# Is It All in Our Heads? An Investigation into American and Historical Legacies of Racism and Social Frameworks That Perpetuate Racial Inequalities in Twenty-First Century Healthcare Systems

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## Abstract

Racial bias in the healthcare system, originating from the eminent founders of science and medicine, has numerous adverse effects on black populations and continues to have harmful consequences today (Byrd and Clayton, 2001). From poor clinical decision-making to preventing people of color from entering prominent fields in medicine, racism is ubiquitous in medicine and healthcare (Byrd and Clayton, 2001). The impact of racial bias on patient care is of great interest with many studies illustrating the detrimental impacts of bias on minority groups, specifically in black communities. However, there is additional research that concludes racial bias does not play a role in patient care or in medicine (Dehon et al., 2017). The lack of acknowledgment within academia concerning racial disparities in healthcare and science further oppresses black voices. With my research, I investigate the extent to which various biased social frameworks in healthcare, medicine, and science negatively impact black individuals. I also address major historical events during the creation of the modern-day healthcare system and how these events perpetuate racism today. Focusing on the twenty-first century, I demonstrate that systemic historical and social events during this period eternalize racism in the modern-day American healthcare system.


Key Terms: paternalistic racism, competitive racism, race-conscious professionalism, psychologizing racism

## 1 Introduction

Confronting racial inequalities in healthcare requires examining the historical legacies of academia and of federal policies. Neil Lewis Jr., an assistant professor of communications research in medicine at Weill Cornell Medicine, describes "that you can't understand, much less change, people's health behaviors without reckoning with larger social structures and systemic forces" (Blackwood, 2021).

Beginning in the nineteenth century, residential segregation excluded people of color from obtaining adequate healthcare. This enabled and sustained "structural racism in other forms, including… the unjust distribution of high-quality health care" (Bailey et al., 2021). Exacerbating the effects of residential segregation, academic discrimination against colored communities preserves outdated racist attitudes and ideologies (Bailey et al., 2021) while also perpetuating distrust between marginalized communities and healthcare services (Dula, 1994). Another facet of this bias in academia can be seen in the underrepresentation of minorities in science and healthcare.

In Dr. Michael Byrd and Dr. Linda Clayton's paper "Race, Medicine, And Healthcare In The United States: A Historical Survey," they delineate two different forms of racism: Paternalistic Racism and Competitive Racism (Byrd and Clayton, 2001). The former is the view that black people are immature, child-like, and inferior – dispositions that are tolerated unless they deviate from socially acceptable roles (Byrd and Clayton, 2001). In the latter,

emancipated slaves were seen as competition for scarce resources (Byrd and Clayton, 2001). These act as the foundations for the modern-day concept of race-conscious professionalism, wherein black individuals in prestigious medical and academic fields feel a dual obligation to succeed (Powers et al., 2016). The idea of psychologizing racism, as described in "A socioecological psychology of racism: making structures and history more visible," is the concept where one overly focuses on individual bias while neglecting the systemic and historical racism behind various institutions (Trawalter et al., 2020). This recognition of excessively analyzing the role of individual accountability rather than moving to understand global structural forces at work is significant as it elucidates the true depth of racism in perpetuating racial disparities.

In this paper, I consider three different historical and social domains that perpetuate racial inequalities in the twenty-first century. The first is the role of academic discrimination in fueling fear and distrust in the healthcare system. Here, I also examine the consequences of this bias through the under-treatment of black patients, and through the disproportionate number of physicians treating people of color. I then examine the significance of redlining in racial segregation. Redlining is the use of racial demographics to assess which communities would receive investment (Bailey et al., 2021). The ramifications of this practice manifest as areas with increased pollutants, which worsen healthcare outcomes in colored communities (Li and Yuan, 2021) and demonstrate pollution inequity (Abraham et al., 2021). Finally, the lack of representation in academic and healthcare settings is analyzed using the framework of race-conscious professionalism. Academic discrimination, redlining, and underrepresentation in healthcare and academic institutions are interrelated realms that perpetuate and eternalize racial inequalities in the modern-day healthcare system because of their historical and social contexts in the United States.

## 2 Academic Discrimination

Racial inequalities exacerbate distrust between scholars and people of color. A prominent example of this is the Tuskegee Syphilis Study. During this study, black men were infected with Syphilis without their consent (Trawalter et al., 2020). After this information was disclosed to study participants, decreased healthcare usage was seen among black men, which led to increased mortality rates (Trawalter et al., 2020). Trawalter et al. illustrate that "the disclosure of the study in 1972 is associated with a decrease in healthcare utilization, presumably due to decreased trust in the medical community, and a commensurate increase in mortality among [black] men" (Trawalter et al., 2020). This event is of historical significance when discussing the perpetuation of racial discrepancies in healthcare as there is a history of treating black people as inferior in the academic community.

It is important to note that the distrust demonstrated by the Tuskegee Syphilis Study is not an isolated event in academic history. James Marion Sims, the "father of modern gynecology," rose to prominence for creating a surgical remedy for the obstetric fistula based on his experimentation on black, enslaved women (Cronin, 2020). During his experiments, he failed to use anesthetic ether on the individuals he experimented on, despite having access to such resources (Cronin, 2020). However, Sims did use anesthesia on his wealthy, white patients (Khabele et al., 2021). The use of Sims' work in modern medicine represents the exploitation of slaves and suggests a potential cause for the mistrust black individuals have toward academia (Conteh et al., 2022).

The results of this distrust between medical professionals and marginalized communities can be seen in the racial proportion of physicians to underprivileged, colored communities. Dr. Miriam Komaromy and her colleagues found that in areas with five times as many black residents, the number of black physicians was commensurate with the number of residents (Komaromy et al., 1996). This disproportion in race illustrates that colored communities mainly trust physicians of their own race and ethnicity, as well as black physicians feeling the need to practice in communities with large populations of their own race and ethnicities. This is reinforced by "the fact that the physician's race or ethnic

group predicted whether he or she would care for greater-than-average numbers of black or Hispanic patients" (Komaromy et al., 1996). This further supports the idea that racial disparities are perpetuated by mistrust in healthcare settings. Race was a contributing factor to where individuals would practice; therefore, individuals of the same race as their primary care provider feel more comfortable receiving aid from members of their own race.

Academic discrimination against black individuals additionally stems from promoting biased teachings in medical schools, specifically in the perception of pain. In a 2016 study to determine racial attitudes, medical students held beliefs that black patients feel less severe pain than that of white patients (Bailey et al., 2021). This bias leads to overt disparities in treatment regimens as "[black patients] are less likely than white [patients] to receive pain medication and, when they do, they receive less" (Trawalter et al., 2012). The disparity in treatment between white and black patients by physicians and students contributes to the distrust that black patients feel as these false beliefs perpetuate the care of "greater-than-average numbers of black or Hispanic patients'' by physicians of the same race (Komaromy et al., 1996). This undertreatment of black patients because of academic bias intensifies the skepticism and suspicion of medical practices, ultimately leading to disparities in healthcare as seen through the disproportionate number of black physicians practicing in communities with large populations of similar ethnicities.

## 3 Redlining in Residential Segregation

Redlining makes use of racial compositions to assess investment opportunities for communities (Bailey et al., 2021). It involves the conscious discrimination against black people from obtaining financial resources that would aid them in acquiring adequate housing as well as other necessities (Bailey et al., 2021). Redlining impacts the proximity to which individuals receive adequate education, nutrition, recreation, and medical care services as "neighborhoods influence the collective resources" these individuals receive (Li and Yuan, 2021). Segregated neighborhoods face greater barriers to recruiting and retaining physicians, which limits individual access to healthcare services (White et al., 2012). These neighborhoods have limited resources (e.g. diagnostic imaging services) which also contribute to healthcare disparities (White et al., 2012).

Due to disparities in resources, "women whose residential neighborhood[s are] characterized by a lower quality-built environment are also at increased risk of adverse perinatal outcomes such as preterm birth" (Anthopolos et al., 2014). Further augmenting the impact of redlining, historically disadvantaged neighborhoods have "a higher risk for COVID-19 infection in ZCTAs with present-day economic and racial privilege" (Li and Yuan, 2021). Here, Li and Yuan (2021) illustrate a greater risk for COVID-19 infection in present-day redlined areas. This mirrors the impact of poor-quality environments due to previous residential segregation, as this leads to an increased risk of "adverse perinatal outcomes" (Anthopolos et al., 2014). Therefore, modern-day redlined zones illustrate the perpetuation of racial inequalities in healthcare outcomes through limiting the number of resources marginalized communities can gain access to due to the progression of "racially segregated communities [becoming] economically segregated, resulting in the large-scale disinvestment often characterizing majority non-white neighborhoods" (Anthopolos et al., 2014). This ultimately leads to overt consequences such as "preterm birth through poor-quality built environment [and] poor-quality housing stock" (Anthopolos et al., 2014). Clearly, Anthopolos, Li, and Yuan illustrate that standard of care is impacted by geographic factors.

Redlining has influenced racial inequalities in healthcare outcomes through increased exposure to pollutants and other toxins, which further illustrates the lack of investment in black communities. This disparity is demonstrated as "better HOLC neighborhood grades are associated with lower levels of airborne carcinogens and higher levels of tree-canopy coverage (which mitigates air pollu-

tants and heat)" (Bailey et al., 2021), whereas predominantly black communities face "pollutant exposure through proximity to neighboring industrial plants or landfills, water leakage, mold, lead paint, pest infestation, and poor ventilation" (Abraham et al., 2021). This demonstrates pollution inequity as white individuals create most of the fine-particulate pollution due to their overconsumption of goods; however, black and Latinx minorities face the consequences and inhale this pollution (Abraham et al., 2021).

Li and Yuan further illustrate pollution inequity as the government and society's "devoid of investment" in black communities leading to "the institutionalized segregation of capital (e.g., loans and investments) from black people [which] shaped the socio-spatial arrangement of goods and services [e.g. medical care] in the USA" (Li and Yuan, 2021). The fact that white individuals do not face the same consequences as their black counterparts demonstrates the disadvantage and inequality that these marginalized communities endure, ultimately leading to more adverse health outcomes such as asthma and low birth rates (Li and Yuan, 2021). Li, Yuan, and Bailey et al. illustrate that the racial inequalities between black and white individuals because of racial segregation keep people of color in disadvantaged and disinvested neighborhoods. These past policies continue to perpetuate racial disparities in healthcare since white individuals do not experience this increased risk of illness. Clearly, redlining and racial segregation promote racial discrepancies in healthcare.

## 4 Underrepresentation in Healthcare and Academia

The absence of minority groups in healthcare positions and academic settings illustrates the depth of racial inequalities in society. This lack of representation can be seen in the recruitment and retention of black faculty, as a study conducted in 2010 demonstrated that "among faculty members who had been hired in 2000, blacks were less likely to have been retained than any other demographic group" (Ansell and McDonald, 2015). This exclusion of black professors and faculty from academia is also perpetuated through "poor education and school quality; lack of role models; financial cost of education and training; and persistent bias, stereotyping, and racism" (Powers et al., 2016). The paucity of black representation in academic and healthcare settings leads to the existence of racial inequalities in healthcare in the form of extrinsic factors such as "persistent bias, stereotyping and racism" (Powers et al., 2016). These factors lead to "only 2.9% of all faculty members at U.S. medical schools [being] black" (Ansell and McDonald, 2015). This contributes to the disproportionate ratio of black to white physicians by creating environments in which black medical students lack black role models, resulting in fewer people of color in these fields.

The effects of underrepresentation in academia and healthcare can be illustrated through the idea of "race-conscious professionalism" where African Americans understand the implications of their professional success in race politics and marginalized communities (Powers et al., 2016). This leads to black physicians experiencing a dual obligation to reach professional excellence in order to protect their communities. The two-fold responsibilities that black physicians experience are not limited to the present day; many of the first formally trained physicians used their scientific credibility and community leadership to build hospitals to care for black communities, while also bolstering the African-American professional class (Powers et al., 2016). Race-conscious professionalism gives insight into the intrinsic obstacles that black physicians face as "most have experienced or witnessed, firsthand, inequalities in the access to, and quality of, health care" (Powers et al., 2016). Since many black physicians have experienced the disparities that their communities are facing, they feel an obligation to aid their communities, which leads to a disproportionate number of "black and Hispanic physicians locat[ing] their practices [to] areas with higher proportions of residents from underserved minority groups (Komaromy et al., 1996). The lack of black representation in academia and healthcare perpetuates racial inequality as it leads to increased pressures placed on minority physicians to practice in marginalized communities

who have also "witnessed inequalities in the access to, and quality of, health care" (Powers et al., 2016), resulting in "black and Hispanic physicians consistently car[ing] for disproportionately high numbers of [black and Hispanic] patients" (Komaromy et al., 1996). This burden is a direct result of the lack of inclusivity in science and medicine for black individuals, which leads to incommensurate physician demographics. Confining colored physicians to practice in underprivileged areas to protect and advocate for their own racial and ethnic groups preserves racial inequality as this responsibility is placed solely on colored minorities while their white counterparts are liberated from this accountability.

## 5 Differentiating Systemic Bias from Individualistic Bias

While I have argued that racial inequalities in healthcare must be viewed from a systemic lens through observing past historical and social abuses, there are also those who argue that an individualistic lens is more suitable. Sabin et al. illustrate prioritizing the individualistic perspective as "physicians [holding] strong implicit associations for black patients as being 'less cooperative' and demonstrating that this implicit bias was related to quality of care" (Sabin et al., 2009). They support viewing racial inequalities as an individual's responsibility because this has direct consequences in clinical decision-making. This can include treatment plans for patients, as with the use of thrombolysis for coronary symptoms. For example, in Green et al's study to measure implicit bias in physicians about race, physicians that favored white patients more than black patients were more likely to treat their white patients with thrombolysis for coronary symptoms (Green et al., 2007, as cited in Sabin et al., 2009). Therefore, physicians who maintain strong implicit biases contribute to inappropriate, adverse courses of treatment toward black patients, resulting in disparities that can explicitly be seen in the fact that "relative to [white] Americans, [black] Americans experience higher rates of diseases, disability, and premature death" (Trawalter., et al 2012).

Although examining the impact of physician implicit bias on clinical decisions is important in evaluating racial disparities, solely relying on individual accountability negates the impact of greater systemic and structural forces. The significance of evaluating systemic elements when discussing racial inequalities can be seen in "the systematic disinvestment… within segregated black neighborhoods [which] has resulted in under-resourced facilities with fewer clinicians, which makes it more difficult to recruit experienced and well-credentialed primary care providers and specialists and thereby affects access and utilization" (Bailey et al., 2021). Therefore, when examining the influence of systemic factors such as the disinvestment in black neighborhoods, it transcends the quality of care. Because access to resources is limited in black communities, this leads to fewer physicians and difficulty in obtaining a higher standard of healthcare. This showcases the greater depth and effect behind the nature of care that black neighborhoods receive.

Viewing racial disparities in terms of barriers such as redlining and race-conscious professionalism is more effective in understanding racial inequalities because it provides reasoning for the pervasive disadvantages that black people face, independent of individual actions. Regardless of physician bias, black patients "consistently have much higher rates of premature, preventable death and poorer health throughout their lives" (Bassett, 2015). This can be attributed to greater forces that are deeply entrenched in institutions and policies rather than interpersonal interactions, as this enables a holistic framework for addressing the obstacles and adverse outcomes that are ubiquitous in black communities. In addition, global factors are significant because the "ongoing exclusion of and discrimination against people of African descent throughout their life course, along with the legacy of bad past policies, [continues] to shape patterns of disease distribution and mortality" (Bassett, 2015). This further reinforces that the "higher rates of diseases, disability and premature death" (Trawalter et al., 2012) in black demographics are not limited to implicit bias. This only provides a partial picture of the factors that perpetuate racial inequalities as

these consequences continue to exist past individual interactions.

## 6 Conclusion

Perpetuating racial inequalities are the result of direct and indirect social and historical factors pervasive in academia and healthcare systems. The academic prejudice against black communities promotes distrust in medical services, leading to the undertreatment of black patients and the inordinate number of black physicians practicing in these racialized neighborhoods. This academic prejudice is further supported by the underrepresentation of minorities in academia and the responsibility placed upon black scholars to excel in their fields. Moreover, structural mechanisms that continue to preserve racial disparities surpass academia and science and can be observed in residential segregation, which leads to unequal access to healthcare services and negative health outcomes in black patients. These systemic forces depict the extensive nature of racial bias in medicine and society in the United States as these are not limited to individual interactions. The decisions made by individuals are based on historical and cultural bias. The ubiquity of the impact of structural racism is supported through the act of psychologizing racism, where the excessive analysis of one's own prejudice, discrimination, and stereotypes towards people of color invalidates the experiences of black minorities (Trawalter et al., 2020). This results in minimizing the true effect of institutional bias and injustice. It is important to validate the role of various systemic elements when examining the barriers placed upon black communities rather than focusing on individual biases.

Recognizing the social and historical contexts behind modern-day healthcare practices gives us insight into racial inequalities and disparities in academia and medicine. Moving forward, reform requires the recognition and reconciliation with the past abuses against black individuals while also continuing to educate on historical and social policies. This entails medical schools educating on past historical injustices against black communities and the consequences of these abuses in modern-day medicine.

Additional initiatives to combat underrepresentation in academia should be proposed and enforced to dismantle systemic and structural racism most effectively in healthcare and beyond. This requires implementing programs that consider the social and historical contexts unique to the black experience.

Understanding the frameworks that perpetuate racial disparities today allows for a greater appreciation of black experiences as it elucidates long-standing obstacles that validate distrust in academia and medicine, prevent access to healthcare, and demonstrate underrepresentation in academia. Enduring change can only stem from accepting that systemic racism is not rigid and absolute but can be remedied through actively educating and dismantling biased policies and institutions■

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Meghana's research was inspired by the racial disparities that are often overlooked in the medical field. As a future healthcare professional, she wanted to educate herself and others on the inequalities that people of color face in medicine and in academia. Her research began as a final project for her English 201 class; however, she wanted to continue educating herself on these inequities, leading to her Aresty Undergraduate Research Journal submission.