



## Examining the relationship between discrimination, access to material resources, and black children's behavioral functioning during COVID-19

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### ABSTRACT

Systemic racism and discriminatory practices continue to disproportionately expose Black children and families to less than optimal health and economic resources. COVID-19 sheds existing light on how long-standing systemic inequalities affecting Black children and families create racial disparities in accessing material resources. The purpose of this study ( $N = 704$  Black caregivers) is to better understand the relationship between experiences of racial discrimination, access to material resources (i.e., health-promoting resources and economic resources), and Black children's behavioral functioning during the pandemic. Through the application of ordinary least squares regression analysis, we find that inadequate material resources (both health-related risks and economic hardship) during the pandemic were associated with heightened caregiver report that their child was frequently fussy or defiant (externalizing) and frequently anxious or fearful (internalizing). The study found no significant links between caregivers' experiences of discrimination during the pandemic and children's behavioral functioning. However, the study found a significant link between caregivers' concern for their children's experiences of discrimination and their children's externalizing behaviors. Findings from this study offer an important contribution to understanding how factors rooted in systemic racism—access to material resources—and experiences of discrimination affect Black children's well-being during COVID-19.

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### 1. Introduction

While countless studies demonstrate the positive relationship between access to material resources (e.g., health-promoting resources and economic resources) and children's externalizing (e.g., impulsivity, noncompliance, and aggression) and internalizing (e.g., depression, anxiety, and social withdrawal) behaviors, there is a stark reality that access to these much-needed resources is differentially patterned across children and families of various racial and ethnic backgrounds. Inequities in material resources directly affect children's early developmental outcomes (Duncan, Magnuson & Votruba-Drzal, 2015). For instance, difficulty paying for basic needs (e.g., food, housing, utilities, health care, etc.) and economic insecurity have also been linked to children's externalizing and internalizing behaviors. Specifically, researchers note that

developing in financially stressed environments has the potential to alter positive caregiver behaviors associated with children's positive cognitive, emotional, and behavioral development (e.g., Longo, McPherran Lombardi & Dearing, 2017). Furthermore, health-related risks, conceptualized broadly to include threats such as mental health symptomology and lack of health insurance coverage, among both caregivers and children pose threats to children's development. Caregiver depressive symptoms, which are heightened among families possessing low-income socioeconomic resources (Silva, Loureiro & Cardoso, 2016), have shown deleterious links with children's behavioral functioning (e.g., Trapolini, McMahon & Ungerer, 2007). Additionally, children who lack health insurance coverage are more likely to experience delayed or unmet physician care, such as well-baby and well-child visits (Lave et al., 1998). When children miss well-baby or well-child visits, their caregivers also miss opportunities to receive support and guidance about their children's behavioral and emotional functioning (Weitzman et al., 2015). These threats to children's development are particularly pronounced during early childhood, when chil-

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dren's biology and behavior are rapidly shaped by their environments and experiences (e.g., Shonkoff et al., 2012).

Unfortunately, access to material resources and exposure to material hardships are often shaped by systemic and structural racism that permeates our society. Black Americans earn generally less than their White peers at every level of education (Day & Newburger, 2002; Semega, Fontenot & Kollar, 2017), in part due to the role of discrimination in diminishing the returns of socioeconomic position (e.g., Hudson et al., 2013). Lower earnings available to Black families restrict their access to promotive health resources. As such, racial disparities in health are robustly documented, with consistent evidence of earlier onset and more severe illness among Black Americans for many diseases (Williams et al., 2010). Ironically, for Black children and families, increased resources do not necessarily translate into health promotion. Researchers have found that the stress related to racism can nullify the positive health benefits one would expect with increased resources (e.g., Hudson et al., 2012). Thus, although socioeconomic status is a key factor in accounting for racial inequities in health, race-based health inequities are evident even among higher socioeconomic status Black individuals (Colen, Geronimus, Bound & James, 2006). Further, some racial health inequities, particularly those related to stress, may actually be wider at higher levels of socioeconomic status (Geronimus, Hicken, Keene & Bound, 2006).

Despite this knowledge, there is limited attention to interrogating how the legacy of racism, in all its forms and systemic inequities, influences Black children's development. As such, it is critical to examine Black children's development through the social determinants of early learning framework (Iruka, 2020), which is based on the public health framing of health equity. Rather than solely attending to children's development through a current and color-blind approach, there is a need to situate Black children's development and subsequent outcomes by examining historical and contemporary inequities and harms. That is, we must examine macro- and micro-contexts of Black children and how these contexts contribute to their outcomes and, most importantly, their access to enriching environments that support their health, wellbeing, and learning. Black children's development must be understood by examining the compounding effect of historical and contemporary policies, practices, and interactions that create inequitable access and experiences that are detrimental to their health, development, and learning, and economic growth.

### 1.1. Black families and COVID-19

The coronavirus (COVID-19) pandemic accentuated many of these aforementioned systemic injustices and has added untold stress to the lives of Black children and families in the United States (Umberson et al., 2017; Van Dorn, Cooney & Sabin, 2020; Yip, Feng, Fowle & Fisher, 2021). As a result of structural racism and inequities, Black children and families experience increased exposure to COVID-19 and heightened risk for COVID-19 (Gaylord-Harden et al., 2020). In addition to increased exposure and risk, Black families in the United States are experiencing a host of stressors related to the pandemic at a time when social distancing mandates and guidelines (e.g., The White House, Office of the Press Secretary, 2020) have limited families' access to social and community supports that serve as positive coping mechanisms for Black families. Economic stress, for example, is disproportionately affecting Black families during the pandemic (Hawkins, 2020). Even with the passage of the Coronavirus Aid, Relief, and Economic Security (CARES) Act which aimed to provide fast and direct economic assistance to American families, Black families are experiencing elevated levels of economic instability regardless of their household income level (Iruka, Curenton, Sims, Escayg & Ibekwe-Okafor, 2021). For caregivers, this economic stress is coupled with

additional caregiver burdens during the pandemic (Igielnik, 2021), such as the care and education of their young children. Although the United States did not implement federal mandates for school or early care and education closures, many local jurisdictions implemented closings, so the proportion of children in early care and education decreased substantially in the early months of the pandemic (Barnett & Jung, 2020). Lower rates of early care and education participation among Black families continued throughout 2020 (Iruka et al., 2021). In the wake of closings, many early care and education programs provided support for learning and development outside of the classroom (Barnett & Jung, 2020), but Black caregivers overwhelmingly reported that they were responsible for managing their young children's learning at home during the pandemic (Iruka et al., 2021). These additional responsibilities are coupled with the pressures of protecting children's emotional and behavioral well-being, given children's heightened vulnerability to impacts of traumatic events such as the COVID-19 pandemic (Bartlett, Griffin & Thomson, 2020; Boyraz & Legros, 2020).

More than ever, COVID-19 sheds existing light on how longstanding systemic inequalities affecting Black children and families create racial disparities. The increasing evidence that Black families are disproportionately affected by COVID-19 (Killerby et al., 2020) creates a sense of urgency to better understand the relationship among experiences of racial discrimination, access to material resources, and Black children's well-being during the pandemic. The purpose of this study is to understand how macrosystem influences such as racial discrimination influence the microsystem of families and their implication for children's well-being and learning opportunities. Considering the multiple systems that influence children's lives, the microsystem defined as the immediate social and physical environment (home, community, etc.) and the macrosystem, defined as the given social structure of the U.S. and its underlying belief systems and ideologies (e.g., racism), are critically important for Black children's development.

### 1.2. Theoretical framework

Human development is shaped by reciprocal interactions between individuals, processes, environment, and time (Bronfenbrenner, 1977). As the Integrative Model for Developmental Competencies in Minority Children (Garcia-Coll et al., 1996) posits, when assessing the developmental outcomes of minority children, it is important to understand the interaction between social structures of power and individual development (within context and over time). The model highlights that for Black children and families, factors such as racial discrimination is present in their proximal environments, or those settings that directly interact with the child. This model helps to frame the importance of assessing the role of racism and discrimination on Black child development.

Furthermore, the tenets of Critical Race Theory (CRT) highlight the systemic nature of racism, the agency of oppressed groups, and the role of the social institutions in creating and maintaining racial inequities. In short, critical race theorists conceptualize racism as a structural/systemic reality in the United States (Johnson-Ahorlu, 2017; Vaught & Castagno, 2008). While there are several premises of CRT (e.g., interest convergence, the permanence of racism, and counter-storytelling, to name a few), appertaining to the present study is the permanence of racism. Such tenet can be traced to Bell's (1992) work, who stated that "racism is a permanent component of American life" (p. 13). Indeed, racism is deeply embedded in the structure of the United States and anti-Black racism in particular shapes and informs the everyday experiences of Black Americans and Black people of the diaspora (Busey & Coleman-King, 2020).

Both the Integrative Model for Developmental Competencies in Minority Children and CRT frameworks demonstrate how the microsystem and macrosystem are uniquely interrelated to Black children's well-being and access to key material resources especially in the face of COVID-19. Thus, understanding this transactional model of development through which racism and discrimination is embedded, is key to fully understanding how to promote the optimal developmental outcomes of Black children through systemic changes.

### 1.3. Hypotheses

This paper utilizes data from 704 Black families with young children (0–5 years old) from the Rapid Assessment of Pandemic Impact on Development in Early Childhood (RAPID-EC) developed at the University of Oregon. RAPID-EC is an early childhood family well-being survey designed to gather repeated and essential information about the needs and well-being of children and their families during COVID-19. Through a partnership with the Researchers Investigating Sociocultural Equity and Race (RISER) Network, the RAPID-EC survey was expanded to include questions about racial discrimination (Williams et al., 2008) and its related concerns for children (Vines et al., 2001). The goal was to provide actionable data that could be used to inform short- and long-term policy decisions related to the pandemic. The research questions guiding our investigation are:

- (1) What is the link between material resources (health-promoting resources and economic resources) and Black children's externalizing and internalizing behavior during a pandemic?
- (2) To what extent do caregivers' experiences of discrimination and related concern for their children moderate the relationship between caregiver resources (health-promoting resources and economic resources) and Black children's externalizing and internalizing behavior during a pandemic?

## 2. Methods

### 2.1. Procedure

Data for the current study were drawn from the Rapid Assessment of Pandemic Impact on Development–Early Childhood (RAPID-EC) project. RAPID-EC is a national study that uses ongoing weekly/biweekly surveys to assess the influence of the pandemic on households with young children (0–5 years old). All study procedures have been approved by the institutional review board at the University of Oregon. Participants were recruited through community organization email listservs, Facebook Ads, and panel services. Interested families first completed an online survey to determine their eligibility. Eligible families then provided online consent to participate in the study and completed a baseline survey that included core modules such as demographics, employment and financial strain, health and well-being, and childcare accessibility. After finishing the baseline survey, families were enrolled into a participant pool and invited by emails to complete follow-up surveys, which included baseline core modules and different special topics. Baseline and follow-up surveys were distributed on a weekly/biweekly basis. The samples for follow-up survey at each time-point were nationally representative based on racial, income, and geographical distributions. Each family received \$5 as an incentive for every survey they completed.

### 2.2. Study participants

The RAPID-EC data sample used in the present analyses were collected from the 1st week (April 6, 2020) to the 31st week

(November 3, 2020) with 8,053 families. All families with young children (0–5 years old) in the sample completed a baseline survey, and the majority of families completed follow-up surveys (average number of surveys for participating families = 3.05;  $SD = 3.41$ ; range = 1–21). Follow-up surveys included baseline core modules as well as different special topic modules, such as racism and discrimination.

The majority of caregivers in the overall study were female (91.75%). Caregivers' age ranged from 18 to 63 years old (Mean = 33.65 years,  $SD = 6.79$  years). This sample comprised diverse racial/ethnic composition, with 73.78% White, 8.79% Black, 3.70% Asian, 1.08% American Indian/Alaska Native, 0.14% Native Hawaiian/Pacific Islander, 5.38% Bi-racial, and 7.13% Others. Additionally, there were 18.42% caregivers reporting being Latinx. Based on reported household income in 2019, there were 19.06% of families at or below 100% federal poverty level (FPL), 27.91% between 100% and 200% FPL, and 53.04% above 200% FPL.

In the current study, all Black families with young children ( $N = 704$ ); were considered in the first research question about associations between caregivers' access to material resources and children's behavioral functioning. Black caregivers' age ranged from 19 to 64 years old ( $M = 34.68$  years,  $SD = 7.07$  years). There were 30.20% of Black families at or below 100% FPL, 32.09% between 100% and 200% FPL, and 37.71% above 200% FPL. Black families were drawn from across the United States and were geographically diverse (see Appendix Fig. A). The largest proportions of families were drawn from Texas (8.78%), Georgia (8.36%), Florida (7.37%), and North Carolina (7.37%).

Because questions on caregivers' experiences of racism were only assessed between week-21 (August 24, 2020) and week-31 (November 3, 2020), a smaller subsample of Black families with young children ( $N = 211$ ) who responded to these questions was utilized to answer the second research question. A series of linear models regressing each variable on the group indicator variable (the overall sample vs. the subsample of families) suggested that the subsample was largely similar to the overall sample of Black families with young children, with the exception that caregivers in the subsample reported higher externalizing behaviors among children during the pandemic,  $F(1, 700) = 16.53, P < .01$ . and were slightly older,  $F(1, 636) = 4.34, P < .05$  (see Table 1 for full descriptive information about the overall sample and subsample of families).

### 2.3. Measures

Given RAPID-EC's nature of frequent and brief online surveys that captured numerous domains, the RAPID-EC research team abbreviated questions and fewer items were used to reduce survey length and avoid participants' fatigue. When validated measures (e.g., child internalizing and externalizing behaviors) were available, questions that were most relevant to families' experiences during the COVID-19 pandemic were selected by the RAPID-EC research team. For domains with no validated or appropriate measures (e.g., access to and utilization of healthcare services), questions were developed by the RAPID-EC research team and reviewed by members on the project's national advisory team.

#### 2.3.1. Dependent variables

**2.3.1.1. Children's externalizing and internalizing behaviors.** Caregivers' self-report of children's externalizing and internalizing behaviors were assessed at all time-points in both baseline (i.e., self-reports about behavior before the pandemic) and follow-up surveys (i.e., self-report of behavior during the pandemic). Caregivers reported children's externalizing and internalizing behaviors on each of their children between 0 and 5 years old living in their household using 2 items from the Child Behavioral Checklist

**Table 1**  
Descriptives for children’s behavioral outcomes and predictors among the overall sample and the subsample of families.

	Overall Sample (N = 704)		Subsample (N = 211)		F
	M(SD) or%	Range	M(SD) or%	Range	
<i>Behavioral Functioning</i>					
Externalizing during pandemic	0.88(0.62)	0–2	0.91(0.51)	0–2	1.97**
Externalizing prior to pandemic	0.69(0.61)	0–2	0.70(0.62)	0–2	0.24
Internalizing during pandemic	0.46(0.57)	0–2	0.44(0.48)	0–2	0.01
Internalizing prior to pandemic	0.31(0.53)	0–2	0.24(0.45)	0–2	4.00*
<i>Access to Material Resources</i>					
Health promoting resources	1.45(1.03)	0–5	1.35(0.93)	0–5	1.42
Economic Resources	2.18(1.81)	0–6	2.02(1.72)	0–6	3.20
<i>Discriminatory Experiences &amp; Concern</i>					
Caregivers’ experiences of discrimination	–	–	0.12(0.19)	0–3	–
Concern for children	–	–	0.93(0.83)	0–1	–
<i>Other Demographic Characteristics</i>					
Number of children age 0–5	1.29(0.55)	–	1.33(0.57)	–	1.69
Caregiver age (years)	33.90(7.07)	–	34.68(6.18)	–	4.34*
Latinx	8.45%	–	6.25%	–	1.24
FPL ≤100%	30.20%	–	28.38%	–	0.79
FPL 100.1 – 200%	32.09%	–	31.98%	–	0.02
FPL > 200%	37.71%	–	39.64%	–	0.93

Note: FPL = Federal Poverty Line; \*  $p < .05$ ; \*\*  $p < .01$ . The subsample (N = 211) reflects a smaller group of caregivers within the larger sample (N = 704) that answered questions about their experiences of discrimination and their concern with their child’s experiences with discrimination.

(CBCL) - Preschool (Achenbach & Rescorla, 2001). CBCL-preschool has 99 items and has been validated for children at or above 18 months old (Achenbach & Rescorla, 2000). According to the psychometric analyses (Achenbach & Rescorla, 2000), the internalizing and externalizing syndrome scales had high test-retest reliabilities (internalizing:  $r = 0.90$ , externalizing:  $r = 0.87$ ), content and criterion-related validity (as indicated by item/scale discrimination between referred and non-referred children), construct validity (as indicated by concurrent & predictive correlations with other behavioral problem measures, such as the Toddler Behavior Screening Inventory and the Infant-Toddler Social and Emotional Assessment), and internal consistency (internalizing:  $\alpha = 0.90$ , externalizing:  $\alpha = 0.94$ ). Given the limited survey length, the RAPID-EC research team selected 2 items that could reflect behaviors among younger children (below 18 months). For each behavior, caregivers reported on both pre-pandemic and during-pandemic behaviors. In particular, externalizing behaviors during-pandemic were assessed by asking caregivers to “Please select the answer which best fits your child’s behavior in the last week: fussy or defiant,” and internalizing problems were obtained by asking “Please select the answer which best fits your child’s behavior in the last week: too fearful or anxious.” Possible responses include 0 (*not true*), 1 (*somewhat/sometimes true*) and 2 (*often/very true*). These 2 items were moderately correlated ( $r_{pre} = 0.38, P < .001$ ;  $r_{during} = 0.47, P < .001$ ). Pre-pandemic externalizing and internalizing behaviors were assessed by asking caregivers to select the answer which best fits their child’s behavior “prior to the coronavirus (COVID-19) pandemic.” Specifically, “Please select the answer which best fits your child’s behavior prior to the COVID-19 pandemic: fussy or defiant” (externalizing), and “Please select the answer which best fits your child’s behavior prior to the COVID-19 pandemic: too fearful or anxious” (internalizing). For each time period (pre-pandemic and during-pandemic), the mean scores of all children ages 0–5 in the household were calculated to indicate children’s average externalizing and internalizing problems, respectively. Because during-pandemic behaviors were asked at both baseline and follow-up surveys, caregivers’ responses across surveys were averaged to reflect their children’s average behavior across their participation in the survey, with scores ranging from 0 (no reported externalizing/internalizing behaviors) to 2 (externalizing/internalizing behaviors reported consistently).

#### 2.4. Independent variables (Material resources)

##### 2.4.1. Health promoting resources

2.4.1.1. *Access to and utilization of healthcare services.* Families’ access to and utilization of healthcare services were assessed at all time-points in both baseline and follow-up surveys. Caregivers reported on a series of questions developed by the RAPID-EC research team. Particularly, caregivers’ delayed healthcare visits were assessed by asking the following question “At any time in the last month, did you delay getting medical care (including physical or mental health visits)?” Caregivers also reported on their child’s missed preventive healthcare visits by answering, “Have you missed a well-baby/well-child checkup since the coronavirus (COVID-19) pandemic began?” Responses for both questions included 0 (*no*) and 1 (*yes*) and were averaged across baseline and follow-up surveys to reflect average access and utilization across caregivers’ participation in the survey.

2.4.1.2. *Lack of health insurance coverage.* Caregivers’ and children’s health insurance coverage was assessed at all time-points in both baseline and follow-up surveys. Two questions from the National Health Interview Survey (NHIS; National Center for Health Statistics, 2017) were modified by the research team and used to capture families’ health insurance coverage, including “Are you covered by any kind of health insurance or some other kind of health care plan?” and “Is your child(ren) that are between 0 and 5 years of age covered by any kind of health insurance or some other kind of health care plan?” Caregivers’ yes/no responses were coded to indicate a lack of health insurance coverage, with 0 indicating health insurance coverage and 1 indicating a lack of health insurance coverage; these responses were averaged across baseline and follow-up surveys to reflect average health insurance coverage across caregivers’ participation in the survey.

2.4.1.3. *Caregivers’ mental health.* Caregivers’ mental health was captured by 4 constructs at all time-points during the baseline and follow-up surveys: depressive symptoms, anxiety symptoms, stress, and loneliness. In particular, depressive symptoms were obtained by averaging 2 items from the Patient Health Questionnaire-2 (PHQ-2; Kroenke, Spitzer & Williams, 2003): “During an average week, how often were you bothered by the following problems?”



1) Little interest or pleasure in doing things; 2) Feeling down, depressed, or hopeless.” PHQ-2 has been established as a depression screener with high construct validity (as indicated by strong association with declines in functional status, mental health, general health perceptions, and other measures) and criteria validity (kappa of 0.62 for any depressive disorder & 0.48 for major depressive disorder) among the general population, and a score  $\geq 3$  has been reported to have high sensitivity (83%) and specificity (92%) for major depression (Kroenke et al., 2003). These 2 items also had high internal consistency in the current sample ( $\alpha_{pre} = 0.82$ ,  $\alpha_{during} = 0.87$ ). Anxiety symptoms were assessed by averaging 2 items from the Generalized Anxiety Disorder 2-Item Scale (GAD-2; Kroenke, Spitzer, Williams, Monahan & Löwe, 2007), a validated anxiety screener: “During an average week, how often were you bothered by the following problems? 1) Feeling nervous, anxious, or on edge; 2) Not being able to stop or control worrying.” GAD-2 has been shown to have good construct validity (as indicated by strong associations with impaired functioning, disability days, and physician visits), and a cutoff score of  $\geq 3$  shows high sensitivity (86%) and specificity (83%) for generalized anxiety disorder. In the current sample, these 2 items had high internal consistency ( $\alpha_{pre} = 0.85$ ,  $\alpha_{during} = 0.89$ ). Responses for PHQ and GAD-2 questions ranged from 0 (not at all) to 3 (nearly every day). Caregivers’ stress levels were assessed by a single-item indicator developed and validated by Elo, Leppänen and Jahkola (2003), “Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. Did you feel this kind of stress?” Responses for the stress indicators ranged from 1 (not at all) to 5 (very much). This item has been shown to have useful content and concurrent criterion validity (as indicated by congruence with other validated well-being scales), construct validity (as indicated by the convergence and divergence with perceived health as well as associations with work overload). Lastly, caregivers also reported on their loneliness (a single-item indicator from the NIH Toolbox item bank version 2.0; Gershon et al., 2013) by responding to “Please describe how often...I felt lonely.” Responses for the loneliness item ranged from 1 (never) to 5 (always).

To obtain composite scores for caregivers’ mental health problems, the scores of the 4 constructs were transformed to a range of 0–100. Then, average scores were calculated to indicate caregivers’ total mental health problems during the COVID pandemic ( $\alpha = 0.89$ ). Scores in the top quartile were coded as 1 to denote more severe mental health problems, while all others were coded as 0; scores were averaged across baseline and follow-up surveys to reflect average mental health problems across caregivers’ participation in the survey.

## 2.4.2. Economic resources

**2.4.2.1. Household income decrease.** Households’ decreases in income were assessed at all time-points in baseline and follow-up surveys through the question developed by the research team: “Which of the following best describes what has happened to your family income during the coronavirus (COVID-19) pandemic? – Has increased; has stayed the same; has decreased.” Responses were coded as 0 (income not decreased) and 1 (income decreased) and were averaged across baseline and follow-up surveys.

**2.4.2.2. Financial difficulties.** Caregivers reported on their financial difficulties by responding to a question modified from the Economic Hardship Difficulty questionnaire (EHQ; Lempers, Clark-Lempers & Simons, 1989): “Which of the following best describes your family financially at this time? – No problems; minor problems; major problems; extreme problems.” The original EHQ scale included 12 items and has been shown to have high internal consistency ( $\alpha = 0.86$ ) and significant associations with adolescent

distress (e.g., depression, loneliness; Lempers et al., 1989). This modified question was assessed at all time-points in baseline and follow-up surveys. Responses were recoded as 0 (minor or no financial problems) and 1 (major or extreme financial problems) and were averaged across baseline and follow-up surveys.

**2.4.2.3. Material hardship.** At all time-points in baseline and follow-up surveys, caregivers reported on their difficulty paying for basic needs, including food, housing, utilities (e.g., electric, water, trash), and health care, in the past month in response to the prompt “Which of these needs have been hard to pay for in the past month? Select all that apply.” Responses were coded as 0 (no difficulty) and 1 (difficulty) for each basic need, resulting in 6 separate dichotomous variables indicating material hardships, each averaged across baseline and follow-up surveys.

**2.4.2.4. Caregivers’ employment decrease.** At all time-points in baseline and follow-up surveys, caregivers indicated whether their employment decreased by responding to the team-developed question “Has your level of employment decreased due to the coronavirus (COVID-19) pandemic?” Responses included 0 (no) and 1 (yes) and were averaged across baseline and follow-up surveys.

## 2.5. Moderators

### 2.5.1. Discrimination variables

**2.5.1.1. Caregivers’ experiences of discrimination and related concern for child(ren).** Discrimination and related concern for children were assessed using adapted versions of the Major Experiences of Discrimination (MED; Kessler, Mickelson & Williams, 1999; Williams et al., 2008; Williams, Yu, Jackson & Anderson, 1997) and Telephone-Administered Perceived Racism Scale (TPRS; Vines et al., 2001), respectively. The Major Experiences of Discrimination Scale included major experiences of unfair treatment in domains of employment, education, housing, and interactions with the police, which has been linked with mental health in samples in the United States (Kessler et al., 1999) and internationally (Williams et al., 2008) and is one of the most widely used measures of discrimination, including to validate new measures of self-reported discrimination (Krieger, Smith, Naishadham, Hartman & Barbeau, 2005). This scale has been shown to have high internal consistency ( $\alpha = 0.84$ ; Williams et al., 2008) and significant correlations with perceived everyday discrimination (Kessler et al., 1999). The Telephone-Administered Perceived Racism Scale has demonstrated both homogeneity, test-retest reliability (0.61 - 0.82), and high internal consistency ( $\alpha = 0.88$ ) among Black women in the United States (Vines et al., 2001).

Discrimination and concern were assessed in follow-up surveys only between week-21 (August 24, 2020) and week-31 (November 3, 2020). Based on MED and TPRS, experiences of discrimination were measured using 12 items (see Appendix Table A). Caregivers were asked to respond to the prompt: “Please indicate whether you have experienced any of the following since the coronavirus (COVID-19) pandemic.” Example items included “Have you been denied medical service because of your race or ethnicity?” and “Have you been denied service because of your race or ethnicity?” Response options included 0 (no) and 1 (yes), as well as not applicable (N/A). For caregivers who participated in multiple follow-up surveys, responses were averaged across weeks. These items have high internal consistency ( $\alpha = 0.87$ ). Concerns for child(ren) were captured by 9 items (see Appendix Table B). Caregivers were asked to respond to the prompt: “Since the coronavirus (COVID-19) pandemic, for the following questions, please indicate how often you are concerned about the following regarding your child(ren) between the ages of 0–5.” Example items included “getting poor care and education” and “being mistreated by adults,” and responses

ranged from 0 (*never*) to 3 (*most of the time*). Caregivers could also indicate that the question was not applicable (N/A). For caregivers who participated in multiple follow-up surveys, responses were averaged across weeks. These items have high internal consistency ( $\alpha = 0.75$ ).

## 2.6. Analytic approach

All analyses were conducted in Stata version 16. We first examined bivariate correlations (Pearson's  $r$ ) between variables of interest in the study. Next, we developed theoretically driven count variables to denote *health promoting resources* and *economic resources*, as well as composite variables of caregivers' *experience of discrimination* and *related concern for children*. In order to account for caregivers' potential participation in multiple surveys, each measure was averaged across surveys. That is, if caregivers participated in both baseline and follow-up surveys, their report of *health risks* was averaged across surveys to reflect their average *health risk* across their participation. This approach not only accounts for repeated measures (across baseline and follow up surveys), but also capitalizes on the breadth of data available in the longitudinal RAPID-EC by using all available weeks of data for each caregiver.

Next, ordinary least squares (OLS) regressions were conducted to examine how resources were linked with caregivers' reports of children's externalizing and internalizing behaviors. All analyses controlled for respective pre-pandemic behavioral functioning in order to better assess links during the pandemic. To assess the moderating role of discrimination and related concerns for children (research question 2), interaction terms between centered measures were introduced into the OLS regression models to assess whether the role of the predictor variables (caregivers' access to resources) on the dependent variable (Black children's behavioral functioning) depends on the value of another predictor variable (experiences of discrimination and related concerns for children), or if the predictor variables are independent of each other. Specifically, interaction terms were created by multiplying centered measures of access to resources (health-promoting resources and economic resources) and caregivers (1) experiences of discrimination and (2) related concerns for children, resulting in 6 interaction terms across the models. To decrease concerns over collinearity, all variables were centered before calculating interaction terms, and interactions were entered one set at a time (Aiken & West, 1991). Finally, effect sizes (ES) were calculated by multiplying the predictor's coefficient by the standard deviation of the predictor and dividing by the standard deviation of the child outcome (NICHD EC-CRN & Duncan, 2003).

### 2.6.1. Scale creation

Caregiver reports of all variables of interest were averaged across caregivers' participating surveys in order to account for the repeated measures (baseline and follow up surveys) and to reflect their average experiences across their participation in the survey. For example, if a caregiver participated in 1 baseline and 1 follow up survey and reported lack of health care coverage during their baseline survey but not their follow-up survey, their "lack of caregiver health insurance coverage" value would be 0.50, with 1 indicating lack of coverage and 0 indicating complete coverage. *Health promoting resources* and *economic resources* were measured as count variables, with higher scores indicating a larger number of caregiver-reported risks or hardships.

To assess *health promoting resources*, we summed 5 indicators of health-related stress and risk. These indicators included 4 dichotomous variables reflecting caregivers' delayed health care, a missed well-baby/well-child visit, lack of caregiver health insurance coverage, and lack of child health insurance coverage. Care-

givers' yes/no responses were coded such that 1 indicated risk (see the measures section for more detailed information). The fifth indicator, high caregiver mental health issues, reflected their depressive symptoms, anxiety symptoms, stress, and loneliness (see the measures section). Mental health was the only construct in the *health risk* count variable that was not measured dichotomously. Thus, to parallel the dichotomous nature of the other health risk measures, scores in the top quartile were coded as 1 to denote more severe mental health problems, while all others were coded as 0. Responses across all 5 indicators were summed to create a scale ranging from 0 (no experiences of health-related stress and risk) to 5 (experience of all health-related stress and risks). We note that because caregivers' responses on baseline and follow-up surveys were averaged, the scale is not a true count variable but rather a continuous measure of risk across the 5 items.

*Economic Resources* was operationalized by summing caregivers' yes/no report of income decreases, financial problems, difficulty paying for food, difficulty paying for housing, difficulty paying for utilities, and employment decrease with scores ranging from 0 to 6. Once again, we note that because caregivers' responses on baseline and follow-up surveys were averaged, the scale is not a true count variable but rather a continuous measure of risk across the 6 economic resources items.

Caregivers' responses to *discrimination* items were averaged to reflect the proportion of applicable discriminatory experiences that they had experienced since the pandemic began with higher values indicating more discriminatory experiences ( $\alpha = 0.89$ ). Caregivers' responses were averaged across all participating surveys. Items that caregivers indicated were not applicable were excluded, with regard to both the sum and the denominator.

Similarly, caregivers' *concerns for children* were averaged to reflect the average level of concern that caregivers had since the pandemic began with higher values indicating more concern for their children ( $\alpha = 0.95$ ). Again, caregivers' responses were averaged across all participating surveys and items that caregivers indicated were not applicable were excluded, with regard to both the sum and the denominator.

### 2.6.2. Missing data and analyses

Missing data analysis suggested that missingness in the overall sample ranged from 0% to 22.52%, 0.14%–22.52% missing on health promoting measures, 0%–0.71% missing on subcomponents of economic resources, and 0%–0.57% missing on children's behavioral functioning prior to and during the pandemic. Missingness on discrimination and related concerns for children in the subsample of families participating during weeks when discrimination questions were assessed ranged from 0% to 0.95% on items assessing discriminatory experiences and 0.47%–3.32% on items reflecting related concern for children. Because missing data introduces biases into the sample, 25 complete datasets were created. Multiple imputation was the preferred method because it allows for missing covariates to reflect similar cases while obtaining unbiased estimates while minimizing additional error (Allison et al., 2008).

## 3. Results

### 3.1. Descriptive results

Table 1 presents descriptive information for the overall sample and subsample of families who provided information about discriminatory experiences and related concern for children. Table 2 presents correlations among study variables, as well as subcomponents of the *health promoting resources* and *economic resources* counts, for the overall sample. Table 3 presents correlations among study variables among the subsample of families who provided in-

**Table 2**  
Bivariate correlation between children's behavioral outcomes, predictors, and subcomponents of predictors among overall sample.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<i>Behavioral Functioning</i>																			
1) Externalizing during pandemic	–																		
2) Externalizing prior to pandemic	0.59*	–																	
3) Internalizing during pandemic	0.50*	.32*	–																
4) Internalizing prior to pandemic	0.32*	.42*	.55*	–															
5) Health promoting resources	0.23*	.14*	.27*	.20*	.18*	–													
6) Delayed health care+	.12*	.08*	0.11	.10*	.10*	.43*	–												
7) Missed well-child visit+	.11*	.04*	.12*	.07*	.12*	.60*	.20*	–											
8) Caregiver lack of insurance+	–0.02*	.03	.06*	.07*	.03*	.43*	.07*	.01	–										
9) Child lack of insurance+	–0.05*	–0.01	.03*	.07*	.03*	.39*	.03*	.02*	.39*	–									
10) Caregiver mental health+	.32*	.19*	.32*	.22*	.13*	.59*	.19*	.12*	.03*	.02*	–								
11) Economic resources	.14*	.04*	.21*	.11*	.30*	.28*	.12*	.16*	.13*	.02*	.25*	–							
12) Income decrease+	.05*	–0.05*	.03*	–0.05*	.12*	.11*	.03*	.07*	.05*	–0.02*	.09*	.66*	–						
13) Financial problems+	.14*	.06*	.21*	.10*	.21*	.25*	.09*	.11*	.12*	0.00	.26*	.71*	.32*	–					
14) Difficulty paying: food+	.09*	.08*	.16*	.14*	.26*	.20*	.15*	.12*	.09*	.06*	.19*	.58*	.21*	.31*	–				
15) Difficulty paying: housing+	.08*	–0.01	.18*	.11*	.29*	.19*	.03*	.13*	.09*	0.00	.16*	.74*	.33*	.48*	.35*	–			
16) Difficulty paying: utilities+	.13*	.03*	.16*	.09*	.25*	.23*	.08*	.15*	.07*	–0.05*	.22*	.74*	.36*	.51*	.36*	.56*	–		
17) Employment decrease+	.08*	.05*	.13*	0.09*	.13*	.18*	.01*	.07*	.11*	.09*	.11*	.64*	.43*	.31*	.21*	.32*	.27*	–	
18) Number children	.02*	.01	.03*	.01	.01	.02	–0.02*	.09*	–0.09*	.03*	.01	.02*	.06*	–0.05*	.02*	.02*	.03*	.02*	–

Note. N = 704. + denotes an item in the Health Promoting Resources or Economic Resources count.

\* p < .05.

**Table 3**  
Bivariate correlation between children's behavioral outcomes and predictors among subsample of families reporting discriminatory experiences and related concerns for children.

	1	2	3	4	5	6	7	8	9	10
<i>Behavioral Functioning</i>										
1) Externalizing during Pandemic	–									
2) Externalizing prior to Pandemic	0.48*	–								
3) Internalizing during Pandemic	0.56*	.15*	–							
4) Internalizing prior to Pandemic	0.22*	.41*	.44*	–						
5) Health promoting resources	.36*	.17*	.32*	.06*	.16*	–				
6) Economic resources	.11*	0.09*	.27*	.15*	.48*	.24*	–			
7) Discriminatory experiences	0.11*	0.02	.35*	.14*	.19*	.20*	.29*	–		
8) Concerns for children	.33*	.10*	.25*	.20*	.25*	.30*	.33*	.30*	–	
9) Number of children	.03*	.02	.04*	.05*	.09*	.01	–0.04*	.07*	.06*	–

Note. N = 211.

\* p < .05.

**Table 4**  
Results of OLS regressions predicting children's behavioral outcomes.

	Externalizing behaviors B (SE)	Internalizing behaviors B (SE)
Intercept	0.86(0.05)**	0.45(0.04)**
Behavioral Lag	0.57(0.03)**	0.54(0.03)**
Health Promoting Resources	0.08(0.02)**	0.07(0.02)**
Economic Resources	0.02(0.01)*	0.03(0.01)**
Number of children age 0–5	0.09(0.16)	0.00(0.03)

Note. N = 704.

\* p < .05

\*\* p < .01,

formation about discriminatory experiences and related concern for children.

3.1.1. Examining links between material resources and child behavioral outcomes

The first aim of the study was to examine how material resources (health-promoting resources and economic resources) were linked with caregiver-reported children's behavioral functioning. Results of OLS regressions are reported in Table 4.

A consistent pattern emerged across both externalizing and internalizing behaviors, in that families' experiences of health promoting resources (P < .01) and economic resources (P < .05) were linked with caregiver-reported externalizing and internalizing behaviors, such that a greater experience of risk and hardship was linked with heightened externalizing and internalizing behaviors. These associations translated into small effect sizes ranging from

0.06 to 0.13. All significant associations emerged while controlling for caregiver report of parallel behaviors prior to the pandemic.

3.1.2. Considering the role of discrimination on links between resources and behavior

The second aim of this study was to consider the role of caregivers' experiences of discrimination on links between material resources and children's behavioral functioning. Table 5 presents the results of OLS regression models incorporating caregivers' experiences of discrimination in the top panel, and results of models with interaction terms between caregivers' experiences of discrimination and each measure of resources in the bottom panel.

Results of the main effects models revealed no significant links between caregivers' experiences of discrimination during the pandemic and children's behavioral functioning. Additionally, models incorporating interaction terms revealed no significant interactions

**Table 5**  
Results of OLS regressions predicting children's behavioral outcomes with caregivers' experiences of discrimination.

	Externalizing behaviors <i>B (SE)</i>	Internalizing behaviors <i>B (SE)</i>
<i>Main Effects</i>		
Intercept	0.90(0.08)**	0.47(0.07)**
Behavioral Lag	0.34(0.05)**	0.40(0.06)**
Health Promoting Resources	0.15(0.03)**	0.12(0.03)**
Economic Resources	-0.00(0.02)	0.02(0.02)
Caregivers' Experiences of Discrimination	0.15(0.16)	0.21(0.15)
Number of children age 0–5	0.02(0.05)	0.00(0.05)
<i>Moderation Analyses</i>		
Intercept	0.91(0.08)**	0.48(0.07)**
Behavioral Lag	0.35(0.05)**	0.39(0.06)**
Health Promoting Resources	0.14(0.04)**	0.11(0.03)**
Economic Resources	0.01(0.02)	0.03(0.02)
Caregivers' Experiences of Discrimination	0.14(0.18)	0.14(0.17)
Number of children age 0–5	0.02(0.05)	0.00(0.05)
Health Risk x Discrimination	0.12(0.18)	0.26(0.17)
Material Hardship x Discrimination	-0.14(0.10)	-0.04(0.10)

Note. *N* = 211. \*\**p* < .01, \**p* < .05.

**Table 6**  
Results of OLS regressions predicting children's behavioral outcomes with caregivers' concern for children.

	Externalizing behaviors <i>B (SE)</i>	Internalizing behaviors <i>B (SE)</i>
<i>Main Effects</i>		
Intercept	0.79(0.08)**	0.39(0.08)**
Behavioral Lag	0.32(0.04)**	0.39(0.06)**
Health Promoting Resources	0.13(0.03)**	0.11(0.03)**
Economic Resources	-0.01(0.02)	0.01(0.02)
Caregivers' Concern for Children	0.14(0.04)**	0.11(0.04)**
Number of children age 0–5	0.00(0.05)	-0.00(0.05)
<i>Moderation Analyses</i>		
Intercept	0.78(0.08)**	0.39(0.08)**
Behavioral Lag	0.34(0.05)**	0.41(0.06)**
Health Promoting Resources	0.13(0.04)**	0.12(0.04)**
Economic Resources	-0.03(0.03)	-0.00(0.03)
Caregivers' Concern for Children	0.14(0.04)*	0.11(0.04)**
Number of children age 0–5	-0.00(0.05)	-0.01(0.05)
Health Promoting Resources x Concern	-0.02(0.04)	-0.03(0.04)
Economic Resources x Concern	0.02(0.02)	0.03(0.02)

Note. *N* = 211.

\* *p* < .05.

\*\* *p* < .01.

between access to material resources and caregivers' experiences of discrimination during the pandemic.

### 3.1.3. Caregivers' concern for children and links between resources and behavior

The final aim of this study was to consider the role of caregivers' concern about their children's experiences of discrimination on links between caregiver resources and children's behavioral functioning. Table 6 presents the results of OLS regression models incorporating caregivers' concern for their children in the top panel, and results of models with interaction terms between caregivers' concerns and each measure of resources in the bottom panel.

Results of the main effects models incorporating caregivers' concern revealed a positive significant link between caregivers' concern and their children's externalizing and internalizing behaviors (*P* < .01) such that greater concerns were associated with heightened externalizing (effect size = 0.23) and internalizing (effect size = 0.19) behaviors. Models incorporating interaction terms between caregivers' concern and each measure of resources revealed no significant interactions.

Additional model specifications considered caregivers' concern for children and caregivers' experiences of discrimination in the same set of models. Results were consistent with those presented in Tables 5 and 6, but due to the small sample size we present the separate analyses.

## 4. Discussion

The purpose of this study was to investigate the relationship between access to material resources (i.e., health-promoting resources and economic resources), experiences of racism and discrimination, and Black children's (age 0–5) psychological well-being during the COVID-19 pandemic. Such a study was needed because research has shown that the COVID-19 pandemic has disproportionately affected Black families in terms of finances (Iruka et al., 2021) as well as health outcomes (Gaylord-Harden et al., 2020). The current study builds on the existing body of literature by exploring how the pandemic is affecting Black children's social-emotional behavior functioning, particularly as it relates to the psychological phenomenon of internalizing and externalizing behavior among young children.



Overall, our results indicate that COVID-19 is indeed affecting Black families in a myriad of negative ways. For instance, we found that when caregivers themselves reported experiencing less health promoting resources, such as delaying health care visits for themselves or their child, they were more likely to report that their children were fussier or more defiant and more likely to report that their children were anxious or fearful. Not only was caregivers' reported health promoting resources linked with young children's behavior function, but also caregivers who reported greater material hardship were more likely to report that their children were fussier or more defiant and more likely to report that their children were anxious or fearful. Yet, it was not only these health and financial factors that were concerning caregivers during the pandemic. Caregivers were also concerned about their children facing racial discrimination. Those caregivers who reported higher levels of concern about racial discrimination directed toward their child reported were more likely to describe their children as being fussy or defiant and more likely to report that their children were anxious or fearful.

The fact that caregivers are describing such concerns about their children during this pandemic is worthy of attention from both policymakers and public health officials for several reasons. One, these findings confirm that caregiver stress is a primary driver of externalizing and internalizing behavior in children (Stone et al., 2016), and thus, efforts need to be made to ensure families have access to mental health supports they need to alleviate stress. This can be done by funding more mental health initiatives that expand Black families' access to free counseling and therapy services. Two, these internalizing (i.e., anxious, fearful) and externalizing (i.e., fussy, defiant) markers of children's behavioral functioning are important indicators of young children's current psychological health as well as their long-term mental health and wellbeing (Angold & Egger, 2007); for example, children who experience internalizing and externalizing problems at a young age are on a trajectory to experience difficulties with peers, school achievement, and social skills in adolescence (e.g., Bornstein et al., 2010). Three, our findings corroborate other research demonstrating that material hardship, specifically lack of financial resources, is linked to children's externalizing and internalizing behavior (Mäntymaa et al., 2012). Thus policies, such as the CARES Act, which provides families with needed material resources, such as unemployment benefits, stimulus checks, and funding to keep child care programs open, are critical social service benefits that help keep families afloat and support children's healthy behavioral functioning. Four, the stress and trauma that families are experiencing during the COVID-19 pandemic can help us understand how young children's behavior functioning might operate during other catastrophes, such as natural disasters, or other times of when their caregivers have experienced prolonged hardships, such as childhood trauma (Hatch et al., 2020) or domestic violence (Huang et al., 2010), which can make our society better prepared to protect children in the future.

Hence, during this pandemic when Black families are experiencing material hardships and elevated levels of stress that are compounded by fears of racial discrimination, policies and social programs targeted towards providing caregivers with social support are critical for protecting children's psychological health and for restoring family functioning. Fortunately, research has found that providing family social support is an important protective factor for buffering against children's internalizing (Quamma & Greenberg, 1994) and externalizing behaviors (Hatch et al., 2020). Other successful policy strategies to reduce children's internalizing and externalizing, are school-wide social-emotional intervention programs (Kramer et al., 2014; McIntosh et al., 2014). Such a focus on fostering children's social-emotional development in schools is critical during this pandemic when children are highly stressed with adjusting to remote learning and hybrid schooling and at a

time when many children are worried about their health and the health of their family members. Future research should consider a longitudinal approach to evaluating child wellbeing and hardship over the course of the pandemic. This approach will allow researchers to assess the relationship between changes in federal and state level support on the wellbeing of Black children and families.

#### 4.1. Limitations

Although this study contributes new knowledge about how young Black children and their caregivers are faring during the pandemic, it is still important to acknowledge the limitations of this study. In particular, the correlational design prohibits drawing any causal inferences about the relationships between Black families' access to resources during the pandemic and children's behavioral functioning. Further, the relatively small sample size precludes the addition of theoretically and empirically informed covariates. Still, the descriptive results provide invaluable insights into the experiences of Black families during the pandemic and suggest the importance of future work exploring the behavioral implications of families' experiences of stress during this time of heightened societal distress.

The inclusion of self-reported data is both a limitation and a strength. For instance, Althubaiti (2016) explains there are many ways in which such data can be bias, however, self-reported data can be the most valuable method for obtaining respondents' unique perspectives, views, and opinions. The inclusion of self-reported data that requires participants to recall past information and report on current child behaviors is likely to introduce bias and be subject to limitations in the respondents' memory. Also, in many self-reported surveys, participants are likely to under-report or over-report in efforts to better represent their situation (Rosenman, Tennekoon & Hill, 2011), in order to respond in socially desirable ways. Additionally, the shared method variance introduced by self-reported data can lead to inflated estimates of the relationships (Brannick, Chan, Conway, Lance & Spector, 2010). Nevertheless, it is important to recognize the importance and validity of self-report when examining ones' experiences with racism and discrimination, especially in light of the links between these self-reported experiences and long-term health and well-being outcomes. Future research should consider methodological techniques to better account for the bias introduced by self-reported data.

Due to the nature of the weekly large-sample data collection, we utilized questionnaires (whose validity and reliability had not been fully established) that were either shortened or developed by the RAPID-EC research team. As such, further research may also seek to utilize more comprehensive measures of behavioral functioning, given that single items from the Child Behavior Checklist (Achenbach & Rescorla, 2001) were used due to the breadth of content covered in the RAPID-EC survey.

Additionally, although our measures of health promoting resources and economic resources comprised multiple items, Black families' experiences with early care and education during the pandemic were not operationalized, given the limitations of the data. Given extensive work underscoring the promotive (NICHD ECRN, 1998; 2001) and protective (Burchinal, Peisner-Feinberg, Pianta & Howes, 2002; Elango et al., 2015; Hamre & Pianta, 2005; Yoshikawa et al., 2013) role that high-quality early educational opportunities play for young children, this research would be complemented by in-depth explorations of Black families' experiences with accessing and utilizing early care and education for their young children during the pandemic.

Lastly, our study adheres to a population-based approach and the RAPID-EC survey was intended to examine the challenges, risks, and needs of all families during the pandemic. The survey

was designed to investigate families’ health and wellness during a time of global stress, which does not mean that the research takes a deficit-perspective. A deficit-perspective is exemplified by situating the *causes* of hardship and challenges within the population itself. Quite the opposite, our study is clear that the cause of the challenges families are facing is due to the global pandemic that is completely beyond their control. Furthermore, the fact that Black families may be experiencing these challenges to a greater extent than other racial-ethnic groups is also caused by the structural racism and inequities that have been legislated, financed, and ideologically supported by the United States government. Nevertheless, because the survey questions used in this study were focused on the challenges families were facing, we are unable to speak to resilience and potential protective factors that might be useful in mitigating many of the risk we uncovered in our research. Given the many strengths of the Black community, future research should consider framing Black children’s development from a lens of resilience and cultural assets (Yosso, 2005), as this will aid in identifying strength-based approaches to promoting the optimal developmental outcomes of Black children. As such, a qualitative study that examines the strengths, resilience, and positive coping mechanisms that gives voice to Black families is currently underway.

### 5. Conclusion

Early childhood is a sensitive period for children’s development impacted by biological, neurological, and environmental contexts. However, not all children are afforded the same opportunities to meet their potential due to their socio-demographics (i.e., skin color, socioeconomic status). The findings from this study offer an important contribution to understanding how factors rooted in systemic racism—access to material resources (health-promoting resources and economic resources) — and experiences of discrimination, affect young Black children’s well-being during COVID-19, a global pandemic that disproportionately impacts Black children and their families and communities. While interventions in the early years cannot address all problems, especially problems due to historical racism, equitable opportunities during the first year of life could stymie disparities later in life.

The structural determinants of early learning must be placed at the center of policy decision making to ensure equitable access, experiences, and outcomes for Black children and their families (Iruka, 2020). Addressing the challenges faced by young Black

children and their families requires attending to social policies that impact their daily lives from housing, education, and labor, policies that impact families’ socioeconomic position and upward mobility. Families’ socioeconomic status greatly influences their access to resources, opportunities, time, and functioning to meet their children’s needs, critical in the early years (McLoyd, 1990). Families’ socioeconomic position also influences the experiences children have inside and outside the home, such as access to high quality early care and education and health care services. The findings from this study underscore the importance of delivering on the promise for Black children and their families as they remain resilience in the face of 2 pandemics – COVID-19 and racism.

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### Disclosures

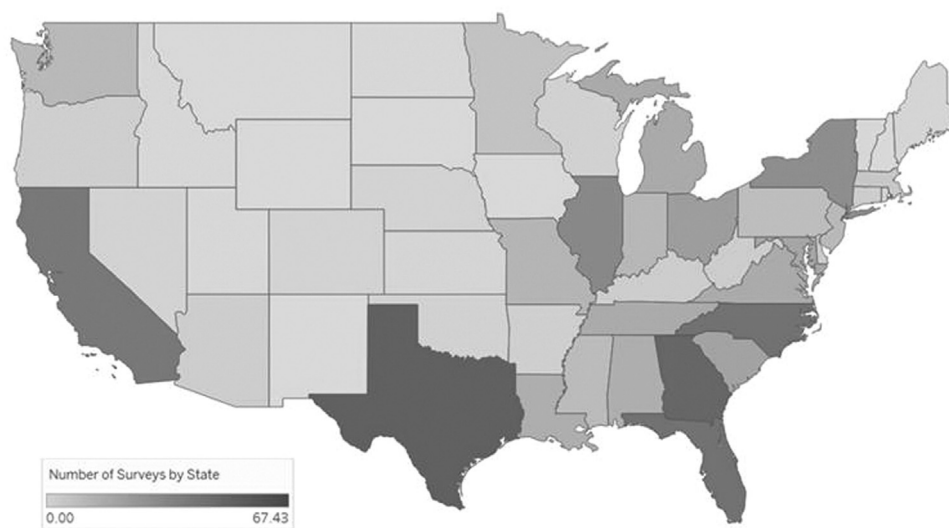
None.

### CRediT authorship contribution statement

**Nneka Ibekwe-Okafor:** Conceptualization, Methodology, Formal analysis, Visualization, Writing – original draft, Writing – review & editing. **Jacqueline Sims:** Conceptualization, Methodology, Formal analysis, Visualization, Writing – original draft, Writing – review & editing. **Sihong Liu:** Data curation, Writing – original draft, Writing – review & editing. **Stephanie Curenton-Jolly:** Conceptualization, Supervision, Writing – original draft, Writing – review & editing, Funding acquisition. **Iheoma Iruka:** Conceptualization, Writing – original draft, Writing – review & editing, Funding acquisition. **Kerry-Ann Escayg:** Writing – original draft, Writing – review & editing. **Beverly Bruno:** Writing – review & editing. **Philip Fisher:** Data curation, Investigation, Funding acquisition.

### Appendix

(Table A, Table B)



**Appendix Figure.** A Note. *N* = 704. Families are drawn from the District of Columbia and 43 states (excluding Alaska, Iowa, Montana, New Hampshire, New Mexico, South Dakota, and Wyoming).

**Table A**  
Caregiver experience of discrimination survey questions.

Major experiences of discrimination	Yes	No
Have you ever received service from someone such as a plumber or car mechanic that was worse than what other people get because of your race or ethnicity?		
**Have you ever been denied service because of your race or ethnicity?		
Have you ever been unfairly stopped, searched, questioned, physically threatened, or abused by the police because of your race or ethnicity?		
At any time in your life, have you ever been unfairly fired because of your race or ethnicity?		
For unfair reasons, have you ever not been hired for a job because of your race or ethnicity?		
Have you ever been unfairly denied a promotion because of your race or ethnicity?		
Have you ever been unfairly discouraged by a teacher or advisor from continuing your education because of your race or ethnicity?		
Have you ever been unfairly prevented from moving into a neighborhood because the landlord or realtor refused to sell or rent you a house or apartment because of your race or ethnicity?		
Have you ever moved into a neighborhood where neighbors made life difficult for you or your family because of your race or ethnicity?		
Have you ever been unfairly denied a bank loan because of your race or ethnicity?		
**Have you ever been denied medical service because of your race or ethnicity?		
**Have you ever been called an insulting and derogatory term because of your race or ethnicity?		

Note. \*\* denotes added items to the scale. Source: Williams et al. (2008). Perceived Discrimination, Race and Health in South Africa: Findings from the South Africa Stress and Health Study. *Social Science and Medicine*, 2008; 67: 441–452.

**Table B**  
Caregiver's concern about children's experiences of discrimination survey questions.

Concern for child(ren)	Never	Rarely	Some of the time	Most of the time
**Getting poor care and education				
**Being mistreated by adults				
Getting stopped in a white neighborhood				
Being punished more harshly than others				
Being discourage from trying new things				
Being considered less attractive				
Having fewer choices in life				
Being excluded from events or groups				
**Being treated unfairly by other children				

Note. \*\* denotes adapted items. Source: Vines et al. (2001). Development and reliability of a telephone-administered perceived racism scale (TPRS): A tool for epidemiological use. *Ethnicity & Disease*, 11, 251–262.

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