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Racial discrimination and other adverse childhood experiences as risk factors for internalizing mental health concerns among Black youth

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Abstract

Adverse childhood experiences (ACEs) have been consistently linked to a reduction in healthy psychological adjustment among youth. Emergent evidence suggests that there are culturally specific ACEs, such as racial discrimination, that are particularly harmful to the mental health of Black youth. However, the psychological impact of racial discrimination on the mental health of Black youth relative to other ACEs remains underexplored. The present study aimed to address this gap by examining the extent to which racial discrimination was associated with other ACEs and elucidating the unique associations between children's experiences of racial discrimination and internalizing problems (i.e., depression, anxiety), after controlling for other ACEs. Data consisted of a subsample of Black children from the National Survey of Children's Health (N = 8,672; M_{age} = 9.8 years; 51.1% male). Bivariate analyses illustrated that racial discrimination was positively associated with the co-occurrence of all other ACEs measured within the current study. Multivariable analyses using generalized linear mixed models revealed that racial discrimination was significantly associated with youth diagnoses of depression, adjusted odds ratio (aOR) = 1.35, 95% CI [1.23, 1.49], and anxiety, aOR = 1.39, 95% CI [1.31, 1.47], after controlling for other ACEs and sociodemographic covariates. The findings demonstrate that racial discrimination is comparably associated with youth internalizing problems relative to ACEs conventionally examined within the childhood trauma literature. The importance of these results, including how this knowledge can be leveraged to inform clinical practice and policy to promote the positive mental health of Black youth, are also discussed.

Adverse childhood experiences (ACEs), defined as potentially traumatic experiences that occur before 18 years of age, represent a significant problem within the United States, with nearly one half to one third of youth experiencing at least one ACE by age 18 (Bethell, 2017; McLaughlin et al., 2013). ACEs have a profound impact on psychosocial functioning

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The study reported in this article was not formally preregistered. Neither the data nor the materials have been made available on a permanent third-party archive. The materials used in these studies are widely publicly available.

and are particularly burdensome during childhood, serving as a notable risk factor for internalizing concerns, such as anxiety and depression (Lew & Xian, 2019). Although ACE exposure is, unfortunately, common in childhood, Black youth are disparately burdened by such experiences (Liu et al., 2020). In fact, data from the 2018–2019 National Survey of Children's Health show that among U.S. children aged 0–18 years, over half (53%) of Black youths experience one ACE relative to 36% of White youths (Child and Adolescent Health Measurement Initiative, n.d.).

The disparate rate of ACEs and trauma-related mental health concerns among Black youth may be explained, in part, by a broader typology of ACEs that are more likely to occur among historically marginalized populations (Cronholm et al., 2015). One such ACE is racial discrimination, defined as the unfair and demeaning treatment of a group or individual on the basis of race (Kessler et al., 1999). Racial discrimination represents a prevalent ACE among Black youth that can be detected among children as young as six years old (Brown & Bigler, 2005), suggesting that these potentially traumatic experiences can occur early and often throughout the course of youth development, setting the stage for acute and long-lasting negative health outcomes. Increasing conceptual work has articulated how racial discrimination can operate as a unique form of traumatic stress to impair the mental health of Black youth (Jernigan et al., 2011; Saleem et al., 2020). Surprisingly, however, examinations of the association between racial discrimination and mental health in conjunction with other ACEs remain limited. Thus, the purpose of the present study was to empirically examine the associations among racial discrimination, other ACEs, and internalizing concerns in a national sample of Black youth.

Conceptualizing racial discrimination as an ACE

The ACEs framework is anchored within the landmark CDC–Kaiser Permanente ACEs study conducted by Felitti and colleagues (1998), who investigated the association between childhood adversity and adult health outcomes. Within this study, a subsample of 17,000 predominantly White college-educated adults were screened for childhood exposure to a set of 10 potentially traumatic childhood experiences (i.e., ACEs) related to abuse (i.e., physical, sexual), neglect (i.e., emotional, physical), and household dysfunction (e.g., exposure to domestic violence, parental divorce). Results from the study illustrated a graded relation between ACE exposure and behavioral health outcomes in adulthood—a pattern that has since been replicated across the lifespan (Flaherty et al., 2013; Petruccelli et al., 2019). Building on the CDC–Kaiser Permanente ACE study, researchers have expanded the conceptualization of ACEs to include other potentially traumatic experiences in childhood (e.g., Finkelhor et al., 2013).

In line with this expansion, scholars have increasingly approached examinations of racial discrimination from a traumatic stress perspective to recognize the severity and psychological impact of these deleterious experiences (Carter, 2007; Kirkinis et al., 2018). Among youth in particular, experiences of racial discrimination have been associated with acute and long-lasting mental and behavioral health problems that can persist into adulthood (Assari et al., 2017). Indeed, even after controlling for "conventional" forms of childhood adversity, such as abuse and exposure to domestic violence, racial discrimination has been

shown to continue to predict negative psychological trauma sequelae (Mendez et al., 2020). Alarmingly, Black adolescents report an average of five encounters of racial discrimination per day (English et al., 2020), which positions them to be particularly susceptible to experiencing trauma-related mental health concerns.

The profound mental health impact of racial discrimination and the frequency with which these deleterious experiences occur among Black youth has led researchers to highlight the importance of incorporating such experiences into the ACE framework. As articulated by Bernard and colleagues' (2021) culturally informed ACE model, racial discrimination can function not only as a distinct ACE that can compromise mental health, but also as a systemic risk factor that increases the odds that Black youth will be exposed to and impacted by conventional ACEs. To this end, investigations have demonstrated that the inclusion of ACEs disproportionately experienced by historically marginalized groups (e.g., racial discrimination) not only enhances the generalizability of ACEs across racial and ethnic groups (Cronholm et al., 2015; Wade et al., 2014) but also improves the predictive validity of ACEs on mental health outcomes among representative samples of youth (Finkelhor et al., 2013). In support of this notion, Black individuals have been shown to be more likely to endorse the ACE of racial discrimination compared to their White counterparts (Maguire-Jack et al., 2020). Taken together, racial discrimination represents a particularly noteworthy ACE that must be considered in the context of youth mental health.

Racial discrimination and youth internalizing problems

Chronic experiences of racial discrimination can have an erosive impact on the mental health of Black youth given the distressing, disorienting, and cognitively taxing nature of such events (Gibbons et al., 2012). Discriminatory encounters can also negatively impact important developmental processes (e.g., ethnic-racial identity, self-concept) that shape how youths view themselves and interact with others (Hughes et al., 2016). Thus, it is unsurprising that internalizing concerns, such as depression and anxiety, are among the most pronounced mental health problems associated with racial discrimination among Black youth (Benner et al., 2018). Notably, experiences of racial discrimination not only increase the risk of anxiety and depression among Black youth (Gaylord-Harden & Cunningham, 2009; Neblett et al., 2008), but also directly contribute to the etiology of these disorders, as evidenced by longitudinal research indicating temporal precedence of the link between racial discrimination and internalizing symptoms (English et al., 2014). Given the strong association between racial discrimination and internalizing concerns, it is important to elucidate whether this association remains significant after controlling for the effect of other traumatic stressors. This is a particularly important endeavor as literature continues to distinguish racial discrimination as a unique form of traumatic stress.

Current study

The current study was developed to overcome several limitations in the current research that constrain the field's understanding of the link between racial discrimination and internalizing problems within the context of childhood traumatic stress. First, examinations of racial discrimination within ACE literature have been conducted predominantly among

adult samples, thus limiting the amount of research on the psychological impact of racial discrimination among Black youth relative to other ACEs, in addition to its co-occurrence with other ACEs. Second, research that has considered child experiences of racial discrimination within the context of ACEs has done so primarily as a means to expand conceptualizations of childhood adversity (Cronholm et al., 2015) or demonstrate that ACEs may be differentially experienced across racial/ethnic groups (Maguire-Jack et al., 2020). Missing from such investigations are considerations as to the unique association between racial discrimination and psychological trauma sequelae, above and beyond exposure to other ACEs. Third, research has largely treated Black youth as a monolithic group to facilitate racial group comparisons of ACE exposure (Fagan & Novak, 2018). Yet, there are significant within-group differences among Black youth that can influence the extent to which they are exposed to and affected by traumatic experiences (e.g., child's sex; Zona & Milan, 2011) that warrant explicit investigation.

To address these limitations, the current study used a large nationally representative sample of Black youth to investigate the interplay among child experiences of racial discrimination, other ACEs, and internalizing problems. The first aim of the present study was to investigate the co-occurrence of racial discrimination, other ACEs, and internalizing concerns. As ACEs, including racial discrimination, are theorized to co-occur, we predicted that endorsements of racial discrimination would be positively associated with experiencing other ACEs. Consistent with previous research, we also hypothesized that racial discrimination and other ACEs would be positively associated with depression and anxiety. The second aim of the study was to examine the unique association between childhood experiences of racial discrimination and internalizing problems (i.e., depression, anxiety), after controlling for the effect of other ACEs. We hypothesized that youth encounters of racial discrimination would be associated with internalizing concerns among Black youth even after controlling for other ACEs. Finally, in recognition that Black youth are not monolithic in their exposure and response to racial discrimination (Loyd et al., 2019), an exploratory aim of the present study was to determine if the association between racial discrimination and internalizing problems differed as a function of child's sex.

METHOD

Participants and procedure

The National Survey of Children's Health (NSCH) is an ongoing, nationally representative survey of noninstitutionalized U.S. children aged 0–18 years (U.S. Census Bureau, 2020a). The survey is fielded annually by the U.S. Census Bureau and is self-administered on the internet or by paper instrument. The NSCH study team used a randomly selected sample of households and made contact by mail to identify households with an eligible child. In each household, one child was randomly selected to be the subject of the survey, with designed oversampling of young children (i.e., 0–5 years old) and children with special health care needs. All surveys within the NSCH are completed by caregivers regarding the target child. For the current study, we combined annual NSCH surveys from 2016 (n = 50,212), 2017 (n = 21,599), 2018 (n = 30,530), and 2019 (n = 29,433). The combined dataset represents the most recent NSCH data available at the time of our analysis and provided a sufficient sample

size to focus specifically on Black youth. Because we were interested specifically in the experiences of Black children, we analyzed a subpopulation of respondents who identified their race as Black, regardless of ethnicity (i.e., Hispanic or non-Hispanic). This yielded a final analytic sample of 8,672 Black children for the 2016–2019 survey years. Table 1 contains descriptive statistics for the analytic sample; 92.1% of Black children lived in a metropolitan statistical area, 51.1% were male, 36.0% lived below the federal poverty level, and the average participant age was 9.8 years (*SE* = 0.1).

Measures

Internalizing concerns—A diagnosis of anxiety and/or depression for the target child was assessed via parent-reported survey responses to specific mental health questions within the NSCH. Specifically, the anxiety question within NSCH surveys asks caregivers, “Has a doctor or other health care provider ever told you that this child has anxiety problems?” and the depression question asks caregivers, “Has a doctor or other health care provider ever told you that this child has depression?”. Both items were dichotomous measures coded as “yes” or “no” for anxiety and depression.

Racial discrimination—Youth experiences of racial discrimination were assessed through parent-reported responses to a series of questions inquiring about ACEs. Each question began with the header “To the best of your knowledge, has this child ever experienced any of the following?”. For racial discrimination, the question asked if the child was ever “treated or judged unfairly due to race/ethnicity.” This item was measured as a dichotomous indicator of “yes” or “no” for experienced discrimination.

Covariates—For the present study, we were interested in the unique association between racial discrimination and internalizing concerns in the context of other ACEs that are overrepresented in Black children. Thus, we included eight other dichotomous ACEs assessed in the NSCH survey to be used as covariates. ACEs were assessed using the same question stem as the racial discrimination and included the following constructs: (a) difficulty covering basic needs on family’s income, (b) parent divorce or separation, (c) parent death, (d) parent jail time, (e) child saw or heard parental violence, (f) child was the victim of or witness to neighborhood violence, (g) child lived with someone with mental illness, and (h) child lived with someone with an alcohol or drug problem. All ACE measures were dichotomous (i.e., “yes” or “no” indicators). We also included the following four covariates, which prior researchers have identified as being associated with childhood mental health: geography (i.e., living in a metropolitan status area status; “yes” or “no”), child age (years), child sex (male or female), and family poverty level (FPL; referred to as family poverty ratio in the NSCH). FPL was calculated as the ratio of total family income in the prior calendar year to the Census Bureau’s poverty threshold based on family size (U.S. Census Bureau, 2020a).

Data analysis

Missing data—Responses for covariates, predictor variables, and outcomes variables had missing values for all variables (range: 0%-23.4%). Family poverty level (23.4%) and geographic location (16.9%) had the highest levels of missingness, with ACE indicators

missing 3.6%-6.2% and mental health diagnosis variables missing less than 1.0% of the time. Fewer than 1.0% of child sex and race responses were missing in the original survey and were imputed by the NSCH using hot-deck imputation to include in weighting procedures. To address missing data on the family poverty variable, the NSCH provided six imputed values in the public data file that were created using sequential regression imputation methods (U.S. Census Bureau, 2020b). For all other variables, multiple imputation was used to handle missing data, which generally involves imputation, analysis, and pooling phases (Rubin, 1987). For consistency with the Census Bureau approach, we used multiple imputation to impute missing values for the remaining variables. Specifically, following inspection of missing data patterns, we imputed missing values using the fully conditional method, using chained equations with a discriminant function and logistic regression for binary variables (e.g., ACEs) and linear regression for continuous variables (e.g., child age; Berglund, 2010; SAS Institute Inc., 2019; Yuan, 2010). Auxiliary variables included all identified covariates and the sampling weight. Six multiply imputed datasets were created and merged with the implicates provided for the FPL variable. Bivariate tests and multivariable models were analyzed separately for each of the six imputed datasets, then pooled following Rubin's rules (Rubin, 1987) using SAS procedures MI and MIAN-ALYZE (Berglund, 2010; SAS Institute Inc., 2019; Yuan, 2010).

Analytic strategy—All analyses were conducted using SAS (Version 9.4) and incorporated complex survey sampling weights, which included adjustments for nonresponse and state characteristics (SAS Institute Inc., 2019). Bivariate associations among racial discrimination, other ACEs, and internalizing problems were examined using the SURVEYFREQ procedure, which is optimal when testing the associations between categorical variables. We used the appropriate subpopulation DOMAIN commands to estimate the associations and appropriate standard errors in the context of the complex survey sampling design (Rocha, 2013). Rao-Scott chi-square estimates, a design-adjusted version of the Pearson chi-square test designed for use with survey data (SAS Institute Inc, 2019), were also calculated to test the association between ACEs and internalizing problems (i.e., depression and anxiety).

To examine the relation between discrimination and internalizing problems after controlling for other ACEs and child sociodemographic information, two multivariable models, one for anxiety and one for depression, were estimated using weighted generalized linear mixed models in the GLIMMIX function to incorporate sampling weights and the nested design of survey respondents within states (Luke, 2019). Given the significant bivariate correlations between predictor variables, collinearity diagnostics were examined prior to examining model fit. The models used the adaptive quadrature estimator to produce a weighted likelihood function for the study population and an adjusted sandwich variance estimator (SAS Institute Inc., 2019; Truxillo, 2016). A binary distribution with the logit link was specified for each model. Further, we utilized the Newton–Raphson nonlinear optimization technique to support model convergence of binary outcomes (Li et al., 2006). A null model was first estimated, then compared to subsequent models using model fit indices for the marginal model (i.e., Akaike information criteria [AIC]). Residual dispersion was examined using the fit statistics for the conditional distribution (Kiernan, 2018). Parameter estimates

were converted to adjusted odds ratios (a*OR*s) with 95% confidence intervals for the interpretation of effect sizes. As we were also interested in whether the association between discrimination and depression and anxiety differed between male and female children, we also tested a final model that included a Sex x Racial Discrimination interaction term.

RESULTS

Bivariate association between racial discrimination and other ACEs

As shown in Table 1, across all survey years, 4.0% of all Black children were told by a health care provider they had an anxiety problem, 5.7% were told they had depression, and 10.5% experienced racial discrimination, per parent report. Table 2 displays the results of the bivariate analyses used to examine the association between racial discrimination and other ACEs among Black children. Racial discrimination was significantly associated with all other ACEs, with the largest bivariate associations emerging between being a victim of or witness to neighborhood violence, Rao–Scott $\chi^2(1, N = 8{,}762) = 439.91$, $p < .001$, and living with a person with a mental illness, Rao–Scott $\chi^2(1, N = 8{,}762) = 239.65$, $p < .001$. Among children who experienced or witnessed neighborhood violence, 39.5% also experienced racial discrimination, and among those living with a person with a mental illness, 28.3% experienced racial discrimination.

Bivariate associations among racial discrimination, ACEs, and internalizing concerns

Table 3 shows the bivariate associations between each internalizing disorder and individual ACEs. Racial discrimination was associated with both depression, Rao–Scott $\chi^2(1, N = 8{,}762) = 67.01$, $p < .001$, and anxiety, Rao–Scott $\chi^2(1, N = 8{,}762) = 39.47$, $p < .001$, and children who experienced discrimination had higher rates of depression (11.1%) and anxiety (11.8%) compared with children who did not. All other ACEs were also independently associated with both internalizing disorders, with the highest effect identified for children who endorsed the ACE: “lived with someone with mental illness”: depression: Rao–Scott $\chi^2(1, N = 8{,}762) = 150.08$, $p < .001$; anxiety: Rao–Scott $\chi^2(1, N = 8{,}762) = 134.48$, $p < .001$.

Unique association between racial discrimination and internalizing concerns

Generalized linear mixed models were used to test the association between racial discrimination and internalizing concerns above and beyond that of other ACEs and sociodemographic covariates. For both depression and anxiety, model fit indices indicated the fully specified model that included all covariates and Sex x Racial Discrimination interaction provided the best fit to the data. Specifically, within the context of depression, AIC values were lower in the final model, AIC = 17,896,216, relative to the base model, AIC = 23,263,165, and the model without the Sex x Racial Discrimination interaction term, AIC = 17,897,587. Similarly, within the context of anxiety, AIC values were lower in the final model, AIC = 35,081,597, relative to the base model, AIC = 40,433,863, and the model without the Sex x Racial Discrimination interaction term, AIC = 35,082,570. Table 4 provides the adjusted odds ratios for the final models. When controlling for other ACEs and covariates, racial discrimination was positively associated with depression, a*OR* = 1.35, 95% CI [1.23, 1.49], and anxiety, a*OR* = 1.39, 95% CI [1.31, 1.47]. We also included a twoway

interaction term that included child sex and racial discrimination and found a nonsignificant moderating effect of sex for both depression, $B = 0.21$, $t(5) = 1.80$, $p = .131$, and anxiety, $B = 0.08$, $t(5) = 2.20$, $p = .077$.

DISCUSSION

The purpose of the present study was to examine the association between exposure to racial discrimination, other ACEs, and internalizing concerns (i.e., depression and anxiety) among Black children in the United States. The first study aim was to investigate the co-occurrence of racial discrimination, other ACEs, and youth internalizing problems. Consistent with our predictions, we found significant positive bivariate associations between child encounters of racial discrimination, other ACEs, and internalizing problems. That is, youth who experienced racial discrimination were significantly more likely to report all other examined ACEs, multiple ACE exposures, and internalizing diagnoses relative to youth who were not reported to have experienced racial discrimination. These results build upon previous research positioning racial discrimination as an ACE (Bernard et al., 2021) and highlight the robust associations among childhood adversity and internalizing concerns in Black youth.

According to stress proliferation literature, which posits that encounters with one stressor can initiate or enhance stress in other domains of life (Pearlin et al., 2005), it is possible that Black youth exposed to racial discrimination are more likely to be exposed to other forms of adversity or vice versa. To this end, researchers have explained how exposure to racism-related stressors can determine the degree to which Black individuals are exposed to other potentially traumatic experiences (D. R. Williams, 2018). Thus, the synergistic effects of culturally specific and traditional ACEs may considerably increase the risk of negative mental health concerns among Black youth. Interestingly, the strongest bivariate association was observed between youth encounters of racial discrimination and community violence exposure or victimization. In line with previous literature (D. R. Williams et al., 2019), the robust association between racial discrimination and neighborhood violence may be explained by a common root cause of institutional racism—or manifestations of racism that are embedded within laws, policies, and practices that are harmful or oppressive to ethnic and racial minority populations (Jones, 1972). Indeed, institutional racism operates to disparately place Black families within impoverished neighborhoods where community violence and other ACEs are more likely to occur (Santiago-Rivera et al., 2016).

The second aim of the present study was to examine the unique relation between racial discrimination and youth internalizing problems, after controlling for the effect of other ACEs. The findings revealed that even after accounting for other assessed ACEs, experiences of racial discrimination continued to be associated with internalizing concerns among Black youth. Such results extend extant research on race-based traumatic stress, suggesting that among preadolescent youths, experiences of racial discrimination are uniquely associated with trauma-related sequelae above and beyond those related to other potentially traumatic experiences. To be sure, mental illness in the home evidenced the most prominent link with youth mental health concerns, which may be related to the intergenerational transmission of psychopathology between birth parents and the focal child (Starr et al., 2014). Further, for both depression and anxiety, the size of the effect of

discrimination in multivariable models was smaller than three other ACEs, namely mental illness in the home, difficulty covering basic needs, and being victimized by or witness to neighborhood violence. Yet, even after controlling for mental illness in the home and other ACEs, Black children who experienced racial discrimination were 39% more likely to also experience anxiety and 35% more likely to experience depression compared to Black youth who did not experience discrimination. Collectively, these findings suggest that youth encounters of racial discrimination take a significant toll on mental health and lend credence to research calling for the expansion of ACE indicators to capture racism-related experiences (Bernard et al., 2021; Cronholm et al., 2015).

Although previous research has demonstrated that racial discrimination is associated with externalizing behaviors above those stemming from other psychosocial traumatic experiences among youth (Mendez et al., 2020), this study was among the first to demonstrate that similar associations exist in the context of internalizing concerns. Negotiating racial discrimination is a developmental process that necessitates sophisticated behavioral and cognitive coping strategies. As adaptive coping strategies may not be fully developed among Black children (Jones et al., 2020), it is possible that early experiences of racial discrimination can lead to the internalization of negative attitudes regarding what it means to be Black (Seaton & Iida, 2019), thus increasing internalizing concerns.

An exploratory aim of this paper was to examine if sex moderated the association between racial discrimination and internalizing problems after accounting for other ACEs. Sex was not found to moderate this association. It is possible that this null moderation finding suggests that discriminatory experiences are associated with internalizing concerns in a similar fashion across sex, after controlling for the effects of other ACEs. Yet, previous research has demonstrated that child sex can significantly influence internalizing concerns in the context of racial discrimination and other potentially traumatic experiences (Loyd et al., 2019). Thus, additional work is warranted to further elucidate potential sex and gender differences.

The present findings make important contributions to the literature; however, the study was not without its limitations. First, the cross-sectional nature of the study limits our ability to determine causality. As such, it is critical for future studies to employ longitudinal approaches to elucidate the temporal precedence of the associations among racial discrimination, other ACEs, and internalizing concerns among Black youth. Second, information regarding child experiences of racial discrimination was reported by caregivers, which may have led to an underestimation of discriminatory encounters. Indeed, in the current study, we found that only about 13% of caregivers reported that their child had experienced racial discrimination in their lifetime, which is considerably lower than research suggesting that self-reported prevalence rates of discriminatory encounters are nearly 90% among Black youth (Seaton et al., 2008) and occur several times per day (English et al., 2020). Therefore, it would be expected that endorsements of racial discrimination would be considerably higher if data were obtained directly from youths. Future work is encouraged to gather data from youth directly to better understand the relative impact of these deleterious experiences on mental health in comparison to other ACEs. Third, despite the strengths of the NSCH, we acknowledge that relying on single-item indicators

of racial discrimination and internalizing diagnoses is an imprecise means of measuring complex variables. Future work is encouraged to replicate the present findings utilizing more sophisticated child-focused measurement approaches.

Limitations notwithstanding, the current results underscore the need for intervention and prevention services that address the unique psychosocial experiences of Black youth. Racial discrimination represents a potentially traumatic stressor that has deleterious effects comparable to those of conventionally measured ACEs. Thus, it is critical that clinicians not overlook or omit considerations as to how racism-related experiences may undergird or amplify the presenting concerns of patients. Inherent within this consideration is the need to screen for racial discrimination and its potentially traumatic effects to inform case conceptualization and treatment approaches, which brings attention to the need for child-based assessment tools of racism-related trauma, which are limited in number relative to screening tools for adults (Carter et al., 2013; M. T. Williams et al., 2018).

The findings also speak to the need for clinicians to develop competencies in empirically based approaches that may offset or repudiate trauma-related sequelae stemming from racial discrimination. There are a number of culturally informed programs that target protective mechanisms that can be leveraged within traditional treatment approaches (see Jones & Neblett, 2016) in addition to treatment adaptations to augment universal trauma-related interventions (i.e., trauma-focused cognitive behavioral therapy) to specifically address racism-related stress and trauma in Black youth (Metzger et al., 2021). Moreover, recent work has yielded promising data to support the efficacy of a brief intervention that specifically targets the reduction of racism-related trauma among Black youth through a family-systems approach (Anderson et al., 2019). The recent proliferation of such clinically oriented literature, set against the contemporary backdrop of racism-related violence, police brutality, and White supremacy, speaks to the importance of addressing distress that stems from discriminatory encounters among youth and the need for such work to be a widespread rather than specialized practice.

Third, although promoting resilience among Black youth to adaptively negotiate racial discrimination is certainly necessary, it is equally important to consider the “upstream” processes that continue to place Black youth at an increased risk for ACEs and other potentially traumatic psychosocial experiences (López et al., 2017). That is, taking a systems-level approach to evaluate structural and institutional practices that perpetuate and maintain racial inequity could facilitate broader policy-level interventions that have a more sustained and far-reaching impact in reducing health disparities and ACE exposure (Hampton-Anderson et al., 2021).

The purpose of the present study was to examine the interplay among racial discrimination, other ACEs, and internalizing problems in a nationally representative sample of Black youth. The collective results place emphasis on acknowledging experiences of racial discrimination as an ACE and illustrate that there are culturally relevant manifestations of childhood adversity that must be considered in the context of mental health. By broadening the conceptualizations of childhood adversity, the field can begin to more precisely understand ACEs that may occur with more frequency among historically marginalized groups. Future

investigations should continue to build upon the results of the current study to understand how to reduce the frequency, prevalence, and impact of ACEs to promote the healthy development of youth from diverse backgrounds.

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TABLE 1

Descriptive statistics for a subsample of Black children from the 2016–2019 National Survey of Children's Health, by missing data analysis methods

	Missing		Weighted estimate (listwise deletion)		Weighted estimate (Multiple imputation)	
Variable	***N***	**%**	***M***	***SE***	***M***	***SE***
Demographic characteristics						
Child age (years)	0	0.0	9.8	0.1	9.8	0.1
			%	*SE*	%	*SE*
Child sex (female)	0	0.0	51.1	0.9	51.1	0.9
Family poverty ratio (< 100 FPL)	2,030	23.4	36.8	0.9	36.0	1.0
Geography (metro area)	1,466	16.9	92.5	0.4	92.1	0.4
ACEs endorsed						
Racial Discrimination	510	5.9	10.5	0.5	11.7	0.6
Hard to cover basics like food or housing	314	3.6	27.0	0.9	27.2	0.8
Parent or guardian divorced	493	5.7	32.9	0.9	32.8	0.9
Parent or guardian died	489	5.6	6.7	0.5	7.6	0.5
Parent or guardian spent time in jail	500	5.8	14.6	0.7	14.9	0.7
Adults slap, hit, kick, or punch others	510	5.9	8.3	0.5	9.1	0.5
Victim of or witness to neighborhood violence	522	6.0	7.3	0.5	8.2	0.5
Lived with person with mental illness	541	6.2	7.5	0.5	8.5	0.5
Lived with person with alcohol/drug problem	514	5.9	7.5	0.5	8.4	0.5
Mental health diagnosis						
Depression	52	< 1.0	4.0	0.3	4.0	0.3
Anxiety	40	< 1.0	5.7	0.4	5.7	0.4

Note: Missing data percentages are unweighted; variable sample percentages and standard errors are weighted population estimates.

FPL = federal poverty level; ACEs = adverse childhood experiences.

TABLE 2

Proportion of endorsed racial discrimination and associations with other adverse childhood experiences (ACEs) among Black children

	Racial Discrimination		
	%[a]	*SE*[a]	χ^2 (1, *N* = 8,672)
Variable			
ACEs endorsed			
Hard to cover basics like food or housing	12.59	6.07	44.95*
Parent or guardian divorced	13.53	6.41	52.56*
Parent or guardian died	24.02	10.43	98.42*
Parent or guardian spent time in jail	22.30	9.61	145.12*
Adults slap, hit, kick, or punch others	28.97	12.10	199.84*
Victim of or witness to neighborhood violence	39.50	13.97	439.91*
Lived with person with mental illness	28.31	13.93	239.65*
Lived with person with alcohol/drug problem	27.42	14.07	238.46*

[a]Weighted population estimates.

[b]Pooled Rao–Scott chi-square estimates from six imputations.

*$p < .01$.

TABLE 3

Proportion of endorsed adverse childhood experiences (ACEs) and associations with depression and anxiety among Black children

	Depression			Anxiety		
	%[a]	*SE*[a]	χ^2 (1, *N* = 8672)	%[a]	*SE*[a]	χ^2(1, *N* = 8,672)
Variable	4.04	0.32		5.74	0.37	
ACE endorsed						
Racial Discrimination	11.10	1.46	67.01*	11.80	1.45	39.47*
Parent or guardian divorced	7.18	0.74	49.30*	8.30	0.79	23.80*
Parent or guardian died	8.55	1.64	16.89*	8.44	1.54	5.11*
Parent or guardian spent time in jail	10.09	1.26	63.94*	10.86	1.32	33.57*
Adults slap, hit, kick, or punch others	14.07	1.91	96.25*	14.03	1.84	51.45*
Victim of or witness to neighborhood violence	16.05	2.12	125.37*	17.47	2.33	82.30*
Lived with person with mental illness	17.22	2.26	150.08*	20.22	2.36	134.48*
Lived with person with alcohol/drug problem	12.20	1.90	58.08*	13.80	1.96	44.16*
Hard to cover basics like food or housing	7.70	0.89	50.58*	8.81	0.92	25.33*

[a]Weighted population estimates.

[b]Pooled Rao–Scott chi-square estimates from six imputations.

*$p < .01$.

TABLE 4

Results of multivariable models estimating the associations between adverse childhood experiences (ACEs) and depression and anxiety

ACE endorsed	Depression		Anxiety	
	a*OR*	95% CI	a*OR*	95% CI
Racial Discrimination	1.35	[1.23, 1.49]	1.39	[1.31, 1.47]
Hard to cover basics like food or housing	1.74	[1.68, 1.81]	1.79	[1.75, 1.84]
Parent or guardian divorced	1.59	[1.54, 1.64]	1.24	[1.21, 1.27]
Parent or guardian died	1.18	[1.10, 1.28]	0.91	[0.80, 1.04]
Parent or guardian spent time in jail	1.01	[0.99, 1.04]	0.96	[0.93, 0.99]
Adults slap, hit, kick, or punch others	1.19	[1.16, 1.22]	1.06	[1.05, 1.07]
Victim of or witness to neighborhood violence	1.74	[1.70, 1.78]	1.36	[1.32, 1.40]
Lived with person with mental illness	3.21	[3.13, 3.28]	2.91	[2.83, 2.98]
Lived with person with alcohol/drug problem	1.24	[1.21, 1.27]	1.22	[1.21, 1.23]

Note: N = 8,672, with pooled results from six imputed models. Models controlled for child age, sex, geography, and poverty level.