effect sizes are reported as Cohen’s d where appropriate. All analyses included age, gender, education level, and frequency of doctor visits as covariates. These covariates were chosen because they may also influence COVID-19 vaccination intention (Funk & Tyson, 2021). All reported confidence intervals are at 95%.

Results

Vaccination Hesitancy, Medical Trust and Health Care Experiences

Black American participants reported significantly lower intention to get the COVID-19 vaccine (*M* = 2.87, *SD* = 2.20) than did White American participants (*M* = 4.09, *SD* = 2.22) (*b* = -

1.10, $t(293) = -4.10$, $p < 0.001$, CI [-1.63, -0.57], $d = -0.55$). As predicted, Black Americans reported significantly lower trust in the medical community ($M = 3.56$, SD = 1.57) than White Americans ($M = 4.56$, $SD = 1.24$), ($b = -0.89$, $t(293) = -5.24$, $p < 0.001$, CI [-1.22, -0.56], $d = -0.72$). Although predicted, Black American participants did not report significantly more negative healthcare experiences ($M = 1.97$, $SD = 1.51$) than White Americans ($M = 1.97$, $SD = 1.59$), ($b = 0.05$, $t(293) = 0.25$, $p = 0.801$, CI [-0.32, 0.42]), but they reported significantly less positive healthcare experiences ($M = 3.73$, $SD = 1.26$) than White Americans ($M = 4.15$, $SD = 1.28$), ($b = -0.36$, $t(293) = -2.30$, $p = 0.022$, CI [-0.67, -0.05], $d = -0.33$).

We tested the hypothesis that Black participants' lower intentions of getting a COVID-19 vaccine would be explained by lower quality of healthcare experiences and in turn lower medical trust. Because we aimed to test the influence of differences in healthcare experiences for identifying actionable recommendations, we tested positive healthcare experiences in a serial indirect path model. A significant indirect path indicated that, among all participants, more positive healthcare experiences were significantly associated with a higher level of medical trust which in turn was significantly related to greater vaccination intention. Specifically, less positive healthcare experiences among Black (relative to White) participants were significantly associated with less medical trust and in turn less intention to get the COVID-19 vaccine ($b = -0.15$, CI [-0.68, -0.10]) (Figure 1). Importantly, after considering the explanatory variables in this model (positive healthcare experiences and medical trust), the racial difference in vaccination intention was no longer significant, ($c' = -0.46$, $t(278) = -1.84$, $p = 0.067$).

The Role of Tuskegee Syphilis Study Knowledge

Among participants, 65.8% of Black and 61.7% of White participants reported some familiarity with the Tuskegee Syphilis Study. This subset of participants answered questions regarding the circumstances of the Tuskegee Study. Black participants answered the questions more accurately than White participants ($b = 0.11$, $t(280) = 2.15$, $p = 0.032$, CI [0.01, 0.21], $d = 0.10$). However, Tuskegee Study knowledge was not significantly related to COVID-19 vaccination intention (*b* = 0.66, *t*(278) = 1.64, *p* = 0.102, CI [-0.13, 1.45]). This relationship did not vary significantly as a function of race (interaction *b* = -0.96, *t*(278) = -1.59, *p* = 0.113, CI [-2.15, 0.23]). Similarly, Tuskegee Study knowledge did not significantly predict medical trust (*b* = -0.07, *t*(288) = -0.28, *p* = 0*.776*, CI [-0.56, 0.42]). Again, the result did not vary significantly by participant race (interaction *b* = -0.28, *t*(288) = -0.74, *p* = 0.461, CI [-1.02, 0.47]).

Summary

Collectively, these findings indicate that Black Americans' vaccination hesitancy is more likely to stem from their current medical experiences eroding their medical trust rather than from knowledge of past injustices. This distinction provides important and actionable information about necessary changes in the healthcare system and removes the onus from Black Americans. Although representative in an actuarial sense, the participant sample in Study 1 was nevertheless restricted. Therefore, we next tested our predictions in a large-scale nationally-representative sample to corroborate the findings.

Study 2

Study 2 examined COVID-19 vaccination receipt or intention (for those not yet vaccinated), quality of healthcare experiences, and medical trust in a nationally-representative sample of Black and White Americans (*N* = 12,757; data collected March-April 2021). In that racial differences in COVID-19 vaccination intention have declined over time (Artiga & Hamel, 2021; Daly et al., 2021; Funk & Tyson, 2021), we explored potential racial differences in COVID-19 vaccination receipt and intention. However, primary hypotheses centered on the relation between current healthcare experiences and medical trust. Specifically, we aimed to interrogate a potential mechanism for a tendency of Black Americans to express lower levels of medical trust. We hypothesized that Black (relative to White) Americans would report significantly lower medical trust (as in Study 1). Furthermore, as previous research indicates that physicians' behaviors are associated with medical trust for Black Americans (Martin et al., 2013), we also hypothesized the racial difference in medical trust would be explained by Black (relative to

White) participants' reporting that their personal physician cared less about their well-being.

Method

Participants

The UCLA Institutional Review Board approved this study. The data for Study 2 were collected as part of the UCLA COVID Health and Politics Project, a larger collaborative study on COVID-19 perceptions and experiences. Data were collected online via Lucid survey sampling services. Demographic quotas for age, gender, race, U.S. region, income, and education were used in recruitment. Then, to ensure the data were nationally representative of the U.S., the data were weighted on demographics including U.S. region, race, income, education, and age. The weights were derived from U.S. Census Bureau data (US Census Bureau, 2017).

The present analyses include a nationally representative sample of 12,757 Black and White Americans who participated between late-March and mid-April of 2021 (13.11% Black Americans; age: *M* = 47.15, *SD* = 16.88, range = 18-94; demographics in Table 1). Because the study focused on racial differences between Black and White Americans, 1,800 Americans were excluded from the present analyses who did not identify as Black or White.

Procedure and Measures

All participants completed online consent to take part in the study and were informed that they could skip any survey questions. Similar to Study 1, participants answered questions on Likert-type scales. Because overall American vaccinations increased significantly between December 2020 and March-April of 2021, participants were asked: "How many doses of a COVID-19 vaccine have you received to date, if any?" This variable was coded as a binary dependent variable of having received any vaccination for COVID-19 or not (0 [no], 1 [yes]). Participants who were not yet vaccinated reported whether they intended to get a COVID-19 vaccine by answering the question, "Once a vaccine to prevent COVID-19 is available, would you…" (1 [Definitely not get vaccinated] – 5 [Definitely get vaccinated]). Additionally, using scales that were anchored by 1 [Distrust a lot] – 5 [Trust a lot], participants reported “How much trust do you have in” the following professionals: doctors or medical professionals, medical researchers, and your personal physician (Cronbach’s alpha across professions = 0.86). To better understand the meaning of the quality of healthcare experiences from Study 1, participants were asked “How much do people in the following professions care about your well-being?”: doctors or medical professionals, medical researchers, and your personal physician (1 [Does not care at all] – 4 [Cares a lot]) (Cronbach’s alpha across professions = 0.82). Participants also completed demographic items and were asked if they had preexisting conditions by answering (0 [no], 1 [yes]): “Do you have any of the following medical problems or ailments?” from a list which included cancer, diabetes, heart disease, high blood pressure, lung disease, and other major chronic condition not listed. All items were coded to start at zero for analyses (e.g., ranging from 0-4).

Data Analysis

Data were analyzed using survey-weighted generalized linear models in R (4.0.2) to estimate race-related differences in outcomes and indirect paths. For analyses, all trust questions were averaged to create a Medical Community Trust variable. For the indirect path analysis, we hypothesized that feeling cared for by your personal physician would explain racial differences in Medical Community Trust. Therefore, we used that single item (Personal Physician Care) as the explanatory variable. Indirect path analyses were conducted in a bootstrapped model with 10,000 samples. Confidence intervals are reported at 95%. Cohen’s *d* is reported for mean comparisons. Covariates for these analyses included age, gender, education level, and preexisting conditions as a proxy for health status. Again, these covariates were included because they may also impact perceptions about COVID-19 and health (Funk & Tyson, 2021).

Results

In Study 2, Black and White Americans did not differ significantly on having been vaccinated for COVID-19 (*b* = 0.02, *t*(12561) = 0.90, *p* = 0.367, CI [-0.02, 0.06]). For non-vaccinated participants (*n* = 6,303), intention to get vaccinated for COVID-19 also did not differ significantly between Black and White Americans (*b* = -0.11, *t*(6197) = -1.09, *p* = 0.275, CI [-0.30, 0.09]). Black Americans reported significantly lower trust in all healthcare professionals (relative to White Americans). Black Americans also reported that medical doctors and their personal physician cared significantly less about their well-being than did White Americans. Black and White participants did not differ significantly in feeling cared for by medical researchers. Table 2 displays regression results.

As predicted, Black (relative to White) participants reported significantly less Medical Community Trust (*b* = -0.27, *t*(12561) = -6.22, *p* < 0.001, CI [-0.36, -0.19], *d* = -0.51). This relationship was explained in part by Black participants reporting that their personal physician cared less about their well-being (*b* = -0.14, 95% CI = [-0.19, -0.08]) (Figure 2).[1]

Exploratory Analyses: Associations Between Medical Trust and Care from Personal Physician with COVID-19 Vaccination and Intention

While there were no racial differences in COVID-19 vaccination or intention, we explored whether Medical Community Trust or Personal Physician Care predicted COVID-19 vaccination or intention. Higher Medical Community Trust was associated with being vaccinated for COVID-19, conditioned by a significant interaction between race and Medical Community Trust (*b* = -0.08, *t*(12530) = -3.61, *p* < 0.001, CI [-0.12, -0.04]). Specifically, Medical Community Trust was associated with being vaccinated for White participants (*b* = 0.07, *t*(12530) = 9.22, *p* < 0.001, CI [0.06, 0.09]), but not for Black participants (*b* = -0.00, *t*(12530) = -0.18, *p* = 0.854, CI [-0.04, 0.04]).

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[1] In response to an editor's suggestion, additional analyses were conducted for Study 2. First, COVID-19 vaccination uptake and intention regression analyses and the indirect path analysis were recalculated to include additional covariates (e.g., political party, income). Findings were nearly identical to the reported results. Second, a sensitivity analysis was conducted to assess the strength an omitted confounding effect would need to be in order to render the indirect relationship results null. Findings are reported in the supplementary materials.

Similarly, reports that your personal physician cares about your well-being was associated with being vaccinated for COVID-19, with a significant interaction between race and Personal Physician Care (*b* = -0.08, *t*(12530) = -3.14.38, *p* = 0.002, CI [-0.12, -0.03]). Tests of simple slopes indicated that Personal Physician Care was associated with being vaccinated for White participants (*b* = 0.04, *t*(12530) = 4.38, *p* < 0.001, CI [0.02, 0.06]), but not Black participants (*b* = -0.03, *t*(12530) = -1.55, *p* = 0.122, CI [-0.08, 0.01]).

Among participants who were not vaccinated (*n* = 5,484 White and *n* = 819 Black Americans), Medical Community Trust predicted greater intention to get vaccinated (*b* = 0.57, *t*(6181) = 18.91, *p* < 0.001, CI [0.51, 0.63]). This result did not vary significantly by participant race (interaction *b* = 0.04, *t*(6181) = 0.39, *p* = 0.695, CI [-0.14, 0.22]). Reporting that your personal physician cares about your well-being also was associated with intention to get vaccinated (*b* = 0.40, *t*(6138) = 11.20, *p* < 0.001, CI [0.33, 0.47]). Again, this result did not vary significantly by participant race (interaction *b* = 0.10, *t*(6138) = 0.99, *p* = 0.320, CI [-0.09, 0.28]).

Discussion

In Study 1, positive healthcare experiences were associated with medical trust, which in turn was associated with higher intention to get a COVID-19 vaccination for both Black and White Americans. Importantly, Black Americans reported less positive healthcare experiences, which was associated with lower medical trust and in turn lower vaccination intention. However, knowledge of historic mistreatment in the Tuskegee Syphilis Study did not predict COVID-19 vaccination intention or medical trust.

Study 2, which involved a nationally representative sample queried in March-April 2021, revealed no significant racial differences in vaccination intention or receipt. However, Black Americans (relative to White Americans) again reported less trust in the medical community. Furthermore, this association was explained by Black Americans’ present-day experiences in the medical system, and specifically reporting that their personal physician did not care as much about their well-being.

Although these data are observational, they add to extensive historical and current research showing that the quality of healthcare experiences for Black Americans is worse than for White Americans. Characterizing race-related disparities in healthcare experiences as a relic of the past is incomplete and excludes current medical experiences (Bajaj & Stanford, 2021). Such framing also absolves the current healthcare system from the necessary actions to mitigate disparities, and it ignores the individual and systemic ways that existing systems engender less positive experiences for Black Americans. Certainly, history is critical to understanding present experiences and disparities. Historical medical mistreatment, torture, murder through experimentation, and disregard for Black Americans' health set a deeply-rooted foundation for present health and healthcare disparities (Washington, 2007). These data do not suggest that history is not important, but rather indicate that present inequitable healthcare experiences are associated with less medical trust and early COVID-19 vaccination hesitancy for Black Americans.

Study 2 data suggest that racial differences in COVID-19 vaccination and intention have attenuated over time, as has been pointed out regarding other nationally representative data sources (Artiga & Hamel, 2021; Padamsee et al., 2022). However, other factors might also be relevant for interpreting this finding. Both the participant samples and the study items differed between Studies 1 and 2. Additionally, although all participants resided in the U.S., they may have resided in areas with more vaccination access or had jobs that required COVID-19 vaccination. Furthermore, the lack of significant differences in vaccination intention and receipt by race does not indicate that Black and White Americans are being vaccinated at identical rates. Indeed, other evidence indicates that White Americans continue to be vaccinated for COVID-19 at higher rates than Black Americans (Ndugga et al., 2021). A continued focus on assessing COVID-19 vaccination rates and the factors that predict vaccination receipt will provide important information for understanding and attenuating group-based differences in health-related decision making. Moreover, this finding does not imply a reduced need for

Americans to be vaccinated for COVID-19. Recent data show that 10% of Americans who have had at least one dose of a COVID-19 vaccine are Black Americans (*CDC COVID Data Tracker*, 2021). However, Black Americans comprise 13.4% of the U.S. population (*CDC COVID Data Tracker*, 2021).

Additionally, we found that trust in the medical community and feeling cared for by your personal physician were associated with being vaccinated for COVID-19 for White, but not Black Americans. However, among those not yet vaccinated, higher medical trust and feeling cared for by personal physicians were associated significantly with intention to be vaccinated in both Black and White Americans. These results may suggest that for unvaccinated people, less medical trust and lower perceptions of personal physician care may be barriers to COVID-19 vaccination. Furthermore, these results highlight the potentially important role one's personal physician can have in shifting perceptions for both Black and White Americans who are not yet vaccinated. Future research is needed to better understand the role of physicians' indicating care in increasing vaccination rates.

Limitations

The current data provide important evidence about the factors associated with medical trust and vaccination hesitancy and uptake for Black and White Americans. Study limitations include the observation that asking how negative or how positive participants' experiences have been in healthcare did not provide a nuanced examination of how and in what contexts Black and White participants' experiences differed. However, even the current, broad items revealed racial differences in reports of positive experiences. More specific wording was used in Study 2, which allowed greater insight into healthcare experiences and perceptions.

Particularly in Study 1, we used a number of single-item variables. Although this is not uncommon in studies designed to assess medical trust and in large, collaborative studies, replication with psychometrically sound, multi-item indices is needed. Also, item wording was not identical across the two studies; Study 2's more specific items were intended to address the present research questions.

The cross-sectional design precluded definitive causal inference. However, we advanced specific hypotheses based on existing evidence regarding causal priority. For example, research has demonstrated that personal experiences in healthcare predict medical trust (Smith, 2017). Reverse causality is possible, however. Additionally, it is crucial to note that race as a variable (which cannot be experimentally manipulated) reflects unmeasured cultural experiences (e.g., racism) (Braveman, 2022; Okamoto, 2021) .

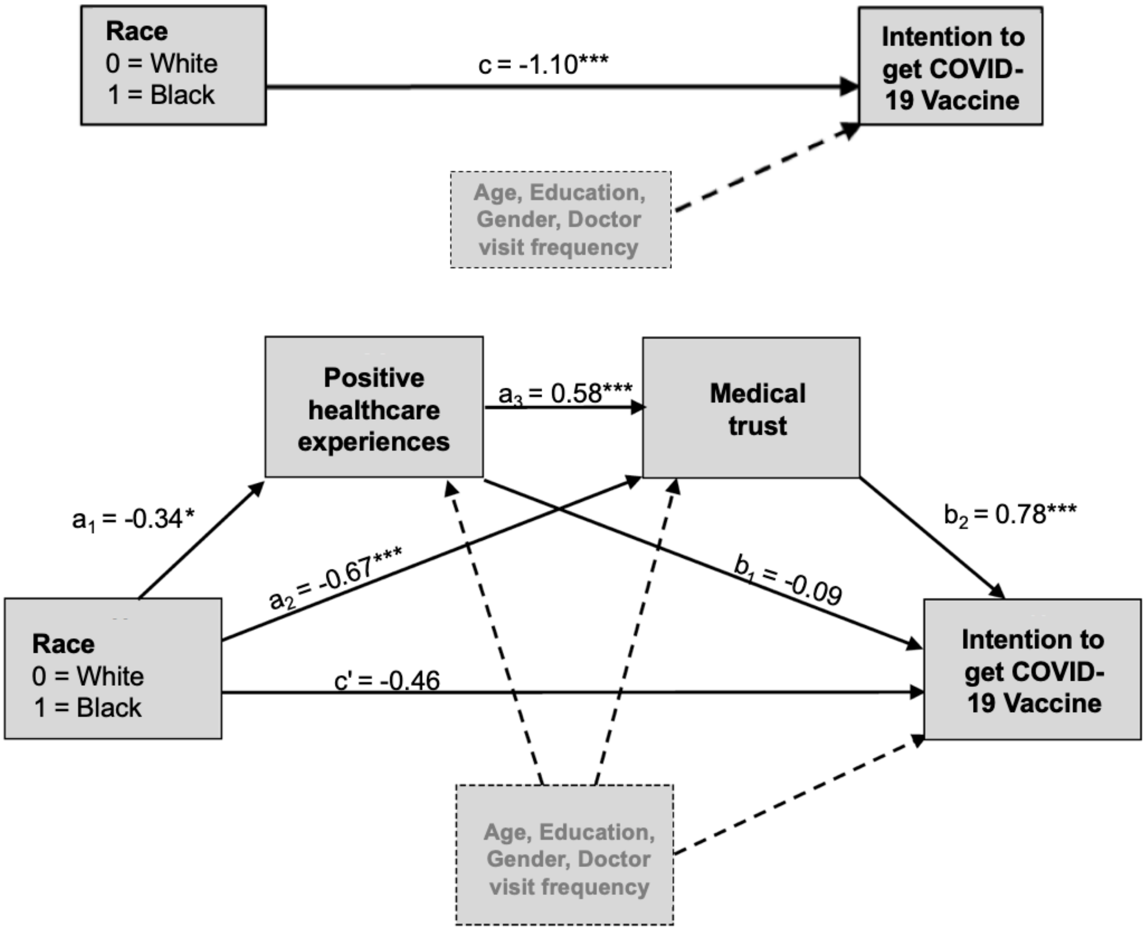
Future Directions

Collectively, these findings shed light on a potential path forward to improve medical trust in the Black community. A shift in focus is warranted in the broader conversation about how to improve medical trust and increase vaccination intention among Black Americans. The current findings suggest that creating more equitable and positive experiences in healthcare has the potential to improve medical trust and potentially the uptake of vaccinations. This is a stark contrast to the narrative suggesting that Black Americans should stop focusing on the past and simply trust the current system and get vaccinated. The current findings also can motivate future research focused on how healthcare professionals can foster patients' positive experiences and trust.

Although these studies focused on racial differences and similarities, other demographic factors (e.g., gender, education level) may also influence COVID-19 vaccination status and intention (Funk & Tyson, 2021). Controlling statistically for such factors indicated that race-related factors remained important over and above those variables. Future research focused on understanding present-day experiences and medical trust in other groups, as well as the role of intersections among group identities (e.g., race and gender) is warranted. Moreover, research that focuses on actionable, explanatory variables underlying obtained group differences is also essential. Specifically, research aimed at illuminating the most effective ways to encourage individual and systemic changes within the medical community has the potential to improve healthcare experiences for Black Americans. Engaging healthcare professionals and personal physicians as the agents of change through evidence-based interventions could be advantageous in improving factors that erode medical trust. Given suboptimal historical and current experiences in healthcare that Black Americans endure, placing the onus on Black Americans simply to change their perspective likely will not be an effective or a culturally competent intervention. Instead, medical professionals' special attention to promoting a positive healthcare experience and demonstrating their authentic care for Black patients may be a particularly important pathway toward engendering trust and improving the health of Black Americans.

Figure 1

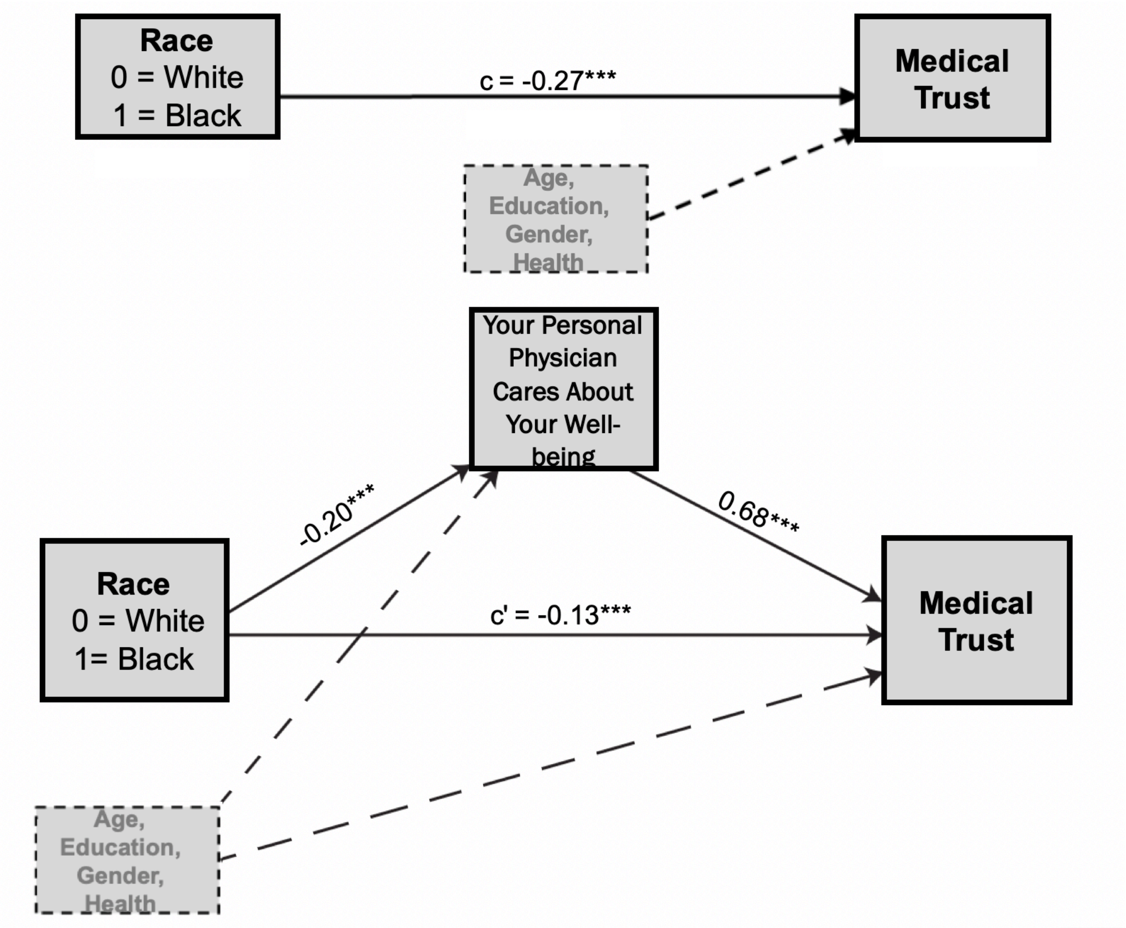
Study 1: Positive Healthcare Experiences and Medical Trust Mediate Race and COVID-19 Vaccination Intention



Note. Serial indirect path model showing the difference in intention to get the COVID-19 vaccine for Black and White American participants is mediated through positive healthcare experiences and medical trust. Arrows with solid lines indicate paths for analysis. Arrows with dotted lines indicate inclusion of covariates. *p<.05, ***p<.001. The c path is the total effect and the c' path is the direct effect.

Figure 2

Study 2: Personal Physician Care Mediates Race and Medical Trust



Note. Indirect path model showing the difference in medical trust between Black and White American participants is mediated through reporting your own personal physician cares about your well-being. Arrows with solid lines indicate paths for analysis. Arrows with dotted lines indicate inclusion of covariates. ***p<.001. The c path is the total effect and the c’ path is the direct effect.

Table 1

Demographic Characteristics of Participants

Characteristic	Study 1 n = 297	Study 2 n = 12757
Race (%)		
Black	39.39	13.11
White	60.61	86.89
Age		
M (SD)	35.63 (13.43)	47.15 (16.88)
Range	18-81	18-94
Gender		
Women	48.82	53.59
Men	49.83	44.42
Gender-expansive	1.35	1.45
No response	0	0.54
Education (%)		
Some high school or less	1.01	6.80
High diploma or GED	11.48	19.32
Some college	29.63	17.35
Associate or vocational degree	10.44	13.84
Bachelor’s degree	32.66	30.40
Master’s degree or equivalent	14.14	10.41
Doctorate’s or other professional degree	3.37	1.88
Income (assessed Study 2)		
Less than $50,000		45.14
$50,000 – $99,999		24.62
$100,000-149,999		15.94
$150,000-$199,999		5.87
$200,000-$249,999		1.91
Above $250,000		2.05
No response		4.46
U.S. Region (assessed Study 2)		
Midwest		24.10
Northeast		19.13
South		36.54
West		20.22

Table 2

Study 2 Regression Results: COVID-19 Vaccinations, Vaccination Intention, Trust in the Medical Community, And Perceived Care About Well-Being by the Medical Community

Variable	Black Sample	White Sample	95% CIs				
	M (SD)	*M (SD)*	Estimate	LL	UL	*t*	*p*
COVID-19 Vaccination	0.51	0.51	0.02	-0.02	0.06	0.90	0.367
Intention to Get COVID-19 Vaccination	2.08 (1.55)	2.20 (1.56)	-0.11	-0.30	0.09	-1.09	0.275
Trust in Doctors or Medical Professionals	2.84 (1.13)	3.26 (1.02)	-0.28	-0.38	-0.18	-5.62	<0.001***
Trust in Medical Researchers	2.64 (1.17)	3.07 (1.03)	-0.24	-0.33	-0.14	-4.71	<0.001***
Trust in Your Personal Physician	2.67 (1.21)	3.23 (1.01)	-0.32	-0.42	-0.22	-6.17	<0.001***
Doctors or Medical Professionals Care About My Well-being	2.05 (0.94)	2.33 (0.80)	-0.15	-0.23	-0.08	-3.90	<0.001***
Medical Researchers Care About My Well-being	1.83 (0.97)	2.04 (0.85)	-0.07	-0.15	0.01	-1.72	0.085
Personal Physician Cares About My Well-being	1.99 (0.98)	2.36 (0.81)	-0.20	-0.28	-0.12	-5.04	<0.001***

Note. *** $p < 0.001$. Reported coefficients are unstandardized.

Chapter 4: Exploring Healthcare Provider-Black Patient Interactions in Black American Women with Breast Cancer

Abstract

Black Americans face a multitude of problems in the healthcare system, including challenges during interactions with healthcare providers. The present study examined the quality of physician-Black patient interactions in a sample of Black American women with a breast cancer diagnosis. More specifically, the present study examined potential contributors to current healthcare experiences and trust in Black Americans by identifying specific negative and positive encounters in the healthcare system. Three in-person Gatherings (i.e., focus groups; *N* = 37) were conducted as a part of a community-academic partnered research project entitled Project SOAR (Speaking Our African American Realities). A reflexive thematic qualitative analysis identified four themes. Participants' stories demonstrated that: 1) they experienced inequitable, discriminatory, and hostile treatment by specific healthcare providers and by the healthcare system more broadly; 2) the negativity they encountered undermined their ability to trust healthcare providers and propelled them to advocate for themselves during medical encounters; 3) healthcare providers stereotyped participants; and 4) participants offered recommendations for how to improve the treatment of Black women diagnosed with breast cancer in the healthcare system. The present findings highlight the importance of addressing systemic and individual injustice toward Black Americans in healthcare.

Background

The previous chapter provided evidence indicating that Black Americans' inequitable experiences are associated with a lack of medical trust. The present chapter of this dissertation sought to provide a deeper understanding of the specific healthcare experiences Black Americans face in healthcare provider-patient interactions that may contribute to a lack of medical trust. Accordingly, the present study used qualitative data from Project SOAR (Speaking Our African American Realities), a research project on which the author is a collaborator. Project SOAR is a community-academic research partnership which aims to explore the experiences and uplift the voices of Black American women who have been diagnosed with breast cancer. Additionally, an overarching goal of Project SOAR is to develop culturally relevant methodologies to improve the health and quality of life of Black American women who have been diagnosed with breast cancer.

The larger project focuses on the experiences of Black women with breast cancer and specifically on the potential relevance and role of the Strong Black Woman schema in their breast cancer experience. The Strong Black woman schema has been defined as the ways in which Black women are propelled by historical and societal factors to present an image of strength and prioritize caregiving for others even at the expense of their own emotional, psychological, social, and physical well-being (Walker-Barnes, 2014). The conceptualization also acknowledges that whilst enduring these societal burdens, Black women also have cultivated positive qualities including independence and a deep sense of pride in their culture (Walker-Barnes, 2014).

Importantly, the specific aim of the present chapter was to promote a deeper understanding the nature of interpersonal interactions between healthcare providers (HCPs) and patients from the perspective of Black women diagnosed with breast cancer. Black women diagnosed with breast cancer have repeated interactions with the medical community. More specifically, because they likely have had regular and numerous appointments with physicians (i.e., primary care physicians, medical oncologists, radiation oncologists, surgical oncologists) during breast cancer diagnosis, treatment, and follow-up care, they are uniquely suited to voice their experiences during various healthcare interactions. Furthermore, such interactions may influence their health perceptions, knowledge of treatment options, and overall health and well-being.

Introduction

In the U.S., more than 250,000 women are diagnosed with breast cancer each year (Centers for Disease Control and Prevention, 2021a), and more than 3.8 million women are living with a breast cancer diagnosis (American Cancer Society, 2022a). Breast cancer mortality has declined considerably over time in the U.S., with a 42% decrease since 1989 (American Cancer Society, 2022b). Medical advances and increased screening and awareness have improved breast cancer survival rates (American Cancer Society, 2022b). However, grave racial disparities in breast cancer survival and breast cancer experiences persist.

Racial Disparities in Survival Rates from Breast Cancer

Although White women have the highest incidence rate of breast cancer in the United States, Black women are more likely to die from the disease (American Cancer Society, 2022b). Among all American women, the overall five-year survival rate is 90% (American Cancer Society, 2022b). However, the five-year survival rate is 92% for White women and 82% for Black women (American Cancer Society, 2022b). Black women have the highest mortality rate from breast cancer at every age when compared to White, Native American, Latina, and Asian women in the U.S. (American Cancer Society, 2020).

In spite of this disparity, Black American women are vastly understudied in the psychological research literature on breast cancer. A substantial majority of the research that has been conducted to understand the experiences of women with breast cancer has been conducted with White women (Torres et al., 2016). Research that has focused on Black women with breast cancer consistently shows disparities in both health outcomes and their treatment by medical professionals.

Racial Discrimination and Systemic Injustice

Many individual and systemic factors contribute to racial health disparities, and research suggests that social injustice and HCPs' treatment of patients are contributing factors. Experiencing more discrimination is associated with worse physical health outcomes (e.g., hypertension, cardiac health) for Black Americans (Hill et al., 2017; Lewis et al., 2015). In HCP-patient interactions, Black Americans are routinely treated worse than White Americans (Williams & Rucker, 2000). Research shows that physicians are more contentious (Street et al., 2007) and show less positive affect (e.g., in emotional tone of verbal communication) (Johnson et al., 2004) when interacting with Black patients (as compared to White patients). During HCP-patient interactions, Black patients experience racial discrimination (Lewis et al., 2015) and less patient-centered care (i.e., care that recognizes and is attuned to patients' unique and specific questions, needs, and preferences) than do White patients (R. M. Epstein & Street, 2011; Johnson et al., 2004b). Additionally, Black women diagnosed with breast cancer report a lack of empathy from HCPs (Torres et al., 2016). Furthermore, a systematic review of research on the implicit bias of HCPs found that higher HCP racial/ethnic implicit bias toward Black people is associated with less patient-centered care and less respect toward Black patients (Hall et al., 2015).

Discrimination, bias, and disparate treatment is also particularly relevant to the breast cancer context. A study with 59,000 Black American women found that experiencing more discrimination is associated with higher breast cancer incidence, which may suggest that increased stress due to discrimination negatively impacts immune functioning and contributes to higher rates of breast cancer (Taylor et al., 2007). Also, Black women are less likely than White women to be screened for breast cancer via mammograms (Alsheik et al., 2021; Bynum et al., 2005). In a study of cancer screening in 385,503 women in the U.S., Black women were least likely to be referred for 3-D mammograms (compared to White and Asian women), which have been shown to improve the detection of breast cancer and reduce the need for additional screening for diagnosis (Alsheik et al., 2021). Furthermore, this disparity persisted for Black and White patients who went to the same health facility and when that facility had 3-D mammogram technology (Alsheik et al., 2021). Collectively, these studies indicate that Black Americans are denied access to the same medical care that is provided to White Americans and that they experience disproportionately negative, inequitable, and discriminatory healthcare practices.

Experiences with HCPs in Black Women with Breast Cancer

Qualitative studies also have demonstrated suboptimal treatment of Black women breast cancer survivors by HCPs. In a study of Black women diagnosed with breast cancer in the Baltimore area, participants reported receiving inadequate information from their oncologists about their diagnoses, treatment plans, potential side effects of treatment, instructions for follow-up care, and guidance about how to improve their overall health and quality of life (Royak-Schaler et al., 2008). Furthermore, participants reported that they needed to be assertive during medical interactions to receive relevant information about their breast cancer diagnosis, a desire to be an active collaborator and contributor to their health-relevant decisions, and a need for better HCP communication (Royak-Schaler et al., 2008). In another study (Torres et al., 2016), focus groups were conducted with 37 Black women in rural North Carolina who were diagnosed with breast cancer. Women reported a lack of empathy and patience from HCPs. Furthermore, when HCPs were more collaborative in their communication and decision-making, women felt more at ease, more cared for by their medical team, and more trusting in their HCPs' medical recommendations (Torres et al., 2016).

Implications for Medical Trust

Disproportionately negative and overall suboptimal HCP-patient interactions have direct implications for patients' medical trust. As demonstrated in Chapter 3 of this dissertation and in previous research (e.g., Keating et al., 2004), Black Americans have less trust in medical professionals than do White Americans. The importance of trust is exemplified in the finding that having higher trust in personal physicians is positively associated with more utilization of preventive health services such as mammograms (Musa et al., 2009).

Taken together, these findings suggest that gaining a deeper understanding of how HCPs treat, communicate with, and respect Black patients, and particularly Black women with breast cancer, is imperative. Improving HCPs' interactions with Black Americans may improve medical trust, which has emerged as a key factor in improving not only the experiences of Black patients, but also their health outcomes.

Study 3 Aims and Research Questions

The present study sought to build on this foundational research to further illuminate how Black women's positive and negative experiences with HCPs relate to their medical trust and breast cancer experience. It aimed to shed light on the findings from Chapter 3 in which Black Americans (as compared to White Americans) reported feeling that their own physicians cared less about their well-being by probing the nature of interactions between HCPs and their Black patients from the perspective of Black women diagnosed with breast cancer.

The present study aimed to contribute to the knowledge base on HCP-patient interactions and Black women diagnosed with breast cancer with an ultimate goal of improving their experiences. First, the present study aimed to add to the research on Black women diagnosed with breast cancer by providing specificity to the nature of contentious encounters with HCPs. For instance, what are physicians saying to Black patients in these encounters? How might these interactions influence Black patients' healthcare experiences? Second, the present study aimed to identify specific patient recommendations for HCPs to improve the care received by Black women diagnosed with breast cancer. Although much research has highlighted the negative experiences of Black Americans in healthcare, research is needed to understand what contributes to positive experiences for Black adults in HCP-patient interactions. Additionally, the present study aimed to explore the nature of HCP interactions experienced by Black women diagnosed with breast cancer from California. All Project SOAR participants resided in California, and Black women diagnosed with breast cancer in California have among the highest breast cancer mortality rates for Black women in the US (American Cancer Society, 2020). Thus, understanding these women's experiences may be particularly important. Ultimately, the aim of this study is to illuminate pathways to create more positive experiences for Black Americans in healthcare. The research questions are:

1. What are the negative and positive experiences of Black women with HCPs in the breast cancer context that may contribute to medical trust, perceptions of HCPs, and well-being?
2. What recommendations do Black women have for HCPs on how to improve their care?

Method

Participants and Recruitment

This study was approved by the UCLA Institutional Review Board. Black American women diagnosed with breast cancer (*N* = 37) were recruited to take part in Gatherings (i.e., culturally curated focus groups) with the explicit goal to "give voice to the unique experiences of African American women with breast cancer" (Denyse et al., Invited resubmission, 2021). Eligibility criteria were being: 1) a Black American woman; 2) diagnosed with breast cancer (any stage, any time elapsed since diagnosis); 3) at least 21 years of age; and 3) able to respond to questions in English. Participants ranged in age from 30-94 (*M* = 59.27, *SD* = 14.27). Table 1 displays self-reported demographic and cancer-related characteristics.

The Project SOAR team recruited women by distributing flyers and save-the-date cards via email (e.g., through the listserv of Carrie's TOUCH, a non-profit organization established in Sacramento, California to help Black women with breast cancer; Carrie's TOUCH, 2021). We also distributed recruitment materials in person (e.g., by speaking about Project SOAR at the Living the New Normal Cancer Survivors and Caregivers Conference, MLK Community Hospital, Los Angeles). Women signed up for participation either in person (e.g., at the Living the New Normal Conference) or via phone or email (contacting the team via the information on the recruitment flyer).

Procedure

Three Gatherings were conducted between March-June of 2019 in California (Sacramento, Los Angeles, Oakland).[2] With the goal of increasing comfort, trust, and openness during the session, each Gathering was an all-Black and all-woman space. Gatherings were held between 9:30 am and 2:00 pm on Saturdays. In each Gathering, participants: 1) were given an information sheet and provided oral consent to participate; 2) completed a sociodemographic questionnaire; 3) were offered breakfast; 4) participated in an icebreaker activity; 5) took part in a semi-structured two-hour group interview process conducted by Rev. Tammie Denyse (Co-Principal Investigator for Project SOAR, 17-year breast cancer survivor and co-founder of Carrie's TOUCH) and aided by the author; 6) listened to a guest speaker (designed to promote inspiration); and 7) offered lunch in which discussion continued with the group.

During the Gatherings, women responded to questions related to the Strong Black Woman concept. Participants shared their personal histories, interactions with oncologists and medical staff, family and friends, and their recommendations for oncologic professionals. The present study focused on participants' responses regarding interactions with and perceptions of medical professionals and the healthcare system, which were shared throughout the entire interview period.

Analytic Plan

All Gathering sessions were audio-recorded and transcribed. Participants shared information about their interactions with oncologists and other HCPs throughout the Gathering

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[2] The Ubuntu Approach in Project SOAR by Denyse, Martin, and Stanton (Invited resubmission) includes a full description of the unique focus group method created for the study.

sessions, and the entire transcript was analyzed to investigate HCP-patient interactions. Data were analyzed via reflexive thematic analysis (Braun & Clarke, 2006) using NVivo (Version 12) qualitative analysis software (QSR International Pty Ltd., 2018). Reflexive thematic analysis involves discovering and distinguishing codes within qualitative data to identify patterns, aiming to provide a rich understanding of participants' experiences pertinent to specific research topics and questions (Braun & Clarke, 2006). The present data were analyzed by a group of five coders (three doctoral students in psychology [including the author], a postdoctoral scholar, and a community organizer). Through weekly meetings, codes pertinent to the two research questions were developed and aggregated, and resultant themes were labeled. This study's approach to thematic analysis was self-reflexive: before and during the coding process, coders openly discussed their perspectives and biases that may influence how data were analyzed and interpreted (Berger, 2015).

After listening carefully to the recordings of the three Gatherings, each coder individually labelled sections of the data with 3-7 word codes which the coder believed captured the participants' expression (Braun et al., 2019). Coders included both latent and semantic codes (Braun et al., 2019). Semantic codes captured succinctly what the participant said (Braun et al., 2019). Latent codes attempted to capture the meaning behind what participants expressed (Braun et al., 2019). Additionally, coders took both an inductive and deductive approach to creating theoretical codes (Braun & Clarke, 2006). Inductive coding involves reading the transcripts and identifying specific patterns (or codes) within the data without consideration of the specific research topics and questions (Braun & Clarke, 2006). Such coding strives to capture the fullness and richness of the data and ensure the totality of what participants expressed is analyzed. The team then reviewed the transcripts again with a deductive approach, in which the topic (i.e., HCP-patient interactions) and the two specific research questions were kept in mind to aggregate codes into categories and develop overarching themes (Braun & Clarke, 2006).

Results

A total of four themes were identified that were central to participants' experiences with HCPs (Figure 1). Below, each theme is described in detail. Representative quotes from Gathering participants provide illustrative examples.

Theme 1

Individual and Systemic Injustice Directed at Black Breast Cancer Survivors

Participants described the complex challenges inherent in navigating harmful and unjust experiences in the healthcare system and from specific HCPs in the context of breast cancer. Participants shared that they were mistreated in the oncologic context and posited that their care would have been different if they were not Black women. Participants experienced discrimination, a lack of empathy, and a lack of patient-centered care from HCPs.

> "I think that because I was a Black woman, um, I wasn't treated with the best, um, how can I put that medical, uh, treatment. My oncologist, she just, just bombarded me with the chemo that knocked me out for almost a week. And she didn't, she could have spread it out. After, I found out afterwards that she could have, uh, gave me smaller doses and where it wouldn't just make me sick and just- just like I was in hell. Um, but because she didn't do that, it seems like every three weeks I was in hell for a week, almost, and then I would come out, and then I would go for a treatment, and I go back to hell. But I found out afterwards that, what she could have done to alleviate what I was going through. And- and then with radiation, uh, I had third degree burns from that with open wounds from the, uh, radiation, and come to find out I could have, that could have been different too. But because I was Black I believe I wasn't given the right- the right medication treatments." Participant A, 10-year survivor

Further, participants described being treated as a "checklist item" rather than as patients in need of care who needed an attentive and understanding medical team to help them in their breast cancer journey. Also, whilst experiencing discrimination, participants also reported feeling as if they did not belong in certain environments (e.g., HCPs referring them to support groups that were predominantly White).

> "My medical team got offended when I questioned it [treatment recommendations], when I asked for second opinions. When I asked for a clinical trial, I got questioned, like, ‘What are you asking us that for? We're telling you what you're gonna do and this is what you're gonna do.’ And, I felt like they weren't listening to me. And then when I did get a second opinion, they had the nerve to be offended. When I, you know, when I tried to leave that oncologist, they had the nerve that their personal feelings got in the way…I kept asking him [the oncologist], ‘I don't understand why you're upset. This is my body and I have the right to have the best treatment that I can possibly have. And I can question, I have the right to question it… And then I got confirmation that I was being treated kind of poorly because the first core group I went to was all White women, and a couple of Asian women, and they were all having a wonderful experience with their oncologist. They ... they've got ... they didn't get told [their diagnosis] over the phone like I did. They got sent to their oncologist and surgical team and get second opinions. Where when I was getting a second opinion or asked people, and I was getting like told [by the oncologist] why am I questioning it. And they didn't understand, the women in the support group, the White women, didn't understand why I was having such a hard time. So I think, I think my color of my skin definitely affected how I was treated.” Participant B, 10-year survivor

Participants shared experiences with antagonistic healthcare providers who were hostile and blatantly disrespectful. For example, one participant described an interaction in which she was discussing breast cancer treatment options with a surgeon and wondering if chemotherapy was the best treatment plan:

> “The first surgeon that I had said if his mother were to tell him that she wasn't going to have chemotherapy he would slap her. So we said, ‘Thank you very much. Thank you for your time.’ We were out of there.” Participant C, 4-year survivor

Importantly, participants commented that these experiences with individual healthcare providers were rooted in a system that treats Black women inequitably. Women described issues with health insurance, receiving support, and receiving necessary resources that negatively influenced their care, breast cancer journeys, and lives.

> "After, well, I had my bilateral mastectomy on September 8th, and on the 10th of October, I went home and--tubes in you know, both breasts. And on the 10th of October my doctor called me and said that it was early, but she was gonna have to remove the tubes because my insurance had ended, and I had no more insurance. So I was without medical attention from October until February...I wasn't even given a doctor. I was given a nurse practitioner. And I was so upset...You know, I felt mutilated, and, you know, and just, every negative feeling about my body and I knew--I said, I was always a strong person, but this was really hurtful." Participant D, 3-year survivor

> ". . . how I've attacked this breast cancer journey, um because of, not because of my medical providers, I feel like um, knowing the statistics you know I knew that going in, not just when it comes to breast cancer, I knew how disproportionately you know, we die of other diseases and we have other diseases and I also know how the medical community is you know. It's a big process line, they're trying to process people in, process people out, I mean you have your blocked time that you go in, you talk to the doctor, they're taking notes while you're talking to them. I mean I get, I knew that going in, so it kind of made me feel like I was geared up for a fight and not necessarily a fight against them but a fight against the system." Participant E, 2-month survivor

Theme 2

Protecting Myself from an Untrustworthy Medical System

Participants described how the history and ongoing events of systemic and interpersonal mistreatment by the medical system and HCPs have shaped mistrust among Black women. The women reported having to advocate for themselves in the medical context during their breast cancer experience to avoid being discriminated against and ensure receipt of good care.

> "I had to have it out a little bit with my oncologist (laughing), because um, they were being a little bit too cookie cutter...And I had to explain to him, I'm not trying to be a statistic here...And every day I get up, I'm fighting for my life...And I need for you to understand that and don't treat me like part of the process...So when I'm telling you something, I need you to listen to what I'm saying...And right now, you're not listening. Otherwise I wouldn't be in a situation of having pneumonia and having an allergic reaction to the chemo, Taxol, and going completely undetected until I'm at the family practitioner and he's running these tests and discovers it. You know?...So that was part of the frustration. But the moment I really had that discussion with him, I saw a different side of him." Participant F, 9-month survivor

> "I became my own self's best advocate. Because I had to and I knew I had to. I knew that if I went into a place and I felt like I wasn't getting what I needed in order to survive this journey, it was up to me to provide and I don't know whether that's strong Black woman or just self-survival." Participant G, 21-year survivor

Participants engaged in actions that included seeking out information on their own, working with community organizations to help them navigate care, and demanding respect in the face of hostile health care providers. For example, one participant shared that after witnessing other family and friends struggle with their cancer journeys and in medical encounters specifically she wanted to change the narrative for herself when she was diagnosed with breast cancer.

> "So, the doctors were blown away when I walked into the first appointment at UC Davis with a referred surgeon, [name]. I came in with my lawyer with, um, on the phone, on the

> Zoom call, three lawyers, two different, um, professional medical specialists and then probably 15 friends. So, they were absolutely intimidated." Participant H, 2-month survivor
>
> "So, that became a quest for me to find out as much about breast cancer as I possibly could and on top of that I was given this diagnosis of DCIS, the non-cancer cancer and so if I don't have cancer and if I do have cancer why is the treatment the same? Why is it not different? You know, all of those things were the things that I needed to know, you know in order to like make a decision. So I did, I spent days in that library just sitting there on the floor, just reading as much as I possibly could before I went back to the doctor." Participant G, 21-year survivor

Theme 3

Stereotypes Interfered with My Care

Participants noted that HCPs made comments that reflected stereotypes about Black women. Some participants believed that those stereotypes led HCPs to minimize the severity of their breast cancer. For example, participants shared that HCPs perceived them as Strong Black women. Some women were advised by HCPs to modify their appearance (e.g., clothing) to "look sick" during their oncologic appointments in order to receive proper care, with the implication that being a patient diagnosed with breast cancer was not sufficient to receive proper care. Women felt they had to prove they were worthy of proper care. For example, one participant shared that her oncologist expressed concern because she did not look sick enough.

> "She [oncologist] says, 'You don't look sick.' And I said, I- I, you know, and it startled me a little bit, I said, 'Well, I don't want to be sick and I don't want to feel sick.' She said, 'Then I'm not telling you to,' she said, "but what I'm telling you is that doctors treat you different when they sometimes,' and this is out of her own mouth, she said, 'Sometimes, when you don't look like you need the help or that you're sick,' quote-unquote, 'they don't treat you that way.' And she said, "I had a friend," she's telling me about a friend of hers

> that had cancer. She said she would come, make-up to the tee and, you know, all this, put together, kind of like me, and she said they didn't give her all the treatment that she needed to get because they just didn't, they just kind of thought, oh, well she's okay, she's fine... you know, others are going through, you know, they're taking it much harder, whatever…. And so, she said, sometimes you don't always have to be so put together."
>
> Participant I, 5-year survivor

Participants also shared that HCPs perceiving them as a SBW led to negative interactions in which HCPs lacked empathy. For example, many participants reported receiving a phone call to inform them of their breast cancer diagnosis. Often, HCPs did not ask if it was an appropriate time to talk to them before non-empathetically telling them the cancer diagnosis.

> “I think medical staff, I think yes [treated me like an SBW]. Because I think with my experience the whole way that they present it to you, I mean the phone call to tell you over the phone, I'm at work, you know, when I get the call that my…biopsy was positive for cancer. How do you call somebody and tell them that over the phone at work? And just even like with talking to my doctors and so forth…it's not really personable in that way…I saw plastic surgeons. And that experience was just very cut, dry, it’s like, "This is what we're gonna do," and basically that's just it. You know, or whatever… I'm asking how is this gonna work, about the reconstruction [surgery]. It was just very short with me, and very like, ‘Nope… we can’t save them [her breasts]. They’re no good’ but not even in a sympathetic way... I don't know if these conversations would have been had with another um White woman… Maybe I showed too much strength. But, I just think to assume, because you don't see somebody with their emotions on their sleeve, that they're not feeling something. You know? I think that's what I got from the medical team. That, ‘you come in here like you can take it, so this is how I'm gonna dish it to you.’”
>
> Participant J, 10-month survivor

Theme 4

Improving Care: Survivors' Recommendations

Though described less frequently than negative encounters with HCPs, participants described instances in which they had received support, information, and resources from healthcare providers that was specifically tailored to their preferences, needs, and situations. These instances provide models of the positive care that Black women diagnosed with breast cancer wanted to receive. Examples included being offered a clinical trial, being given options for the type of breast cancer treatment they would receive, being told about options for mental health services, or having the opportunity to use a patient navigator. Participants reported that these HCPs provided care that was respectful of and responsive to patients' preferences and needs. Participants described being treated as valued partners when making medical decisions with healthcare providers.

> "Each step of the way, they have these nurse navigators that were specialists in their particular areas, oncology nurse navigators I guess they call them now. Uh, the Women's Center navigator who goes in with you while you're doing your biopsy and plays the little calming music… I think that my navigator gave me this binder with all this information that was just a little overwhelming at first, but as I went through it and I went from oncologist, to surgeon and each section had a place to put their information and some pre-information in there, that became very beneficial...It's so helpful to have the navigators tell you what to expect...From my perspective, having that available to me early on helped the whole process all the way through the end, you know. Important for the end and how many days are the ports in and you can start your chemotherapy. It was all written out and I just had to get the courage ... the energy up to read it."
> Participant K, 1-year survivor
>
> "Um, my doctor, um, recommended people to come see me that were their patients that had gone through, White women of course, um, but people came for me. They were

> looking for me, to help me at that particular time and so I feel like that's kinda like what helped in my process.” Participant L, 22-year survivor

Additionally, one participant noted that her oncologist shared that she was unsure about how to proceed with her treatment.

> “And so she said, ‘Are you open to me sending your stuff out and letting somebody else look at it and possibly considering a clinical trial?’ And again, there's my ignorance again on I don't want to be experimented on, but my sister says, ‘No, you want to be considered because rarely do you get to,’ she says, ‘in my line of field, rarely do I see my patients being offered that, that's an opportunity, so take advantage of it.’ And so, I felt valued that this person, this oncologist, thought enough of me to say ‘I don't know. Let me send it back. Let me put some more eyes on it, we'll come back, and we'll talk about it and you make a decision.’ Um, and I--and they put me in this--this, uh, breast cancer trial to look at early treatment or Treat Early and Treat Hard and to see what the long-term effect was, and I'm glad I did it.” Participant M, 10-year survivor

Participants also expressed specific recommendations for HCPs. This included specific language and behaviors they wished HCPs had exhibited as well as positive interactions that they wished were common amongst more oncologic teams.

> “it would be nice if they could show a little more compassion. Because this [cancer diagnosis] is a, this is a brick on you. You know? But when people do, do that, it kind of opens them up, they're kind of vulnerable too. But, it would be nice if they could take your hand (shaky voice) and say, ‘’I know this is going to be difficult for you. But we're here for you’, you know? it doesn't take anything. But I don't think, I don't think they realize it. I mean it's something--that could be part of the continuing education or something. Staff meetings or something… You know, open yourself up a little bit. You know, doctors and nurses and show more compassion for the person that's going through this, that's getting this news. Not just Hey, it's during our office hours, if we want

> to make, we have to make these calls and here, blah, blah, blah” Participant N, 21-year survivor

Recommendations also included doctors ensuring that patients' preferences and needs guided clinical decisions. For example, participants suggested that patients should be offered mental health services when they are diagnosed.

> “When you see people in the movies, go through cancer diagnosis, they sit and they tell them what's going on and a person goes into like a weird mode where they can't hear anything and then like brings it back. But, as you see a part of the movie, part of what they do is that they have to go to therapy. I don't know if it happened to you all, but I don't think that's a requirement of your care. And I think if you're really thinking about someone's full care, going through something like cancer, anything that's life changing or if it’s debilitating that [therapy] should be a part of your care. You can deny it, but if it isn’t offered as a part of your treatment, I think that you're going to do a disservice to anyone for going through something like this.” Participant O, 1-year survivor

Discussion

These findings highlight important themes that serve to enrich the current knowledge base and deepen the understanding of the specific challenges Black women face when they interact with HCPs in the context of breast cancer diagnosis and treatment. Specifically, this study demonstrates the experience of both negative and positive (albeit less frequent) interactions of Black women diagnosed with breast cancer, illustrates how these interactions may impact their medical trust, and provides specific recommendations for how to improve care for Black women diagnosed with breast cancer in the healthcare system. Four themes were identified: 1) *Individual and Systemic Injustice Directed at Black Breast Cancer Survivors*, 2) *Protecting Myself from an Untrustworthy Medical System, 3) Stereotypes Interfered with My Care, and 4) Improving Care: Survivors’ Recommendations.*

The identified themes indicated that participants experienced systemic and individual injustice in the oncologic care system. Systemic injustices included having health insurance influence their ability to receive proper treatment and encountering hostile and discriminatory climates in healthcare settings. Individual injustices included encountering specific HCPs who were antagonistic and hostile, were neglectful, and did not properly explain diagnoses and treatment plans such that participants could understand how to make the best decisions for their health.

The present study builds on previous research (e.g., Royak-Schaler et al., 2008; Torres et al., 2016) by providing additional specificity to the nature of contentious interactions between Black women diagnosed with breast cancer and HCPs. It also illustrates specifically what HCPs are saying in the oncologic context that indicates hostility and a lack of empathy to Black women (e.g., speaking negatively about patients' bodies). Also, it has previously been suggested that psychological research would benefit from using a socio-ecological model (i.e., conducting research that acknowledges and considers historical and systemic factors) (Trawalter et al., 2020). Importantly, the present study adds evidence to the importance of the socio-ecological model in that participants' stories demonstrated individual and systemic injustices experienced by Black women as well as the historical foundation upon which these injustices are built.

The present data highlight clearly why Black Americans may not trust the medical community. In the negative medical interactions shared by participants, HCPs were not showing themselves to be trustworthy and may even have been eroding patients' trust during their interactions. Participants described contentious and hostile interactions with HCPs. These interactions included being verbally assaulted by medical team members. In these hostile situations, HCPs did not behave as if they cared about patients' well-being. These behaviors certainly could influence women's trust, health outcomes, and well-being. For instance, if Black women diagnosed with breast cancer are encountering hostile HCPs when they are trying to receive treatment, these interactions could lead to more stress and anxiety as well as less support from the medical team to move forward with treatment plans. Participants' stories of injustice further illustrate the unique challenges Black women diagnosed with breast cancer may experience as they navigate experiences of racism and sexism (because they hold multiple intersecting and societally stigmatized identities (Crenshaw, 1989)).

Importantly, participants in each Gathering discussed the need to advocate for themselves with HCPs to receive the treatment they needed, wanted, and deserved. While fighting for their survival, participants had to spend time, energy, and resources fighting to be cared for in the healthcare system. In some cases, HCPs may not intend to harm Black patients, and even discriminatory treatment may be exhibited without HCPs' awareness (Hall et al., 2015). However, lack of mal-intention does not negate the negative impact that medical care such as that described by Project SOAR participants might have.

Participants also noted that they were stereotyped by HCPs, which indicates a lack of recognizing the full humanity of Black women. Each individual participant had unique breast cancer experiences, access to and knowledge about resources, and medical and social needs. Recognizing patients as full human beings and not stereotypes is critical to providing adequate care. As one participant stated, "We do expect a certain amount of humanity from them [HCPs]. And I think that we should continue to expect even more humanity. Because it is something that we deserve." (Participant G, 21-year survivor).

Stereotyping by HCPs is also an indication of a lack of cultural competence (i.e., "the demonstration of awareness of cultural norms and beliefs, knowledge of how culture may differ across groups, being sensitive to culture, and ultimately making adjustments to accommodate culture"), which has been recommended to improve the experiences of Black women diagnosed with breast cancer (Husain et al., 2019, p. 740). Further, HCPs indicating that they perceived their Black women patients as Strong Black Women (with the implication that they were not in as much need of care) aligns with research demonstrating that HCPs hold false stereotypes about Black people, including the belief that Black people feel less pain, which is associated with making less accurate treatment recommendations (Hoffman et al., 2016).

Furthermore, participants described HCPs that attempted to “help” by asking the patient to change in some way (e.g., change their appearance to look more sick) in order for HCPs to take their diagnosis seriously. This strategy of addressing inequity is highly problematic as it places the onus of attenuating discrimination on the target of discrimination rather than the perpetrator. Instead, the present data highlight the need for HCPs and institutions to acknowledge and be held accountable for inequitable and/or damaging treatment.

Although positive encounters were described less frequently by participants, they did report instances in which HCPs provided care that was respectful of and responsive to patients' preferences and needs. Some HCPs ensured that patients' wants and needs guided clinical decisions. Examples included HCPs engaging in shared decision-making, developing supportive relationships, and offering tailored support (e.g., clinical trials, psychotherapy, patient navigators).

Importantly, participants shared actionable ways HCPs can create more equitable and patient-centered treatment. Beyond recognizing their individual humanity, participants expressed that it is imperative that HCPs listen to and are responsive to patients’ unique situations and demonstrate empathy. This positive approach includes thinking of patients holistically and offering support and/or resources for their physical and psychological health; communicating clearly with patients to ensure they can fully understand their diagnosis, treatment recommendations, and options; and being a member on the patient’s team as they fight to survive and thrive after diagnosis.

Notably, the present sample included Black women who were generally more highly educated and had higher incomes than Black Americans in the U.S. population more generally. For example, the modal education level of participants in the present study was some college. In the U.S., the modal education level is high school graduate or less (Tamir et al., 2021). While this may limit the generalizability of the findings, it also provides interesting insights. For instance, having lower socioeconomic status is associated with worse quality of care (e.g., worse HCP interactions) in the healthcare system (Caballo et al., 2021). Research demonstrates that over and above SES, Black Americans are treated poorly in healthcare (Williams et al., 2010). The present study adds qualitative evidence to these findings by demonstrating specific examples of high-income and highly educated Black women who endured hostility and negativity in the healthcare system. Additionally, participants in the present study were California residents. Importantly, this study's findings align with those of two other qualitative studies conducted with Black women breast cancer survivors (Royak-Schaler et al., 2008; Torres et al., 2016) who had very different sociodemographic characteristics (e.g., geographic locations and income levels).

Ultimately, the present study aimed to uplift the voices of Black women and promote understanding of their experiences in the context of breast cancer diagnosis and treatment to provide actionable insights on how to improve the experiences of Black women diagnosed with breast cancer in healthcare. Additionally, this study aimed to shed light more generally on the negative and positive experiences of Black people in the healthcare system. To better understand the perspective of Black Americans in healthcare, it is imperative to hear their stories and experiences of injustice and attend carefully to their recommendations for how to improve their care so that injustice in healthcare can be addressed.

Figure 1
Themes

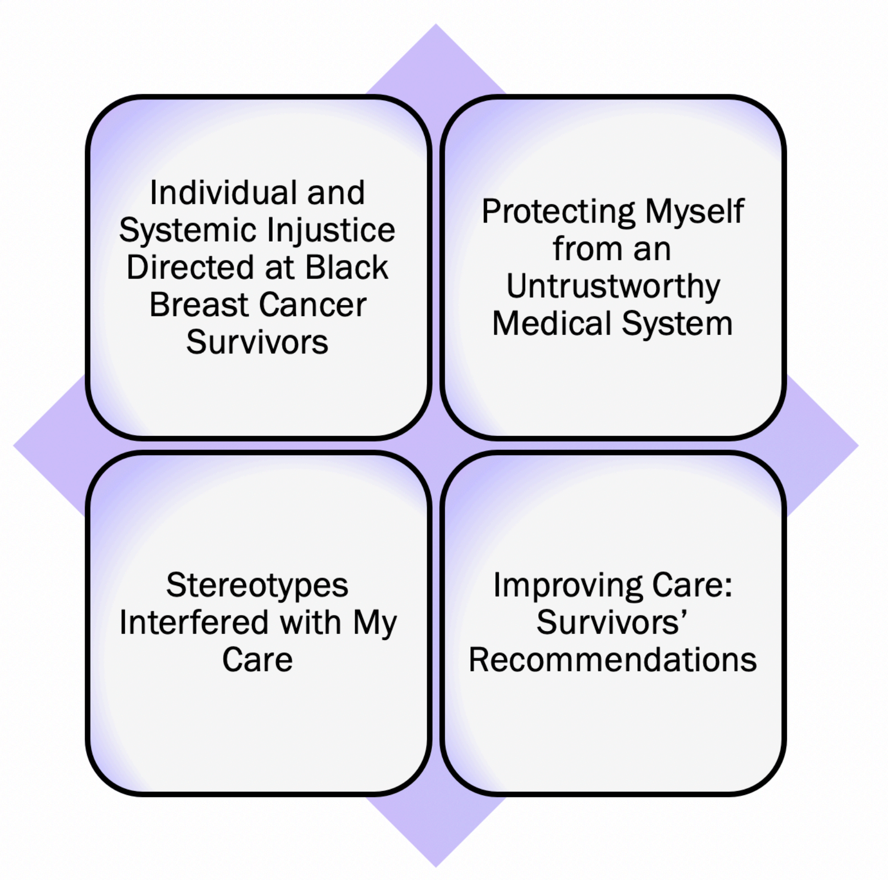


Table 1

Demographic Characteristics of Project SOAR Participants

Characteristic	*M (SD)* or *n* (%)
Age (years)	
Mean (SD)	59.27 (14.27)
Range	30-94
Months Since First Breast Cancer Diagnosis	
Mean (SD)	105.62 (96.89)
Range	2-343
Breast Cancer Stage (n (%))	
0	3 (8.11)
1	12 (32.43)
2	9 (24.32)
3	7 (18.911
4	0
Unsure	6 (16.21)
Annual Household Income (%)	
Less than $25,000	12.50
$25,000 - $49,999	31.25
$50,000 - $74,999	6.25
$75,000 – 99,999	12.50
> $100,000	37.50
Educational Experience (%)	
Some high school	2.70
High school graduate	2.70
Technical/vocational	5.41
Some college	40.54
College graduate	21.62
Post-college graduate	27.03
Gathering Location (%)	
Oakland	45.95
Los Angeles	18.92

Sacramento	35.14

Note. This demographic information and table appear in other Project SOAR manuscripts.

Chapter 5: The Effect of Learning Critical Black History in Healthcare on Perspective-taking

Abstract

Black Americans endure worse health outcomes and healthcare (compared to White Americans), and discrimination perpetuates these disparities. However, White Americans routinely deny the existence of racial injustice. The current research tested how to engender perspective-taking and its impact on recognition of racism. Two online survey studies (*N* = 1853 White Americans) tested whether learning about Black Americans' past and present experiences of injustice in healthcare increased perspective-taking. In Study 1, when participants learned about critical Black history in healthcare, higher levels of perspective-taking were associated with increased recognition of isolated and systemic racism. In Study 2, participants were randomly assigned to learn one of three Black history lessons: Critical Black History in healthcare (i.e., history of injustice), Celebratory Black History (i.e., history of achievement), or a Control lesson. Participants who learned Critical Black History (vs. Celebratory History or Control) evidenced significantly higher levels of perspective-taking. Additionally, through hypothesized indirect paths, the effect of critical Black history on perspective-taking in turn predicted a) increased recognition and acknowledgment of racism, b) increased support for anti-racist healthcare policies, and c) increased recognition that current Black-White health disparities are due to systemic societal issues, but not d) changes in negative stereotype endorsement. These findings suggest that learning about racial injustice and considering minoritized people's perspectives can lead to greater support for racial equity in healthcare.

Introduction

Historically and presently, Black Americans have poorer health outcomes in many domains than White Americans including life expectancy, hypertension, and heart disease, for example (Centers for Disease Control and Prevention, 2021b). Individual and systemic factors contribute to these health disparities, including inequitable treatment of Black patients by physicians (Williams & Rucker, 2000) and widespread discriminatory practices that are associated with worse mental and physical health outcomes for Black Americans (e.g., anxiety, hypertension, and cardiac health; Hill et al., 2017; Lewis et al., 2015).

In spite of the continued injustices facing Black Americans and documented evidence of inequality, research consistently finds that White Americans demonstrate a failure to acknowledge anti-Black racism and injustice. Specifically, White Americans perceive less racism than Black Americans in both isolated incidents (e.g., interpersonal interactions) and systemic manifestations (i.e., racism that has historically operated in and is maintained by public institutions, social policies, and cultural norms; Nelson et al., 2013; Ture & Hamilton, 1967). Additionally, the racial difference between Black and White Americans in acknowledging racism has been found to be larger for systemic racism than isolated racism (Nelson et al., 2013). Moreover, Pew Research Center data consistently indicates that in domains including policing, hiring practices, and healthcare, many White Americans fail to acknowledge that racial inequality exists (Horowitz et al., 2020). Within the context of healthcare, 33% of White Americans believe that Black Americans are treated less fairly than White Americans (as opposed to 76% of Black Americans; Horowitz et al., 2020). Importantly, when people do acknowledge that systemic factors impact racial health disparities, they are also more likely to support policies that address inequity (Price et al., 2014).

Critical Black History

One factor that explains why White Americans fail to acknowledge racial injustice is a lack of historical knowledge about past racism. Nelson et al. (2013) found that White Americans (compared to Black Americans) lack knowledge about critical Black history (i.e., Black history that acknowledges injustice), which explained (i.e., mediated) why White Americans recognize less racism than Black Americans. Furthermore, when White Americans do engage with Black history, research finds that they prefer celebratory Black history (i.e., history that acknowledges Black achievements; Salter & Adams, 2016) than critical Black history. For example, research demonstrates that majority White (as compared to majority Black) schools' Black history month displays are more likely to focus on celebratory Black history rather than critical Black history (Salter & Adams, 2016). Also, White Americans demonstrate more recognition of and liking for Black History month displays from majority White schools (Salter & Adams, 2016). Importantly, a significant indirect effect demonstrated that when White Americans are exposed to Black history month displays from majority Black schools (vs. majority White displays or a control) they reported increased racism recognition, which in turn led to increased support for anti-racist policies (Salter & Adams, 2016).

Research also finds that when White Americans learn critical Black history (i.e., listen to a radio clip about discrimination in housing policies vs. control information), they report increased systemic (but not isolated) racism recognition (Bonam et al., 2019). Furthermore, Bonam et al. (2019) found a significant indirect effect such that learning critical Black history (vs. control information) increased White Americans' knowledge of racism in the U.S., which led to an increase in acknowledging the role of the U.S. government in discriminatory housing practices, and in turn more isolated and systemic racism recognition. Collectively, this research demonstrates that knowledge of critical Black history is an important factor in increasing White Americans' acknowledgment of racism.

Perspective-taking

Another factor that enhances the recognition of racism is perspective-taking (i.e., attempting to understand other's thoughts, feelings, and experiences; Batson et al., 1997). Research finds that when participants are instructed to take the perspective of a Black American (in a photograph vs. a control condition in which participants were not given those instructions), they report more 1) acknowledgment of racism, 2) recognition that racial inequality is caused by discrimination, and 3) support for affirmative action policies (A. R. Todd et al., 2012). More generally, perspective-taking has been shown to improve intergroup perceptions. For instance, randomized, controlled experiments demonstrate that perspective-taking leads to reduced explicit and implicit racial bias (A. R. Todd et al., 2011), increased empathic concern (Batson et al., 1997), and reduced stereotyping toward outgroup members (Galinsky & Moskowitz, 2000).

Interestingly, while decades of research demonstrate the benefits of perspective-taking, a review of the perspective-taking literature (Ku et al., 2015) indicates that most perspective-taking research has focused on the outcomes of perspective-taking rather than on what facilitates perspective-taking. Accordingly, more research is needed to better understand how to encourage perspective-taking (Ku et al., 2015), particularly of Black Americans. In perspective-taking studies centering on intergroup relations, participants are traditionally instructed to take the perspective of another person (e.g., a Black American) or not instructed to do so. Thus, generally perspective-taking is a manipulated independent variable. However, examining what may engender spontaneous perspective-taking of Black Americans (i.e., perspective-taking that happens without prompting) may be particularly advantageous. Indeed, people are not often told to take the perspective of outgroup members that they learn about in more naturalistic settings.

Present Studies

Collectively, the research literature suggests that a lack of critical historical knowledge and a lack of perspective-taking have consequences which may undermine the recognition of racism and support for efforts to address racial injustice (e.g., policy support). However, while the literature on critical Black history and the perspective-taking literature have focused on similar constructs, thus far, these literatures have been largely separate.

The present set of studies tests whether exposure to critical Black history in healthcare compels perspective-taking among White Americans and, in turn, if spontaneous perspective-taking improves recognition of systemic racism. Study 1 exposed White Americans to a critical Black history lesson in healthcare and compared the effect of explicit perspective-taking instructions versus no instructions. This provided a direct test of whether explicit perspective-taking instructions provided an added benefit to learning critical Black history. Study 2 examined the effectiveness of spontaneous perspective-taking by exposing White Americans to either a critical, celebratory, or control Black history lesson and testing whether learning critical Black history increased spontaneous perspective-taking and thereafter racism recognition and support for addressing racial injustice.

Study 1

Study 1 tested whether learning critical Black history is sufficient, or whether explicit instructions to perspective-take are necessary to enhance White Americans' recognition of racism. Thus, Study 1 provided a sample of White American adults with a critical Black history lesson in healthcare, experimentally manipulated whether or not they were explicitly told to take the perspective of those they learned about, and measured both reported perspective-taking and racism recognition. Specifically, Study 1 tested whether: 1) there would be significant differences between conditions in isolated and systemic racism recognition, 2) self-reported perspective-taking would significantly predict isolated and systemic racism recognition, and 3) the effect of perspective-taking on racism recognition required explicit instructions to perspective-take.

Method

Participants

The present study was approved by the UCLA Institutional Review Board and each participant provided consent to participate. White American participants were recruited via Prolific (an online recruitment platform which provides high-quality data and allows for more diversity (e.g., in age and education level) than college student samples (Eyal et al., 2021). Participants were invited to take part in an online study and asked to "complete a survey in which you will be asked to respond to questions presented on a computer screen” and “answer questions about social attitudes and feelings.”

Based on previous research on the effects of learning critical Black history (Bonam et al., 2019) as well as an *a priori* power analysis conducted in G*power (Faul et al., 2007), a target sample size of 364 was determined. The power analysis was based on the assumption that the experimental manipulation of Study 1 may only produce a small effect (on perspective-taking as a manipulation check) at 80% power and α =.05. To this end, 401 participants were recruited via Prolific to ensure ample power after possible exclusions for ineligibility or lack of attention. Seven participants were excluded (four for not identifying as White and three for failing a simple attention check) which left a final sample of 394 for analyses ($M_{age} = 38.16$, $SD_{age} = 14.94$; full demographics in Table 1).

Table 1

Demographic Characteristics of Chapter 5 Participants

Characteristic	Study 1 n = 394	Study 2 n = 1459
Age		
Mean (SD)	38.16 (14.94)	42.43 (14.95)
Range	18 - 78	18-92
Gender (%)		
Woman	48.48	47.91
Man	46.70	49.28
Gender-expansive	4.06	2.47
Rather not say	0.76	0.34
Education (%)		
Some high school	1.02	0.55
High diploma or GED	9.39	11.45
Some college	25.13	19.26
Associate or vocational degree	6.35	9.32
Bachelor's degree	39.09	39.96
Master's degree or equivalent	14.47	15.01
Doctorate's or other professional degree	4.57	4.46
Political party (%)		
Democrat	52.28	47.98
Independent	33.50	31.60
Republican	14.21	20.36

Procedures

All participants engaged with a critical Black history lesson which consisted of five captioned photographs describing healthcare injustices that Black Americans have experienced from the 1800s to the present. For example, in 1951 Fannie Lou Hamer underwent what was to be a routine procedure during which her uterus was removed without her consent (Public Broadcasting Service, n.d.). Participants were randomly assigned to engage with this Black history lesson in two distinct conditions: With Perspective-taking Instructions or Without Perspective-taking Instructions. In the With Perspective-taking Instructions condition, as done in previous perspective-taking and intergroup relations research (e.g., Todd et al., 2011), participants were instructed to focus on the potential thoughts, feelings and experiences of each person they saw in the photographs. In the Without Perspective-taking Instructions condition, participants were simply told to view each photograph and read each caption. Subsequently, participants answered questions about their level of perspective-taking, responded to a scale to assess their level of systemic and isolated racism recognition, and answered demographic questions.

Measures

Perspective-taking. Participants completed a measure to assess their level of perspective-taking with the individuals they learned about in the history lesson. Participants indicated the degree to which they tried to take the perspective of the individuals depicted in the history lesson on five items anchored by 1 (not at all) and 7 (very much so). Sample items include: “I imagined what the person in each picture might be thinking” and “I tried to take the perspective of the person in each picture” (Cronbach’s alpha = 0.95).

Isolated and Systemic Racism Recognition. Participants then completed measures designed to probe their ability to recognize isolated (Cronbach’s alpha = 0.84) and systemic (Cronbach’s alpha = 0.93) manifestations of racism (Nelson et al., 2013). This measure included nine instances of systemic racism (e.g., “the negative portrayal of African Americans in U.S. entertainment media”) and five instances of isolated racism (e.g., “Lashandra Jenkins and Amy Conner applied for the same job. They have nearly identical qualifications. Amy gets called for an interview and Lashandra does not;” Nelson et al., 2013). Participants indicated the degree to which each item constituted an instance of racism on a scale anchored by 1 (not at all) and 7 (certainly).

Results

Analytic Plan

Data were analyzed in SPSS 28 and R (4.0.2). Group differences by condition were assessed via ANOVA. Main effects and interactions of condition and reported perspective-taking on isolated and systemic racism recognition were assessed via linear regression. All reported confidence intervals are at 95%.

Manipulation Check

First, the degree to which participants indicated that they engaged in perspective-taking was compared. Unsurprisingly, participants in the Without Perspective-taking Instructions condition ($M = 5.75$, $SD = 1.30$) reported lower levels of perspective-taking than those in the With Perspective-taking Instructions condition ($M = 6.22$, SD = 1.08), ($b = -0.47$, $t(390) = -3.91$, $p < .001$, 95% CI = [-0.71, -0.24], d = .40).

Isolated and Systemic Racism Recognition

Next, I sought to determine whether recognition of racism differed by condition. Interestingly, isolated racism recognition did not differ when Perspective-taking instructions were absent or present (*M*s and *SD*s = 5.12 (1.24) and 5.34 (1.26), respectively; $b = 0.05$, $t(389) = 0.39$, $p = .698$, 95% CI [-0.19, 0.28]). Similarly, systemic racism recognition did not differ when Perspective-taking instructions were absent or present (*M*s and *SD*s = 4.72 (1.55) and 4.86 (1.42), respectively; $b = -0.06$, $t(389) = -0.39$, $p = .694$, 95% CI [-0.34, 0.23]). These non-significant findings indicated that instructing participants to perspective-take did not enhance participants' ability to recognize racism.

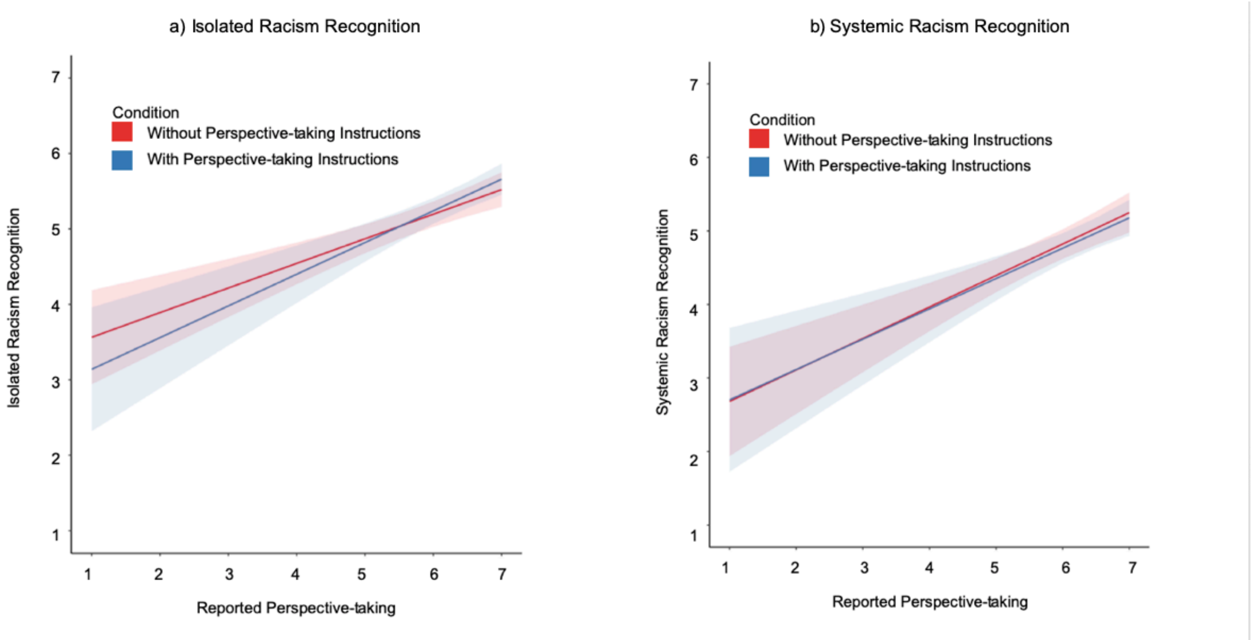
Next, I sought to determine whether the degree of self-reported perspective-taking significantly predicted isolated and systemic racism recognition. As predicted, reported perspective-taking significantly predicted both isolated ($b = 0.36$, $t(389) = 7.31$, $p < .001$, 95% CI

[0.27, 0.46]) and systemic racism recognition (*b* = 0.42, *t*(389) = 7.12, *p* < .001, 95% CI [0.31, 0.54]). These results indicated that when participants reported higher (vs. lower) levels of perspective-taking they also reported higher (vs. lower) levels of racism recognition.

Finally, I tested an interaction to determine whether the effect of self-reported perspective-taking on racism recognition differed significantly by condition. This analysis revealed a non-significant interaction (Figure 1a) of reported perspective-taking on isolated racism by condition (*b* =0.09, *t*(388) = 0.92, *p* = 0.356, 95% CI [-0.11, 0.29]). Similarly, there was a non-significant interaction (Figure 1b) of reported perspective-taking on systemic racism recognition by condition (*b* =-0.02, *t*(388) = -0.13, *p* = 0.898, 95% CI [-0.25, 0.22]). These patterns indicated that instructing participants to perspective-take, as opposed to allowing it to occur spontaneously, did not enhance the effect of perspective-taking on racism recognition.

Figure 1a-b

Interaction of Reported Perspective-taking on Racism Recognition by Experimental Condition



Note. Reported errors are 95% confidence intervals.

Discussion

The findings from Study 1 imply that learning critical Black history in healthcare (without explicit perspective-taking instructions) may compel spontaneous perspective-taking. In turn, the degree to which perspective-taking occurs is associated with higher isolated and systemic racism recognition. This finding has meaningful and important implications insofar as it provides evidence that explicit instruction to perspective-take might not be necessary for the benefits of perspective-taking to be realized. Thus, when White Americans learn critical Black history (even when not told explicitly to perspective-take) they may nevertheless engage in beneficial perspective-taking. While these possibilities exist, more research is needed to further examine the effect of learning critical Black history on perspective-taking.

Importantly, one aim of the present studies was to test whether learning critical Black history increased perspective-taking towards Black Americans. It remains unclear, however, if these benefits stem only from learning critical Black history, or if they may be more widespread.

More specifically, learning *any* form of Black history may be sufficient to engender spontaneous perspective-taking that can improve intergroup perceptions. Study 2 tested this possibility by exposing people to distinct forms of Black history (critical, celebratory, and control) and measuring spontaneous perspective-taking, racism recognition, and other important factors to gauge the determinants of the effects observed in Study 1.

Study 2

The aims of Study 2 were to 1) interrogate whether learning distinct forms of Black history differentially compel White Americans to engage in spontaneous perspective-taking and 2) test whether higher levels of spontaneous perspective-taking improves recognition of racism, including measures of: 1) isolated and systemic racism recognition, 2) acknowledgment of the existence of racial inequality in the U.S., 3) support for policies to address racism in healthcare, 4) decreased endorsement of false biological stereotypes about Black people, 5) decreased attributions that racial health disparities are caused by stereotypes about Black Americans' behaviors and 6) increased attributions that racial health disparities are caused by systemic factors.

Method

Participants

Recruitment procedures for Study 2 were identical to Study 1. The UCLA Institutional Review Board approved this study. Study 2 participants provided consent to take part. White Americans were again recruited through Prolific to take part in an online study about social attitudes and feelings. Sample size was determined based on a pilot study (Appendix) to test the effects of the hypothesized mediation paths (Schoemann et al., n.d.). This analysis determined a sample size of 1452 at 80% power and $\alpha = .05$. Thus, 1501 participants were recruited for Study 2 to ensure ample power after exclusions ($M_{age} = 42.43$, $SD_{age} = 14.95$; see Table 1 for full demographics).

Procedures

In Study 2, participants were randomly assigned to one of three gender and era (historical period) matched conditions: 1) a Critical Black History condition, 2) a Celebratory Black History Condition, or 3) a Control condition. The Critical Black History condition was identical to Study 1. Using an identical procedure, the Celebratory Black History condition included five photographs with captions of Black Americans from the 1800s to the present who made achievements in healthcare. For example, one photograph depicted Dr. Patricia Bath, a medical doctor specializing in ophthalmology who created a surgical tool and method to remove cataracts in the eye (National Institutes of Health, 2003). The Control condition included five photographs of Black American laypersons throughout history (1800s-present) with captions that simply described the photograph (e.g., what the person was wearing). After completing one of these three lessons, participants reported their level of perspective-taking, completed key dependent measures described below, and provided demographic information. The full text for all measures appears in the Appendix.

Measures

Perspective-taking. Participants completed the same perspective-taking measure as in Study 1, which asked from 1 (not at all) to 7 (very much so) how much they attempted to imagine what the people in each photograph was thinking, feeling, and experiencing (Cronbach's alpha = .96).

Isolated and Systemic Racism Recognition. Study 2 participants completed the same isolated and systemic racism measure from Study 1 (Nelson et al., 2013). Again, this measure assessed the degree to which participants recognized racism in isolated incidents (Cronbach's alpha =.86) and in systemic manifestations (Cronbach's alpha = .93).

Acknowledgment of the Existence of Racial Inequality in the U.S. Participants completed a measure to assess their level of acknowledgment that racial inequality currently exists in the U.S. from Pew Research Center (Horowitz et al., 2020). Participants indicated the degree to which they thought racial inequality existed in seven situations (e.g., when applying for a loan and when seeking medical treatment) on a scale (Cronbach alpha = .94) anchored by 1 (White people are treated *much* less fairly than Black people) to 5 (Black people are treated *much* less fairly than White people).

Support for Anti-racist Policies. Participants completed a measure to assess their level of support for policies to address racism in healthcare. Participants indicated the degree to which they agreed with a list of five policies (Cronbach's alpha = .94) on a scale anchored by 1 (Strongly disagree) – 7 (Strongly agree). Four items were adapted from Senator Elizabeth Warren's Anti-Racism in Public Health Act of 2020 (*The Anti-Racism in Public Health Act of 2020*, 2020). Sample items included: "Federal funding should be used to support research on racism prevention in healthcare" and "Efforts should be made to educate the public on the public health impacts of racism." Additionally, participants were asked if "Efforts should be made to promote equal access to healthcare for Black Americans," an item adapted from Kaiser et al. (2019).

False Biological Stereotype Endorsement. Participants completed a measure to assess their level of endorsement of false biological stereotypes about Black Americans (Hoffman et al., 2016). Participants indicated the degree to which they believed a list of statements about Black people's health on a scale anchored by 1 (Definitely untrue) to 6 (Definitely true). The list of statements included four true statements (e.g., "Black people are less likely to contract spinal cord diseases like multiple sclerosis" and eleven false biological stereotypes (e.g., "White people, on average, have larger brains than Black people;" Hoffman et al., 2016). For analyses, endorsement of false biological stereotypes were assessed (Cronbach's alpha = .91).

Attribution of Racial/Ethnic Health Disparities Scale. Participants completed a measure to assess how much they attributed Black-White health disparities to negative stereotypes about Black Americans or systemic societal issues via ten items from the attribution of racial/ethnic health disparities scale (Price et al., 2014). For the purposes of this study, for which Black Americans are a central focus, the scale was adapted slightly to ask specifically about perceptions of Black Americans. Participants indicated the degree to which they believed a list of statements was relevant to Black-White health disparities on a scale anchored by 1 (not relevant at all) to 7 (highly relevant). Sample items include: “The persistent level of discrimination in society against Black Americans” and “The high proportion of Black people who expect government "handouts" (e.g., food stamps, Medicaid, etc.)” (Price et al., 2014). For analyses, attributions to systemic problems and individual stereotypes were assessed separately to create an Attributing Health Disparities to Systemic Issues variable (Cronbach’s alpha = .91) and an Attributing Health Disparities to Stereotypes variable (Cronbach’s alpha = .86).

Results

Analytic Plan

For each dependent measure, a mean score was computed for each participant. ANOVAs assessed hypothesized mean differences between conditions in perspective-taking. Mediation analyses were conducted (SPSS 28, Process model 4; Hayes, 2018) to test each hypothesized indirect effect. Each mediation path analysis was tested in bootstrapped models with 10,000 samples. Confidence intervals (95%) are reported. Effect sizes (Cohen’s d) are reported where appropriate.

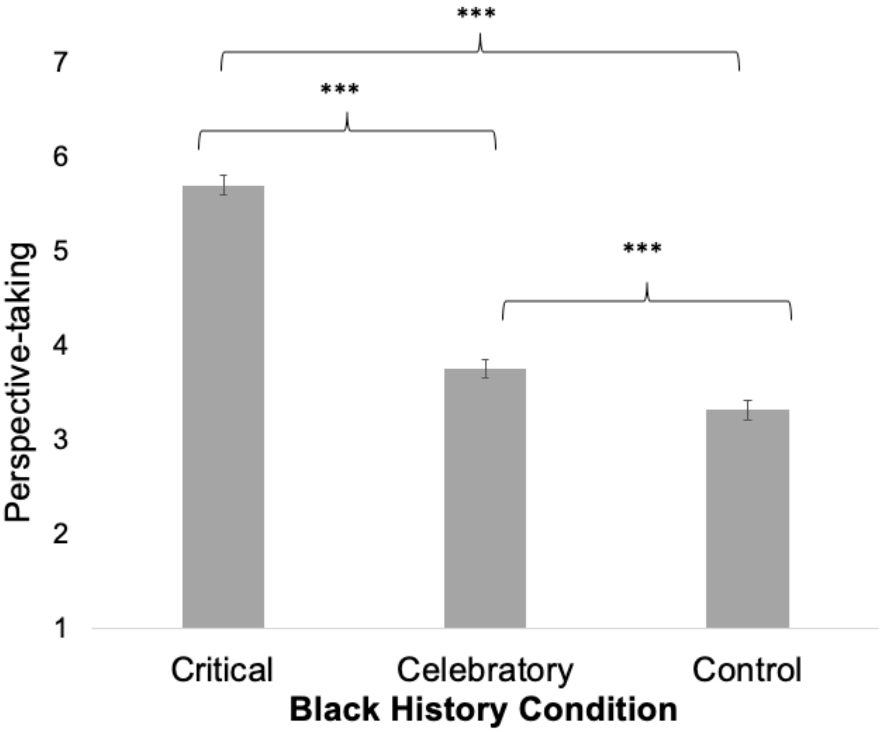
Importantly, based on the findings from Study 1 and previous research on the efficacy of critical Black history (e.g., Bonam et al., 2019), I was agnostic about whether learning critical Black history would show a total effect on key dependent measures without the hypothesized indirect effect of perspective-taking. Indeed, in current statistical best practices, total effects are not necessary to test for indirect effects (Hayes, 2018). Thus, I conducted mediation analyses (SPSS 28, Process model 4; Hayes, 2018) to test hypothesized indirect effects.

Perspective-taking

I predicted that when White Americans learned about critical Black history in healthcare (vs. celebratory Black history or control information), they would report higher levels of perspective-taking. A one-way between-subjects ANOVA tested whether perspective-taking differed between conditions. The results indicated a significant difference between type of Black history lesson and reported perspective-taking ($F(2,1449) = 300.70$, $p < .001$). Next, post hoc comparisons assessed the nature of this effect. As hypothesized, participants who learned critical Black history in healthcare (M = 5.71, SD = 1.35) vs. control (M = 3.32, SD = 1.69), reported significantly higher levels of perspective-taking ($b = 2.38$, $t(1449) = 23.12$, $p < .001$, CI [2.18, 2.59], d = 1.56; figure 2). Additionally, as predicted, participants in the Critical Black History condition reported significantly higher levels of perspective-taking compared to the Celebratory Black History condition (M = 3.76, SD = 1.75; $b = 1.94$, $t(1449) = 18.73$, $p < .001$, CI [1.74, 2.15], d = 1.24). Although not hypothesized, participants in the Celebratory Black History condition reported significantly higher levels of perspective-taking than those in the Control condition ($b = 0.44$, $t(1452) = 4.28$, $p < .001$, CI [0.24, 0.64], d = 0.26).

Figure 2

Perspective-taking by Experimental Condition



Note. Mean values for perspective-taking for Critical Black History, Celebratory Black History, and Control conditions. Error bars show standard error. ***p < .001.

Mediation Models

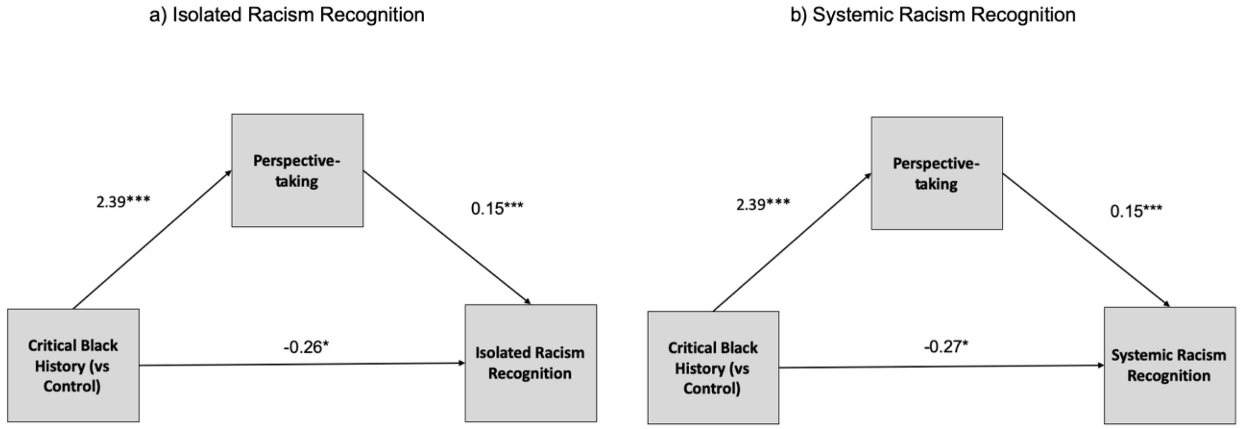
I predicted that learning critical Black history in healthcare (vs. celebratory Black history or control information) would produce significantly higher perspective-taking, which in turn would be associated significantly with higher recognition, acknowledgment and support to address racism toward Black Americans. Thus, indirect effects (rather than total or direct effects) were hypothesized. This is because I believed that in order to influence perceptions on these important dependent variables it may require first learning critical Black history and then spontaneously perspective-taking. Although my hypotheses focused on indirect effects, both total and direct effects are reported in each figure.

Isolated and Systemic Racism Recognition

As predicted and seen in Figures 3a and 3b, White American participants who learned critical Black history (vs. control information) reported significantly higher levels of perspective-taking which in turn was associated with significantly higher isolated and systemic racism recognition (*b*s = 0.36 and 0.35, SEs = 0.06 and 0.07, 95% CIs [0.23, 0.48] and [0.22, 0.49], respectively). An identical pattern was observed when comparing Critical Black History to Celebratory Black History. When participants learned critical (vs. celebratory) Black history in healthcare, their higher reported perspective-taking predicted more isolated and systemic racism recognition (*b*s = 0.29 and 0.29, SEs = 0.05 and 0.06, 95% CIs [0.19, 0.39] and [0.18, 0.40], respectively).

Figure 3a-b

Critical History→ Perspective-taking→ Racism Recognition Indirect Effect Results



Note. Indirect effect model for Critical Black History (vs Control) condition predicting perspective-taking and in turn racism recognition. As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. All indirect effect results can be found in Table 3. *p<.05; ***p<.001.

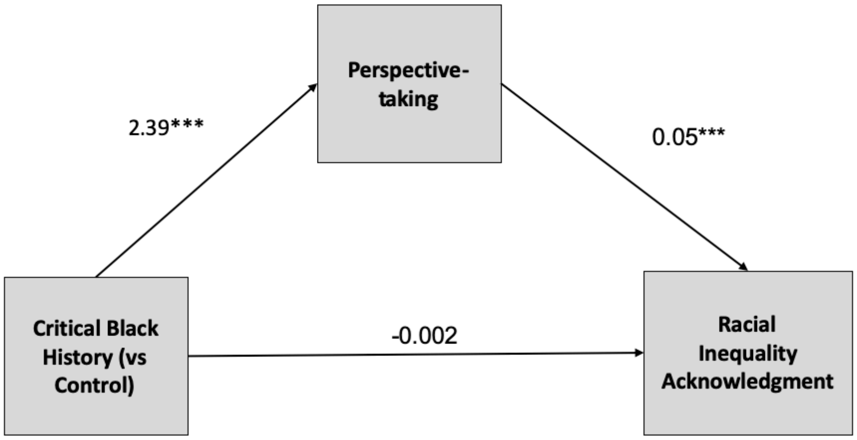
Acknowledgment of the Existence of Racial Inequality in the U.S.

As expected and seen in Figure 4, the critical Black history (vs. control) condition produced higher perspective-taking, which was associated with significantly greater acknowledgment that Black Americans are treated less fairly than White Americans in the U.S.

today (*b* = 0.11, SE = 0.03, 95% CI [0.05, 0.17]). An identical pattern was observed when comparing the Critical Black History condition to the Celebratory Black History condition (*b* = 0.09, SE = 0.02, 95% CI [0.04, 0.14]).

Figure 4

Critical History→ Perspective-taking→ Racial Inequality Acknowledgment Indirect Effect Results



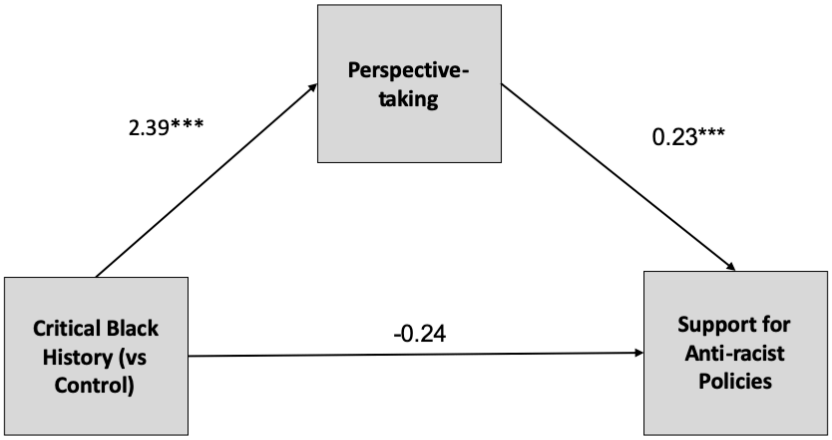
Note. Indirect effect model for history condition predicting perspective-taking and in turn acknowledgment of racial inequality in the U.S. today. As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. *p<.05; **p<.01; ***p<.001.

Support for Anti-racist Policies

As expected and seen in Figure 5, participants who learned critical Black history (vs. control) evidenced significantly greater perspective-taking, which was associated with significantly more support for policies to address racism in healthcare (*b* = 0.56, SE = 0.08, 95% CI [0.41, 0.72]). An identical pattern was observed when comparing the Critical Black History condition to the Celebratory Black History condition (*b* = 0.46, SE = 0.07, 95% CI [0.33, 0.59]).

Figure 5

Critical History→ Perspective-taking→ Support for Anti-racist Policies Indirect Effect Results



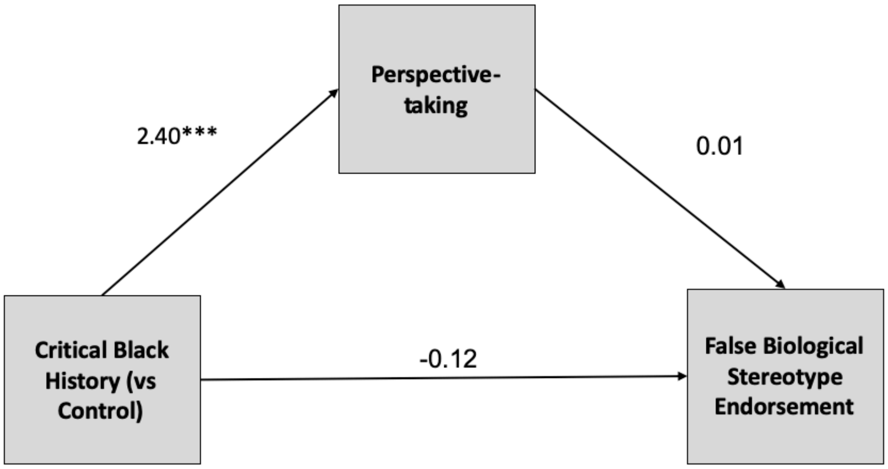
Note. Indirect effect model for history condition predicting perspective-taking and then support to anti-racist policies in healthcare. As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. *p<.05; ***p<.001.

False Biological Stereotype Endorsement

Unexpectedly and seen in Figure 6, when participants learned critical Black history (vs. control), higher perspective-taking did not predict less false biological stereotype endorsement overall (*b* = 0.02, SE = 0.03, 95% CI [-0.04, 0.09]). An identical pattern was observed when comparing the Critical Black History condition to the Celebratory Black History condition (*b* = 0.02, SE = 0.03, 95% CI [-0.04, 0.07]).

Figure 6

Critical History→ Perspective-taking→ False Biological Stereotype Endorsement Indirect Effect Results



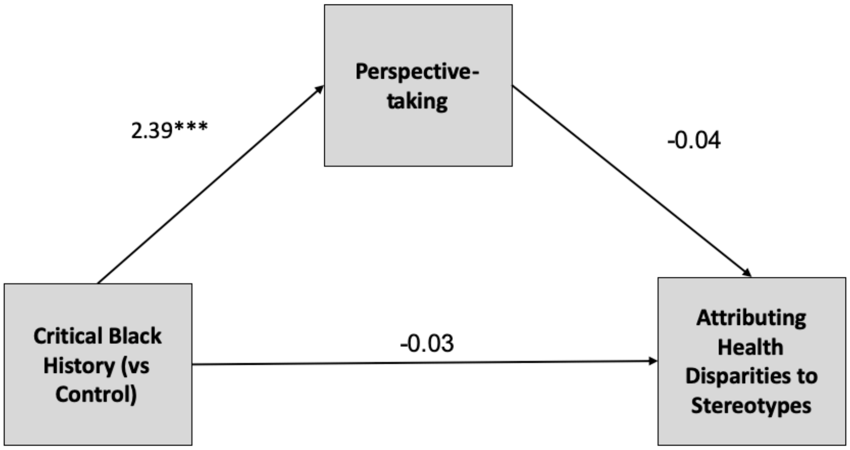
Note. Indirect effect model for history condition predicting perspective-taking and then endorsement of false biological stereotypes of Black Americans. As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. *p<.05; ***p<.001.

Attribution of Racial/Ethnic Health Disparities Scale

Attributing Health Disparities to Stereotypes. Unexpectedly and seen in Figure 7, when participants learned critical Black history (vs. control), higher perspective-taking did not predict being less likely to attribute health disparities between Black and White people to individual stereotypes (*b* = -0.10, SE = 0.06, 95% CI [-0.22, 0.03]). An identical pattern was observed when comparing the Critical Black History condition to the Celebratory Black History condition (*b* = -0.08, SE = 0.05, 95% CI [-0.18, 0.02]).

Figure 7

Critical History→ Perspective-taking→ Attributing Health Disparities to Stereotypes Indirect Effect Results

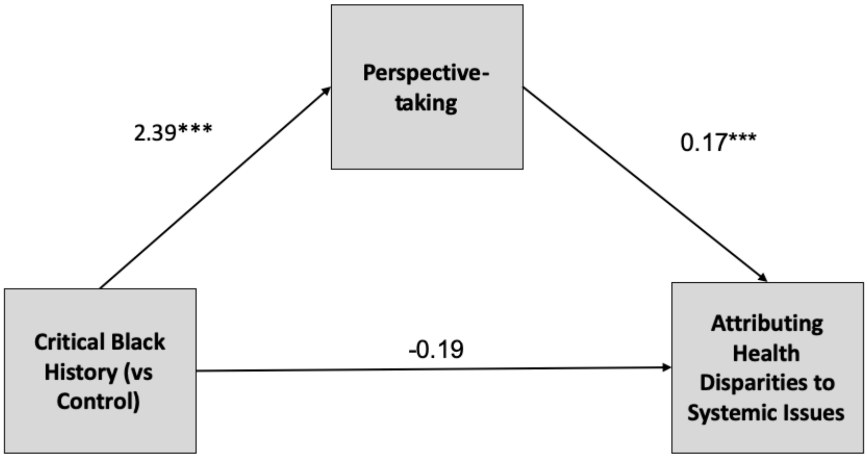


Note. Indirect effect model for history condition predicting perspective-taking and then attributing Black-White health disparities to negative stereotypes of Black Americans. As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. ***p<.001.

Attributing Health Disparities to Systemic Issues. As expected and seen in Figure 8, when participants learned critical Black history (vs. control), higher perspective-taking predicted being significantly more likely to attribute health disparities between Black and White people to systemic problems (*b* = 0.40, SE = 0.07, 95% CI [0.26, 0.54]). An identical pattern was observed when comparing the Critical Black History condition to the Celebratory Black History condition (*b* = 0.32, SE = 0.06, 95% CI [0.21, 0.44]).

Figure 8

Critical History→ Perspective-taking→ Attributing Health Disparities to Systemic Issues Indirect Effect Results



Note. Indirect effect model for history condition predicting perspective-taking and then attributing Black-White health disparities to systemic issues in the U.S. (e.g., discrimination). As noted, the Critical Black History (vs. Celebratory Black History) conditions indirect effect results demonstrated the same pattern. *p<.05; ***p<.001.

Table 2

Study 2 Means and Standard Deviations for Dependent Variables

Dependent Variable	Overall N = 1452	Critical n = 478	Celebratory n = 481	Control n = 493
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Perspective-taking	4.25 (1.91)	5.71 (1.35)	3.76 (1.75)	3.32 (1.69)
Racism recognition				
Isolated	5.09 (1.39)	5.17 (1.37)	5.04 (1.43)	5.07 (1.38)
Systemic	4.48 (1.61)	4.53 (1.62)	4.47 (1.61)	4.43 (1.59)
Racial Inequality Acknowledgment	4.11 (0.73)	4.19 (0.74)	4.06 (0.74)	4.08 (0.71)
Support for Anti-racist Policies	4.83 (1.87)	5.04 (1.83)	4.77 (1.88)	4.70 (1.90)
False Biological Stereotype Endorsement	2.05 (0.82)	1.98 (0.81)	2.09 (0.83)	2.08 (0.82)
Attributions of Racial Health Disparities				
Stereotypes	3.56 (1.46)	3.47 (1.51)	3.61 (1.44)	3.61 (1.43)
Systemic Issues	4.86 (1.62)	5.00 (1.57)	4.80 (1.64)	4.78 (1.63)

Table 3

Coefficient Table for Indirect Effect Analyses

Dependent Variable					Indirect effect	Indirect effect CI	
	a	*b*	*c*	*c’*	*ab*	LL	UL
Isolated Racism Recognition							
Critical vs. Control	2.39***	0.15***	0.10	-0.26*	0.36	0.23	0.48
Celebratory vs. Control	0.45***	0.15***	-0.02	-0.09	0.07	0.03	0.11
Critical vs. Celebratory	1.94***	0.15***	0.12	-0.17	0.29	0.19	0.39
Systemic Racism Recognition							
Critical vs. Control	2.39***	0.15***	0.08	-0.27*	0.35	0.22	0.49
Celebratory vs. Control	0.45***	0.15***	0.03	-0.04	0.07	0.03	0.11
Critical vs. Celebratory	1.94***	0.15***	0.05	-0.23*	0.29	0.18	0.40
Racial Inequality Acknowledgment							
Critical vs. Control	2.39***	0.05***	0.11*	-0.00	0.11	0.05	0.17
Celebratory vs. Control	0.45***	0.05***	-0.02	-0.04	0.02	0.01	0.04
Critical vs. Celebratory	1.94***	0.05***	0.13**	0.04	0.09	0.04	0.14
Support for Anti-racist Policies							
Critical vs. Control	2.39***	0.23***	0.32**	-0.24	0.56	0.41	0.72
Celebratory vs. Control	0.45***	0.23***	0.06	-0.05	0.10	0.05	0.17
Critical vs. Celebratory	1.94***	0.23***	0.26*	-0.20	0.46	0.33	0.59
False Biological Stereotype Endorsement[a]							
Critical vs. Control	2.40***	0.01	-0.10	-0.12	0.02	-0.04	0.09
Celebratory vs. Control	0.44***	0.01	0.01	0.01	0.00	-0.01	0.02
Critical vs. Celebratory	1.96***	0.01	-0.11*	-0.13*	0.02	-0.04	0.07
Attributing Health Disparities to Stereotypes							
Critical vs. Control	2.39***	-0.04	-0.13	-0.03	-0.10	-0.22	0.03
Celebratory vs. Control	0.45***	-0.04	0.01	0.02	-0.02	-0.05	0.01
Critical vs. Celebratory	1.94***	-0.04	-0.14	-0.06	-0.08	-0.18	0.02
Attributing Health Disparities to Systemic Issues							
Critical vs. Control	2.39***	0.17***	0.20*	-0.19	0.40	0.26	0.54
Celebratory vs. Control	0.45***	0.17***	0.01	-0.07	0.07	0.03	0.12
Critical vs. Celebratory	1.94***	0.17***	0.20	-0.13	0.32	0.21	0.44

Note. Coefficients are reported as follows: a (a path in mediation model); b (b path in mediation model); c (total effect) c' (direct effect); ab (indirect effect).

Confidence intervals (95%) have 10,000 bootstraps.

Mediation results are reported for all possible paths: critical vs control (Critical Black History condition vs. Control condition), celebratory vs. control (Celebratory Black History condition vs. Control condition), and critical vs celebratory (Critical Black History condition vs. Celebratory Black History Condition).

[a]False biological stereotype endorsement has slightly different a-path coefficients than other analyses due to 3 missing (NA) responses.

* p <.05, ** p < .01, *** p < .001.

Discussion

Study 2 provides experimental evidence that learning critical Black history in healthcare (vs. celebratory Black history or a control) produced greater perspective-taking among White Americans that facilitated the recognition of racism. These findings suggest increasing perspective-taking among dominant group members might be as straightforward as learning about the reality of historical and present instances of injustice. Moreover, learning about societal injustice may also facilitate a deeper consideration of minoritized people's perspectives.

Study 2 also revealed that when White Americans learned critical Black history, their higher perspective-taking was associated with significantly: 1) higher recognition of isolated and systemic racism, 2) greater acknowledgment of the existence of racial inequality in the U.S., 3) more support of anti-Black healthcare policies, and 4) higher likelihood of attributing Black-White racial healthcare disparities to systemic societal issues. These findings suggest that the indirect effect of learning critical Black history on perspective-taking can lead to acknowledging that inequality exists, improving intergroup perceptions, and support for policy initiatives to address current inequality.

The indirect effect of critical Black history on perspective-taking and in turn lower false biological stereotype endorsement was not statistically significant. Similarly, the indirect effect of critical Black history on perspective-taking and in turn attributing health disparities to negative stereotypes was not significant. Decades of research demonstrates the consistent presence of negative stereotypes about Black Americans in the U.S. (Ghavami & Peplau, 2013; Katz & Braly, 1933; Madon et al., 2001). This non-significant finding may suggest that although this intervention elicited perspective-taking that was related to other outcomes, it failed to mitigate stereotyping. Notably, false biological stereotypes were not strongly endorsed in this sample of participants (see Table 2), which may have reduced the possible mitigating effect of perspective-taking on this important measure.

Additionally, as compared to the critical and celebratory history conditions, the control condition had no individuating information about Black Americans in the photograph descriptions (e.g., nothing personal about the individuals). While choosing to keep neutral descriptions allowed the experimental design to include a control condition that is more similar to traditional perspective-taking methods which often gives a photograph without any individuating information, this is a limitation of the study. However, the observed differences between the critical and celebratory conditions in perspective-taking, which both included individuating information, provides key evidence that critical Black history uniquely compels beneficial perspective-taking.

Also, as shown in Table 2, in some cases the Critical Black History condition (vs celebratory or control conditions) had main effects (e.g., support for policies) and in other cases it did not (e.g., systemic racism recognition). This indicates, as predicted that in some cases learning critical Black history is not sufficient to see a significant change in perceptions of racism. Rather, for White Americans learning critical Black history and then engaging in perspective-taking is required to see significant differences in racism perceptions.

General Discussion

A primary goal of the present research was to test how spontaneously taking the perspective of Black Americans (i.e., considering what Black Americans might be thinking, feeling, and experiencing without being explicitly prompted) might improve White Americans' ability to recognize racism. In two studies, I found that learning about critical Black history bolstered White American perspective-taking. Study 1 demonstrated that when White Americans learn critical Black history, explicitly instructing them to perspective-take did not influence their isolated and systemic racism recognition over what would have occurred from spontaneous perspective-taking. Furthermore, Study 1 found that reported perspective-taking was associated with isolated and systemic racism recognition which did not differ for White Americans who were told to perspective-take and those who were not.

In Study 2, White Americans who learned critical Black history (vs. celebratory Black history or control information) were significantly more likely to perspective-take with Black Americans. Additionally, this effect on perspective-taking was associated with being more likely to recognize and acknowledge racism, and support policies to combat racism in healthcare.

Interestingly, participants in the Celebratory Black History condition reported significantly more perspective-taking than those in the Control condition. However, the Critical Black History condition had a stronger effect on perspective-taking. Future research can examine if there are added benefits to learning both critical and celebratory Black history at the same time.

These findings have important implications for both science and society. First, at a theoretical level, these findings further our understanding about the determinants and impacts of perspective-taking. Research has long demonstrated that perspective-taking is beneficial to empathizing and improving perceptions of others (e.g., Batson et al., 1997; Todd et al., 2011). Importantly, the present research demonstrates that instructed perspective-taking might not be necessary insofar as, under some circumstances, people appear to engage in it spontaneously. Equally importantly, the present research identified the types of information that elicit spontaneous perspective-taking (i.e., critical history). Identifying such circumstances could be critical to eliciting perspective-taking in a society where people are not likely to be instructed to take outgroup members' perspectives.

Additionally, the present findings contribute to the growing literature focused on the impacts of historical knowledge on intergroup attitudes. Specifically, the current research identifies a new mechanism by which learning critical Black history likely improves White Americans' racism recognition. Moreover, the present studies extend the research on the effects of perspective-taking and critical Black history by centering the experiences of Black Americans in healthcare. Establishing perspective-taking as a mechanism through which learning critical Black history can increase racism recognition and support for addressing inequity could be foundational to testing this mechanism in other contexts (e.g., schools).

Furthermore, the present findings provide evidence that perspective-taking might prove to be a potent intervention technique in medical settings. Future research will examine the efficacy of learning critical Black history and perspective-taking on improving physician-Black patient interactions and promoting systemic changes in healthcare settings (e.g., through anti-racist policies).

Additionally, Study 2 intentionally adapted a currently proposed policy to address racism in healthcare (*The Anti-Racism in Public Health Act of 2020*, 2020) as a dependent variable. Thus, the results suggest that learning critical Black history and then engaging in perspective-taking can bolster White Americans' support for current anti-racist policy changes being proposed in the U.S. today.

More broadly, these findings contribute important evidence to the societal discussion about the value of learning history. Historically and presently, stories of racial injustice have been actively silenced. For example, currently sixteen states in the U.S. have passed laws to prohibit the teaching of race or racial injustice in classrooms and state agencies (Alfonseca, 2022). Nineteen states in the U.S. are actively considering bills to restrict education in public schools about racial injustice and disparities; six states have failed to ratify similar bills; and bills are being proposed in seventeen states to expand the teaching of racial injustice in schools (Alfonseca, 2022). The present study adds to our understanding of the impact that such political stances and policies might have on White Americans' perceptions. These findings highlight beneficial impacts when White Americans learn an accurate history about racial injustice in healthcare. As such, these findings demonstrate that learning about societal injustice can compel spontaneous perspective-taking that facilitates both recognizing and supporting efforts to reduce injustice, both of which are necessary to create a more equitable society. Overall, the present studies suggest that learning about injustice toward Black Americans in healthcare could be critical to increasing perspective-taking and ultimately, acknowledging and addressing racial inequity.

Conclusion

Ultimately, with my dissertation, I sought to better understand and take steps toward addressing a complex and multifaceted problem: injustice directed at Black Americans in the healthcare system. To address a problem with such complexity, I used multiple lenses, including a narrative review, analyses of nationally representative data, thematic qualitative analyses, and experimental methods. My dissertation highlights the importance of medical trust and highlights that it may be a key factor that influences health perceptions (e.g., COVID-19 vaccinations and perceptions of healthcare providers), particularly for Black Americans. Additionally, my dissertation highlights specific healthcare provider-Black patient interactions that may erode medical trust and, importantly, provides recommendations directly from Black patients on how to improve care. Finally, my dissertation demonstrates that learning stories about injustice experienced by Black Americans in healthcare can lead to perspective-taking and then better recognizing injustice in healthcare and being more supportive of addressing injustice in healthcare.

Critically, each chapter of my dissertation emphasized the importance of considering history, individual experiences, systemic societal issues and their interactions. For instance, my dissertation provides evidence to suggest that it was personal histories (i.e., participants' own healthcare experiences) in the healthcare system rather than knowledge of broader cultural history (i.e., Tuskegee Syphilis study knowledge) that was associated with lower medical trust and then early vaccination hesitancy for Black Americans. My dissertation also demonstrated that Black women with breast cancer considered and were impacted by individual healthcare provider's behaviors as well as norms and practices within the medical system, which they acknowledged was rooted in a foundational history of mistreatment of Black women in the healthcare system. Finally, my experimental studies demonstrated that learning about historical and present experiences of injustice experienced by Black Americans can lead to higher levels of perspective-taking for White Americans, which then led to more acknowledgment and recognition of both isolated racism and systemic racism. Thus, my dissertation highlights the importance of taking a historical socio-ecological psychology (HSP) approach to understanding complex societal issues such as racism in society and, more specifically, injustice toward Black Americans in the healthcare system.

Appendix A: Chapter 3

Study 1 & 2 Measures

Study 1 Measures

How likely are you to get a COVID-19 vaccine as soon as it is available to you?

- ○ Not likely at all 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ Very likely 7

How negative have your past experiences been in healthcare?

- ○ Not negative at all 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ Very negative 7

How positive have your past experiences been in healthcare?

- ○ Not positive at all 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ Very positive 7

How much do you trust the medical community?

- ○ Not much at all 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ Very much so 7

How familiar are you with the Tuskegee experiment?

- ○ Not familiar at all 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6

- ○ Very familiar 7

What illness was being studied in the Tuskegee experiment?

- ○ Syphilis
- ○ HIV/AIDS
- ○ Cancer
- ○ Ebola
- ○ Diabetes
- ○ I'm not sure/I can't remember

Which group of men participated in the Tuskegee experiment? Please check all that apply.

- ○ White men
- ○ Black men
- ○ Indigenous men
- ○ Asian men
- ○ White women
- ○ I'm not sure/I can't remember

What happened in the Tuskegee experiment?

- ○ Medical doctors gave a certain group too high a dosage of a vaccine which led to health complications
- ○ A certain group was trained to fly military planes but was not trained properly which led to lots of accidents
- ○ Medical doctors intentionally did not give a certain group effective treatment and did not give this group a vaccine for their illness and many sick people died
- ○ Researchers recruited a certain group to participate in an experiment and gave participants a vaccine which saved their lives
- ○ A certain group refused to take a vaccine when it was offered to them which led to health complications
- ○ I'm not sure/I can't remember

When did the Tuskegee experiment begin?

- ○ 1850s
- ○ 1930s
- ○ 1980s
- ○ 2000s
- ○ 2010s
- ○ I'm not sure/I can't remember

Study 2 Measures

How many doses of a COVID-19 vaccine have you received to date, if any?

We’re interested in how much you trust people in the following professions. How much trust do you have in...

Doctors or medical professionals

- Trust a lot
- Trust a little
- Neither trust nor distrust
- Distrust a little
- Distrust a lot

Medical researchers

- Trust a lot
- Trust a little
- Neither trust nor distrust
- Distrust a little
- Distrust a lot

Your personal physician

- Trust a lot
- Trust a little
- Neither trust nor distrust
- Distrust a little
- Distrust a lot

How much do people in the following professions care about your well-being?

Doctors or medical professionals

- Care a lot
- Care some
- Care very little
- Care not at all

Medical researchers

- Care a lot
- Care some
- Care very little
- Care not at all

Your personal physician

- Care a lot
- Care some
- Care very little
- Care not at all

Additional Information About Prolific Recruitment Platform

Study 1 data were obtained by through Prolific, an online recruitment platform which allowed us to recruit an American sample and specify through Prolific's recruitment filters that Black and White Americans were eligible. This convenience sample ranged in age, gender, and education level. Prolific uses several mechanisms to provide high-quality data and distribute surveys amongst a wide range of respondents (Eyal et al., 2021).Using Prolific for data collection in Study 1 allowed for gathering data quickly as COVID-19 vaccine roll-outs were just beginning and data had just been released noting Black Americans' early vaccination hesitancy. Using Prolific for data collection also allowed us to obtain a fairly large Black American sample which was critical to hypothesis testing. Although the Study 1 data are not representative of the US population, utilizing Prolific also allowed us to gain wider ranges in age, education level, and geographic region than one would expect from a college or other local sample.

Descriptive Statistics for Studies 1 and 2

Variable	Full Sample
	M (SD)
Study 1	
Intention to Get COVID-19 Vaccination	3.60 (2.29)
Medical Trust	4.16 (1.46)
Negative Healthcare Experiences	1.97 (1.55)
Positive Healthcare experiences	3.99 (1.28)
Study 2	
COVID-19 Vaccination	0.51
Intention to Get COVID-19 Vaccination	2.19 (1.56)
Trust in Doctors or Medical Professionals	3.20 (1.04)
Trust in Medical Researchers	3.02 (1.07)
Trust in Your Personal Physician	3.17 (1.06)
Doctors or Medical Professionals Care About My Well-being	2.29 (0.82)
Medical Researchers Care About My Well-being	2.01 (0.87)
Personal Physician Cares About My Well-being	2.31 (0.84)

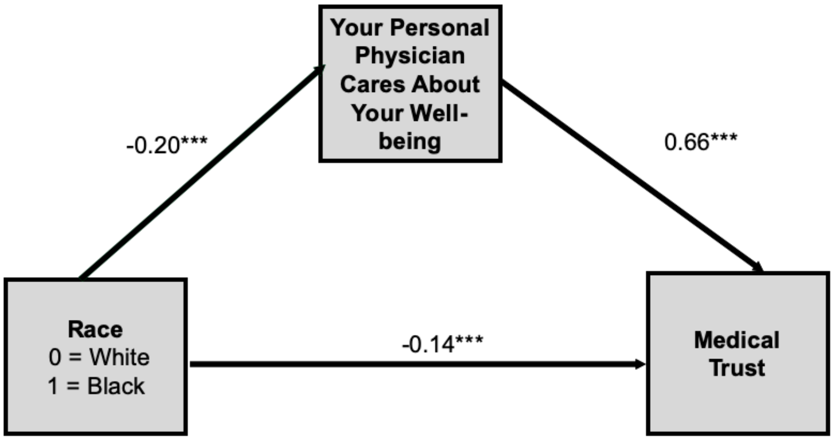
Study 2 Analyses Including Additional Covariates

In response to an editor's request, we conducted the primary analyses from Study 2 including additional covariates. The covariates included were: age, gender, education level, and health status (original covariates) as well as political party affiliation, whether people had COVID-19 previously, if people thought they were at high risk for catching COVID-19, if they got a flu vaccine, income, and geographic reason in the U.S. These results were of the same pattern as those reported in the manuscript; adding the additional covariates did not change any result or the level of statistical significance.

Study 2 Multiple Regressions with Added Covariates

Variable	95% CIs				
	Estimate	LL	UL	*t*	*p*
COVID-19 Vaccination	0.004	-0.05	0.16	0.19	0.854
Intention to Get COVID-19 Vaccination	-0.14	-0.35	0.07	-1.32	0.186
Trust in Doctors or Medical Professionals	-0.27	-0.37	-0.17	-5.25	<0.001***
Trust in Medical Researchers	-0.34	-0.33	-0.13	-4.45	<0.001***
Trust in Your Personal Physician	-0.30	-0.41	-0.19	-5.25	<0.001***
Medical Community Trust (composite of the three Trust items)	-0.26	-0.35	-0.17	-5.58	<0.001***
Doctors or Medical Professionals Care About My Well-being	-0.16	-0.24	-0.07	-3.69	<0.001***
Medical Researchers Care About My Well-being	-0.07	-0.15	0.01	-1.72	0.085
Personal Physician Cares About My Well-being	-0.20	-0.29	-0.12	-4.56	<0.001***

The relationship between Black Americans' reporting lower medical community trust was explained in part by Black participants reporting that their primary care physician cared less about their well-being (*b* = -0.14, 95% CI = [-0.20, -0.08], *p* < 0.001).



Additionally, upon a reviewer's request, we conducted an analysis to examine any racial differences in COVID-19 vaccinations and vaccination intention, including a race by income interaction. These analyses, which included all of the aforementioned covariates and the race by income interaction term, revealed the same pattern of results as the original analyses.

Variable	95% CIs				
	Estimate	LL	UL	*t*	*p*
COVID-19 Vaccination	-0.01	-0.09	0.07	-0.29	0.769
Intention to Get COVID-19 Vaccination	-0.19	-0.52	0.14	-1.14	0.253

Note. Results for race predicting COVID-19 vaccination and COVID-19 vaccination intention.

Study 2 Sensitivity Analysis

Using the mediation package in R (4.0.2) (Tingley et al., 2014), we conducted a sensitivity analysis (Imai et al., 2010) on the indirect path analysis. We did so because the data are observational and cross-sectional and are, therefore, vulnerable to confounding. A sensitivity analysis assesses what the strength that an absent confounding effect would need to be to nullify the indirect path results. Sensitivity analyses have been posited as being helpful in analyses of mediation because “there may exist unobserved confounders that causally affect both the mediator and the outcome” and thus “sensitivity analysis allows researchers to formally quantify the robustness of their empirical conclusions to the potential violation of sequential ignorability” (Imai et al., 2010, p. 2).

These analyses allowed us to assess how correlated a missing confounder would need to be with the mediator (personal physician caring about your well-being) and outcome (medical community trust) in order for the indirect path test to become non-significant. If an omitted confounder has a small correlation with the mediator and outcome, this would indicate that one should be quite cautious in interpreting the indirect path analysis results because a small confounder correlation could have been missed quite easily.

The sensitivity analysis demonstrated that the correlation of a confounder would need to be at least Rho = 0.6 to nullify our indirect effect. Among the observed covariates in our model the largest correlation was 0.27 (age), suggesting it is unlikely that we failed to measure a confounder that is more than twice as large.

Principal Components Analysis

In an attempt to distinguish care and trust variables we conducted a principal components analysis. Using the six items measuring trust in and care for well-being from each source, a principal components analysis yielded three components explaining 79.20% of the variance. Component 1, Medical Community Trust, included trust in doctors or medical professionals, trust in medical researchers, and trust in your personal physician (loadings = 0.60 - 0.86). Component 2, Personal Physician Care, included the single item “How much do you feel your own personal physician cares about your well-being?” (loading = 0.92). Component 3, Medical Researcher Care, included the item “How much do you feel medical researchers care about your well-being?” (loading = 0.93). The item “How much do doctors and medical professionals [in general] care about your well-being?” did not load highly on any component. These results suggest that participants conceptualized feeling cared for by medical professionals and their trust in medical professionals differently. However, definitive conclusions regarding the distinctiveness of trust and personal physician care are difficult, particularly because some components had only single items. Future research should assess these differences in greater detail.

Appendix B: Chapter 5

Study 2 Materials

Instructions (for all participants): Thank you for taking part in this study. You will see a series of images. Please press continue.

Critical Black History Condition

Look at the picture and read the caption below.

This is John Fed Brown. In 1830, medical doctors performed multiple painful and life-threatening medical experiments on Brown without his consent. Though Brown was not sick, physicians repeatedly removed his blood and burned and peeled his skin to test new medical procedures. Eventually, Brown fled to escape the routine torture he endured.

Look at the picture and read the caption below.

Nina Gomer was the mother of a two-year-old African American son named Burghardt. In 1899, two-year-old Burghardt fell ill with diphtheria, an infection that was popular at the time. Diphtheria can lead to heart failure, paralysis, and death. Nina and her husband tried earnestly to find a doctor to treat their son. However, the doctors in the area refused to treat African American children. While trying to find a doctor to treat their son, Burghardt passed away on

May 24, 1899.

Look at the picture and read the caption below.

In 1961, Fannie Lou Hamer went to the doctor for minor surgery. Instead, the doctors removed her uterus without her consent. Hamer became the victim of forced sterilization: the practice of permanently ending someone's ability to have children without their permission. African American women were most likely to be forcibly sterilized by medical doctors. Hamer stated she wondered why the doctor would do this to her and that she would have loved to have children.

Look at the picture and read the caption below.

While pregnant with her third child in 2016, Simone Landrum began having severe headaches, sensitivity to light, swollen hands, feet, and face, and difficulty getting out of bed because of feeling so ill. Landrum told her doctor several times about her worsening symptoms, but her doctor brushed aside her complaints and told her to take Tylenol. Shortly afterward, Landrum lost the baby and had to go through a C-section for her stillborn child. Landrum said one of the hardest things to endure was telling her sons their sister had died.

Look at the picture and read the caption below.

In January 2021, David Alexander Bell began experiencing extreme chest pain. His wife took him to the emergency room, but the medical staff didn't admit him to the hospital. Instead, medical staff told Bell to take Ibuprofen and sent him home. He tried going to the hospital three times to be seen by doctors, but he was turned away each time. The third time he was turned away, he died in the parking lot of the hospital while he and his wife returned to the car.

Celebratory Black History Condition

Look at the picture and read the caption below.

In 1837, Dr. James McCune Smith became the first African American to obtain a medical degree. He opened his own medical office and the first Black-owned pharmacy in the United States. Dr. Smith treated White and Black patients and became well known for his excellent medical practice and statistically and scientifically advanced medical research.

Look at the picture and read the caption below.

Dr. Susan Smith McKinney Steward was the first African American woman to earn a medical degree in New York State and the third in the United States. She earned her M.D. in 1870, graduating as valedictorian. Dr. Steward established her own private practice in Brooklyn. Also, she practiced at New York Medical College and Hospital for Women in Manhattan. She specialized in prenatal care and published multiple papers on this topic.

Look at the picture and read the caption below.

Dr. Patricia Bath became a medical doctor in 1973 with a specialization in ophthalmology (medicine that focuses on treatment and diseases of the eye). She went on to study laser technology and saw its potential for eye surgery. She became famous in the medical field for inventing the Laserphaco Probe: a surgical tool that uses a laser to remove cataracts (cloudy blemishes in the eye that can lead to blindness).

Look at the picture and read the caption below.

Dr. Mae Jemison is an American physician, engineer, and former NASA astronaut. She graduated from Cornell Medical School and became the first African American woman to travel to space in 1992 when she served as a mission specialist aboard the Space Shuttle Endeavour. Dr. Jemison has also taught at Dartmouth College, worked to improve global health with the National Institute of Health, and founded the Jemison Institute for Advancing Technology.

Look at the picture and read the caption below.

Dr. Eldrin Lewis is chief of cardiovascular medicine at the Stanford University Medical Center. He received his medical training from the University of Pennsylvania and Harvard University. Today, he is a practicing physician and medical researcher focusing on patients with heart failure and has authored nearly 200 research articles.

Control Condition

Look at the picture and read the caption below.

This is a picture of a man from the 1830s. He is wearing a buttoned vest and a dark jacket.

Look at the picture and read the caption below.

This photograph was taken in the 1890s. This woman is standing and holding an umbrella. She is wearing a feather hat, a thick-sleeved jacket, and a matching skirt.

Look at the picture and read the caption below.

This photograph was taken in the 1960s. This woman is wearing a velvet top that ties like a ribbon at the front.

Look at the picture and read the caption below.

This photograph was taken in 2016. This woman is wearing a tee-shirt. She is standing in the middle of a park with surrounding trees.

Look at the picture and read the caption below.

This photograph was taken in 2021. This man is wearing a striped shirt, suit jacket, and tie. His suit jacket has a handkerchief in the pocket.

Study 2 Dependent Variables

Questions for all scales were randomized.

Perspective-taking

Instructions: Please answer the following questions according to how you feel in the current moment.

Scale: 1 (not at all) – 7 (Very Much so)

1. I tried to take the perspective of the person in each picture.
2. I imagined what the person in each picture might be thinking.
3. I imagined what the person in each picture might be feeling.
4. I imagined what the person in each picture might be experiencing.
5. I imagined what the person in each picture might be going through.

Racism Recognition (Nelson et al., 2013)

Instructions: Please indicate the degree to which you think the following examples describe instances of racism.

Scale: 1 (not racism at all) – 7 (certainly racism)

Isolated Racism

1. Several people walk into a restaurant at the same time. The server attends to all the White customers first. The last customer served happens to be the only person of color.
2. An African American man goes to a real estate company to look for a house. The agent takes him to look only at homes in low income neighborhoods.
3. An African American man was pulled over for speeding by a White highway patrol officer. Unknown to the man, his registration had expired earlier that month. Rather than give him a ticket and let him continue, the officer impounded the vehicle at the man’s expense.
4. An African American woman made reservations for a rental car over the phone, but when she arrived in person to collect the car, the agent informed her that no cars were available.
5. Lashandra Jenkins and Amy Conner applied for the same job. They have nearly identical qualifications. Amy gets called for an interview and Lashandra does not.

Systemic Racism

1. The decision of universities like California and Texas to end affirmative action programs.
2. The decision of the U.S. Government to invade Iraq.
3. High rates of poverty among African Americans, Latinos, and Native Americans.
4. The practice of racial profiling – using only information about race in the decision to make traffic stops, police searches, etc.
5. The relatively small number of African Americans in professional sports coaching positions (NBA, NFL) relative to the number of African American athletes.
6. The decision of the USA to withdraw from the United Nations conference on racism.

7. The policy of denying Mexican trucks access to U.S. highways, even though (a) Canadian trucks have unimpeded access and (b) access for Mexican trucks is mandated by the NAFTA accord.
8. The portrayal of African Americans in U.S. entertainment media.
9. Sentencing practices whereby possession of any quantity of cocaine is punishable by a maximum sentence of one year, where possession of 5 grams of crack (made from cocaine and baking soda) carries a mandatory 5-year minimum sentence

Acknowledgment of Racial Inequality (adapted from Pew Research (Horowitz et al., 2020))

Instructions: In general in the U.S. these days, would you say that Black and White people are treated equally or differently in each of the following situations?

Scale:

1 = White people are treated much less fairly than Black people

2 = White people are treated slightly less fairly than Black people

3 = Both Black and White people are treated equally

4 = Black people are treated slightly less fairly than White people

5 = Black people are treated much less fairly than White people

1. In hiring, pay, and promotions
2. In stores or restaurants
3. When applying for a loan or mortgage
4. In dealing with police
5. In the criminal justice system
6. When voting in elections
7. When seeking medical treatment

Support for Anti-racist Healthcare Policies (adapted from (Kaiser et al., 2009; *The Anti-Racism in Public Health Act of 2020*, 2020))

Instructions: Please indicate how much you disagree or agree with the following statements.

Scale: 1 (strongly disagree) - 7 (strongly agree)

1. Efforts should be made to promote equal access to healthcare for Black Americans.
2. The U.S. government should create a National Center for Anti-Racism and Health within the Centers for Disease Control and Prevention (CDC).
3. The U.S. should declare racism a public health crisis.
4. Federal funding should be used to support research on racism prevention in healthcare.
5. Efforts should be made to educate the public on the public health impacts of racism.

False Biological Stereotype Scale (Hoffman et al., 2016)

Instructions: Below you will be given a list of statements regarding race and health. Some of these statements are true, while others are not. Please read each statement and rate the extent to which you believe it is true, from Definitely Untrue to Definitely True.

Scale:

1 (Definitely Untrue)

2 (Probably Untrue)

3 (Possibly Untrue)

4 (Possibly True)

5 (Probably True)

6 (Definitely True)

1. On average, Black people age more slowly than White people.
2. Black people’s nerve-endings are less sensitive than White people’s nerve-endings.
3. Black people’s blood coagulates (clots) more quickly--because of that, Black people have a lower rate of hemophilia (disease marked by blood clotting difficulties) than White people.
4. White people, on average, have larger brains than Black people.
5. White people are less susceptible to heart disease like hypertension than Black people.

6. Black people are less likely to contract spinal cord diseases like multiple sclerosis.
7. White people have a better sense of hearing compared to Black people.
8. Black people's skin has more collagen (i.e., it's thicker) than White people's skin.
9. Black people, on average, have denser, stronger bones than White people.
10. Black people have a more sensitive sense of smell than Whites; they can differentiate odors and detect faint smells better than White people.
11. White people have more efficient respiratory systems than Black people.
12. Black couples are significantly more fertile than White couples.
13. White people are less likely to have a stroke than Black people.
14. Black people are better at detecting movement than White people.
15. Black people have stronger immune systems than White people and are less likely to contract colds.

Attribution of Racial/Ethnic Health Disparities Scale (adapted from (Price et al., 2014)**)**

Instructions: Research shows that there are currently health disparities in the U.S. such that Black Americans have poorer health in many areas as compared to White Americans.

How relevant do you think each item is in contributing to these racial health disparities.

Scale: 1 (not relevant at all) – 7 (highly relevant)

Individual Stereotypes

1. The high proportion of Black people who expect government "handouts" (e.g., food stamps, Medicaid, etc.)
2. Black people not caring about their health as much as they should.
3. Poor health behaviors (e.g., poor diet and smoking) of Black Americans.
4. The selling and use of drugs in Black communities.
5. The lack of exercise in Black adults.

Systemic Issues

1. The persistent level of discrimination in society against Black Americans.

2. The level of environmental stressors affecting Black Americans.
3. The poorer quality of health care received by Black Americans.
4. The residential segregation of Black Americans into poorer areas of the community.
5. The lack of Black physicians in the U.S. healthcare system.

Study 2 Pilot Power Analysis

Aim

The primary goal of this pilot study was to conduct a power analysis to determine how many participants would be needed to test hypothesized direct effects in Study 2.

Method

150 White Americans were recruited to take part in a study about social feelings and attitudes. Two were removed for not identifying as White leaving a final sample of 148 (M_{age} = 34.17, SD_{age} = 14.82, 76.35% women, 18.92% men, 4.73% gender-expansive). As in Study 2, participants were randomly assigned to one of three conditions: critical Black history, celebratory Black history, or control. Afterward participants took the perspective-taking (Cronbach's alpha = .95) and isolated (Cronbach's alpha = .80) and systemic racism (Cronbach's alpha = .91) measures from Study 2 (see above).

Power Analysis

I conducted a power analysis to test for indirect effects with one mediator at 80% for 10,000 bootstraps at 95% confidence interval (Schoemann et al., n.d.). These results revealed that Study 2 would require 1452 participants to have 80% power to detect the indirect effect of history condition → perspective-taking → systemic racism recognition. Systemic racism was used in this power analysis because it was hypothesized based on previous literature that systemic racism recognition would be more difficult to shift. Thus, I collected 1501 participants in Study 2 to ensure that after exclusions I would have ample power to detect the hypothesized indirect effect.

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