American Psychological Association
Society for the Psychological Study of Culture, Ethnicity, and Race
Cultural Diversity and Ethnic Minority Psychology

1099-9809/19/$12.00
2019, Vol. 25, No. 1, 12–20
http://dx.doi.org/10.1037/cdp0000253

Racism and Health: Challenges and Future Directions in Behavioral and Psychological Research

Enrique W. Neblett Jr.
University of North Carolina at Chapel Hill

Objectives: Racism is a critical determinant of racial inequalities in health. This article discusses three pressing challenges in the study of racism as a social determinant of health and identifies ideas to guide future psychological and behavioral research. ***Method:*** The first challenge is moving beyond a near-exclusive focus on individual racism. The second challenge is measuring racism, and the third challenge is elucidating the developmental pathways linking racism to health outcomes. ***Results:*** I recommend the consideration of institutional, cultural, and structural racism, the incorporation of developmental health and resilience perspectives, the use of diverse methods and transdisciplinary approaches, and improved education and training. ***Conclusions:*** Eliminating racism and racial health disparities will require: 1) a bold, comprehensive, and sustained agenda that addresses structural forms of racism and unpacks developmental mechanisms underlying racism and poor health; 2) improved measurement, diverse methods, and new analysis; and 3) coalition building across disciplines and with community partners, organizers, and activists.

Keywords: racism, discrimination, health, disparities

Fifty years after the ratification of the International Convention on the Elimination of All Forms of Racial Discrimination (U. N. General Assembly, 1965), racism remains a critical determinant of racial inequality in health (Braveman, Egerter, & Williams, 2011; Hicken, Kravitz-Wirtz, Durkee, & Jackson, 2018; Williams & Mohammed, 2013a). Racial differences in health status persist even after adjustment for socioeconomic status (SES), and research in the United States and abroad reveals that discrimination makes an incremental contribution over SES in accounting for racial disparities in health (Colen, Ramey, Cooksey, & Williams, 2018; Williams & Mohammed, 2009). In this article, I provide a brief review of racism definitions and conceptual models and briefly discuss three pressing challenges in the study of racism as a social determinant of health. Rather than repeating several excellent reviews that summarize research in this area (Benner et al., 2018; Lewis, Cogburn, & Williams, 2015; Pascoe & Smart Richman, 2009; Pieterse, Todd, Neville, & Carter, 2012; Priest et al., 2013; Williams & Mohammed, 2009), I offer ideas to guide future research, build a cadre of well-informed scholars and advocates, and develop programs and policies to effectively combat racism and eliminate racial health disparities.

I thank David R. Williams, the article reviewers, and Special Section Editors for important insights and comments on earlier versions of this article.

Correspondence concerning this article should be addressed to Enrique W. Neblett Jr., Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill, 250 Davie Hall, Campus Box 3270, Chapel Hill, NC 27599. E-mail: eneblett@unc.edu

What Is Racism?

James Jones (1972) defined *racism* as "the exercise of power against a racial group defined as inferior by individuals and institutions with the intentional or unintentional support of the entire culture" (p. 117). According to Jones, racism manifests itself in three forms: individual, institutional, and cultural. *Individual racism*—which has commonly been called racial discrimination or interpersonal racism—refers to beliefs in the superiority of one's race and is characterized by "behavioral enactments" between individuals that maintain a power differential between racial groups. *Institutional racism* refers to laws, customs, and practices that restrict or deny access to the same rights and opportunities promised to all citizens (e.g., segregation, incarceration). *Cultural racism* reflects an intergenerational world view characterized by beliefs in the superiority of one group over another that is ingrained in "institutions, ideological beliefs, and everyday actions of people in the culture" (e.g., omission of contributions of people of color in educational materials, negative stereotypic representation of people of color in media).

Since Jones' conceptualization of racism, definitions of racism have proliferated. In 1996, sociologist Eduardo Bonilla-Silva (1997) challenged the field to reinterpret racism as an organized system in which public policies, institutional practices, cultural representations and others' norms work together to reinforce and perpetuate racial group inequity (structural or systemic racism). And in 2000, Camara Jones, called attention to internalized racism (Lipsky, 1977)—a form of racism characterized by acceptance of negative messages about one's abilities and intrinsic worth, as an important form of racism to consider in understanding race-associated differences in health. Racism scholars have examined *aversive/implicit/contemporary racism* (Gaertner & Dovidio, 1986)—a more indirect and subtle form of racism characterized by

avoidance of particular racial/ethnic groups, symbolic/modern racism (Sears & Henry, 2003)—expression or endorsement of false beliefs and negative stereotypes about Blacks, *everyday racism* (Essed, 1991), *vicarious racism* (Harrell, 2000; Heard-Garris, Cale, Camaj, Hamati, & Dominguez, 2018)—indirect, secondhand, experiences of racism through observation and report, subtle racism or microaggressions (Sue et al., 2007)—behavioral or environmental "indignities" that communicate hostility, derogation and negativity toward people of color, and most recently cyber racism (or digital/online racism; Jakubowicz et al., 2017). These different types of racism reflect a multilevel (i.e., individual, cultural, structural) construct that has evolved, alongside societal and technological changes and advances, over the last 50 years.

Conceptual Models

Two of the most commonly cited frameworks of racism in the behavioral and psychological research literature include Clark and colleagues' (1999) biopsychosocial model of racism and S. Harrell's (2000) *Multidimensional Conceptualization of Racism-Related Stress*. Drawing on Lazarus and Folkman's stress and coping framework, both models characterize racism as a stressor. According to Clark et al., perceptions of racist stimuli lead to psychological (e.g., anger, fear) and physiological (e.g., immune, neuroendocrine, and cardiovascular) stress responses that are shaped by constitutional (e.g., skin tone), sociodemographic (e.g., SES, gender), and psychological/behavioral factors (e.g., self-esteem, neuroticism), as well as adaptive and maladaptive and general and racism-specific coping responses over time, to influence health.

Building upon Jones' tripartite model, Harrell (2000) suggested that individual, institutional, and cultural racism occur across four contexts: interpersonal, collective (i.e., affecting the status of large groups as in disparities in achievement and unemployment rates), cultural-symbolic (representations of racism in art, entertainment, and science), and sociopolitical (referring to political debate and public discussions about race and institutional policies and practices). In addition to many of the specific moderating and mediating variables named by Clark et al. (1999), Harrell proposed that the relation between racism-related stress and well-being is shaped by cultural processes such as familial and socialization influences, interactions with other generic (e.g., life events and daily hassles) and status-related stressors (e.g., sexism heterosexism, religious discrimination, disability discrimination, ageism, classism), and sociocultural variables (e.g., worldview, spirituality, racial/ethnic identity, acculturation). Together, these models acknowledge that the link between racism and health/well-being is multifaceted with multiple, intersecting, multilevel (i.e., individual and systemic) mediating and moderating influences that occur within larger social, historical, and cultural contexts to influence health over time. These models provided an important foundation for current empirical investigations of racism and health and, not surprisingly, resemble several recent conceptual models of racism and health in the public health literature (e.g., Krieger, 2012; Williams & Mohammed, 2009, 2013a).

Challenges and Errors

Despite well-conceptualized models of racism and health/well-being within and beyond the behavioral/psychological literature, racism scholars have documented numerous challenges that plague the study of racism as a determinant of racial inequality in health across disciplines (e.g., Lewis et al., 2015; Williams & Mohammed, 2013a). In my view, the three most pressing challenges are (a) moving beyond a near-exclusive focus on individual racism; (b) measuring racism; and (c) elucidating the developmental pathways linking racism to health outcomes.

Moving Beyond Individual Racism

One of the most glaring conceptual and methodological limitations found in studies investigating health disparities in behavioral and psychological research is the narrow focus on individual, personally mediated, and interpersonal racism. Although racism scholars in psychology have long discussed the importance of attention to macrosystemic levels of analysis (Bryant-Davis & Ocampo, 2005; S. Harrell, 2000), I believe J. Harrell (1999) got it right when he admonished that interpersonal discrimination, although not totally unimportant, represents only a "small corner of the total picture" and should never command our full attention. Along similar lines, C. Jones (2000) noted that racial discrimination "is what most people think of when they hear the word racism" but argued that "institutionalized racism is the most fundamental of the 3 levels and must be addressed *for important change to occur*" (p. 1214, italics added for emphasis). In more recent conceptual work, Williams and Mohammed (2013a) and also Hicken et al. (2018) emphasize institutional and cultural racism as fundamental determinants of health, adding that these forms of racism lead to instances of interpersonal racism. Despite J. Harrell's admonition, J. Jones' observations, and Williams and Mohammed's conceptual framework, most studies examining racism in the psychological literature focus on racial discrimination.

If racial discrimination is not totally unimportant, why is the near-exclusive focus on individual racism problematic? First, because racism is an organized system and structure that operates at levels that extend beyond interpersonal instances of discrimination, a predominant focus on interpersonal racism to the exclusion of other important forms of racism limits our ability to understand the full extent to which racism influences health. How can we understand the psychological and behavioral impacts of segregation, incarceration, and anti-immigrant policies such as family separation—all prominent forms of institutional racism—if studies fail to examine these fundamental manifestations of racism? As for cultural racism, what are the psychological and behavioral impacts of media exposure as reflected by negative TV portrayals of Black characters, symbols of racism such as confederate flags and statues, the dehumanization of the bodies of people of color in instances of police brutality (Coates, 2014; Williams & Mohammed, 2013a), and innuendoes regarding specific immigrant groups? Failure to examine racism in its entirety can lead to: research that only considers individual racism as consequential for health; mis-specified analytic models (Hicken et al., 2018); incomplete interpretations of the net effect of racism on health; and misguided interventions and policy that fail to dismantle systemic racism and mitigate its most harmful effects. Even worse, a narrow focus on overt, individual racism may decrease the sense of urgency with which action against covert and/or institutionalized racism is taken up (Bryant-Davis & Ocampo, 2005).

Measuring Racism in Behavioral and Psychological Research

A second challenge is measurement and instrumentation (Lewis et al., 2015). First, measures of racism (and analyses of racism and health outcomes) are subject to problems common to all self-report measures (e.g., recall biases, common method variance). Participants may not accurately remember instances of racism from the past month or during the past year, and apparent correlations between self-report measures of racism and indices of health may be a function of ratings emanating from a common source. Second, paper-and-pencil measures may be limited in their ability to capture the dynamic, nuanced, multidimensional, and continually evolving nature of racism. This problem is especially salient in the context of more subtle, contemporary forms of racism that may be less amenable to assessment through traditional survey methods (Chae et al., 2015). Also, how can racism instruments (which most commonly assess the frequency of interpersonal events) capture a construct that, by definition, is interactional? In light of the suggestion that racism is now more subtle and nuanced, how might an interpersonal racism scale focused on observed behaviors capture subtleties of racism such as those reflected by nonverbal cues? Furthermore, how can existing measures of racism developed prior to recent advances in technology accurately reflect racism occurring in new contexts such as online chat rooms and other digital spaces (e.g., cyber racism; Back, 2002; Tynes, Umaña-Taylor, Rose, Lin, & Anderson, 2012; Umaña-Taylor, Tynes, Toomey, Williams, & Mitchell, 2015)?

In light of my prior discussion of limited studies extending beyond individual racism, the absence of validated measures of institutional, cultural, and structural/systemic racism presents a challenge in psychological research. Williams and Mohammed (2013a) observed that "although institutional racism is arguably the most important mechanism by which racism adversely affects health," it is difficult to capture in traditional research approaches. Thus, the full impact of fundamental basic determinants of health, again as they relate to psychological processes, is relatively unknown. The Index of Race-Related Stress (IRRS; Utsey & Ponterotto, 1996) is one of few known survey measures to extend beyond individual racism (e.g., institutional, cultural and collective racism); however, IRRS responses reflect individual perceptions and may fall short in capturing aspects of racism not perceived by the respondent. Theory (Sellers, Morgan, & Brown, 2001) and empirical research (e.g., Sellers & Shelton, 2003) suggest individual differences in awareness of racism as a function of racial identity and, given that awareness of racism is not a requirement for it to have an impact on health (McCluney, Schmitz, Hicken, & Sonnega, 2018), linking respondents' assessments of systemic racism to health may lead to faulty conclusions about its net impact.

Elucidating Developmental Pathways Underlying Racial Health Disparities

A third challenge is the relative dearth of systematic, longitudinal studies that illuminate the multiple pathways by which racism can affect health over the life course. The number of psychological and behavioral studies examining the link between racism (although almost exclusively racial discrimination) and health over time, particularly in youth populations, has increased in recent years (Bécares, Nazroo, & Kelly, 2015; Brody et al., 2014; Smith-Bynum, Lambert, English, & Ialongo, 2014). Racism scholars have increasingly called for the consideration of historical events or social changes, as well as the age of exposure to racism (e.g., during critical developmental transitions) in understanding the link between racism and health (Gee, Walsemann, & Brondolo, 2012; Krieger, 2012). Nevertheless, the scientific base with respect to myriad postulated mechanisms linking racism to health (Harrell et al., 2011; Williams & Mohammed, 2013a) and the individual experiences and contextual factors that contribute to and influence trajectories of health is small. We do not understand how accumulations of racism experiences over the life course affect the onset and course of illness (Braveman, Egerter, & Williams, 2011) and have yet to fully specify critical or sensitive periods when racial and ethnic minority populations are most vulnerable or when racial group disparities worsen. Given that most of the major causes of mortality and morbidity in the United States reflect associations that (a) extend from birth to death across generations and (b) are caused by and, in turn, affect biological, psychological, and social factors (Braveman et al., 2011; Harrell et al., 2011), failure to conduct developmentally sensitive examinations of health trajectories could result in "snap shot" views of racism that make it difficult to understand directionality effects, the temporal ordering of underlying mechanisms, and how racial disparities in health widen over time.

Future Directions

In the next section, I share a few ideas and approaches that might lead to more deliberate research, build a collective of well-informed and knowledgeable scholars, and maximize intervention and policy efforts to mitigate and eliminate racism and health disparities. These six recommendations focus not only on some of the research challenges I discussed above, but also extend beyond research to include additional critical considerations.

Examine Institutional, Cultural, and Structural Racism

Although a focus on individual racism is consistent with psychology's emphasis on individual behavior and variation, more studies are needed to extend examinations of racism and health beyond individual levels of analysis (Jones & Neblett, 2017; Richeson & Sommers, 2016; Salter, Adams, & Perez, 2018). Increasing the number of behavioral and psychological studies that examine institutional, cultural, and structural racism and their impact on health will require creativity and innovation to identify measures that are not exclusively mediated by the individual. For example, what are innovative ways that psychologists and behavioral scientists might measure segregation, anti-immigrant bias, and important health correlates such as differential access to quality education, quality teachers, educational resources, employment, medical facilities and exposure to environmental toxins, neighborhood violence, crime, poverty, incarceration, and so on? Could one create a racism burden score indexed by combining standardized scores of multiply determined aspects of individual, institutional, cultural, and structural racism in the same way that various physiological measures are used to calculate allostatic load

indices in the physiology literature (e.g., cortisol, blood pressure, body mass index, etc.; Brody et al., 2014)? Could one examine police/traffic stops data (Baumgartner, Christiani, Epp, Roach, & Shoub, 2017), changes in specific policies (e.g., sentencing, stop and frisk, immigration policy), geocoding (e.g., Barber et al., 2018), or even spatial analysis of firearm assaults and violent crimes (e.g., Jacoby, Dong, Beard, Wiebe, & Morrison, 2018) as markers of institutional and structural racism that correlate with health? Or how about quantifying and investigating exposure to negative depictions of and language about Blacks in media, presence of and proximity to cultural symbols (e.g., flags, confederate statues) as measures of cultural racism that covary with health?

Several recent investigations building on prior work employing and discussing proxy measures of racism (e.g., redlining, Gee, 2008; Krieger, 1999) are instructive in thinking about how psychologists and behavioral scientists might incorporate and operationalize institutional and structural racism in future work. For example, Chae et al. (2018) examined the proportion of "n-word" Google searches as a proxy for area racism and found that area racism was associated with county-level rates of preterm birth and low birth weight among Blacks. In a study of workplace environment, McCluney et al. (2018) used measures of opportunities for advancement, recognition for work done, and supportive management from the Department of Labor's Occupational Information Network and observed a link between objective, but not subjective, measures of workplace environment and poorer health. In a study of Whites' explicit racial bias and Blacks' death rates due to circulatory diseases published in *Psychological Science*, Leitner, Hehman, Ayduk, and Mendoza-Denton (2016) used county-level data gleaned from over a million Internet protocol (IP) addresses and documented higher death rates due to circulatory diseases in counties with greater racial bias expressed by Whites. These examples suggest a number of intriguing approaches that might be used to examine the links and mechanisms underlying psychological aspects of institutional, cultural, and structural racism and health. To be sure, assessing these relations and pathways will require the psychologist, whose expertise and comfort zone is the individual, to think out of the box.

Adopt A Developmental Health Perspective

Keating and Hertzman (1999) introduced the concept of *developmental health* to refer broadly to physical and mental health, well-being, coping, and competence with a focus on the combination of health and developmental outcomes. This approach draws on Bronfenbrenner's (1979) ecological theory, which recognizes multiple systems (e.g., schools, families, peer groups), contexts more distal to the child (e.g., parents' work, cultural influences), and interactions among systems, as critical influences on development. The developmental health approach (e.g., Williams-Morris, 1996), coupled with other important developmental frameworks (e.g., García Coll et al., 1996; Phenomenological Variant of Ecological Systems Theory (Spencer, Dupree, & Hartmann, 1997); developmental psychopathology; Rutter & Sroufe, 2000), offers a unique opportunity to address a prevailing focus on adult disease (Braveman et al., 2011) and improve our understanding of the numerous pathways linking racism to health, as well as how racial disparities in health develop over the life course. Does the repeated experience of stereotype threat (i.e., the fear of confirming negative stereotypes about one's group; Steele, 1997) lead to chronic physiological arousal with implications for health? Or does it shape patient–provider communications, with implications for treatment adherence and resultant health outcomes (Williams & Mohammed, 2013a)? Are the links between structural, cultural, and institutional facets of racism and psychological and physiological effects mediated by reduced sense of well-being; worry and rumination; reduced valuing of one's culture; or alienation from one's cultural roots (J. Harrell et al., 2011)?

Although not specific to racism, a recent report published by the APA Working Group on Stress and Health and Disparities (2017) among racial/ethnic minority and low socioeconomic status populations offers important insights regarding mechanisms that may underlie the development of racial health disparities over time. According to the report, the effects of stress on mental and physical health are mediated by psychological, physiological/neurobiological, and behavioral mechanisms. Psychological mechanisms concern how you think and feel about yourself and others. Schemas or internal self-representation (e.g., I'm acceptable or I'm not competent) heighten perceptions of threat and undermine personal resources and neuropsychological functions (e.g., cognitive control, ability to redirect attention, change perspective, plan, etc.) needed to respond to threat. Physiological/neurobiological mechanisms concern the activation of neuroendocrine, immune, and autonomic systems as well as brain structures and processes necessary for self-regulation and stress recovery. Threat appraisals shape psychophysiological stress responses and reactivity that are possible markers of vulnerability to cardiovascular disease, tumor progression, and mortality (APA Working Group on Stress and Health and Disparities, 2017). Moreover, these appraisals may be represented in neural networks that facilitate communication among brain systems responsible for processing information and help the body respond to subsequent stress and disease. Over time, impaired stress regulatory processes may cause changes in gene expression that lead to changes in the brain (e.g., connectivity between brain regions, reduced working memory) that shape executive function and individuals' responses to new stressors and their ability to recover from stress. Finally, stress can lead to unhealthy behaviors (e.g., poor diet, lack of physical activity, substance use, risky behaviors, failure to comply with treatment) often associated with obesity, cardiovascular disease, cancer, and cognitive decline (Jackson, Knight, & Rafferty, 2010).

In the context of racism, interpersonal discrimination and social and economic disadvantage conferred by structural racism may lead to the development of negative schema, increase threat appraisals, compromise neuropsychological functioning (e.g., cognitive control/flexibility), lay the foundation for physiological and neurobiological changes that shape individuals' ability to respond adaptively (psychologically and physiologically) to subsequent racism-related stress, compromise stress reactivity systems essential to disease resistance, and lead to negative health outcomes. Negative schema are particularly consequential because they may maintain perceptions of threat, stress, and negative expectations even after the initial stressor has ended. Institutional and structural racism may also undermine necessary health-promoting resources (e.g., access to health food, availability of recreational facilities) and motivation (e.g., changing health behaviors might be appraised as threatening group identity even if it would benefit the individual). Where cultural racism is concerned, it may be that cultural

stereotypes and the pairing of ethnic/racial identity with unhealthy behaviors (e.g., being overweight, avoiding physical activity) may lead to engaging in these unhealthy behaviors as a way to enhance group identity (APA Working Group on Stress and Health and Disparities, 2017). A developmental health framing of the study of racial health disparities is precisely what is needed to unpack these intriguing mechanisms, examine old and new contexts (e.g., social media; Patton, Eschmann, & Butler, 2013) and motivate longitudinal, prospective studies of racism and health during critical and sensitive periods and developmental transitions (e.g., in utero, during the transition to adulthood). Joining multiple levels of data (e.g., institutional and cultural racism across multiple ecologies) with extensive longitudinal analysis and examining linkages between individual/interpersonal and sociopolitical/macrosystemic factors, as well as age and chronicity of exposure, will lead to the elucidation of underlying processes linking upstream social determinants and health outcomes. Unpacking these causal pathways will lay the foundation for developing effective ways to address social factors and design multidimensional interventions that address multiple social determinants of health (Braveman et al., 2011; Williams & Mohammed, 2013b).

Resilience and Racial Health Disparities

Developmental theories have also provided frameworks for understanding resilience in the context of adversity. Although the link between racism and health is well-established, less is known about the assets and processes that protect racial and ethnic minority group populations against the health risks associated with racism. Thus, an important future direction is the examination of combinations of multilevel factors that mitigate against poor health and close racial gaps in health. Some research suggests that optimism, warm and responsive caregiving and family relationships, and better social support may disrupt exposure to stress and negative health outcomes (Boylan, Jennings, & Matthews, 2016; Brody et al., 2014). In our own work, we have focused on individual racial and cultural assets such as racial identity and African-centered worldview and family level processes such as racial socialization as important resilience factors in the context of mental and physical health (see Neblett, Rivas-Drake, & Umana-Taylor, 2012; Neblett & Roberts, 2013). Recent work suggests that resilience should be conceptualized not solely as an aspect of the individual, but also as a developmental, multilevel, multidimensional, construct that may operate in different ways as a function of context. For example, preliminary data suggest that in a predominantly White context, racial identity can heighten vigilance and exacerbate psychological distress. If replicated, prior conceptualizations of resilience may need to be revisited. If racial identity increases vigilance, which may be protective in the short-term, but is associated with subsequent long-term, negative health outcomes, could it be that its benefit depends on context and timing? Also, in addition to individuals and families, what are aspects of peers, schools, communities (see Murray & Zautra, 2012 for discussion of community resilience), and neighborhoods that combine to disrupt and change a negative life health trajectory from one of risk to one of adaptation? The examination of racial and cultural resilience mechanisms and processes can lead to culturally informed interventions that resonate with the cultural backgrounds of intervention targets and increase retention in mental health services (Takeuchi, Sue, & Yeh, 1995). The integration of assets such as racial identity, racial socialization, and African-centered worldview could lead to strategies that disrupt the sequelae of racism and maximize the effectiveness of programming or policy efforts (Jones & Neblett, 2016, 2017; Seaton, Gee, Neblett, & Spanierman, 2018).

Diverse Epistemological And Methodological Approaches

As we explore the ideas proposed herein, we will need to be flexible in our epistemological approaches (i.e., ways of knowing) and use different tools (e.g., measures of online racism; Keum & Miller, 2017) and methodologies to study more contemporary forms of racism and eliminate racial gaps in health equity. Knowledge creation can be a shared process and should be informed by the lived experiences of those experiencing racism daily. We have used visual imagery and laboratory experiments to investigate African American young adults' cardiovascular responses to racial discrimination (Neblett & Roberts, 2013), but qualitative and mixed methods are particularly compelling approaches since they provide opportunities to not only quantify racism experiences and health but also hear the voices of the people. These approaches also allow us to capture important subtleties that might otherwise be missed. We have been particularly impressed with the results of using a community-based participatory research (CBPR) approach (Israel, Eng, Schulz, & Parker, 2013) as a complementary and productive research framework. Using photovoice—a CBPR method that allows participants to share the concerns of a community through photography (Wang & Burris, 1997), and in collaboration with community partners, we've held parent/youth engagement meetings in a predominantly African American community in Raleigh, North Carolina to learn about what racism looks like in the local community, how it influences mental health, and what supports are needed to help youth and their families thrive despite racism. In a discussion of how the face of racism has evolved, one youth shared how she experienced racism in her school through the body language of her teachers (e.g., leaning in), the teacher's tone of voice and slower and deliberate speech (as if talking to someone with less intelligence), as well as differential profiling of Black (as compared to White) students to check for off-campus travel passes. One parent noted that racism was manifest by the differential enforcement of the school dress code. These experiences, in turn, contributed to mental fatigue, social withdrawal, rumination in the form of second-guessing one's self ("Am I good enough?"), anger, and feeling confused, underappreciated, undervalued, hurt, and even dehumanized. Our conversations have yielded valuable insights that would not be garnered from surveys, helped to identify alternative methods of inquiry (e.g., behavioral observation; Smith-Bynum, Anderson, Davis, Franco, & English, 2016), elucidated potential underlying mechanisms (e.g., racial hassles leading to negative cognitive schema, feeling alone, and reduced sense of self; APA Working Group on Stress and Health and Disparities, 2017; Harrell et al., 2011), and laid the foundation for informed collaborative partnerships that will help to build interventions by the people, for the people.

Building Transdisciplinary Collaboratives and Approaches

Transdisciplinary collaborations will be of paramount significance to advance the health disparities research agenda and eliminate racism. To date, approaches to the study of racism and health appear to be largely conducted in disciplinary silos with relatively fewer scholars working across boundaries. A recent and notable exception is the 2018 "Racism and Health Inequalities" special issue published in *Social Science and Medicine*, which included contributors from scholars in sociology, economics, nursing, psychology, criminology, medicine, pediatrics, social welfare, social work, and public health, who all study racism. The breadth of disciplines represented in the special issue suggests a number of potential colleagues that may make good partners in collaborative efforts to study and address racial health inequalities; thus, psychologists and behavioral researchers should extend themselves in exploring collaborations with scholars outside their home disciplines. In addition to beneficial collaborations that could result across multiple areas of psychology (e.g., political, social, developmental, clinical/counseling, community, and liberation psychology, neuropsychology, etc.), behavioral researchers might benefit from the integration of theory, conceptual frameworks, perspectives, and scholarship from other fields that might be synergistic with psychological research (e.g., color-blind racism; Bonilla-Silva, 2017; implicit bias in medicine, Dovidio & Fiske, 2012). One specific and promising example is critical race theory, which emerged from the work of legal scholars (CRT; Crenshaw, Gotanda, & Peller, 1995). CRT suggests that cultural and structural racism are ordinary, permanent, persistent, and ubiquitous (Hicken et al., 2018), recognizes the intersection of multiple oppressions and social identities as determinants of unique social contexts that shape health (e.g., racial disparities in pregnancy and childbirth complications linked to racism relevant to experiences of Black women; Tucker, Berg, Callaghan, & Hsia, 2007), and has been increasingly suggested as an action-oriented approach to the scientific inquiry of racial and health inequities (Ford & Airhihenbuwa, 2010).

Another potential contribution to the lack of transdisciplinary collaborations includes the observation that professional organizations at the national level fall largely along disciplinary lines with minimal cross-fertilization of ideas and approaches. This is a problem because lack of diversity in perspectives and expertise limits the innovation and effectiveness of proposed solutions. In addition to the occasional interdisciplinary special issue and incorporation of theoretical scholarship beyond the walls of psychology into behavioral and psychological research, health disparities research would greatly benefit from the formation of professional organizations and collaboratives comprised of experts from diverse disciplinary homes, as well as community members, organizers, and even activists who may possess content knowledge and front-line experience that academicians do not. As we build transdisciplinary teams, the public health scholar cannot scoff at the methods, samples, and contributions of psychologists nor vice versa; instead, the expertise, methods, knowledge, and contributions of each team player must be valued, acknowledged, and creatively harnessed to maximize solutions.

Education and Training

As a final directive, the education and training of the next generation of scientists will need to be revolutionized to build a transdisciplinary coalition of scholars and practitioners who will work to eliminate racial health disparities. Although there have been some improvements in training programs that would facilitate working across interdisciplinary lines—these initiatives (e.g., allowing dual program or concentration status and efforts to facilitate contact across program areas of specialization), at the graduate level, are largely within disciplinary lines (e.g., combining clinical and health psychology). In addition to requisite graduate and continuing education for health care providers working with racial and ethnic minority populations to ensure skilled interventions anchored by best practices (APA Working Group on Stress and Health and Disparities, 2017), and ongoing instruction about structural and other forms of racism in interdisciplinary curricula (Metzl, Petty, & Olowojoba, 2018), we need to train and equip students with the necessary skills to be able to be conversant with specialists from diverse disciplines and conduct transdisciplinary team-based research. One exemplary model of such a training approach that might be used with training health disparities scholars is the UCLA mHealth training institutes (mHTIs; https://mhealth.md2k.org/mhealth-training-institute). Elements of mHTIs include trainees working together on problem-based, team science projects that "build on the didactic core and allow trainees from disparate disciplines to apply their expertise jointly to a specific behavioral health problem." Teams are mentored by experienced mentors from different disciplines and receive real-world input from industry experts. Given the multiply determined nature of racism and the diversity of scientists who study it, it is time for the education and training that we offer, and the funding support to actualize these efforts, to be in line with the science ideals we espouse. Furthermore, racism and health scholars-in-training should receive training in how to talk publicly about their work and, drawing on what we know about effective communication, learn how to effectively convey what is most important about racism and health to policymakers so that those who shape policy will engage and facilitate change. Although there is a wealth of information on racism and health and emerging evidence on the mechanisms of racial health disparities, addressing the phenomenon at a policy level often seems to lag behind. Transdisciplinary collaborations will facilitate multipronged strategies and solutions that range from multimodal individual psychotherapy to neighborhood and national movements that demand change in cultural institutions and social structures" (Harrell et al., 2011).

Conclusion

Research provides compelling evidence that racism is a critical determinant of racial inequality in health. However, several conceptual and methodological issues limit current research and our ability to develop effective programs and policies. The most prominent of these include the almost exclusive focus on individual racism, measurement challenges, and failure to approach the study of racial health disparities from a developmental perspective. In this article, I have briefly outlined several ideas, approaches, and strategies that might inspire or be employed to improve the knowledge base, increase the number of well-informed scholars and advocates, and develop interventions that work.

The suggestions offered in this review are not exhaustive and eliminating racial health disparities will require a deep-dive analysis which moves beneath the proverbial tip of the iceberg (e.g., racial discrimination). The time has come for the focus on institutional, cultural and structural racism in behavioral and psychological research to match or exceed the current focus on individual and interpersonal racism. In addition to longstanding questions about the mechanisms underlying racism and poor health and what can be done about it, we must continue to ask new questions, critically evaluate whose voices are privileged when discussing racial health inequalities (Hicken et al., 2018), securing funding for the relevant research, and making policy decisions, and identify who are the people that need to be at the table to tackle the issues at hand (e.g., scholars, activists, community partners). We must identify and develop new tools (e.g., media campaigns), methods, and analyses that will allow us to capture and explain racism in its entirety and its impact on health. To do this work, we must partner with communities to learn from them about the evolution of racism and the contexts in which it operates.

The suggestions provided in this article, along with work by others in the field can inform a necessarily bold and comprehensive agenda for tackling racial health disparities. We can ill-afford to focus solely only statues, Tiki torches, or incendiary tweets; rather, we must anticipate how changes and challenges encountered today (e.g., ongoing technological advances and societal and global changes) will create new avenues and media for racism to evolve and give rise to new health challenges and worsening disparities tomorrow. Finally, the commitment to conducting deliberate racial health disparities research, solving racial health disparities, and eliminating racism must be a sustained one with ongoing and critical evaluation, analysis, and inquiry. Together as culturally diverse psychologists, sociologists, social workers, linguists, urban planners, political scientists, economists, lawyers, engineers, computer scientists, public health experts, physicians, community organizers, industry experts, activists, scholar-activists, congresspersons, senators, humanists, and allies, we can extend alliances and collaborations to rid society of structural racism and racial disparities and improve the health of all.

References

APA Working Group on Stress and Health Disparities. (2017). *Stress and health disparities: Contexts, mechanisms, and interventions among racial/ethnic minority and low-socioeconomic status populations*. Retrieved from http://www.apa.org/pi/health-disparities/resources/stress-report.aspx

Back, L. (2002). Aryans reading Adorno: cyber-culture and twenty-firstcentury racism. *Ethnic and Racial Studies, 25,* 628–651.

Barber, S., Diez Roux, A. V., Cardoso, L., Santos, S., Toste, V., James, S., . . . Chor, D. (2018). At the intersection of place, race, and health in Brazil: Residential segregation and cardio-metabolic risk factors in the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). *Social Science & Medicine, 199,* 67–76. http://dx.doi.org/10.1016/j.socscimed.2017.05.047

Baumgartner, F. R., Christiani, L., Epp, D. A., Roach, K., & Shoub, K. (2017). Racial disparities in traffic stop outcomes. *Duke Forum for Law & Social Change Duke Law, 9,* 21.

Bécares, L., Nazroo, J., & Kelly, Y. (2015). A longitudinal examination of maternal, family, and area-level experiences of racism on children's socioemotional development: Patterns and possible explanations. *Social Science & Medicine, 142,* 128–135. http://dx.doi.org/10.1016/j.socscimed.2015.08.025

Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist, 73,* 855–883. http://dx.doi.org/10.1037/amp0000204

Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural interpretation. *American Sociological Review, 62,* 465–480. http://dx.doi.org/10.2307/2657316

Bonilla-Silva, E. (2017). *Racism without racists: Color-blind racism and the persistence of racial inequality in America*. Lanham, MD: Rowman & Littlefield.

Boylan, J. M., Jennings, J. R., & Matthews, K. A. (2016). Childhood socioeconomic status and cardiovascular reactivity and recovery among Black and White men: Mitigating effects of psychological resources. *Health Psychology, 35,* 957–966. http://dx.doi.org/10.1037/hea0000355

Braveman, P., Egerter, S., & Williams, D. R. (2011). The social determinants of health: Coming of age. *Annual Review of Public Health, 32,* 381–398. http://dx.doi.org/10.1146/annurev-publhealth-031210-101218

Brody, G. H., Lei, M. K., Chae, D. H., Yu, T., Kogan, S. M., & Beach, S. R. H. (2014). Perceived discrimination among African American adolescents and allostatic load: A longitudinal analysis with buffering effects. *Child Development, 85,* 989–1002. http://dx.doi.org/10.1111/cdev.12213

Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist, 34,* 844–850. http://dx.doi.org/10.1037/0003-066X.34.10.844

Bryant-Davis, T., & Ocampo, C. (2005). Racist incident–based trauma. *The Counseling Psychologist, 33,* 479–500. http://dx.doi.org/10.1177/0011000005276465

Chae, D. H., Clouston, S., Hatzenbuehler, M. L., Kramer, M. R., Cooper, H. L., Wilson, S. M., . . . Link, B. G. (2015). Association between an internet-based measure of area racism and Black mortality. *PLoS ONE, 10*(4), e0122963. http://dx.doi.org/10.1371/journal.pone.0122963

Chae, D. H., Clouston, S., Martz, C. D., Hatzenbuehler, M. L., Cooper, H. L. F., Turpin, R., . . . Kramer, M. R. (2018). Area racism and birth outcomes among Blacks in the United States. *Social Science & Medicine, 199,* 49–55. http://dx.doi.org/10.1016/j.socscimed.2017.04.019

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *American Psychologist, 54,* 805–816. http://dx.doi.org/10.1037/0003-066X.54.10.805

Coates, T. (2014). *Between the world and me*. New York, NY: Spiegel and Grau.

Colen, C. G., Ramey, D. M., Cooksey, E. C., & Williams, D. R. (2018). Racial disparities in health among nonpoor African Americans and Hispanics: The role of acute and chronic discrimination. *Social Science & Medicine, 199,* 167–180. http://dx.doi.org/10.1016/j.socscimed.2017.04.051

Crenshaw, K., Gotanda, N., & Peller, G. (1995). *Critical race theory: The key writings that formed the movement*. New York, NY: The New Press.

Dovidio, J. F., & Fiske, S. T. (2012). Under the radar: How unexamined biases in decision-making processes in clinical interactions can contribute to health care disparities. *American Journal of Public Health, 102,* 945–952. http://dx.doi.org/10.2105/AJPH.2011.300601

Essed, P. (1991). *Understanding everyday racism: An interdisciplinary theory* (Vol. 2). Newbury Park, CA: Sage.

Ford, C. L., & Airhihenbuwa, C. O. (2010). The public health critical race methodology: Praxis for antiracism research. *Social Science & Medicine, 71,* 1390–1398. http://dx.doi.org/10.1016/j.socscimed.2010.07.030

Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, & racism* (pp. 61–89). San Diego, CA: Academic Press.

García Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vázquez García, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67,* 1891–1914. http://dx.doi.org/10.2307/1131600

Gee, G. C. (2008). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American Journal of Public Health, 98*(Suppl.), S48–S56.

Gee, G. C., Walsemann, K. M., & Brondolo, E. (2012). A life course perspective on how racism may be related to health inequities. *American Journal of Public Health, 102,* 967–974. http://dx.doi.org/10.2105/AJPH.2012.300666

Harrell, C. J. P. (1999). *Manichean psychology*. Washington, DC: Howard University Press.

Harrell, C. J. P., Burford, T. I., Cage, B. N., Nelson, T. M., Shearon, S., Thompson, A., & Green, S. (2011). Multiple pathways linking racism to health outcomes. *Du Bois Review, 8,* 143–157. http://dx.doi.org/10.1017/S1742058X11000178

Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry, 70,* 42–57. http://dx.doi.org/10.1037/h0087722

Heard-Garris, N. J., Cale, M., Camaj, L., Hamati, M. C., & Dominguez, T. P. (2018). Transmitting trauma: A systematic review of vicarious racism and child health. *Social Science & Medicine, 199,* 230–240. http://dx.doi.org/10.1016/j.socscimed.2017.04.018

Hicken, M. T., Kravitz-Wirtz, N., Durkee, M., & Jackson, J. S. (2018). Racial inequalities in health: Framing future research. *Social Science & Medicine, 199,* 11–18. http://dx.doi.org/10.1016/j.socscimed.2017.12.027

Israel, B. A., Eng, E., Schulz, A. J., & Parker, E. A. (2013). *Methods for community-based participatory research for health*. San Francisco, CA: Wiley.

Jackson, J. S., Knight, K. M., & Rafferty, J. A. (2010). Race and unhealthy behaviors: Chronic stress, the HPA axis, and physical and mental health disparities over the life course. *American Journal of Public Health, 100,* 933–939. http://dx.doi.org/10.2105/AJPH.2008.143446

Jacoby, S. F., Dong, B., Beard, J. H., Wiebe, D. J., & Morrison, C. N. (2018). The enduring impact of historical and structural racism on urban violence in Philadelphia. *Social Science & Medicine, 199,* 87–95. http://dx.doi.org/10.1016/j.socscimed.2017.05.038

Jakubowicz, A., Dunn, K., Mason, G., Paradies, Y., Bliuc, A. M., Bahfen, N., & Connelly, K. (2017). *Cyber racism and community resilience: strategies for combating online race hate*. Cham, Switzerland: Springer. http://dx.doi.org/10.1007/978-3-319-64388-5

Jones, C. P. (2000). Levels of racism: a theoretic framework and a gardener's tale. *American Journal of Public Health, 90,* 1212.

Jones, J. (1972). *Prejudice and racism*. Reading, MA: Addison Wesley.

Jones, S. C. T., & Neblett, E. W. (2016). Racial-ethnic protective factors and mechanisms in psychosocial prevention and intervention programs for Black youth. *Clinical Child and Family Psychology Review, 19,* 134–161. http://dx.doi.org/10.1007/s10567-016-0201-6

Jones, S. C. T., & Neblett, E. W. (2017). Future directions in research on racism-related stress and racial-ethnic protective factors for Black youth. *Journal of Clinical Child and Adolescent Psychology, 46,* 754–766. http://dx.doi.org/10.1080/15374416.2016.1146991

Keating, D., & Hertzman, C. F. (1999). *Developmental health and the wealth of nations: Social, biological, and educational dynamics*. New York, NY: Guilford Press.

Keum, B. T., & Miller, M. J. (2017). Racism in digital era: Development and initial validation of the Perceived Online Racism Scale (PORS v1.0). *Journal of Counseling Psychology, 64,* 310–324. http://dx.doi.org/10.1037/cou0000205

Krieger, N. (1999). Embodying inequality: A review of concepts, measures, and methods for studying health consequences of discrimination. *International Journal of Health Services, 29,* 295–352. http://dx.doi.org/10.2190/M11W-VWXE-KQM9-G97Q

Krieger, N. (2012). Methods for the scientific study of discrimination and health: An ecosocial approach. *American Journal of Public Health, 102,* 936–944. http://dx.doi.org/10.2105/AJPH.2011.300544

Leitner, J. B., Hehman, E., Ayduk, O., & Mendoza-Denton, R. (2016). Blacks' death rate due to circulatory diseases is positively related to Whites' explicit racial bias: A nationwide investigation using project implicit. *Psychological Science, 27,* 1299–1311. http://dx.doi.org/10.1177/0956797616658450

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: Scientific advances, ongoing controversies, and emerging issues. *Annual Review of Clinical Psychology, 11,* 407–440. http://dx.doi.org/10.1146/annurev-clinpsy-032814-112728

Lipsky, S. (1977). Internalized oppression. *Black Re-Emergence, 2,* 5–10.

McCluney, C. L., Schmitz, L. L., Hicken, M. T., & Sonnega, A. (2018). Structural racism in the workplace: Does perception matter for health inequalities? *Social Science & Medicine, 199,* 106–114. http://dx.doi.org/10.1016/j.socscimed.2017.05.039

Metzl, J. M., Petty, J., & Olowojoba, O. V. (2018). Using a structural competency framework to teach structural racism in pre-health education. *Social Science & Medicine, 199,* 189–201. http://dx.doi.org/10.1016/j.socscimed.2017.06.029

Murray, K., & Zautra, A. (2012). Community resilience: Fostering recovery, sustainability, and growth. In M. Ungar (Ed.), *The social ecology of resilience* (pp. 337–345). New York, NY: Springer. http://dx.doi.org/10.1007/978-1-4614-0586-3_26

Neblett, E. W., Jr., Rivas-Drake, D., & Umana-Taylor, A. J. (2012). The promise of racial and ethnic protective factors in promoting ethnic minority youth development. *Child Development Perspectives, 6,* 295–303. http://dx.doi.org/10.1111/j.1750-8606.2012.00239.x

Neblett, E. W., Jr., & Roberts, S. O. (2013). Racial identity and autonomic responses to racial discrimination. *Psychophysiology, 50,* 943–953.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin, 135,* 531–554. http://dx.doi.org/10.1037/a0016059

Patton, D. U., Eschmann, R. D., & Butler, D. A. (2013). Internet banging: New trends in social media, gang violence, masculinity and hip hop. *Computers in Human Behavior, 29*(5), A54–A59. http://dx.doi.org/10.1016/j.chb.2012.12.035

Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among Black American adults: A meta-analytic review. *Journal of Counseling Psychology, 59,* 1–9. http://dx.doi.org/10.1037/a0026208

Priest, N., Paradies, Y., Trenerry, B., Truong, M., Karlsen, S., & Kelly, Y. (2013). A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Social Science & Medicine, 95,* 115–127. http://dx.doi.org/10.1016/j.socscimed.2012.11.031

Richeson, J. A., & Sommers, S. R. (2016). Toward a social psychology of race and race relations for the twenty-first century. *Annual Review of Psychology, 67,* 439–463. http://dx.doi.org/10.1146/annurev-psych-010213-115115

Rutter, M., & Sroufe, L. A. (2000). Developmental psychopathology: Concepts and challenges. *Development and Psychopathology, 12,* 265–296. http://dx.doi.org/10.1017/S0954579400003023

Salter, P. S., Adams, G., & Perez, M. J. (2018). Racism in the structure of everyday worlds: A cultural-psychological perspective. *Current Directions in Psychological Science, 27,* 150–155. http://dx.doi.org/10.1177/0963721417724239

Sears, D. O., & Henry, P. J. (2003). The origins of symbolic racism. *Journal of Personality and Social Psychology, 85,* 259–275. http://dx.doi.org/10.1037/0022-3514.85.2.259

Seaton, E. K., Gee, G. C., Neblett, E., & Spanierman, L. (2018). New directions for racial discrimination research as inspired by the integrative model. *American Psychologist, 73,* 768–780. http://dx.doi.org/10.1037/amp0000315

Sellers, R. M., Morgan, L., & Brown, T. N. (2001). A multidimensional approach to racial identity: Implications for African American children. In A. Neal-Barnett, J. Contreras, & K. Kerns (Eds.), *Forging links: African American children clinical developmental perspectives* (pp. 23–56). Westport, CT: Praeger.

Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84,* 1079–1092. http://dx.doi.org/10.1037/0022-3514.84.5.1079

Smith-Bynum, M. A., Anderson, R. E., Davis, B. L., Franco, M. G., & English, D. (2016). Observed racial socialization and maternal positive emotions in African American mother–adolescent discussions about racial discrimination. *Child Development, 87,* 1926–1939. http://dx.doi.org/10.1111/cdev.12562

Smith-Bynum, M. A., Lambert, S. F., English, D., & Ialongo, N. S. (2014). Associations between trajectories of perceived racial discrimination and psychological symptoms among African American adolescents. *Development and Psychopathology, 26,* 1049–1065. http://dx.doi.org/10.1017/S0954579414000571

Spencer, M. B., Dupree, D., & Hartmann, T. (1997). A phenomenological variant of ecological systems theory (PVEST): A self-organization perspective in context. *Development and Psychopathology, 9,* 817–833. http://dx.doi.org/10.1017/S0954579497001454

Steele, C. M. (1997). A threat in the air. How stereotypes shape intellectual identity and performance. *American Psychologist, 52,* 613–629. http://dx.doi.org/10.1037/0003-066X.52.6.613

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62,* 271–286. http://dx.doi.org/10.1037/0003-066X.62.4.271

Takeuchi, D. T., Sue, S., & Yeh, M. (1995). Return rates and outcomes from ethnicity-specific mental health programs in Los Angeles. *American Journal of Public Health, 85,* 638–643. http://dx.doi.org/10.2105/AJPH.85.5.638

Tucker, M. J., Berg, C. J., Callaghan, W. M., & Hsia, J. (2007). The Black-White disparity in pregnancy-related mortality from 5 conditions: Differences in prevalence and case-fatality rates. *American Journal of Public Health, 97,* 247–251. http://dx.doi.org/10.2105/AJPH.2005.072975

Tynes, B. M., Umaña-Taylor, A. J., Rose, C. A., Lin, J., & Anderson, C. J. (2012). Online racial discrimination and the protective function of ethnic identity and self-esteem for African American adolescents. *Developmental Psychology, 48,* 343–355. http://dx.doi.org/10.1037/a0027032

Umaña-Taylor, A. J., Tynes, B. M., Toomey, R. B., Williams, D. R., & Mitchell, K. J. (2015). Latino adolescents' perceived discrimination in online and offline settings: An examination of cultural risk and protective factors. *Developmental Psychology, 51,* 87–100. http://dx.doi.org/10.1037/a0038432

U. N. General Assembly. (1965). *International Convention on the Elimination of All Forms of Racial Discrimination*. New York, NY: Author.

Utsey, S. O., & Ponterotto, J. G. (1996). Development and validation of the Index of Race-Related Stress (IRRS). *Journal of Counseling Psychology, 43,* 490–501. http://dx.doi.org/10.1037/0022-0167.43.4.490

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior, 24,* 369–387. http://dx.doi.org/10.1177/109019819702400309

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine, 32,* 20–47. http://dx.doi.org/10.1007/s10865-008-9185-0

Williams, D. R., & Mohammed, S. A. (2013a). Racism and health: I. Pathways and scientific evidence. *American Behavioral Scientist, 57,* 1152–1173. http://dx.doi.org/10.1177/0002764213487340

Williams, D. R., & Mohammed, S. A. (2013b). Racism and health II: A needed research agenda for effective interventions. *American Behavioral Scientist, 57,* 1200–1226. http://dx.doi.org/10.1177/0002764213487341

Williams-Morris, R. S. (1996). Racism and children's health: Issues in development. *Ethnicity & Disease, 6,* 69–82.