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# Structuring Research to Address Discrimination as a Factor in Child and Adolescent Health

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**Racial tensions and conversations** about racial discrimination are squarely in the current collective consciousness of the United States. Recurring police-involved shootings of people of color, racially derogatory social media messages, and racially charged public protests are accompanied by the increasingly inflammatory (rather than constructive) language of public figures and elected officials. In this context, identifying and understanding how discrimination affects the health of individuals from minority backgrounds (eg, race/ethnicity, sexual orientation, gender identity, and religion) are particularly high priorities for research and intervention. If we are to address major disparities in health that fall along the fault lines of majority and minority communities, research must openly acknowledge and authentically address discrimination, its causes, and its consequences.

Discrimination, particularly racial discrimination, is known to be associated with negative health outcomes.<sup>1</sup> In a meta-analysis by Paradies et al,<sup>2</sup> racism was associated with poorer general physical and mental health (ie, depression, anxiety, and psychological distress) in adults.<sup>3</sup> Similar findings were reported in 2 systematic reviews by Priest et al<sup>4</sup> and Sanders-Phillips et al<sup>5</sup> focusing on children in which racial discrimination was most commonly associated with depression and anxiety in childhood and adolescence.

Discrimination is thought to play a critical role in health disparities, especially for racial/ethnic minorities.<sup>6</sup> However, the underlying mechanisms that explain these pathways are

still being elucidated. One such mechanism is the influence of discrimination on individual health behaviors. For example, one study<sup>7</sup> found that individuals exposed to frequent discrimination were more likely to exercise vigorously but also to demonstrate risky health behaviors, such as cigarette smoking. The extant literature has largely focused on adults, and much less is known about the role of discrimination on health in childhood and adolescence.

In this issue of *JAMA Pediatrics*, Leventhal et al<sup>8</sup> add to the literature by examining the influence of discrimination on adolescent health. The authors enrolled a diverse, prospective, longitudinal cohort of high school students in an urban center whose voices are typically not well-represented within research. Their conceptualization of societal, rather than individual, discrimination was insightful, because individuals tend to underreport individual discrimination and may more comfortably report discrimination experiences of others.<sup>9</sup> Emerging research also suggests that individuals experience discrimination vicariously through the experiences of others, despite not being the initial target. These vicarious experiences of discrimination may also influence health, and for children and adolescents, this may be particularly salient.<sup>10</sup> By focusing on societal discrimination, Leventhal et al<sup>8</sup> may have indirectly captured individual and vicarious experiences of discrimination.

Importantly, Leventhal et al<sup>8</sup> did not limit the scope of discrimination to race/ethnicity only, but also included considerations of immigrant status, sexual orientation, religion, and disability status. With this broad conceptualization, Leven-



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**Box. Addressing Discrimination as a Factor in Child and Adolescent Health****Conceptualization and Study Design**

- Include a comprehensive conceptualization of discrimination, including historical, direct, vicarious, group, societal, and structural discrimination (as measured by psychometrically validated tools<sup>6,10</sup>, when possible) in pediatric mental and physical health-associated research studies.
- Examine the role of intersectionality (defined as the intersection of an individual's many identities and/or dimensions<sup>12</sup>) on perceptions of discrimination and subsequent health outcomes<sup>13</sup> (eg, examining the discrimination experiences of someone who is Native American, transgender male who has a disability).
- Design longitudinal studies that examine the range of mechanisms (individual and structural) that adversely affect health and contribute to disparities for marginalized children and adolescents, and track these outcomes into adulthood.
- Use multigenerational models, in which discrimination in 1 generation of adults influences subsequent generation(s) of children.<sup>10,14</sup>

**Sampling and Data Collection**

- Sample racial/ethnic minorities across varying socioeconomic strata, so that outcomes associated with minority status vs economic status can be distinguished.

- Assess the ethnic variation within minority populations (eg, comparing Mexican Americans with Cuban Americans and Dominican Americans) and recent immigrants as compared with long-time US residents (eg, comparing black Caribbean immigrants with nonimmigrant black Americans).<sup>15</sup>
- Routinely collect data on race and ethnicity, sexual orientation, nativity, ability status, religion, and immigration status (if proper protections are able to be ensured and maintained in collection and storage of such data).

**Interpretation and Outcomes**

- Examine outcomes of distinct domains of discrimination (policies [eg, federal, state, and local], systems [eg, schools, health care, and justice], and media [eg, traditional media and social media]) to inform population-level efforts to address health disparities.
- Partner with organizations that are prepared to translate findings into practice to disrupt discrimination-health pathways.

thal et al<sup>8</sup> found that reported concern, worry, or stress about increasing societal discrimination was associated with poor self-reported mental and behavioral health outcomes in adolescence. Respondents' perception of increasing societal discrimination was associated with higher frequency of substance use, including cigarettes and alcohol, as well as higher odds of attention-deficit/hyperactivity disorder symptoms.

We believe that the study could have been improved with a more neutral question about trends in societal discrimination (ie, not to presume that trends were increasing). This study only established associations between variables, not the direction of causality. It is therefore impossible to establish if individuals' mental health and health behaviors are shaping their perceptions of societal discrimination or if causality flows in the other direction. However, studies of discrimination and mental health have found that changes in discrimination are associated with changes in mental health, and baseline mental health status is not associated with subsequent reports of discrimination.<sup>1</sup>

Nonetheless, this study illuminates adolescents' concerns during a tumultuous political and social time in which individuals are experiencing discrimination directly through derogatory and inflammatory language and actions; vicariously through traditional and social media outlets; and structurally through practices and policies with disparate effects on individuals and communities. As the US population becomes a majority-minority population with respect to race/ethnicity, tensions and conver-

sations are expected to continue and likely intensify. Youth are the vanguard of diversity in the United States. Since 2013, most infants born in the US have been nonwhite, and it is estimated that by 2020 white youth younger than 18 years will become the minority.<sup>11</sup> Consequently, pediatric clinicians may increasingly be faced with the adverse effects of exposure to discrimination in the future, and they will need to be prepared to address the health outcomes of discrimination effectively. To inform clinical practice, research must critically and consistently examine the role of discrimination in child and adolescent health. We propose a research framework to meet this goal (Box).

Adolescents are keen observers of the world around them—just as the children they recently were, but with an even greater attention to identity and self. Societal discrimination is a potent signal of self and other, in and out, accepted and outcast. Societal discrimination holds a mirror up to society's perceptions of so-called others and models acceptable treatment of those that are othered. In the current climates of media, politics, and social movements, adolescents may receive and perceive messages that reinforce and perpetuate the falsehood of hierarchy in the value of human lives. To truly take care of the health of the whole person, researchers must engage in scholarship focused on the deleterious effects of discrimination and thus inform clinical care and community outreach that can favorably affect the future health of the population through its youth.

**ARTICLE INFORMATION**

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**Published Online:** August 20, 2018.  
doi:10.1001/jamapediatrics.2018.2335

**Correction:** This article was corrected on October 1,

2018, to edit the association of the article by Sanders-Phillips et al with citation number 4 and

the article by Priest et al with citation number 5. These have been corrected to citations 5 and 4, respectively.

**Conflict of Interest Disclosures:** None reported.

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