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EDITORIAL

# Chronic Noncancer Pain Management and Systemic Racism: Time to Move Toward Equal Care Standards

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## Introduction

Although it is widely recognized that the United States has a severe and broad systemic racism problem, recent events have dramatically elevated the issue. Widespread protests in the US and around the world have brought much-deserved attention to the plights of Blacks, Indigenous and People of Color (BIPOC) regarding injustices that they experience on a daily basis. For the sake not only of BIPOC, but communities and societies as a whole, racial injustice can no longer be ignored or minimalized.[1]

Racism in medicine dates to antiquity. Byrd and Clayton noted that the ancient Greeks viewed all slaves as inherently inferior and less intelligent, and that Aristotle displayed particular prejudice toward Black and Asian people.[2] This laid the foundation for White superiority and non-White inferiority espoused by Galen, the 2nd-century Roman physician.[3] Views of non-White individuals as "subhuman" persisted in Europe, and were brought to the Americas by Caucasian Western Europeans.[2] White superiority and racism were used as a justification for enslaving Africans and Indigenous peoples for the financial gain of White colonizers. Non-White inferiority served as the bedrock of slavery, an ideology that was necessarily maintained by the White elite to continue their exploitation of Black persons. Enslaved Africans were provided with medical care only when financially advantageous to their owners.[4] It was assumed by White American physicians that Black patients inherently experienced poor health, and this assumption persisted into at least the late 20th century, perpetuated in part by racial stereotypes, stigma and bias in medical school curricula.[2] Even after the Civil War, racism in medicine persisted, with the profession writing off Black individuals as a "syphilis-soaked" and unfit race.[5] Well into the 1900s, Black individuals were overutilized in medical demonstrations and risky experimentation,[6] with the Tuskegee experiments leaving 500 poverty-stricken Black men with untreated syphilis.[7] This long history of unequal treatment has rightfully led to a distrust of the medical community by Black patients.[8]

The 1965 Civil Rights Act and the creation of Medicare and Medicaid resulted in improved access to health care for Black patients, and limited efforts to improve access to medical education for underrepresented groups were made.[9] Regardless, systemic racism in American medicine has persisted, resulting in problems with

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access, inferior treatment and poorer outcomes for BIPOC patients in every area of health care.[10] Since arriving in the United States, Black individuals have had the worst health outcomes of any racial group—not in small part due to stigma, systematic oppression, and lack of access to care.[2]

Today, implicit bias continues to negatively influence multiple avenues of the care continuum including access and quality of care. Bias also affects patient and provider communication, treatment-related decisions and ultimately contributes to poorer health outcomes and health disparity.[11] In addition, studies show systemic racism, including discrimination, inflicts continued trauma, which increases hypervigilance and stress particularly in Black, Latinx, and Indigenous patients. Collectively these factors lead to a greater negative cumulative impact on both physical and mental health. Such impacts are manifest as changes in cardiovascular, metabolic, inflammatory, and psychological responses.[12,13]

In 2008, the American Medical Association (AMA) issued a formal apology for racism in medicine.[14] While this was a symbolic gesture, acknowledgement of wrongful past actions particularly toward Black individuals was a step in a positive direction toward building trust and improving health equity. In 2020, the AMA updated their AMA Manual of Style when classifying race and ethnicity in medical literature. This manual now recommends providing more information on race and ethnicity in research studies and calls for capitalizing Black and White race identifiers to align with the capitalization of other racial and ethnic categories. These changes signal an acknowledgment that race and ethnicity continue to play a role in disparities in medicine.[15]

## Racism in Pain Medicine: A Review of the Literature

As is the case in medicine, broadly, racial and ethnic disparities plague BIPOC patients suffering from pain. Disparities in pain assessment and treatment stem from both the personal nature of pain experiences and provider-related racial bias regarding pain in BIPOC patients, which can lead to undertreatment of pain.[16] Further, failure by clinicians to account for the significance of cultural context in patient behavior cues and pain coping skills hampers assessment and treatment decisions.[17] Much of the early research demonstrating these disparities pertained to their ability to predict oligoanalgesia in emergency medicine. For example, Todd and colleagues determined that Latinx patients with isolated long-bone fractures presenting to the Emergency Department (ED) were only half as likely as non-Latinx White patients to receive opioid analgesia.[18] This finding was particularly poignant given the results of a follow-up study published the following year from the same ED, which found no difference in physician ability to assess pain between Latinx and non-Latinx White patients.[19] Further, data indicate that Latinx and non-Latinx White patients have the same expectations for analgesia in EDs.[20] Another study determined that Black patients with long-bone fractures in the ED were significantly less likely to receive opioids than White patients, and significantly more likely to receive no analgesics whatsoever.[21] Perhaps even more distressing are results from a study demonstrating that Black patients were significantly more likely to be denied insurance authorization for ED visits than were White patients.[22] On a more general basis, myriad studies have demonstrated that BIPOC patients have historically been less likely to receive opioid analgesia than are White patients across ages and painful conditions.[23–33] Unfortunately, recent studies continue to demonstrate that BIPOC patients presenting with painful conditions continue to face disadvantages regarding assessment and treatment in EDs,[34–38] with patient perceptions of this disparity serving as a barrier to even seeking emergency care.[39] Similarly, a 2018 study of traumatically injured individuals requiring emergency medical services (EMS) transport to hospitals found that significantly fewer Black patients received opioids prehospital compared to other ethnic groups.[40] Similar findings were obtained from a more recent study.[34] Studies have found that implicit bias among providers affects their clinical judgement, decisions and behavior. Racial and ethnic stereotypes also influence assessments and treatment, especially with high pain intensity self-report among BIPOC patients.[41–43] Use of the Implicit Association Test (IAT) in health systems has indicated that implicit bias among clinicians leads to discrimination and unequal care.[44] Higher implicit bias among physicians is associated with specific behaviors such as failure to make eye contact with patients, using a condescending tone and pitch, discordant word choices, and more top-down directive communication with BIPOC patients. This negatively influences trust, causes anxiety, and leads to poorer outcomes.[45,46]

Although the literature on disparities that BIPOC patients with acute painful conditions face in EDs is discouraging, numerous studies support the presence of

disparate treatment in all areas of pain medicine, from assessment to treatment. Regarding diagnosis, for example, a VA study determined that Black patients in primary care were significantly less likely to be screened for pain than were White patients.[47,48] Further, several studies have indicated that BIPOC patients were less likely to receive advanced diagnostic imaging compared to White patients.[49–53] Given these findings, it is not surprising that BIPOC patients' pain is less likely than that of White patients to be treated through rehabilitative approaches such as physical therapy[54–59] or addressed surgically.[49,60–69]

Regarding racial and ethnic disparities in adult acute postoperative pain, McDonald found that White patients received higher dosages of opioids following appendectomies than did BIPOC patients.[70] Ng and colleagues found in two 1996 studies that Black and Latinx patients received significantly less opioid analgesia than White patients following open reduction and internal fixation of a limb fracture.[48,71] McNeill and colleagues determined that non-White hospital inpatients who had undergone surgeries were less satisfied with their analgesia than were White patients.[72] Jimenez and colleagues found that Latinx children undergoing tonsillectomy and adenoidectomy received 30% less opioids than did White children.[73] A more recent study of pediatric postoperative pain using case vignettes determined that as pediatricians' pro-White bias increased, they became less likely to express willingness to prescribe to Black patients with an unvarying willingness to prescribe to White patients.[74] Similarly, two studies determined that BIPOC women were less likely to receive opioid analgesics postpartum compared to White women.[75,76] Again, this is not surprising given the findings that White women were more like to receive neuraxial anesthetics for caesarian sections than were Black and Latinx women.[77,78]

BIPOC outpatients with chronic noncancer pain in a wide variety of settings have been found less likely to receive opioid analgesia than White patients, with these findings unfortunately having persisted for several decades to the present.[79–92] Yet, with so many investigations indicating the difficulty experienced by BIPOC patients regarding access to opioid analgesia, studies suggest that they are generally subjected to even more aggressive risk mitigation procedures by providers. For example, Black patients receiving opioid analgesia were found to be more likely to be subjected to urine drug testing and restricted early refills than White patients,[93] with similar findings obtained in a 2013 Veterans' Administration study.[94] Not surprisingly, Black chronic pain patients were determined to be more likely to have their long-term opioid therapy discontinued following the detection of illicit drug use than were White patients.[95] Additionally, in this day of involuntary opioid tapers among non-aberrant and stable chronic pain patients, multiple studies have demonstrated that Black patients are more likely to have their dosages reduced than are White patients.[96,97] These findings are particularly discouraging in light of recent data indicating that prescription pain medication misuse is less common among Black patients than in any other racial and ethnic group studied,[98,99] as well as those from a 2018 study that found that prescription opioid abuse was significantly lower among Black and Latinx patients admitted for opioid misuse treatment as compared to admitted White patients.[100] Further, recent data determined that deaths from prescription opioids are more common among White individuals misusing than BIPOC misusers.[101] Finally, a 2020 study determined that while BIPOC chronic pain patients were less likely than White patients to receive a prescription for opioids, they were more likely to receive a prescription for naloxone, signaling providers' heightened mistrust of BIPOC patients' personal medication management.[102] This is consistent with the "racialization" of legitimate opioid use vs prescription and illicit opioid misuse that has been described in the literature.[103,104] Collectively, these studies paint a clear picture of BIPOC patients being perceived as less "worthy" of opioid analgesia, at higher risk of aberrancy, and requiring more rigorous risk mitigation – irrespective of the data demonstrating that this represents an egregious false narrative.

Another empirically established cause of BIPOC patients receiving inadequate analgesia compared to White patients is a disparity in pharmacy access. Pharmacies in predominately underrepresented neighborhoods serving BIPOC patients were found in two early studies to be less likely to receive sufficient opioid analgesic supplies compared to those in predominately White neighborhoods.[105,106] Further disparity can be identified through a 2017 study determining that generally, areas with more BIPOC residents per capita had significantly fewer pharmacies,[107] thereby increasing the challenges that BIPOC patients endure in their efforts to obtain all prescribed medications – including those for pain. This is consistent with the results of earlier studies identifying access issues in heavily underrepresented neighborhoods,

which the authors identified as "pharmacy deserts" and "medication deserts".[108,109] Additionally, a 2014 study determined that race was a determinant of access to pharmacy services such as discount generic drug programs.[110] Thus, BIPOC patients are forced to deal not only with challenges relating to obtaining prescriptions for adequate analgesia but with difficulties in actually being able to fill prescriptions should they obtain them.

Access to pain care based on financial deprivation and/or insurance coverage is another disparity with which BIPOC patients are faced. This is not surprising given that racial/ethnically underrepresented patients have more limited access to health care due to their insurance coverage (or lack thereof), generally.[111–115] Studies have determined that BIPOC patients have less access to quality pain care than White patients due to their insurance or inability to afford copays and other out-of-pocket expenses, which tends to result in poorer outcomes.[116–121] In addition to economic barriers, literacy and language barriers also present challenges in accessing pain treatment for BIPOC individuals and can lead to miscommunication further eroding trust and influencing treatment decisions.[122,123]

Numerous studies have demonstrated a strong positive relationship between perceived racial and ethnic discrimination and pain intensity.[124–136] This is of particular importance, given the literature indicating that the experience of discrimination predicts inferior physical and mental health outcomes.[137–139] Not surprisingly, data also indicate a positive relationship between perceived injustice and pain severity as well as poorer pain outcomes among BIPOC compared to White patients.[140–144] Perceptions of racial injustice have been well established as undermining BIPOC patients' trust in the medical establishment in which they are treated,[145–149] with this lack of trust potentially compromising pain management efforts and their outcomes. Data suggest that due to perceptions of discrimination, many BIPOC individuals go so far as to delay, avoid seeking, or prematurely discontinue health care.[150–153] Again, BIPOC patients' access to adequate medical treatment becomes compromised, potentially resulting in increased morbidity and even mortality.

## Moving Toward Equal Care Standards

Society has identified myriad social injustices at the systemic level stemming from inherent bias, discrimination and long-held stereotypes that lead to unequal healthcare, yet the medical community and policymakers have failed to enact substantial measures to right past wrongs. While there are a multitude of discussions regarding unequal access and treatment of BIPOC patients in health research, within health systems and broadly in our communities, change has been slow and perfunctory. Up to this point, we have summarized myriad studies demonstrating the pervasiveness of racially motivated disparities in pain care in the US. However, simply raising awareness of implicit and explicit bias is insufficient; the time for definitive action toward substantial improvements in the racial determinants of pain care is now.

To deconstruct the current system and rebuild it, increasing trust and addressing gaps in access and treatment will require large-scale will and action. This can be done by taking steps to incorporate BIPOC voices in policy decisions, increasing the number of BIPOC professionals in leadership and health equity roles, and providing more opportunities for BIPOC individuals to enter health and medical professions, in particular Black, Indigenous and Latinx individuals focused on pain management practices. In parallel, utilizing an individualized approach to pain assessment and treatment will help clinicians recognize the significance of cultural context in pain coping, pain experiences, and how economic factors such as treatment affordability and access can drive treatment decisions for underrepresented groups.

Training issues are paramount, as effective cultural sensitivity training in the health sciences seems to be uncommon. Numerous calls have been made for the inclusion of anti-racism training within medical school curricula,[154–156] as teaching students about issues such as implicit bias, health disparities, and cultural competence has apparently been insufficient. Additionally, aggressive proactive measures should be taken to increase the number of BIPOC health care professionals engaged in pain management. Recent census data estimate that approximately 76% of Americans identify as "non-Hispanic White", with the remaining 24% identifying as BIPOC.[157] That roughly 56% of the US physician population identifies as White with the other 44% identifying as BIPOC appears at first glance to be encouraging.[158] However, closer scrutiny of these data indicates that only 5% identify as Black and 6% as Latinx, with the aforementioned census data indicating that Black individuals comprise 13.4% of the population and Latinx individuals comprising 18.5%.[157] Thus, in medicine broadly, the two most prevalent BIPOC groups are severely underrepresented, and patients within these

groups are less likely to have a racially concordant provider than are White patients, which has the potential to result in less favorable pain outcomes.[159] Data regarding the representation of Black and Latinx physicians in pain medicine are more elusive, but there is no evidence suggesting greater representation than in medicine, generally.

Given the data indicating that physician-patient race/ethnicity concordance increases patient trust and adherence,[160–166] a national effort to produce more BIPOC physicians in primary care and all specialties is essential as our nation's population continues to become more diverse. With concerns regarding adherence associated with opioid analgesics continuing to be prominent, such efforts become even more imperative in pain medicine. Accordingly, consideration should be given to incentivize both undergraduate medical students and residency/fellowship training programs to increase the ranks of BIPOC trainees. Such incentivization would not be without precedent. For example, a 2009 systematic review determined that incentivization programs have resulted in greater numbers of health care providers choosing to work in underserved areas.[167] Types of incentives include direct financial incentives, service-requiring scholarships, educational loans with service requirements, loan repayment programs, and service-option educational loans. Incentivizing physicians where to practice, however, has proven easier than incentivizing them regarding what to practice. With the passage of the Affordable Care Act (ACA), the shortage of primary care providers became an even more salient issue, and calls for similar direct and indirect incentivization were made.[168,169] Although Primary Care Residency Expansion (PCRE) grants from the Health Resources and Services Administration were temporarily available per the ACA, a 2015 study determined that these time-limited grants were unlikely to increase the flow of medical students into primary care residencies in a sustainable manner.[170] Congress has attempted to incentivize the expansion of primary care graduate medical education, yet the offered incentives have offered only minimally financial benefit to those choosing primary care – resulting in the perpetuation of the shortage.[171] Additionally, it is in hospitals' best financial interests to train subspecialists for whom their reimbursements will be higher as opposed to primary care residents.[172] Accordingly, recent calls for a more direct financial benefit are being made,[173] with Ahmed and Carmody recently opining that providing financial compensation or expanding loan forgiveness programs for physicians entering practice in the most needed specialties or areas would create a powerful incentive to encourage doctors to work in the areas of greatest societal need. (p. 5) [172] Given the relative shortage of BIPOC pain physicians, we posit that such direct financial incentivization for BIPOC physicians to enter pain medicine training programs will be imperative as a step toward reducing systemic racism in pain medicine and improving the care that BIPOC patients receive. Similarly, BIPOC nurses, physician assistants, physical therapists, all others who treat chronic pain, and students in these fields should also be directly incentivized to level the playing field. However, more needs to be done in terms of education, beginning in the earliest phases of health care education. Courses covering systemic racism and strategies for overcoming racial/ethnic bias should be provided to both undergraduate and graduate health care students. Although health care curricula deal with the strains of a growing amount of information that needs to be taught in a limited amount of classroom time, the importance of teaching students about the damage unnecessarily caused by systemic racism ought not be understated. Further, continuing education requirements for physicians and allied health providers should include mandatory training in racial/ethnic sensitivity issues. State boards of health care professions have the right to require their licensees to take coursework covering specific topics and do so regularly. For example, 20 state boards currently require a prescribed number of continuing medical education (CME) each renewal cycle on pain management, with many others having requirements for CME specifically on opioid prescribing.[174] Should there not also be a continuing education requirement for issues of racial/ethnic bias?

Another strategy for enhancing communication between providers and BIPOC patients is enhanced utilization of culturally competent interpreters when needed. Such practices have strong evidence-bases for improving pain outcomes. For example, a 2012 study of limited English proficiency (LEP) patients found that those provided with access to interpreters reported better quality pain treatment and appeared to result in patients' reports of better communication regarding pain with their providers.[175] Additionally, the importance of interpreters having a degree of medical competence as well as bilingual fluency if they are to be effective cannot be understated.[176] Even if an interpreter must be used, pain care providers can engage in thoughtful dialogue regarding race and culture with patients and how they play a role in pain management. Doing so can foster trust and engender collaborative treatment decisions, which has been found to be particularly challenging for White

providers treating BIPOC patients.[177,178] Physicians and other pain care professionals should also be aware of the availability of several useful tools that can aid organizations in bridging language and communication gaps. For example, the National Institute on Minority Health and Health Disparities (NIMHD) has developed a language access portal (LAP) which provides information in several languages specific to conditions identified with health disparities.[179] Other useful tools for improving cross-cultural communication with BIPOC patients include the Culturally and Linguistically Appropriate Services (CLAS) standards[180] and the National Institutes of Health's HealthReach program for health information in multiple languages.[181]

## Summary and Conclusions

Based on our review, it is clear that the history of systemic racism in pain medicine has been an ugly and unfortunate one, resulting in needless suffering by so many patients simply because of their race/ethnicity. The current Coronavirus pandemic – together with the ongoing protests regarding the need for social justice – has highlighted the persistent detrimental effects of systemic racism, including the impact of long-standing stress and trauma. Yet, we should not lose sight of these unfortunate times representing an opportunity to create sustained and meaningful change toward delivering equitable pain care. Implicit bias remains a contributor to healthcare disparities, broadly. Given that patients suffering from chronic pain are already stigmatized and marginalized, BIPOC chronic pain patients are particularly vulnerable. Provider self-awareness of bias, understanding the cultural context of pain, showing empathy, using a softer tone, listening, and allowing patients to voice their concerns are all important strategies to reduce stress and improve pain management outcomes. On a broader level, evening the playing field will also require the incorporation of BIPOC patients into policy decisions, increasing the availability of BIPOC pain care professionals in the American health care system, and a paradigmatic revision in the models under which pain care professionals are trained. Each of these transformations will be imperative if pain care is to ever adhere to the bioethical principle of justice. Our expectation is not that this analysis will result in an immediate and dramatic revision of the system in which BIPOC patients with pain are treated. However, we are hopeful that by bringing these issues to the attention of policymakers and pain care professionals, the unique plights of BIPOC patients with pain will begin to be more widely recognized and addressed.

## Disclosure

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