

Rochester Academy of Medicine Scholarship Essay

In the heart of Rochester, a hidden but deadly crisis thrives: racism's insidious grip on public health. One of the greatest challenges that medicine is facing today is confronting the structural and implicit biases within the development and practice of medicine. Medicine is based on the scientific method and grounded in the fundamental principle that objective facts can be discovered through the scientific method and peer reviewed research. It is axiomatic that scientists loathe bias and seek to eradicate it at every turn. Medicine represents the ultimate meritocracy where all human bodies are treated the same, or so we think.

However, statistics are now revealing that the practice of medicine is skewed with bias. These issues have an incredible impact upon our community that cannot be understated. This is especially significant for the Rochester community because “redlining” is a known discriminatory practice with a legacy impacting the health of people in those communities.¹ This began as structural racism in Rochester’s housing market where during the Great Depression, neighborhoods that housed a majority of people of color were identified and received the lowest score, “D – hazardous,” for government-backed mortgages, causing residential racial segregation. A recent survey by the National Community Reinvestment Coalition compared the “best and worst neighborhoods for health” in Rochester.² The Upper Falls neighborhood has a 64.22% minority population, while the Cobbs Hill neighborhood only has a 11.62% minority population. The life expectancy is over 10 years greater in the Cobbs Hill neighborhood, and there are lower rates of asthma, diabetes, kidney disease, and stroke.³

We can no longer ignore that the rosy idyllic picture of medicine is not a reality. A study from 2016 documented beliefs of white American medical students and residents about false biological differences between black and white people.⁴ The study found 73% of the medical students had at least one false belief. For example, most commonly this included the idea that black people have thicker skin or less sensitive nerve-endings than white people. In Atlanta, Georgia at an emergency department, it was found that the risk of receiving no analgesics was 66% greater for black patients compared to white patients for new, isolated long-bone fractures

¹ Richardson, Jason, et al. “There is a higher prevalence of COVID-19 risk factors in historically “redlined” neighborhoods.” *National Community Reinvestment Coalition*, October 2020.

² Id.

³ Van Kerkhove, Barb and Ruhi Maker. “COVID-19 Disparities In Rochester, NY: The Legacy Of Redlining In The City Of Frederick Douglass And Susan B. Anthony.” *Empire Justice Center*, October 2020.

⁴ Hoffman, Kelly , et al. “Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites.” *Proceedings of the National Academy of Sciences*, Editor Susan T. Fiske, Princeton University, March 1, 2016, Princeton, NJ.

with similar pain symptoms.⁵ Medical records with all ethnic identifiers taken out were submitted to physicians and then also nurses to control for potential confounders in the study.

The consequences of miseducated and racially ignorant health-care workers is immense. This study was from Atlanta, however it is clear that the same phenomenon exists here in Rochester. Five months into the pandemic, a Monroe County Department of Health report showed that Black and Latino people were more than twice as likely to die from COVID-19.⁶ Instead of basing minority treatment on unsupported stereotypes, we need more funding for researchers from underrepresented backgrounds. Clinical trials and research have historically been done to help white males and then extrapolated to others. However, we know that certain conditions impact certain populations differently. For example, signs of heart attack in women are different from men, and signs of autism in women are different from men. This has resulted in doctors under-diagnosing female patients. Additionally, dermatology treatments for dark skin lag in comparison to that offered to light skin.

I remember when my manager at my retail job complained to me about the potential vaccine mandate. I knew she was extremely empathetic towards others' health, so her hesitation to get the vaccine initially confused me. I soon realized, however, that the traumatic history in medicine towards African Americans was not "history," but an ongoing trauma.⁷ While I was familiar with the Tuskegee experiment, where hundreds of black men with low incomes were used as test subjects in a syphilis experiment without informed consent and often not given treatment.⁸ This is actually only a small aspect of the abusive medical practices faced by African Americans from the time of slavery to present day. For example, enslaved individuals were experimented upon leading to gynecology as a medical specialty in the United States. "Gynecological examinations of black women influenced the country's slave markets, and 'slavery, medicine and medical publishing formed a synergistic partnership'" in the establishment of gynecology."⁹ Slaves were also subjected to surgical techniques without anesthesia and without consent and birth control measures were disproportionately tested on black women.

Healthcare workers are trusted with people in their most vulnerable states. People come into hospitals desperate and anxious, and it is the responsibility of healthcare workers to be

⁵ Todd, K H et al. "Ethnicity and analgesic practice." *Annals of emergency medicine* vol. 35,1 (2000): 11-6.

⁶ Van Kerkhove, Barb and Ruhi Maker. "COVID-19 Disparities In Rochester, NY: The Legacy Of Redlining In The City Of Frederick Douglass And Susan B. Anthony." *Empire Justice Center*, October 2020.

⁷ Young, Sandra. "Black Vaccine Hesitancy Rooted in Mistrust, Doubts" *Web MD*, February 2021.

⁸ McVean, Ada. "40 Years of Human Experimentation in America: The Tuskegee Study" *McGill University*, January 2019.

⁹ Bachynski, Kathleen. "American medicine was built on the backs of slaves. And it still affects how doctors treat patients today." *The Washington Post*, June 2018.

sources of comfort not abuse. Unfortunately, throughout history, this trust in medicine has been betrayed for many marginalized people.

There are three changes we can implement to correct the mistakes of the past. First, critically examining the history of racism in our healthcare and research structures is essential to eradicating health inequity. Healthcare workers need training on implicit bias to confront their subconscious and often automatic patterns of thinking, allowing us to eliminate discriminatory practices. Medical students should be taught the history of racism in medicine, so they are aware of it and can improve the quality of care for all patients.

Second, the relationship between medicine and marginalized communities must be mended by healthcare leaders and organizations that acknowledge this difficult past. This confidence can be rebuilt by increasing the numbers of doctors from these marginalized communities. This will increase accessibility, transparency, and trust between people and their doctors. Trust is built on one-on-one patient-doctor relationships. We should focus on creating more opportunities for people in under-served communities to become doctors.

Finally, we need more funding for inclusive and ethical research based on sound scientific principles. By giving more funding to doctors from under-served communities, this allows us to benefit from the insights of people whose voices are seldom heard. In addition, while there may be some biological differences among people, this cannot be rooted in prejudice, stereotypes, and racism. Rather, we need research that takes into account the diversity among people in an ethical manner. We also need to always prioritize the protection of the dignity and rights of research participants. Only after we have done all these things, will we be on the right path to a healthier Rochester.