Implicit Bias in Pediatrics: An Emerging Focus in Health Equity Research

Jean L. Raphael, MD, MPH,[a,b] Suzette O. Oyeku, MD, MPH[c]

Despite large-scale investments in research, health policy, care delivery models, and medical school curricula, inequities along the continuum of child health care and health persist.[1,2] The study "Racial and Ethnic Differences in Emergency Department Pain Management of Children with Fractures"[3] in this issue of *Pediatrics* contributes new insights into the field of pediatric health equity research with a focus on pain in the emergency department (ED) setting. Goyal et al[3] find that although racial and/or ethnic minority children were more likely to receive analgesics and achieve a ≥2-point reduction in pain, they were less likely to receive opioids and experience optimal pain reduction. This work builds on a well-established body of literature in adult care and an emerging evidence base in pediatrics demonstrating inequities in analgesic administration.[4] Studies in pediatric EDs have demonstrated racial and/or ethnic disparities in analgesic management for children presenting with acute abdominal pain and appendicitis.[5,6] The current study adds to the field by combining process and outcome measures in assessing analgesic management.

As the authors and other researchers in the field have highlighted, there are several contributing factors to disparities observed in analgesic administration.[4] At the patient level, a number of studies demonstrate that racial and/or ethnic minorities tend to underreport pain levels secondary to feelings of intimidation in the health care setting or culturally motivated pressures to appear stoic.[7–9] This may be especially concerning in pediatric sickle cell disease, a condition that is characterized by pain and is most predominant in racial and/or ethnic minorities.[10] There is also spectrum bias because racial and/or ethnic minorities are more likely to use the ED as their usual source of health care or for nonurgent care.[11,12] Therefore, observed differences may reflect differential use rather than ED management.

Recent reports highlight how implicit and explicit bias contribute to the experience of racism and discrimination in child and adolescent health.[13] Increasingly, researchers are exploring the role of implicit bias as a provider-driven contributor to inequities in the ED setting.[14] Implicit bias is defined as attitudes or stereotypes that impact understanding, actions, and decisions in an unconscious manner.[15] They represent a normal component of social cognitive processing. Implicit biases are activated involuntarily without an individual's intentional control. They develop early in life from repeated exposure to and reinforcement of social stereotypes. In health care, implicit biases function to the disadvantage of vulnerable populations, including racial and/or ethnic minorities, immigrants, sexual minorities, and those with disabilities. Multiple studies demonstrate that implicit biases may be especially exacerbated in ED settings given time-stressed environments, competing

[a]*Center for Child Health Policy and Advocacy and* [b]*Section of Academic General Pediatrics, Baylor College of Medicine, Houston, Texas; and* [c]*Division of Academic General Pediatrics, Department of Pediatrics, The Children's Hospital at Montefiore and Albert Einstein College of Medicine, Bronx, New York*

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Address correspondence to Jean L. Raphael, MD, MPH, Texas Children's Hospital, 6701 Fannin St, Suite D.1540.00, Houston, TX 77030. E-mail: raphael@bcm.edu

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demands, overcrowding, fatigue, and patient use for nonurgent reasons.[16,17] Stressors may lead providers to rely on cognitive shortcuts and consequently greater use of stereotypes. Additionally, perceptions of families using the ED for nonurgent encounters may cause providers to feel less empathy toward vulnerable populations.

The research literature on implicit bias has greatly advanced because of use of the Implicit Association Test, an established measure of implicit bias with good internal consistency and test-retest reliability that bypasses conscious processing.[15] The Implicit Association Test quantifies implicit bias through response time in categorizing pictures of various racial groups, gender identity, sexual orientation, and physical appearance with value concepts (eg, good or bad). A recent systematic review found that health professionals exhibit the same levels of implicit bias as the general population and that significant inverse relationships exist between level of implicit bias and quality of care.[14] Until recently, the research on implicit bias among health professionals has focused on bias toward adults. However, recent studies have documented implicit bias toward children. One study demonstrated that a majority of ED care providers in 5 EDs (84%) had implicit preference for non-Hispanic white children or adults compared with those who were American Indian.[18] Another recent study found that resident physicians had implicit racial bias against African American children that was similar to levels of bias against African American adults.[19] This emerging body of work indicates that being a child does not protect against the experience of implicit bias.

To achieve health equity for vulnerable children, pediatricians must confront implicit bias, recognizing that it is a normal yet malleable part of human cognition. More pediatric studies are warranted to determine if these biases impact outcomes, particularly in high-acuity and time-stressed clinical settings. Furthermore, promising strategies that focus on cognitive solutions must be rigorously tested. These interventions include stereotype replacement, counterstereotype imaging, individuation, perspective taking, and partnership building between patients and providers.[20,21] Quality-improvement methodologies (eg, clinical audits, process mapping, communication tools, and decision trees) must be leveraged to continuously target clinical decision points that are particularly vulnerable to implicit bias. Health care institutions, medical schools, and accrediting organizations must more strongly incorporate implicit-bias training into education and certification and implement policies that diversify the pediatric workforce.[22] To truly address implicit bias in pediatrics, we must approach solutions with an understanding that it is not about how individuals feel but how they process information, which can impact clinical decision-making and consequently health outcomes.[23]

ABBREVIATION

ED: emergency department

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