



ABSTRACT

The historic disenfranchisement, exploitation, and traumatization of Black patients in the American healthcare system has caused psychological barriers to persist in not only the trust of Black patients toward physicians, but also in the preservation of healthcare disparities via implicit bias and stereotypes maintained by a predominantly White demographic in the physician workforce. These factors have contributed to many of the healthcare disparities that are still present today in many fields in medicine, to include mental health.

The objectives of our study were to assess whether U.S. medical students and resident physicians (collectively referred to as trainees) at Historically Black Colleges & Universities (HBCUs) – specifically, Howard University College of Medicine and Howard University Hospital – displayed any racial bias in the assessment of pain or treatment recommendations; if they held any false beliefs about biological differences between Black and White people; if any of their existing biases and/or beliefs were the same as those found in their counterparts at a predominantly white institution (PWI); and if they were equally, more, or less accurate in their treatment recommendations for pain in Black vs White patients as a result of their beliefs and/or biases.

When compared to the landmark 2016 University of Virginia study, which surveyed trainees at their institution, significantly less HBCU-affiliated and predominantly Black, Indigenous, and people of color (BIPOC) students and residents held any false beliefs about biological differences between Blacks and Whites; their false beliefs (if any) did not impact the treatment of the sample patients, and their assessment of pain was not impacted by the patient’s race.

METHODS

- Survey Type: Descriptive Cross-Sectional Study
- Distribution Medium: Digital / Online
- # of Respondents: 96
- Content:
 - Demographic Survey
 - 2 gender-matched mock medical cases
 - 15-question survey on biological differences

15-Question Survey about False Beliefs & Biological Differences between Blacks & Whites

1. On average, Blacks age more slowly than Whites.
2. Black people’s nerve-endings are less sensitive than White people’s nerve-endings.
3. Black people’s blood coagulates more quickly – because of that, Blacks have a lower rate of hemophilia than Whites.
4. Whites, on average, have larger brains than Blacks.
5. Whites are less susceptible to heart disease like hypertension than Blacks.
6. Blacks are less likely to contract spinal cord diseases like multiple sclerosis.
7. Whites have a better sense of hearing compared to Blacks.
8. Black people’s skin has more collagen (i.e., it’s thicker) than White people’s skin.
9. Blacks, on average, have denser, stronger bones than Whites.
10. Blacks have a more sensitive sense of smell than Whites; they can differentiate odors and detect faint smells better than Whites.
11. Whites have more efficient respiratory systems than Blacks
12. Black couples are significantly more fertile than White couples.
13. Whites are less likely to have a stroke than Blacks.
14. Blacks are better at detecting movement than Whites.
15. Blacks have stronger immune systems than Whites and are less likely to contract colds.

Of note, respondents were asked to answer using a Likert scale: definitely untrue, probably untrue, possibly untrue, possibly true, probably true, definitely untrue. False beliefs are listed as items 1, 2, 3, 4, 7, 8, 10, 11, 12, 14, and 15.

RESULTS

Less HBCU-affiliated trainees held any false beliefs about biological differences between Blacks and Whites; their false beliefs (if any) did not impact the treatment of the sample patients, and their assessment of pain was not impacted by the patient's race. Interestingly, the White respondents at Howard also did not exhibit any racial bias in pain assessment or treatment recommendations, indicating that perhaps active teaching and implicit bias training by HBCUs counteracts racial bias in these individuals.

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RACIAL BIAS IN THE TREATMENT OF PAIN

- The Role of Implicit Bias
 - Defined as the negative evaluation of an individual based on a person’s race, gender, sexual orientation, or religion
 - Most often is outside of conscious awareness.
 - Most biases are due to personal beliefs or societal norms.
- Long-standing mistrust in the medical system
 - Performance of painful procedures without anesthesia on enslaved Black women by J. Marion Sims in the 1840s
 - The Tuskegee study that intentionally withheld effective treatment from Black men with syphilis in the 1930s through the 1970s
 - Sterilization procedures performed without consent (“Mississippi appendectomy”) on Black men and women as recently as the 1970s.
- Overdue Medical Education Reformation
 - An economic extrapolation of the 13 historically Black medical schools that were closed after the 1910 Flexner report, based on data from the 5 medical schools that remained, indicated that if just 5 of these schools had remained open, they might have collectively provided training to an additional 35,315 graduates by 2019 and produced a 29% increase in the number of graduating African American physicians in 2019 alone.
 - Studies like the one at UVA expose a deep-rooted bias that even mainstream medical education has been unable to correct.
 - A top-down approach of refining who we recruit, retain, and how we train medical trainees is long overdue: this includes implicit bias training, medical history education, and community involvement.
- Holistic Medicine
 - A more comprehensive, primary care focused approach taken towards patient care involves the consideration of religious beliefs, race, ethnicity, culture, and disability in order to not only effectively treat and manage pain, but also to build better patient-physician trust.

DISCUSSION

These findings strongly support the need for pipeline programs to improve exposure, recruitment, and retention of Black students in medicine. They also support continued backing and promotion of HBCU medical schools. In addition, the psychology of cultural humility and implicit bias as they relate to the practice of medicine are significant factors that we can no longer afford to ignore, especially as we have continued to struggle to close the gap in health disparities between races in this country.