

Perceived Discrimination and Children's Mental Health Symptoms

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about their experiences with perceived discriminatory acts. Key words: anxiety, BASC-C children's mental health, depression, health disparities, life course theory, mental health, mental health outcomes in children, perceived discrimination, racism

ONE OF the overarching goals of the U.S. Department of Health and Human Services, Healthy People 2020, is to "Achieve health equity, eliminate disparities, and improve the health of all groups." Perceived ethnic discrimination has been linked to health inequities and may have a particularly devastating impact on children. Life course theory and previous research indicate that health inequities experienced during

childhood set in motion a trajectory that puts the individual at greater risk for health problems and premature death (see the special 2009 special issue of Pediatrics on childhood health disparities).^{2,3} The 2008 meeting of

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For example, exposure to racism and discrimination in school may discourage children from pursuing academic excellence, thus limiting their career choices and increasing their chances of poverty in adulthood.

Life course theory highlights the importance of examining perceived discrimination in childhood as a health inequities issue. Not only does exposure to stressors such as racism and discrimination have the potential for immediate negative health-related outcomes, these adverse experiences may help put the minority child on a trajectory toward further adverse situations (chaining) as well as increasing their risk for adult physical and

Nyborb and Curry²⁶ found similar associations in a sample of fifth-grade African American boys in which perceived discrimination was associated with higher feelings of hopelessness and lower self-concept. The researchers also identified trait anger (hostility) as a mediating variable between perceived personal racism and externalizing behaviors, such as aggression or delinquent behaviors.

In sum, there is a growing body of research supporting the relationship between perceived discrimination and poor mental health-related outcomes in children and adolescents. In this exploratory study, we examined the association between children's perceived racial discrimination and mental health symptoms. The specific aims for this study were to (1) examine the relationship between children's perceived racial discrimination, anxiety, depressive symptoms, and social stress within and between 3 groups: European American, African American, and Multiracial; and (2) examine the relationship between perceived discrimination and children's attitudes to school as well as their relationships with their parents and teachers within each of these groups as well as between these 3 groups.

METHODS

Sample and recruitment

The sample for this analysis was drawn from a longitudinal study in which participants were recruited by information sheets sent to families through public and private schools, flyers posted in community settings, articles in several local newspapers in the Puget Sound area of Washington State, presentations at community events, and word of mouth. Married couples expressing an interest in participating in the study were contacted. Oral assent to participate in the screening interviews was obtained before conducting the telephone interviews.

The original, larger sample consisted of 129 families recruited from the Puget Sound area of Washington State. Measures were taken at baseline or Time 1 (T1), 18 months later at

Time 2 (T2), and 30 months after baseline at Time 3 (T3). Data collection occurred in an off-campus laboratory setting and within family homes (see Bowie²⁷ and Carrère and Bowie²⁸ for a more complete description of recruitment and data collection procedures). The analyses for the current were based on data collected from families (ie, parent and children) for whom we had complete data at T3. In addition, we excluded 2 ethnic groups, Asian Americans and Hispanic Americans, from the analysis because of small sample size (Asian Americans: n = 35; Hispanic Americans: n = 74).
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but also because it permits the measure of perceived discrimination for any

The Reynolds Child Depression Scale³⁵ is a 30-item questionnaire measuring the construct of depression. Items are scored on a 4-point Likert-type scale ranging from "almost never" (1) to "all the time" (4). The last item asks children to rate themselves on a 5-point "smiley type" scale ranging from sad to happy. Reynolds and Grave³⁶ reported internal consistencies of 0.88 and 0.90 across 2 time points. The authors also found strong correlations with other self-rated depression scales ($r = 0.68-0.79$).³⁵

Human subjects approval

The Family Health Project Human Subjects Application was approved by the University of Washington Institutional Review Board (Human Subjects Division) for study recruitment and procedures in February 2002 (Human Subjects Research Compliance approval no.: 01-0494-C/E-4). Written informed consents were obtained from parents for the full study and oral assents from children at the time of each data collection.

RESULTS

Group differences in children's self-reports

To explore the differences between the ethnic groups on the major study variables, a series of 1-way analyses of variance were conducted. See the Table for means and standard deviations of the major study variables. There was a statistically significant difference in children's scores for perceived discrimination at school, stigmatization, perceived threat, and perceived exclusion/rejection. Post hoc comparisons using the Tukey HSD test indicated that the mean perceived discrimination at school, stigmatization, perceived threat, and perceived exclusion/rejection scores for AA children were significantly higher than the means for EA children perceived discrimination (mean = 3.23), stigmatization (mean = 4.43), perceived threat (mean = 4.14), and perceived exclusion/rejection scores (mean = 5.98). The MR children also had mean stigmatization (mean = 5.43; $P < .01$) and

Table. Child's Perceived Ethnic Discrimination Questionnaire-Community Version Subscale Means, Standard Deviations, and 1-Way ANOVA

Subscale	African American (N = 18) Mean (SD)	Multiracial (N = 30) Mean (SD)	European American (N = 40) Mean (SD)	1-Way ANOVA Results F ^a
Discrimination at School	5.56 ^b (3.87)	4.37 (2.39)	3.23 (0.73)	6.84
Stigmatization/disvaluation	8.39 ^d (5.61)	5.43 (2.25)	4.43 (0.93)	11.65
Threat/aggression	5.72 ^e (2.59)	4.57 (2.13)	4.14 (0.58)	5.07
Exclusion/rejection	10 ^f (5.81)	6.47 (2.84)	5.98 (2.90)	7.95

Abbreviation: ANOVA, analysis of variance.

^aF statistic df (2,86).

^bTukey HSD post hoc test: African American children perceived significantly greater discrimination than European American children ($P < .001$).

^c $P < .01$.

^dTukey HSD post hoc test: African American children perceived significantly greater stigmatization than both European American ($P < .001$) and Multiracial children ($P < .01$).

^e $P < .001$.

^fTukey HSD post hoc test: African American children perceived significantly greater threats of aggression than European American children ($P < .01$).

^gTukey HSD post hoc test: African American children perceived significantly greater exclusion/rejection than both European American ($P < .001$) and Multiracial children ($P < .01$).

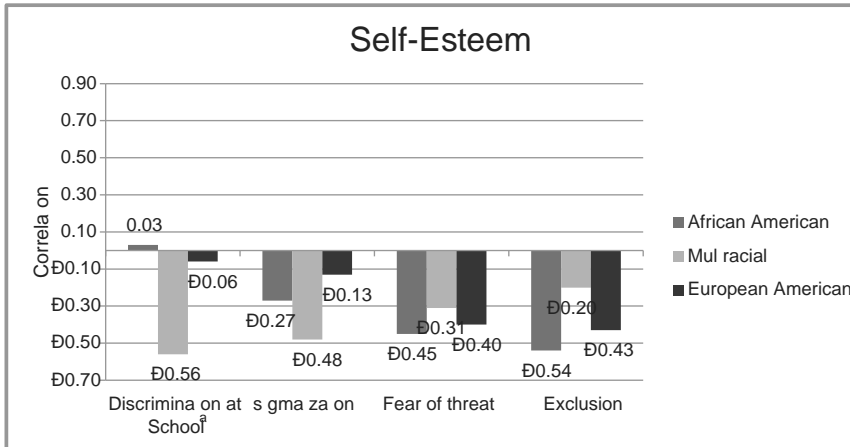


Figure 3. Comparison of correlations of children's self-esteem and perceived discrimination scale variables by racial group (N = 88). ^aP <

children feel safe from peers and authority figures in school and other social settings (eg, intermural sports, after school programs). Microaggressions, which can contribute to social stress, are currently being assessed in young adult and adult populations^{47,48} but not in children. As a preventative measure, it is essential to assess whether elementary and preadolescent children are experiencing these situations, as they can contribute to later poor mental health outcomes. Such assessment tools need to be developed for younger populations. In addition, the need for training for teachers, school nurses, and other authority figures is an important step that allows for early intervention with children who are both victims and who may be carrying out these insensitive behaviors.

REFERENCES

1. U.S. Department of Health and Human Services.

24. Brody GH, Chen Y, Murry VM, et al. Perceived discrimination and the adjustment of African American youths: a 7-year longitudinal analysis with contextual moderation. *Child Dev.* 2006;77(5):1170-1189.
25. Sellers RM, Copeland-Linder N, Martin PP, Lewis RL. Racial identity matters: the relationship between racial discrimination and psychological functioning in African American adolescents. *J Res Adolescence.* 2006;16(2):187-216.
26. Nyborg VM, Curry JF. The impact of perceived racism: psychological symptoms among African American boys. *J Clin Child Adolesc Psychol.* 2003;32(2):258-266.
27. Bowie BH. Emotion regulation related to children's future externalizing and internalizing behaviors. *J Child Adolesc Psychiatr Nurs.* 2010;23(2):74-83.
28. Carriere S, Bowie BH. Like parent, like child: parent and child emotion dysregulation. *Arch Psychiatr Nurs.* 2012;26(3):e23-e30.
29. Brondolo E, Kelly KP, Coakley V, et al. The perceived ethnic discrimination questionnaire: development and preliminary validation of a community version. *J Appl Soc Psychol.* 2005;35(2):335-365.
30. Contrada RJ, Ashmore RD, Gary ML, et al. Measures of ethnicity-related stress: psychometric properties, ethnic group differences, and associations with well-being. *J Appl Soc Psychol.* 2005;31(9):1775-1820.
31. Reynolds CR, Kamphaus RW. *BASC Behavior Assessment System for Children.* Circle Pines, MN: American Guidance Service, Inc.; 1988.
32. Kamphaus RW, Reynolds CR, Hatcher NM, Kim S. Treatment planning and evaluation with the Behavior Assessment System for Children (BASC). In: Maruish ME, ed. *The Use of Psychological Testing for Treatment and Planning and Outcome Assessment, Volume 2: Instruments for Children and Adolescents.* 3rd ed. Mahwah, NJ: Lawrence Erlbaum, Associates, Inc.; 2004:331-354.
33. Reynolds CR, Kamphaus RW. *Behaviour Assessment System for Children Manual.* 2nd ed. Circle Pines, MN: American Guidance Service; 1998.
34. Reynolds CR, Paget KD. National normative and reliability data for the revised Children's Manifest Anxiety Scale. *School Psychol Rev.* 1983;12(3):324-336.
35. Reynolds WM, Graves A. Reliability of children's reports of depressive symptomatology. *J Abnorm Child Psychol.* 1989;17(6):647-655.
36. Field A. *Discovering Statistics Using SPSS* 3rd ed. Thousand Oaks, CA: Sage; 2009.
37. Hayes A, Scharnow M. The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: does method really matter? *Psychol Sci.* 2013;24(10):1918-1927.
38. Hitlin S, Scott Brown J, Elder GH. Racial self-categorization in adolescence: multiracial development and social pathways. *Child Dev.* 2006;77(5):1298-1308.
39. Qian Z. Options: racial/ethnic identification of children of intermarried couples. *Social Science Quarterly.* 2004;85(3):746-766.
40. Herman M. Forced to choose: some determinants of racial identification in multiracial adolescents. *Child Dev.* 2004;75(3):730-748.
41. Simons RL, Simons LG, Burt CH, et al. Supportive parenting moderates the effect of discrimination upon anger, hostile view of relationships, and violence among African American boys. *J Health Soc Behav.* 2006;47:373.
42. Galliher RV, Jones MD, Dahl A. Concurrent and longitudinal effects of ethnic identity and experiences of discrimination on psychosocial adjustment of Navajo adolescents. *Dev Psychol.* 2011;47(5):509-526.
43. Grandner MA, Petrov ME, Rattanaumpawan P, Jackson N, Platt A, Patel NP. Sleep symptoms, race/ethnicity, and socioeconomic position. *J Clin Sleep Med.* 2013;9(9):897-905.
44. Garnett BR, Masyn KE, Austin SB, Miller M, Williams DR, Viswanath K. The intersectionality of discrimination attributes and bullying among youth: an applied latent class analysis. *J Youth Adolesc.* 2014;43(8):1225-1239.
45. Moore SE, Norman RE, Sly PD, Whitehouse AJO, Zubrick SR, Scott J. Adolescent peer aggression and its association with mental health and substance use in an Australian cohort. *J Adolesc.* 2014;37:11-21.
46. Powers JD, Wegmann K, Blackman K, Swick DC. Increasing awareness of child mental health issues