

# Intersection of Bias, Structural Racism, and Social Determinants With Health Care Inequities

Tiffani J. Johnson, MD, MSc

Race, and more specifically, racism, is recognized as an important social determinant of health (SDoH) and a key driver of health inequities.<sup>1-3</sup> The study “Race, Postoperative Complications, and Death in Apparently Healthy Children” in this issue of *Pediatrics* provides new evidence of race as a critical social determinant of surgical outcomes.<sup>4</sup> The investigators demonstrate that apparently healthy Black children had a higher risk of postoperative mortality, complications, and serious adverse events than their white counterparts. Identifying these disparities using the National Surgical Quality Improvement Program pediatric database highlights the importance of health care practices to more deliberately consider equity in their quality improvement portfolios. The analyses were done among children with American Society of Anesthesiologists physical status 1 (normal healthy patients) or 2 (patients with mild systemic disease, such as mild asthma). By excluding children with significant comorbidities, this study helps advance knowledge beyond most previous pediatric disparities research focused on identifying disparities by exploring potential root causes. The findings suggest that, although preoperative comorbidities have previously been proposed as a factor contributing to postoperative disparities, they do not explain the results in the current study.

Implicit racial bias has been proposed as another potential source of health

care disparities.<sup>5</sup> Implicit bias is pervasive in society, and research has demonstrated that health care providers have similar levels of implicit racial bias as the general population.<sup>6</sup> Research on the impact of provider bias on medical decision-making has been focused largely on adult patient populations and has revealed mixed results.<sup>6</sup> However, one study revealed that pediatric providers with greater implicit bias were more likely to prescribe narcotic medications for postsurgical pain for white children than Black children.<sup>7</sup> In adult patient populations, there is robust evidence that physicians with more implicit bias demonstrate higher verbal dominance in their communication styles and are rated lower in patient-centered care measures, including trust and interpersonal treatment (eg, showing care, concern, and respect).<sup>8-14</sup> Patients of providers with more implicit bias also report less satisfaction with care and less confidence in treatment recommendations.<sup>14</sup> Although more research is needed to understand the impact of bias on communication and medical decision-making in pediatric patients, there is sufficient evidence to suggest that eliminating health care disparities requires providers to identify and mitigate the effects of their own implicit bias on patients and families.

Others have suggested that the association of patient-level sociodemographics with postoperative mortality is related to system-level

*Department of Emergency Medicine, University of California, Davis, Sacramento, California*

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

**DOI:** <https://doi.org/10.1542/peds.2020-003657>

Accepted for publication May 22, 2020

Address correspondence to Tiffani J. Johnson, MD, MSc, Department of Emergency Medicine, University of California, Davis, 4150 V St, Suite 2100, Sacramento, CA 95817. E-mail: [tjo@ucdavis.edu](mailto:tjo@ucdavis.edu)

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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**FINANCIAL DISCLOSURE:** The author has indicated she has no financial relationships relevant to this article to disclose.

**FUNDING:** No external funding.

**POTENTIAL CONFLICT OF INTEREST:** The author has indicated she has no potential conflicts of interest to disclose.

**COMPANION PAPER:** A companion to this article can be found online at [www.pediatrics.org/cgi/doi/10.1542/peds.2019-4113](http://www.pediatrics.org/cgi/doi/10.1542/peds.2019-4113).

**To cite:** Johnson TJ. Intersection of Bias, Structural Racism, and Social Determinants With Health Care Inequities. *Pediatrics*. 2020;146(2):e2020003657

factors, including access to care, location of care, and institution type.<sup>15</sup> This highlights the important intersection of structural racism and SDOHs with health care inequities. Structural racism refers to policies, laws, and regulations that systematically result in differential access to services and opportunities in society based on race.<sup>16</sup> One example of structural racism is redlining, which refers to a practice by the federal Home Owners' Loan Corporation in which neighborhoods were marked as hazardous with red ink on maps largely on the basis of racial demographics.<sup>17</sup> This resulted in not only systematic denial of mortgage lending but also denial of other capital investments and services, such as public transportation, supermarkets, and health care facilities in communities of color. Historic injustices, such as redlining, orchestrated the current residential segregation that we see in society, which fuels health care disparities by systematically influencing health care access, use, and quality.<sup>18–20</sup> More recently, gentrification in cities across the country is leading to marginalized populations being priced out of neighborhoods and displaced into the peripheries of society with inadequate transit systems. This results in decreased access to supermarkets, employment opportunities, and high-quality health care.<sup>21</sup> Addressing pediatric health care disparities, therefore, requires dismantling policies that drive SDOHs disproportionately experienced by communities of color. Health care systems can address SDOHs by serving as anchor institutions and supporting economic growth in communities that have historically experienced systematic denial of capital investments from policies like redlining.<sup>22</sup> Pediatric medical and surgical providers can address SDOH by advocating for policies that have a positive impact on where children live (eg, fair housing, healthy food

markets), learn (eg, equitable education system), and play (eg, safe playgrounds).

Eliminating disparities also requires addressing systems in place in clinics and hospitals that perpetuate inequities. For example, health care systems should consider which health insurance plans they accept and how this may disproportionately deny access to care for children of color.<sup>23</sup> Health care leaders should also be mindful of strategies to improve their payer mix, which has been described as coded language for restricting or denying care to publicly insured patients.<sup>23</sup> Instead, efforts should be made to bring high-quality health care to underserved communities as a strategy to reduce pediatric health care inequities. Providers should also consider the American Academy of Pediatrics' recently published policy statement, "The Impact of Racism on Child and Adolescent Health,"<sup>24</sup> which provides several strategies on how to optimize clinical practice to ameliorate the effects of racism on child health and health care. Policies and programs that support racial diversity in the medical workforce are also needed as a strategy to reduce disparities.<sup>25</sup>

Although this research sheds light on concerning pediatric disparities and examines potential root causes, there remains a critical need to develop and rigorously evaluate effective interventions to reduce avoidable and unjust inequities in pediatric health care. In addition to traditional quality improvement and research approaches to address disparities, achieving child health equity necessitates dismantling the policies and structures that perpetuate inequities. Pediatric providers and organizations can begin by identifying and confronting our own biases and serving as antiracism advocates within our institutions as well as in our communities.

## ABBREVIATION

SDoH: social determinant of health

## REFERENCES

1. Paradies Y, Ben J, Denson N, et al. Racism as a determinant of health: a systematic review and meta-analysis. *PLoS One*. 2015;10(9):e0138511
2. Gee GC. Leveraging the social determinants to build a culture of health: racism as a social determinant of health inequities. 2016. Available at: [https://healthequity.globalpolicysolutions.org/wp-content/uploads/2016/12/RWJF\\_SDOH\\_Final\\_Report-002.pdf](https://healthequity.globalpolicysolutions.org/wp-content/uploads/2016/12/RWJF_SDOH_Final_Report-002.pdf). Accessed May 1, 2020
3. Gee GC, Ford CL. Structural racism and health inequities: old issues, new directions. *Du Bois Rev*. 2011;8(1): 115–132
4. Nafiu OO, Mpody C, Kim SS, Uffman JC, Tobias JD. Race, postoperative complications, and death in apparently healthy children. *Pediatrics*. 2020; 146(2):e20194113
5. van Ryn M. Research on the provider contribution to race/ethnicity disparities in medical care. *Med Care*. 2002;40(suppl 1):1140–1151
6. Maina IW, Belton TD, Ginzberg S, Singh A, Johnson TJ. A decade of studying implicit racial/ethnic bias in healthcare providers using the implicit association test. *Soc Sci Med*. 2018;199:219–229
7. Sabin JA, Greenwald AG. The influence of implicit bias on treatment recommendations for 4 common pediatric conditions: pain, urinary tract infection, attention deficit hyperactivity disorder, and asthma. *Am J Public Health*. 2012;102(5):988–995
8. Cooper LA, Roter DL, Carson KA, et al. The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care. *Am J Public Health*. 2012;102(5):979–987
9. Blair IV, Steiner JF, Fairclough DL, et al. Clinicians' implicit ethnic/racial bias and perceptions of care among black and Latino patients. *Ann Fam Med*. 2013; 11(1):43–52

10. Hagiwara N, Penner LA, Gonzalez R, et al. Racial attitudes, physician-patient talk time ratio, and adherence in racially discordant medical interactions. *Soc Sci Med*. 2013;87: 123–131
11. Hagiwara N, Slatcher RB, Eggly S, Penner LA. Physician racial bias and word use during racially discordant medical interactions. *Health Commun*. 2017;32(4):401–408
12. Hagiwara N, Dovidio JF, Eggly S, Penner LA. The effects of racial attitudes on affect and engagement in racially discordant medical interactions between non-black physicians and black patients. *Group Process Intergroup Relat*. 2016;19(4):509–527
13. Penner LA, Dovidio JF, West TV, et al. Aversive racism and medical interactions with black patients: a field study. *J Exp Soc Psychol*. 2010;46(2): 436–440
14. Penner LA, Dovidio JF, Gonzalez R, et al. The effects of oncologist implicit racial bias in racially discordant oncology interactions. *J Clin Oncol*. 2016;34(24): 2874–2880
15. Sistino JJ, Ellis C Jr. Effects of health disparities on survival after neonatal heart surgery: why should racial, ethnic, gender, and socioeconomic status be included in the risk analysis? *J Extra Corpor Technol*. 2011;43(4): 232–235
16. Jones CP. Confronting institutionalized racism. *Phylon*. 2002;50(1–2):7–22
17. Hiller AE. Redlining and the home owners' loan corporation. *J Urban Hist*. 2003;29(4):394–420
18. Yearby R. Racial disparities in health status and access to healthcare: the continuation of inequality in the United States due to structural racism. *Am J Econ Sociol*. 2018;77(3–4):1113–1152
19. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. *Public Health Rep*. 2001;116(5):404–416
20. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. *Lancet*. 2017;389(10077):1453–1463
21. Diaz R, Behr J, Ng MW, Jeng A, Giles B. The effects of transit corridor developments on the healthcare access of medically fragile vulnerable populations. *Int J Priv Health Inf Manag*. 2013;1(2):57–75
22. Harkavy I. Engaging urban universities as anchor institutions for health equity. *Am J Public Health*. 2016;106(12): 2155–2157
23. Wyatt R, Laderman M, Botwinick L, Mate K, Whittington J. *Achieving Health Equity: A Guide for Health Care Organizations*. Cambridge, MA: Institute for Healthcare Improvement; 2016
24. Trent M, Dooley DG, Dougé J; Section on Adolescent Health; Council on Community Pediatrics; Committee on Adolescence. The impact of racism on child and adolescent health. *Pediatrics*. 2019;144(2):e20191765
25. Butler PD, Longaker MT, Britt LD. Major deficit in the number of underrepresented minority academic surgeons persists. *Ann Surg*. 2008; 248(5):704–711

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*Pediatrics* 2020;146;

DOI: 10.1542/peds.2020-003657 originally published online July 20, 2020;

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DOI: 10.1542/peds.2020-003657 originally published online July 20, 2020;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/146/2/e2020003657>

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