RACIAL DISCRIMINATION AND DELINQUENT BEHAVIOR AMONG BLACK AMERICAN YOUTH:
A DYNAMIC, WITHIN-PERSON APPROACH

by

ALYSSA L. BROWN

(Under the Direction of Leslie Gordon Simons)

ABSTRACT

Understanding how the various manifestations of racism in contemporary U.S. society impact developmental outcomes for Black youth remains an important research endeavor. A growing body of research indicates that interpersonal racial discrimination is a risk factor for delinquent behavior among Black youth. However, most studies that have explored the relationship between discrimination and delinquency have focused on between-person differences (e.g., youth who experience more discrimination engage in more delinquent behavior compared to youth who experience less discrimination). There is a lack of research examining whether experiencing a change in exposure to racial discrimination predicts change in youth's own delinquency over time (within-person effects). Moreover, few studies have investigated whether youth's vulnerability to the criminogenic effects of racial discrimination vary over time. Applying insights from the life course perspective, the current study addressed these gaps by analyzing whether individual changes in racial discrimination predict subsequent changes in delinquency and the extent to which these relations vary in magnitude from late childhood to middle adolescence. I utilized three waves of data from a community sample of 889 Black youth

and employed a random intercept cross-lagged panel model (RI-CLPM), a novel statistical model that partials out stable between-person differences and permits a test of directional associations between variables as they unfold within individuals over time. Findings revealed that within-person increases in racial discrimination predicted subsequent within-person increases in delinquency, controlling for stable between-person differences and prior within-person increases in delinquency. There was no evidence that changes in delinquent behavior predicted individual change in reports of racial discrimination, ruling out the alternative explanation that youth's problem behaviors precede or prompt racial discrimination. The results also indicated that there were no significant differences in the magnitude of the lagged relations between discrimination and delinquency over the course of the study period, which suggests that youth are similarly vulnerable to the criminogenic effects of discrimination in late childhood and early adolescence. Overall, this study offers rigorous evidence of the criminogenic effects of anti-Black discrimination for Black youth and highlights the need for large-scale and comprehensive efforts to reduce racial discrimination in society.

INDEX WORDS: Racial Discrimination, Delinquent Behavior, Black Youth, Late Childhood, Adolescence, Within-person Change, Life Course

RACIAL DISCRIMINATION AND DELINQUENT BEHAVIOR AMONG BLACK AMERICAN YOUTH:
A DYNAMIC, WITHIN-PERSON APPROACH

by

ALYSSA L. BROWN

B.S., University of Georgia, 2016

M.A., University of Georgia, 2019

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2023

RACIAL DISCRIMINATION AND DELINQUENT BEHAVIOR AMONG BLACK AMERICAN YOUTH:

A DYNAMIC, WITHIN-PERSON APPROACH

by

ALYSSA L. BROWN

Major Professor:	Leslie Gordon Simons
Committee:	Man Kit “Karlo” Lei
	Ronald L. Simons

Electronic Version Approved:

Ron Walcott
Vice Provost for Graduate Education and Dean of the Graduate School
The University of Georgia
December 2023

DEDICATION

This dissertation is dedicated to my mom. Thank you for everything.

ACKNOWLEDGEMENTS

First, I would like to thank my major professor and dissertation chair, Leslie Gordon Simons. I am grateful for all the guidance, encouragement, and invaluable advice you have given me throughout my graduate school journey, as well as your unwavering belief in my abilities. You have played a truly instrumental role in helping me become the sociologist and researcher I am today. I would also like to express my appreciation for my committee members: Man-Kit (Karlo) Lei and Ron Simons. Thank you, Karlo, for all the time you devoted to helping me through the statistical, methodological, and theoretical challenges I encountered not only during this dissertation but also throughout graduate school more broadly. Thank you, Ron, for your support and insightful feedback on this dissertation as well as my other projects. Each of you have helped me grow as a scholar, and for that, I am so grateful.

I cannot begin to express my appreciation for my dear friends and colleagues, Megan, Steph, Shelby, and Keely, who supported me in so many ways and made graduate school bearable. Thank you for all the laughs, advice, insights, and time spent helping me through both academic and personal challenges. I am so lucky to have each of you in my life. Finally, I would like to extend my deepest gratitude to my partner, Dusty. I would not have gotten through this dissertation without your continued love, understanding, patience, and support. You mean the world to me. I cannot wait to see what the next chapter holds for us.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

CHAPTER 1:

INTRODUCTION

Two decades ago, Harrell (2000) declared that "racism is 'alive and sick' in America's neighborhoods, institutions, and consciousness" (pg. 42). Unfortunately, the persistence of Black-White racial inequality and anti-Black racial discrimination indicates that Harrell's (2000) declaration is still relevant today. Racism remains deeply embedded in U.S. society, and its various manifestations pose a significant threat to Black youth's positive development and adjustment. Indeed, an accumulating body of work has revealed that experiences of interpersonal racial discrimination are frequent and pervasive among Black children and adolescents, with findings from several studies indicating that the majority of Black youth report having experienced at least one instance of racial discrimination during the preceding year (Brody et al., 2006; Seaton et al., 2008). The detrimental effects of these experiences are well-documented. Prior research demonstrates that racial discrimination is a highly adverse and stressful experience that undermines well-being, increasing youth's risk for depressive symptoms (Lavner et al., 2022; Lei et al., 2021), anxiety (Gaylord-Harden & Cunningham, 2009), and low self-esteem (Harris-Britt et al., 2007). Moreover, emerging evidence suggests that the stress of early racially discriminatory experiences may have long-term implications for physical and mental health outcomes (Assari et al., 2017; Lei et al., 2022).

Criminological research indicates that the adverse effects of racial discrimination also include an increased risk for delinquent behavior. Although it was only recently that scholars began taking seriously the criminogenic effects of racial discrimination, there is now a multitude of studies that demonstrate its link with adolescent delinquency (Unnever, Cullen, & Barnes,

2017; Simons et al., 2003), conduct problems (Brody et al., 2006), and violence (Stewart & Simons, 2006; Herda & McCarthy, 2018) among Black youth. This line of work highlights the importance of taking a racialized approach—one that includes Black Americans' unique racism-related experiences—to fully understand Black youth's risk for delinquent behavior and racial disparities in offending (Unnever & Gabbidon, 2011; Simons et al., 2003; De Coster & Thompson, 2017).

Nonetheless, important research gaps remain in the literature on the discrimination-delinquency link. First, most studies have taken a static, between-person approach. Typically, prior research has examined whether, on average, youth who report higher levels of racial discrimination also report more delinquent behavior concurrently or over time compared to youth who report less discrimination, controlling for observed covariates. However, youth can experience changes in exposure to discrimination (e.g., Alinor et al., 2023; Lavner et al., 2022) and such changes may prompt shifts in their delinquent behavior. A within-person approach could better account for the dynamic nature of racial discrimination and delinquent behavior and provide insight into the extent to which changes in discrimination are related to subsequent changes in delinquent behavior as they unfold within individuals over time. Moreover, analyzing within-person change can provide a robust test of the criminogenic effects of racial discrimination because individuals serve as their own controls, thereby minimizing confounding by unmeasured stable differences between individuals that may impact both perceptions of discrimination and involvement in delinquent behavior. Second, studies have rarely considered whether the timing of racial discrimination may shape its impact on delinquent behavior. However, age-patterned cognitive and social changes that occur as youth transition to and navigate adolescence may make them differentially vulnerable to the pernicious effects of racial

discrimination (Benner et al., 2018). Attention to the potential developmental changes in the influence of racial discrimination during this period would enable a more nuanced understanding of the relationship between discrimination and delinquency.

Purpose of the study

In this dissertation, I address the gaps in the current literature using three waves of data from a community sample of 889 Black youth spanning from late childhood (mean age 10.5) to middle adolescence (mean age 15.5), a particularly dynamic developmental period. Guided by insights from the life course perspective, I examine (1) the extent to which within-person changes in exposure to racial discrimination predict subsequent changes in delinquent behavior and (2) whether the magnitude of these relationships varies across the study period. I also address two additional issues: gender differences and reverse/reciprocal causal processes. Some theoretical perspectives suggest that boys may be more vulnerable to the criminogenic effects of racial discrimination (e.g., Unnever & Gabbidon, 2011), but empirical research on gender differences is limited and previous findings are somewhat mixed (e.g., Brody et al., 2006; Caldwell et al., 2004; Burt et al., 2017). Thus, I examine whether the within-person relationship between discrimination and delinquency varies by youth gender. Additionally, a handful of studies have assessed the possibility that the association between discrimination and offending reflects reverse or reciprocal relations, such that involvement in delinquent behavior predicts discriminatory treatment (e.g., Martin et al., 2011; Brody et al., 2006). These studies have primarily relied on the traditional cross-lagged panel model (CLPM) to evaluate the direction of effects; however, the traditional CLPM confounds stable between-person differences and within-person dynamics and, therefore, may lead to flawed conclusions about the relationships between variables over time (Hamaker et al., 2015; Berry & Willoughby, 2017). Thus, in the present

study, I employ a random-intercept cross-lagged panel model (RI-CLPM), a novel extension to the traditional CLPM that partials out between-person differences and isolates the within-person cross-lagged relationships between discrimination and delinquency across time (Hamaker et al., 2015). The research questions for the present study are outlined below.

Research Questions

1. Are within-person changes in exposure to racial discrimination associated with later within-person changes in delinquent behavior?
2. Are within-person changes in delinquent behavior associated with later within-person changes in exposure to racial discrimination?
3. Does the magnitude of these relationships vary over time? For example, are within-person changes in racial discrimination experienced during late childhood more strongly associated with subsequent changes in delinquency compared to within-person changes in racial discrimination experienced during early adolescence?
4. Are the within-person associations between discrimination and delinquent behavior different for boys compared to girls?

Overview of the Dissertation

In the following chapter, I review existing research on experiences of racial discrimination among Black youth and the relationship between discrimination and delinquent behavior, followed an outline of the theoretical perspective that guides the current study. I also review and evaluate prior work that has focused on gender differences and issues of reverse/reciprocal causality in the discrimination-delinquency association. In Chapter 3, I provide an overview of the current study. Chapter 4 describes the study's methods, including a description of the study sample and procedures, measures, and analytic strategy. Chapter 5

presents the results of the main analyses, as well as supplemental analyses. In Chapter 6, I discuss the findings of the current study and their implications, followed by an assessment of the study's limitations and directions for future research.

CHAPTER 2:

LITERATURE REVIEW

Racial Discrimination among Black Youth

Despite the end of legalized racial discrimination and segregation following the Civil Rights Movement and declines in overtly racist attitudes among White Americans (Schuman et al., 1997; Bobo et al., 2012), racial inequalities between White and Black Americans continue to permeate U.S. society. For instance, wealth remains unequally distributed such that the typical Black family had less than 15% of the wealth of the typical White family in 2019 (Bhutta et al., 2020). Black people are also nearly twice as likely to be unemployed (U.S. Bureau of Labor Statistics, 2023) and are more than twice as likely to be living in poverty (U.S. Census Bureau, 2022) compared to White people. Black and White Americans continue to live separately and unequally, with Black families overrepresented in communities with concentrated disadvantage, fewer resources, and greater exposure to environmental toxins (Mohai, Pellow, & Roberts, 2009; Sharkey, 2013). Health disparities, such as higher rates of chronic illness (Williams, 2012) and maternal and infant mortality (Peterson et al., 2019; Ely & Driscoll, 2021) among Black people compared to White people, are also well-documented. Moreover, researchers have identified persistent anti-Black discrimination and practices in housing (Korver-Glenn, 2018; Quillian, Lee, & Honoré, 2020), labor (Quillian et al., 2017; Quillian, Lee, & Oliver, 2020), and consumer markets (Pager & Shepherd, 2008; Gabbidon, 2003); policing and the criminal justice system (Kovera, 2019; Alexander, 2010); healthcare (Feagin & Bennefield, 2014); and everyday interactions (Feagin & Sikes, 1994; Essed, 1991). Thus, many social scientists have contended

that racism has not ended or declined in the post-Civil Rights era, it's merely taken on more covert, subtle, and hard to detect forms (Essed, 1991; Smith, 1995; Bobo et al., 1997; Bonilla Silva, 2015). Racism remains deeply embedded within the structure of U.S. society and continues to systematically reproduce unfair advantages for White Americans and unfair disadvantages for Black Americans (and other Americans of color) (Feagin, 2006; Bonilla Silva, 1997, 2015).

Against this backdrop, scholars have emphasized the importance of uncovering how the various manifestations of racism in contemporary U.S. society impact Black youth and other youth of color (Garcia Coll et al., 1996; Sanders-Phillips et al., 2009; Seaton, 2020; Jones & Neblett, 2017). The pernicious effects of racial discrimination, in particular, have received considerable empirical attention (Benner et al., 2018). Racial discrimination can be defined broadly as "actions and practices carried out by dominant race-ethnic groups that have a differential and negative impact on subordinate race-ethnic groups" (Feagin & Eckberg, 1980, pg. 9). Discrimination is enacted through broader institutional processes and in interpersonal interactions. Institutional forms of discrimination include laws, policies, and routine practices of institutions and organizations that perpetuate inequality in access to resources and opportunities (Feagin & Eckberg, 1980; Jones, 1997; Pager & Shepherd, 2008). For example, the historical practice of redlining—the systematic refusal to insure mortgages to borrowers in predominantly Black and immigrant neighborhoods based on racially biased risk assessments—by the federal government was a form of institutional discrimination that deepened racial neighborhood segregation and drove disinvestment from communities of color (Rothstein, 2017). Interpersonal discrimination, on the other hand, consists of the range of blatant and covert verbal and non-verbal acts taken by the dominant racial group members during interpersonal encounters that

exclude, harm, otherwise negatively impact members of the marginalized racial groups (Feagin & Sikes, 1995; Jones, 1997). Interpersonal discrimination can manifest as racial slurs, insults, harassment, avoidance, exclusion, treating someone with suspicion, and other forms of disrespect. As many scholars have pointed out, racial discrimination may not be explicit or deliberately perpetrated; institutional discrimination can result from seemingly "race-neutral" policies and practices, and acts of interpersonal discrimination may be driven by unconscious racial bias (Dovidio et al., 2002; Bonilla Silva, 2021; Small & Pager, 2020). Regardless of the apparent presence of intent, racial discrimination harms people of color and functions to reinforce racial hierarchy and inequality (Bonilla Silva, 1997, 2021; Feagin, 2006; Feagin & McKinney, 2005).

Prior research indicates that interpersonal racial discrimination, the focus on the present study, is commonplace and pervasive in the lives of Black children and adolescents. Indeed, several studies of Black youth have found that most participants reported experiencing at least one instance of racial discrimination during the preceding year (Brody et al., 2006; Seaton et al., 2008; Smalls et al., 2007), with a recent daily diary study of Black teens finding that respondents reported an average of more than five discriminatory experiences each day (English et al., 2020). These experiences start early, with children as young as 10 years old reporting that they have been called a racial slur, insulted because they are Black, and suspected of wrong-doing because they are Black (Martin et al., 2011; Simons et al., 2002). Research also indicates that youth experience discrimination from a variety of sources and across an array of social contexts. Specifically, studies have found that Black youth encounter discriminatory treatment from employees and clerks in stores (Martin et al., 2011), teachers and other staff in educational settings (Chavous et al., 2008; Benner & Graham, 2013; McNeil Smith & Fincham, 2016; E. W.

Morris, 2007), peers (McNeil Smith & Fincham, 2016), and strangers (Herda & McCarthy, 2018; Herda, 2016). Police are also a significant source of discrimination (Rios, 2011; Martin et al., 2011). For instance, a recent study of high school students found that 24% of Black students reported being "hassled" by police because of their race in the last year, compared to 2.9% of White youth (Zeiders et al., 2021).

Not only is racial discrimination a common experience among Black youth, but it has also been linked to a number of poor developmental outcomes. Specifically, self-reports of racial discrimination have been associated with negative educational outcomes, including lower academic achievement (Neblett et al., 2006; English et al., 2016) and school engagement (Neblett et al., 2006; Chavous et al., 2008; Wittrup et al., 2019). Additionally, several studies have found that discrimination undermines adolescent health and well-being. Indeed, experiencing racial discrimination has been associated with various measures of socioemotional distress, including increased depressive symptoms (Lavner et al., 2022; Lei et al., 2021; English et al., 2014), anxiety (Gaylord-Harden & Cunningham, 2009), anger and hostility (Simons et al., 2003; Gibbons et al., 2010), and low self-esteem and self-worth (Harris-Britt et al., 2007), as well as greater participation in health risk behaviors, such as substance use (Gibbons et al., 2010; Gibbons et al., 2012; Stock et al., 2013) and risky sexual behavior (Roberts et al., 2012; Stock et al., 2013). Further, an emerging body of research suggests that racial discrimination experienced during childhood and adolescence has long-term implications for health and well-being (Assari et al., 2017; Simons et al., 2021). For instance, a recent longitudinal study found that racial discrimination experienced early in life (ages 10-15) was associated with accelerated aging in adulthood (age 29) through its impact on depressive symptoms during young adulthood (ages 20-29) (Carter et al., 2019).

To summarize, racism remains systemic in the U.S., and continues to drive racial inequalities and shape Black youth's development. Research on interpersonal racial discrimination has revealed that experiences of discrimination are alarmingly prevalent among Black youth and that these experiences have detrimental consequences across a wide variety of domains. In the following section, I outline the existing body of criminological work that has explored the relationship between racial discrimination and delinquent behavior among Black youth.

Racial Discrimination and Delinquent Behavior

Over a century ago, W. E. B. Du Bois (1899) argued that racial prejudice and discrimination, among other social factors, contributed to criminal offending among Black Americans. Yet, the possibility that interpersonal racial discrimination may be related to offending among Black youth was largely ignored until recently, despite well-documented racial disparities in crime statistics. For example, while Black youth comprised 15% of the juvenile population in 2020 (Office of Juvenile Justice and Delinquency Prevention, 2020a), they accounted for 32% of all juvenile arrests (Office of Juvenile Justice and Delinquency Prevention, 2020b). Black youth are 2.3 times more likely than White youth to be arrested in general, 4.3 times more likely to be arrested for violent offenses, and 3.3 times more likely to be arrested for property offenses (Office of Juvenile and Delinquency Prevention, 2020c). Furthermore, although there has been a significant decline in the number of children and adolescents in juvenile detention facilities across the last two decades, there remains a stark racial disparity in youth incarceration. In 2021, Black youth were over four times more likely to be detained or committed in juvenile facilities compared to their White counterparts (Puzzanchera et al., 2023). To be sure, a portion of these disparities can be explained by pervasive racial discrimination in

the criminal and juvenile justice systems, including racially biased policing and decision-making by court actors as well as discriminatory policies (Peck & Jennings, 2016; Zane, Welsh, & Drakulich, 2016; Kovera, 2019; Rodriguez, 2010; Alexander, 2010). However, self-report studies also show significant racial differences in delinquency, particularly interpersonal violence, although the magnitude of the differences are typically smaller than those reflected in official statistics (Sampson, Morenoff, & Raudenbush, 2005; Bellair & McNulty, 2005; Felson & Kreager, 2015; De Coster & Thompson, 2017).

Criminologists often rely on the prevailing general theories of crime to explain offending and understand racial differences in crime and delinquency. General theories attempt to explain all forms of offending for all individuals, operating on the assumption that the causes of delinquent behavior are the same regardless of race or ethnicity (e.g., low self-control, weak social bonds, deviant peer associations, strain, residing in disadvantaged communities) (Gottfredson & Hirschi, 1990; Hirschi, 1969; Akers, 2009; Agnew, 1992; Sampson & Wilson, 1995). Thus, general theories suggest that elevated levels of offending among Black youth are due to their greater exposure to universally criminogenic social factors.

Over the past few decades, however, several scholars have revived Du Bois' (1899) original insight, asserting that fully understanding Black youth's (and adults') offending requires attention to their unique lived experiences with racial discrimination and oppression, which general theories, by definition, often overlook (Russell, 1992; Simons et al., 2003; Unnever & Gabbidon, 2011; Unnever, 2018). Although some general theories acknowledge how institutional racial discrimination has contributed to Black Americans' disproportionate exposure to crime-causing conditions—Sampson and Wilson (1995), for example, highlighted the racialized political and structural processes that have resulted in the segregation of Black

Americans into disadvantaged communities—scholars have argued that this macro-level approach does not fully capture the various ways in which racism shapes the lived reality of Black youth and their risk for delinquency (Simons et al., 2003; Martin et al., 2011; Burt et al., 2012; De Coster & Thompson, 2017; Unnever, 2018). Recent research suggests that interpersonal racial discrimination, a micro-level manifestation of racism, is also a source of offending.

An accumulating body of work indicates that experiencing interpersonal racial discrimination is associated with offending and deviant behavior. Several studies have found that perceived racial discrimination is associated with an increased risk for delinquent behavior (Unnever et al. 2009; Unnever, Cullen, & Barnes, 2017; Kang & Burton, 2014; Simons et al., 2003; Martin et al., 2011; Tobler et al., 2013; De Coster & Thompson, 2017), violent behavior (Herda & McCarthy, 2018; Stewart & Simons 2006; Caldwell et al., 2004; Martin et al., 2011; Isom, 2016) externalizing behaviors (Nyborg & Curry, 2003; Dubois et al., 2002; Loyd et al., 2019; Varner et al., 2021), and conduct problems (Brody et al., 2011; Brody et al., 2006; Kwon et al., 2022) among Black youth. While most research has examined these associations cross-sectionally, studies using longitudinal data suggest that racial discrimination measured at one time point is associated with delinquent behavior measured at a subsequent time point, indicating that the criminogenic influence of discrimination persists (Brody et al., 2006; Caldwell et al., 2004; Stewart & Simons, 2006). For instance, Martin and colleagues (2011) found that perceived interpersonal discrimination was positively related to both general and violent delinquent behavior two years later among Black adolescents, even after accounting for prior delinquency and indicators of neighborhood racial isolation, concentration disadvantage, and social organization. Additionally, some studies have taken a more dynamic approach by examining the

association between changes in racial discrimination and patterns of delinquent behavior during adolescence. Using a multivariate latent growth model, Brody et al. (2006) found that Black youth who reported greater increases in perceived racial discrimination from late childhood to middle adolescence reported greater increases in delinquent behavior compared to youth who experienced less steep increases in discrimination. Evans et al. (2016) examined trajectories of delinquency among Black boys using group-based trajectory modeling and found that Black boys who experienced a greater increase in racial discrimination were more likely to belong to trajectory groups characterized by chronic high or increasing delinquent behavior during adolescence.

Further, considerable theoretical and empirical work has been done to explicate the mechanisms and processes that underlie the relationship between racial discrimination and delinquent offending. Most commonly, studies have conceptualized racial discrimination as a stressor and drawn on Agnew's (1992) general strain theory to understand its criminogenic effects. General strain theory posits that strains and stressors generate negative emotions (i.e., anger, depression, frustration, fear) that individuals attempt to cope with through criminal or otherwise deviant behavior. According to Agnew (2001), the strains most likely to lead to crime are those that are unjust, high in magnitude/severity, associated with low social control, and create pressure to engage in criminal coping. Agnew (2001, 2006) and others (Simons et al., 2003) have asserted that racial discrimination has the characteristics of a highly criminogenic strain and, thus, is likely to trigger the negative emotions that motivate offending. Consistent with this perspective, several studies have found that racial discrimination is linked to greater delinquency, at least in part, through negative emotions, including anger (De Coster &

Thompson, 2017; Simons et al., 2003; Simons et al., 2006) and depression (Simons et al., 2003; Burt, Simons, & Gibbons, 2012).

Anderson's (1999) "code of the street" thesis reveals another pathway through which discrimination may lead to increased offending and violent behavior. Based on his extensive ethnographic research in Philadelphia, he argued that persistent poverty, neighborhood disadvantage, a lack of opportunities, pervasive racial discrimination, victimization, and alienation from mainstream social institutions foster an oppositional culture among some residents, particularly young people, in poor, inner-city Black communities. Anderson (1999) referred to this culture as a code of the streets, which he defined as "a set of informal rules governing interpersonal public behavior, particularly violence" (pg. 33). The code of the streets emphasizes maintaining respect and status by cultivating a tough identity and using (or appearing capable of) violence to defend oneself if challenged. In this way, the code can be understood as a cultural adaptation to blocked opportunities for upward social mobility among disadvantaged youth (Anderson, 1999; Fader & Sebastian León, 2023). Moreover, Anderson (1999) argued that the code is "a cultural adaptation to a profound lack of faith in the police and judicial system" to adequately protect residents (pg. 34). Although most families and residents do not subscribe to the values of the street code (i.e., "decent" families and residents), they must still become knowledgeable of its rules to navigate their environment and interactions with those who do adhere to the code (i.e., "street" families and residents). Anderson's (1999) findings and arguments indicate that frequent encounters with racial discrimination, along with neighborhood structural conditions, may lead to delinquency and violence among some youth by fostering beliefs consistent with the code of the streets. Stewart & Simons (2006) conducted a quantitative test of this hypothesis using a sample of 720 Black adolescents. Their results revealed that

interpersonal racial discrimination, neighborhood disadvantage, and living in a "street" family were all positively associated with street code adoption. Street code adoption, in turn, was related to an increased risk for violent delinquency.

Simons and Burt's (2011) social schematic theory of crime also provides insight into the relationship between discrimination and delinquency. Drawing from criminological and social psychological theories and research, including Anderson's (1999) research on street code, they proposed that adverse, unpredictable, and exploitative social circumstances are associated with criminal behavior because they convey particular lessons that become internalized as a set of criminogenic social schemas. This set of social schemas includes a hostile view of relationships, a cynical view of conventional norms, and a concern for immediate gratification, which, they argue, coalesce to form a "criminogenic knowledge structure" that shapes situational definitions in a way that leads to crime. According to the social schematic theory, experiences of racial discrimination are adverse and unfair social interactions that increase the risk for offending because they foster the development of a criminogenic knowledge structure. Simons and Burt (2011) found support for this hypothesis using a sample of 713 Black youth in their initial articulation of the social schematic theory. Specifically, they found that the criminogenic knowledge structure partially mediated the impact of exposure to racial discrimination on crime during adolescence. Several other studies have also supported the social schematic theory's contention that the criminogenic knowledge structure links racial discrimination to criminal behavior (Burt & Simons, 2015; Burt, Lei, & Simons, 2017).

Finally, Unnever and Gabbidon's (2011) race-specific theory of African American offending posits two ways that racial discrimination increases the risk for offending. The theory of African American offending starts from the assumption that historical and contemporary racial

discrimination, oppression, and injustice have resulted in a shared racialized worldview among African Americans, which includes an awareness of what it means to be Black in America and an understanding that they will experience racism and discrimination because they are Black. Unnever and Gabbidon (2011) argue that Black Americans uniquely experience racial discrimination, criminal justice injustices (e.g., racial profiling), and pejorative stereotypes, all of which elevate their risk for offending by (1) increasing feelings of anger, defiance, hopelessness, and depression, and (2) weakening their bonds to conventional, White-dominated social institutions. The proposition that racial discrimination is related to offending through negative emotions is consistent with the predictions of Agnew's general strain theory, which, as mentioned previously, has received considerable empirical support. Further, in an early test of the theory of African American offending using a subsample of Black Americans from the National Survey of American Life, Unnever (2014) found that perceived racial discrimination was positively associated with anger and depression, which, in turn, predicted offending. There has also been some empirical support for the hypothesis that racial discrimination increases the risk for offending by weakening conventional social bonds. For instance, Unnever, Cullen, and Barnes (2016) found that reduced attachment to teachers and education commitment partially explained the relationship between racial discrimination and externalizing behaviors among Black youth. Recognizing that most African Americans do not offend, Unnever and Gabbidon (2011) additionally posit that positive racial socialization provides resilience against the deleterious effects of discrimination. Several studies have found this to be the case (Burt et al., 2012; Burt, Lei, & Simons, 2017; Burt & Simons, 2015; Kwon et al., 2022; for an exception, see: Jones and Greene, 2015).

Despite important developments regarding the link between racial discrimination and delinquent behavior, there are some research gaps that have yet to be fully addressed in the current literature. Specifically, most research on the criminogenic effects of discrimination has focused on between-person comparisons (e.g., youth who experience more discrimination exhibit greater involvement in delinquent behavior concurrently or over time compared to youth who experience less discrimination), often treating exposure to racial discrimination as static. Although youth's experiences with interpersonal racial discrimination are subject to change (e.g., Alinor et al., 2023; Lavner et al., 2022), few studies have examined whether within-person fluctuations in discrimination influence individual changes in delinquent behavior, and none to my knowledge have done so using a sample of Black youth. To be sure, there have been some attempts to understand the relationship between changes in each construct using multivariate latent growth curve models (e.g., Brody et al., 2006) and group-based trajectory methods (e.g., Evans et al., 2016; Smith-Bynum et al., 2014). While instructive, these studies focused on associations at the between-person level, which cannot tell us whether or how youth's participation in delinquent behavior may change in response to their own changing experiences of racial discrimination—for example, whether an adolescent is likely to engage in more delinquent behavior after experiencing an increase in racial discrimination relative to their own typical level (Curran et al., 2014). A within-person approach is needed to further clarify the dynamic relationship between discrimination and delinquent behavior among Black youth.

Moreover, an examination of within-person change can provide a robust test of the criminogenic effects of racial discrimination. A major methodological limitation of analyses that focus on between-person differences is that they cannot fully account for all the pre-existing, time-stable differences between individuals that may explain the relationship between racial

discrimination and delinquency. While most prior studies have included an extensive set of control variables (e.g., Simons et al., 2003; Martin et al., 2011), with one study even employing propensity score matching (e.g., Herda & McCarthy, 2018), there remains the possibility that a confounding variable was omitted or unmeasured (Jolliffe et al., 2019). In analyses that isolate within-person processes, however, individuals serve as their own control by design, which minimizes concerns of spuriousness due to observed or unobserved time-invariant factors and characteristics (McCartney et al., 2006). This quality also makes within-person analyses particularly useful for informing prevention programs and policies designed to reduce delinquent behavior (Farrington et al., 2002).

There has also been relatively little attention to whether youth's vulnerability to the criminogenic effects of racial discrimination varies over time. One exception is Gibbons et al.'s (2020) study, which found that perceived racial discrimination assessed during late childhood was more strongly associated with illegal behavior and spending time in jail during adulthood compared to discrimination assessed in adolescence. However, this study focused on the long-term effects of early discriminatory experiences on crime-related outcomes in adulthood and did not examine within-person change. On the other hand, a recent meta-analysis indicated that the impact of discrimination on behavioral problems (e.g., delinquency, risky sexual behavior, substance use, anger, peer deviance) was similar across samples of racially/ethnically marginalized youth aged 10-13, 14-16, and 17 and older, but this finding is based on comparisons across studies, not within individuals over time (Benner et al., 2018). Thus, it remains unclear whether the effects of racial discrimination on delinquent behavior fluctuate within individuals as they transition from childhood to adolescence. Drawing on insights from the life course perspective, the current study addresses these gaps in the extant literature by

exploring the dynamic, within-person effects of racial discrimination on delinquent behavior and whether these effects vary from late childhood to middle adolescence.

A Life Course Approach to Discrimination and Delinquency

The life course perspective is concerned with continuity and discontinuity in individuals' social and behavioral trajectories across the lifespan in relation to social and historical forces (Elder, 1998). A key tenet of life course paradigm in criminology is that the development of delinquent and criminal behavior is continually shaped by changing socio-contextual factors, circumstances, and life events (Sampson and Laub, 1993; Thornberry, 1987; Laub, 2006). Antisocial behavior is viewed as a malleable trajectory that may be modified, for better or for worse, by salient life experiences. The life course perspective is often contrasted with the "latent trait" or "stable propensity" perspective, which suggests that an individual's propensity to commit crime at any and every point during the life course results from an underlying trait (e.g., low self-control) that is established during early childhood (Gottfredson & Hirschi, 1990). Whereas the latent trait perspective emphasizes stable between-individual differences that emerge early in life to explain why some people offend and others do not, the life course perspective brings dynamic processes of within-person change in offending over time to the forefront of criminological inquiry (Sampson & Laub, 2005; Sampson & Laub, 1997; Ousey & Wilcox, 2007; Pyrooz et al., 2017).

Perhaps most notably, Sampson and Laub (1993, 1997) posited that changes in offending are a function of individual variation in social control across the life course in their age-graded theory of informal social control, stating that "social bonds in adolescence (e.g., to family, peers, and school) and adulthood (e.g., attachment to the labor force, cohesive marriage) explain criminal behavior regardless of prior differences in criminal propensity--that age-graded changes

in social bonds explain changes in crime" (Sampson & Laub, 1997, pg. 10). Sampson and Laub (1993) emphasized that life events can serve as "turning points" for an individual's antisocial trajectory by weakening or strengthening their bond to society and restructuring routine activities (see also Laub & Sampson, 1993). Although most studies have focused on how events and transitions such as marriage and employment may act as turning points promoting desistance from crime during adulthood (e.g., Sampson, Laub, & Wimer, 2006; McGloin et al., 2011; Uggen, 2000), researchers have also examined the impact of positive and negative life events on within-person changes in delinquent behavior during adolescence, including school punishment (Mowen & Brent, 2016; Mowen, Brent, & Boman, 2020), school dropout (Na, 2017), arrest (Mowen, Brent, & Bares, 2018), and teenage parenthood (Landers et al., 2015).

Other scholars have argued that changes in social learning variables, particularly deviant peer influences, also shape the development of antisocial behavior over the life course (Thornberry, 1987; Warr, 1993; Warr 1998). Consistent with this view, research has indicated that affiliation with/exposure to deviant peers changes over time, and that these changes partially explain within-person variation in offending (McGloin, 2009; Jang, 1999; Forney & Ward, 2019; Copp et al., 2020). Furthermore, Agnew (1997) suggested that general strain theory could also be understood within a developmental, life course framework to explain within-person patterns of delinquency and crime over time. For example, Agnew (1997) argued social changes and transitions that occur during adolescence increase the likelihood that youth will experience negative treatment from others, which may partially explain "adolescent-limited" offending (Moffitt, 1993). While the developmental aspects of general strain theory have received relatively little attention in the literature, some research has found that within-person changes in strain, such as stressful life events (Hoffman & Cerbone, 1999) and bullying victimization

(Ousey & Wilcox, 2007; Park & Metcalfe, 2020) contribute to changes in offending during adolescence. In short, theoretical and empirical work in life course criminology indicates that an individual's offending is malleable to one's changing life experiences and exposure to criminogenic risk factors. Accordingly, the life course perspective provides a theoretical rationale for moving beyond the between-person approach that dominates the literature on discrimination and offending to examine the extent to which experiencing a change in exposure to racial discrimination predicts subsequent changes in youth's own delinquent behavior.

The life course perspective also emphasizes the importance of timing, which highlights how social influences, life events, and transitions may differentially shape behavioral or developmental outcomes depending on when they are experienced (Elder, 1998). Within criminology, life course scholars have posited that the dynamic factors and events that influence offending shift in salience within and across different developmental stages (Thornberry, 1987; Sampson & Laub, 1993). For instance, Thornberry (1987) proposed that parental attachment has a strong impact on delinquent behavior during childhood, but as youth transition to adolescence, the direct influence of parental attachment wanes while that of peers increases. The effects of racial discrimination on delinquency may also change from childhood to adolescence, especially given the social and cognitive changes that occur during this period.

On the one hand, youth may be more vulnerable to the effects of racial discrimination during late childhood/preadolescence. For example, Benner et al. (2018) indicated that the effects of discrimination may be stronger at this age because youth "are only gradually acquiring the more sophisticated cognitions (i.e., formal operational thinking) and adaptive coping skills, such as social support seeking and primary control coping, that help them better manage their experiences of racial/ethnic discrimination" (pg. 8). Others have made similar arguments

regarding youth's potentially distinct vulnerability to the detrimental effects of discrimination during childhood relative to other developmental stages (e.g., Lee & Ahn, 2013; Schmitt et al. 2014; Gibbons et al., 2020).

On the other hand, the criminogenic effects of racial discrimination may be stronger as youth transition to early and middle adolescence. This view can be derived from Agnew's (1997) developmental articulation of general strain theory in which he argued that adolescents are more likely to respond to strain and stressors in a criminal manner compared to children and adults due to a combination of social and developmental factors. Specifically, he asserted that, like children, adolescents often lack the coping skills necessary to deal with stressful experiences but generally receive less social support from parents compared to children. Moreover, he suggested that adolescents are lower in social control and are more likely to affiliate with deviant peers, both of which encourage criminal coping in response to strain. Although Agnew (1997) did not focus specifically on the effects of racial discrimination, his theoretical arguments nonetheless bring attention to the differential contextual factors that may heighten youth's risk of responding to discrimination with delinquent behavior when it is experienced during adolescence compared to late childhood. The current study examines these contrasting perspectives on the potential developmental changes in the influence of racial discrimination.

To be clear, the current study does not intend to test any particular developmental or life course theory of crime. Rather, this study employs a life course perspective to conceptualize racial discrimination as a dynamic risk factor that may shape within-person changes in youth's delinquent behavior as they transition from childhood and through adolescence. In doing so, this study seeks to not only enrich our understanding of the discrimination-delinquency link, but to also build on existing life course criminology scholarship. Much like traditional theories of

crime, most developmental and life course theories of crime do not articulate race-specific explanations of offending or consider how unique racism-related experiences might shape the patterns of crime over time among marginalized racial/ethnic groups (Piquero, 2015; Cullen et al., 2019). Thus, the influence of interpersonal racial discrimination on the development of offending has received relatively little attention in life course criminology research (Evans et al., 2016; Burt, Lei, & Simons, 2017).

Gender, Discrimination, and Delinquency

Gender is one of the strongest correlates of delinquent and criminal behavior. Multiple sources of crime data suggest that adolescent males engage in more delinquent behavior, particularly serious and violent crimes, compared to adolescent females (Steffensmeier & Schwartz, 2009; Steffensmeier et al., 2023). For instance, although the share of juvenile arrests involving girls has increased over the past several decades, boys continue to be overrepresented in nearly all juvenile arrest statistics (Puzzanchera, 2021). In 2019, boys accounted for 69% of juvenile arrests overall. Further, they represented 89% of arrests for murder and non-negligent manslaughter, 88% of robberies, 74% of aggravated assaults, 86% of burglaries, and 80% of motor vehicle thefts (Puzzanchera, 2021). Gender differences in juvenile arrests are less pronounced, though still evident, for minor violations of the law, such as liquor law violations, larceny-theft, simple assault, and disorderly conduct. Boys' greater involvement in delinquent behavior has also been observed in self-report studies (Jennings et al., 2010; Diagle, Cullen, & Wright, 2007), including those utilizing samples of Black youth (Caldwell, Wiebe, and Cleveland, 2006).

Prior research has also revealed gender variation in experiences of racial discrimination. Several studies have found that Black boys perceive more interpersonal racial discrimination compared to Black girls (Seaton et al., 2008; Chavous et al., 2008; McNeil Smith & Fincham,

2016; Alinor et al., 2023). Moreover, boys and girls may experience different forms of racial discrimination. Indeed, scholars have long noted that the pervasive, historically-rooted stereotypes that fuel and justify discrimination against Black Americans are racialized *and* gendered (Collins, 1990; Essed, 1991; Harvey Wingfield, 2007). For instance, Black boys and men are often stereotyped and portrayed as threatening, dangerous, and prone to anger and violence (Russell, 1998; Welch, 2007; Oliver, 2003; Thiem et al. 2019). Researchers suggest that these negative images make Black males particularly vulnerable to experiencing discrimination and mistreatment by law enforcement (Unnever & Gabbidon, 2011; Goff et al., 2014; Gabbidon, Higgins, & Potter, 2011; Brunson & Miller, 2006). These stereotypes may also contribute to harsher treatment and disproportionate discipline of Black boys in school settings (Chavous et al., 2008; Monroe, 2005; Skiba et al., 2002; Carter et al., 2017). On the other hand, Black girls and women are negatively stereotyped as sexually promiscuous, aggressive, overly independent, loud, and sassy in ways that depict them as unfeminine by the standards of dominant, White gender norms (E. W. Morris, 2007; M. W. Morris, 2016; Epstein et al., 2017; Carter Andrews et al., 2019). A growing body of research suggests these harmful perceptions may underlie the disproportionate punishment of Black girls in schools, particularly in response to minor infractions that represent gender transgressions, such as dress code violations, disobedience, and aggression (Blake et al., 2011; E. W. Morris & Perry, 2017). Additionally, Black girls and women may be especially likely to experience sexual objectification and discrimination in relation to their appearance (Rogers, Versey, & Cielto, 2022; Lewis et al., 2016; Gadson & Lewis, 2022; Anderson et al., 2018). A recent study by Alinor and colleagues (2023) lends further credence to the notion that discriminatory experiences may vary by gender. They found that Black boys and men were more likely to report being treated as a suspect, harassed by

police, threatened with harm, and discouraged from reaching a goal due to their race while Black girls and women were more likely to report being insulted due to their race.

Perhaps most pertinent to the current study, gender may also condition the impact of racial discrimination on adolescent delinquent behavior. For instance, in their gendered extension to general strain theory, Broidy and Agnew (1997) argued that girls and women are more likely than boys and men to respond to strain with a combination of negative emotions, including anger, depression, guilt, and anxiety, which reduces their likelihood of "other-directed" crimes (i.e., violence) and instead leads to self-destructive behaviors and offenses (i.e., substance use) or non-deviant coping. In contrast, males are more likely to respond to strain with anger, which is more conducive to criminal behavior, particularly violence and aggression. Moreover, they suggested that males are more likely than females to respond to strain and anger with crime due to gender differences in conditioning factors, such as social support and criminal opportunities. Thus, from this perspective, boys may be more vulnerable to the criminogenic effects of discrimination.

Unnever and Gabbidon (2011) focused more explicitly on the relationship between gender, discrimination, and offending in their theory of African American offending, but also suggested that the influence of discrimination on delinquency may be stronger for boys. They posited that gender differences in racial socialization produce gendered responses to racial discrimination and injustice. Specifically, they asserted that girls receive more protective forms of racial socialization, such as messages promoting racial pride and egalitarian values, and preparation for bias, from their parents compared to boys. They also suggested that African American females experience more positive racial socialization messages overall because of their greater involvement with the Black church relative to males. As a result, girls and women

are more likely than boys and men to respond to racial discrimination "prosocially and proactively" (Unnever & Gabbidon, 2011, pg. 194). Furthermore, they contended that Black boys and men are also less likely to positively resist and confront racial discrimination to due to negative stereotypes that portray them as angry and violent. Instead, they may be more likely to respond with avoidant or otherwise damaging coping strategies, potentially exacerbating the effect of discrimination on negative emotions and offending.

Unfortunately, only a few studies have examined gender differences in the association between racial discrimination and delinquent behavior among Black youth, and the findings are somewhat mixed. Consistent with the above perspectives, Brody and colleagues (2006) found that increases in racial discrimination across adolescence were more strongly associated with increases in delinquent behavior among boys compared to girls. However, other research suggests that racial discrimination is a powerful risk factor for delinquent behavior (Burt et al., 2015; Martin et al., 2011), criminal offending (Burt et al., 2017), and violence (Caldwell et al., 2004; Isom, 2016), irrespective of gender. Thus, further investigation is needed to understand whether gender shapes the impact of racial discrimination on delinquent behavior. The current study examines whether the within-person relationship between discrimination and delinquency varies for boys and girls.

Evaluating Directionality

The theoretical perspectives outlined above posit that racial discrimination is a cause of offending. However, labeling theory suggests an alternative possibility—that involvement in delinquent behavior puts youth at increased risk for experiencing discriminatory and exclusionary treatment (Paternoster & Iovanni, 1989; Simons et al., 2003; Bernburg, 2019). Specifically, to the extent that an individual's delinquent behavior results in them being labeled as deviant or criminal by those who witness the behavior, the individual may experience

discrimination and negative treatment given the strong stigma associated with deviant labels. In turn, social rejection, negative reactions, and discrimination brought on by the delinquent label may reinforce delinquent behavior by undermining conventional social bonds and access to legitimate opportunities (Paternoster & Iovanni, 1989; Bernburg, 2019). Thus, it is important to assess the extent to which the observed association between discrimination and delinquency reflects reverse or reciprocal causal processes resulting from labeling effects.

For the most part, prior studies, particularly those using cross-sectional data, have not fully addressed the issue of potential reverse or reciprocal causal processes. Nonetheless, some studies have attempted to clarify the directionality of the racial discrimination-delinquency link by explicitly modeling reciprocal relationships longitudinally using cross-lagged panel models (CLPMs). In these models, reciprocal effects are tested by examining the impact of discrimination on later delinquent behavior, and vice versa, while controlling for the autoregressive effects (i.e., rank order stability) for each construct. In a study examining cross-lagged associations across three waves of data, Martin and colleagues (2011) demonstrated that racial discrimination at each wave was significantly and positively associated with delinquent behavior at the following wave. In contrast, delinquent behavior did not significantly impact on perceptions of racial discrimination over time. Burt, Simons, and Gibbons (2012) also explored cross-lagged effects and revealed that racial discrimination significantly predicted later offending, with no evidence for reverse or reciprocal causality. On the other hand, Brody et al. (2006) found some evidence that problem behaviors (depression and conduct problems) were significantly associated with later reports of racial discrimination, although the effect of racial discrimination on problem behaviors was stronger.

However, studies using the traditional CLPM do not investigate reciprocal relationships between racial discrimination and delinquency within individuals over time, an approach that could provide a more rigorous test of directionality by controlling for unobserved time-stable confounders, as previously discussed. In fact, the traditional CLPM has recently been critiqued for its inability to disentangle within-person and between-person sources of variance and address unobserved heterogeneity (Hamaker et al., 2015; Berry & Willoughby, 2017; Usami, Murayama, & Hamaker, 2019). As a result, the traditional CLPM may produce uninterpretable and biased estimates, leading to potentially flawed conclusions about the presence, direction, and strength of associations between variables (Hamaker et al., 2015; Berry & Willoughby, 2017). To overcome this limitation, Hamaker and colleagues (2015) developed the random-intercept cross-lagged model (RI-CLPM). The RI-CLPM is an extension of the traditional CLPM that separates out stable, between-person variation in each variable through the inclusion of a random intercept, thereby isolating the cross-lagged and autoregressive relationships between constructs at the within-person level. In doing so, the RI-CLPM effectively controls for unobserved time-invariant confounders. The current study utilizes this statistical approach to examine the within-person relationships between racial discrimination and delinquent behavior and address the issue of reverse or reciprocal causality.

CHAPTER 3:

THE CURRENT STUDY

A growing body of research has revealed that experiencing interpersonal racial discrimination is associated with an increased risk for delinquent behavior among Black youth and thus may contribute to racial disparities in offending. This work has yielded the invaluable insight that a complete understanding of Black youth's delinquent behavior requires attention to their unique racialized experiences. Building on this prior research, the current study applied insights from the life course perspective to gain a fuller understanding of the relationship between racial discrimination and delinquent behavior. Specifically, I used three waves of data from a community sample of Black youth to examine the influence of within-person changes in racial discrimination on changes in delinquent behavior from late childhood to middle adolescence. In doing so, this study moves beyond the between-person approach that dominates the research on discrimination and delinquent behavior. I also investigated the extent to which these relations vary during this developmental period. Prior research has rarely considered whether youth's vulnerability to the criminogenic effects of discrimination depends on when it is experienced. Further, because it remains unclear whether the criminogenic effects of racial discrimination vary for boys and girls, I examined gender differences in the within-person impact of racial discrimination on delinquency.

The present study also sought to address the issues of reverse or reciprocal causal ordering. While most theoretical perspectives posit a unidirectional causal relationship from racial discrimination to offending, it is important to assess the alternative possibility that

involvement in delinquent behavior puts youth at risk for experiencing discrimination and exclusion as a result of labeling processes. Hence, I employed a novel statistical approach (RI-CLPM) to estimate within-person bi-directional lagged associations between racial discrimination and delinquent behavior, accounting for previous within-person fluctuations in each construct. Few studies have evaluated the causal directionality of the relationship between discrimination and delinquency, and those that have utilized statistical methods that do not disaggregate between- and within-person sources of variation (e.g., the traditional CLPM). Analyzing these relationships at the within-person level provides a more robust and rigorous test of the impact of discrimination on offending, as it clarifies the direction of effects while also adjusting for the effects of unobserved time-stable confounders.

To summarize, the current study examined: (1) within-person lagged effects from discrimination to delinquent behavior, or the extent to which within-person changes in exposure to discrimination predicted subsequent within-person changes in delinquent behavior; (2) within-person lagged effects from delinquent behavior to discrimination, or the extent to which within-person changes in delinquent behavior predicted subsequent within-person changes in discriminatory experiences; (3) whether these relationships varied in magnitude from late childhood to middle adolescence; and (4) whether these relationships differed for boys compared to girls.

CHAPTER 4:

METHODS

Sample

This dissertation uses data from the Family and Community Health Study (http://fantine.fcs.uga.edu/html/fachs .html), a longitudinal, multisite investigation of Black families. The FACHS was designed to examine how socio-contextual factors, such as family processes and neighborhood conditions, shape the health and development of Black Americans across a wide range of community contexts. Families were recruited from rural, suburban, and metropolitan neighborhoods that varied with respect to racial composition and income. Specifically, using 1990 U.S. census data, 259 block group areas (115 in Georgia and 144 in Iowa) were identified in neighborhoods in which Black families made up 10% or more of the population and in which 20%–100% of children lived in poverty. A roster of all fifth graders from schools zoned for the identified neighborhoods was used to recruit participants. Families were contacted by phone, and 84% of the families contacted agreed to participate in the study.

At the first wave of data collection, the sample consisted of 889 Black American youth, their primary caregiver, and their co-caregiver if one resided in the home and was willing to participate. About half (54%) of the youth respondents were girls. Most (83.5%) of the primary caregivers at Wave 1 were the target child's biological mother; 5.5% were the child's father; 5.6% were the child's grandmother; and less than 5% were stepparents, other relatives, or foster or adoptive parents. Ages for primary caregivers ranged from 23 to 80 years, with a mean age of

37.1 years. The majority of primary caregivers (91%) identified as African American/Black. Level of education among primary caregivers ranged from less than high school (18%) to advanced graduate degrees (3%), with the modal level being high school completion (42%). Household incomes ranged from <$10,000 (16%) to >$100,000 (1.4%).

This study utilized data from Wave 1, Wave 2, and Wave 3 when youth were, on average, 10.4 years old, 12.3 years old, and 15.6 years old, respectively. The retention rate from Wave 1 to Wave 3 was relatively high; of the 889 youth respondents at Wave 1, 779 (88%) participated at Wave 2, and 767 (86%) participated at Wave 3. Attrition analyses demonstrated little evidence of selective attrition. Youth who remained in the study at Wave 3 did not significantly from non-participants with regard to various demographic characteristics measured at Wave 1, including gender, age, family income, or primary caregiver education. Additionally, there were no significant differences in participation delinquent behavior at Wave 1 for adolescents who were retained in the study compared with non-participants. However, youth who attritted reported slightly more racial discrimination at Wave 1 compared to those who remained in the study.

Procedure

Before data collection, focus groups composed of Black American mothers residing in similar neighborhoods and who had similar demographic characteristics to the study participants evaluated the study's measures and items (Murry et al., 2001). The focus group members gave feedback on items that were unclear, culturally insensitive, and/or invasive. The measures and items were revised based on their evaluations and suggestions for improvement. Further, the protocol was piloted on 16 families before the main study began, in which Black facilitators observed and recorded notes on the pilot study participants' reactions to the survey questions. These notes were used to further modify the questionnaires.

Questionnaires were administered to participants in a computer-assisted personal interview format (Murry et al., 2001). Black university students and community members served as interviewers to build rapport and enhance cultural understanding. Interviewers received one month of training in the administration of computer-assisted self-report questionnaires. Interviews took place in the participants' homes or a convenient location near their homes (e.g., a library, school, or church) (Simons et al., 2016). Two visits, each lasting approximately 2 hours, were made within 7 days. During the first visit, each family member completed a self-report questionnaire that included questions on topics such as family processes and community characteristics, while caregivers also answered questions related to financial hardship. The interviewer read each question aloud, and responses were entered on a keypad viewed and operated solely by the participant. The second visit included videotaped interaction tasks of primary caregivers and targets as well as primary caregivers and co-caregivers. However, this data was not used in the current study. Participants' compensation was based on the length of the interview. Primary caregivers received $100, co-caregivers received $50, and target youth received $70. These amounts were increased at each wave.

Measures

Delinquent behavior. Participation in delinquent behavior was measured using youth reports of their involvement in 19 delinquent and deviant acts. Seventeen of the items were derived from the conduct disorder scale included in the Diagnostic Interview Schedule for Children, Version 4 (DISC-IV). Youth reported whether they had engaged in various delinquent behaviors during the preceding year, including bullying, running away from home, truancy, larceny, fire setting, physical assault, burglary, and robbery. Responses were coded dichotomously (0 = *did not engage in the behavior*, 1 = *engaged in the behavior*). Additionally,

the measure included two items about illicit drug and alcohol use. Youth reports of drug use were based on their responses to the substance use scale included in the DISC-IV. Respondents indicated whether they had used illicit drugs during the prior year, such as marijuana, cocaine, heroin, opiates, and hallucinogens. Due to limited variation, responses were combined into one dichotomous item (0 = *did not use any illicit drug*, 1 = *used an illicit drug*). Finally, youth responded to a question about binge drinking (i.e., consuming 3 or more drinks at one time) during the previous year (0 = *did not engage in binge drinking*, 1 = *engaged in binge drinking*). All items were summed to construct a variety scale of delinquent behavior at each wave (Wave 1 $\alpha = .73$; Wave 2 $\alpha = .65$; Wave 3 $\alpha = .71$). Prior research has found that variety scales of delinquency, which measure the number of different illegal or antisocial acts engaged in by youth, demonstrate high reliability and validity and are less biased by minor forms of deviance compared to frequency and dichotomous measures (Sweeten, 2012).

Although delinquent behavior is more accurately modeled as a count variable, it was treated as continuous in the current study because the RI-CLPM cannot be estimated with count outcomes. To account for the skewed distribution, the measure was log-transformed by taking the natural logarithm of the delinquent behavior scores (plus a constant of 1).

Racial discrimination. Racial discrimination was assessed with 13 items derived from the Schedule of Racist Events (SRE; Landrine & Klonoff, 1996). Youth indicated how often during the past year they experienced discriminatory treatment because of their race/ethnicity, including being insulted, excluded, suspected of wrongdoing, called racial slurs, treated disrespectfully at a place of business, harassed by police officers, and threatened with physical harm. Responses ranged from 1 (*never*) to 4 (*frequently*). Items were averaged to create a

continuous measure of racial discrimination at each wave (Wave 1 $\alpha = .86$; Wave 2 $\alpha = .90$; Wave 3 $\alpha = .90$).

Controls. As previously mentioned, an advantage of models that isolate within-person processes is that they implicitly control for the influence of unobserved time-stable confounders. However, scholars have pointed out that this advantage only holds when the effects of the time-invariant confounders are the same at each measurement occasion (Mund et al., 2021). Moreover, within-person models do not account for the effects of "third" variables that change over time. Thus, several time-invariant and time-varying covariates that have been linked to the development of delinquent behavior were included as controls in a supplemental analysis to assess the robustness of the study's findings. *Gender* (1 = *female*), *age* (in years), and *family economic pressure* measured at baseline were included as time-invariant covariates. Family economic pressure was measured using primary caregivers' reports on 17 items indicating their experiences of unmet material needs, financial cutbacks, and ability to make ends meet. For example, caregivers were asked if they had to cut back on expenses such as utilities, food, medical care, and housing; if they could afford to meet their basic medical care, clothing, food, and housing needs; and if they had difficulty paying their bills. Items were standardized and averaged ($\alpha = .82$). Measures of economic pressure capture the everyday financial realities brought on by a family's economic conditions and may be less subject to non-response compared to traditional measures of socio-economic status (Conger et al., 1994)

Affiliation with deviant peers and *quality of parenting* were included as time-varying covariates. Affiliation with deviant peers was measured using youth reports regarding how many of their friends had engaged in 9 antisocial or delinquent behaviors in the past 12 months (e.g., "stolen something worth more than $25," "hit someone with the idea of hurting them," "used

illegal drugs," "ran away from home"). Responses ranged on a scale from 1 (*none of them*) to 3 (*all of them*) and were averaged at each wave (Wave 1 α = .77; Wave 2 α = .81; Wave 3 α = .79). Quality of parenting was measured using combined youth and primary caregiver reports on multi-item scales reflecting the primary caregiver's warmth/supportiveness and management skills. Specifically, youth and caregivers evaluated how often the caregiver displayed certain parenting practices, including warmth/support (e.g., "help you do something important to you," "let you know he/she really cares about"), hostility (e.g., "criticized you or your ideas," "slap or hit you with his/her hands," "insult or swear at you"), monitoring (e.g., "know where you are and what you are doing," "know if you are doing something wrong"), consistent discipline (e.g., "the type of discipline you get depends on his/her mood"), inductive reasoning (e.g., "gives you reasons for his/her decisions"), positive reinforcement (e.g., "gives you a reward like money or something you would like when you get good grades, do your chores, etc."), and problem solving (e.g., "the same problems between you and your caregiver come up again and again and never seem to get solved"). Youth and caregivers responded to items on a scale of 1 (*always*) to 4 (*never*). Items were coded so that higher scores reflect higher quality of parenting and averaged at each wave (Wave 1 α = .86; Wave 2 α = .89; Wave 3 α = .91).

Analytic Strategy

Analyses were performed in Mplus version 8 (Muthén and Muthén, 2017). A RI-CLPM was estimated to examine within-person relationships between racial discrimination and delinquent behavior from late childhood through middle adolescence. The RI-CLPM is an extension of the traditional CLPM that partials out between-person variance through the inclusion of random intercepts, thereby isolating within-person dynamics between variables (Hamaker et al., 2015; Mulder & Hamaker, 2021). To fit the RI-CLPM, observed scores of racial

discrimination and delinquent behavior were decomposed into grand means, stable between-person components, and time-varying within-person components (Mulder & Hamaker, 2021). This decomposition can be expressed with the following equations:

$$RD_{it} = \mu_t + BRD_i + WRD_{it}$$

$$DB_{it} = \pi_t + BDB_i + WDB_{it}$$

Here, RD_{it} and DB_{it} are the observed scores for racial discrimination and delinquent behavior for person i at time t, respectively. μ_t and π_t represent the grand means for each construct, which are the means across all individuals at each measurement occasion. BRD_i and BDB_i are the random intercepts. The random intercepts capture a person's time-invariant deviation from the grand means and thus represent stable, between-person differences in exposure to/perceptions of discrimination and participation in delinquent behavior (Mulder & Hamaker, 2021). Each random intercept was specified by creating a latent variable with the repeated observed scores as its indicators and fixing all factor loadings to 1. WRD_{it} and WDB_{it} are the within-person components for racial discrimination and delinquency, respectively, and indicate a person's temporal deviations from their expected scores (person-specific means) based on the temporal grand means and random intercepts (i.e., $\mu_{it} = \mu_t + BRD_i$ and $\pi_{it} = \pi_t + BDB_i$) (Mulder & Hamaker, 2021). Thus, WRD_{it} and WDB_{it} represent within-person fluctuations (Usami et al., 2021). The within-person components were constructed by creating a latent variable for each observed score and constraining the measurement error variances for the observed scores to 0. This decomposition of observed scores into stable, between-person differences and dynamic, within-person processes makes it possible to examine whether within-person changes (i.e., fluctuations from one's own expected score/average level) in discriminatory experiences predict

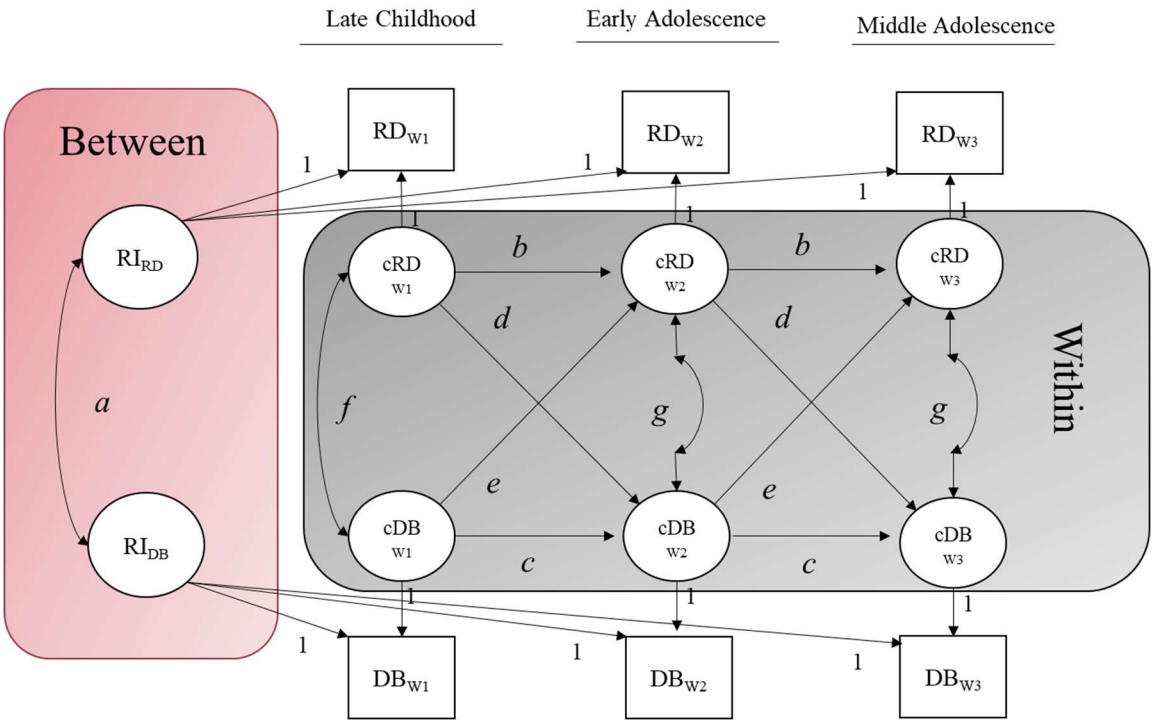
subsequent within-person changes in delinquent behavior (and vice versa), controlling for all unobserved time-stable confounders.

To that end, the structural paths of the RI-CLPM were specified, including correlations between the random intercepts and autoregressive, cross-lagged, and concurrent relationships between the within components of racial discrimination and delinquency. Figure 1 illustrates the parameters of the RI-CLPM. The correlation between the random intercepts captures the overall between-person differences across the study period. For instance, a positive correlation suggests that youth who reported more discrimination also reported more delinquent behavior compared to youth who reported less discrimination. The autoregressive effects represent within-person "carry-over" effects, or the extent to which within-person fluctuations in discrimination or delinquency are associated with within-person fluctuations in the same construct at the next wave (e.g., whether an individual who experienced higher levels of discrimination relative to their own average at one wave also experienced higher-than-average discrimination at the following wave). Note that the interpretation of the autoregressive parameters in the RI-CLPM is different from that of the CLPM, in which the autoregressive parameters indicate the rank-order stability of individuals from one time point to the next.

The cross-lagged effects indicate the extent to which within-person changes in one construct predict later within-person changes in the other construct, controlling for within-person carry-over effects (e.g., whether an individual who experienced more discrimination relative to their own average subsequently engaged in more delinquency relative to their own average). Finally, the concurrent associations constitute same-wave correlations between within-person fluctuations in discrimination and delinquency (e.g., whether an individual reported greater involvement in delinquent behavior relative to their own mean during times when they

experienced more discrimination relative to their own mean). At Wave 1, the correlation is modeled between the within components of discrimination and delinquency, which are treated as exogenous. At the subsequent waves, the correlations are modeled between the residuals of the within components for each variable.

Figure 1. Illustrative RI-CLPM



Note: *RD* racial discrimination; *DB* delinquent behavior; *RI* random intercept; W1 Wave 1; W2 Wave 2; W3 Wave 3. *a* = correlation between the random intercepts; *b* = autoregressive effects for racial discrimination; *c* = autoregressive effects for delinquent behavior; *d* = lagged effects from racial discrimination to delinquent behavior; *e* = lagged effects from delinquent behavior to racial discrimination; *f* = concurrent correlation between within-person components at Wave 1; *g* = concurrent correlation between residuals of within-person components.

Chi-square difference tests were used to assess whether the relationships between discrimination and delinquency differed from late childhood to middle adolescence. First, an unconstrained model in which all paths were free to vary was estimated. Then, a series of nested models were estimated with equality constraints placed, stepwise, on the autoregressive, cross-lagged, and concurrent paths (excluding Wave 1) over time. Model fits were compared using chi-square difference tests. A significant chi-square test indicates that constraining the specified paths to be equal over time results in a significantly worse model fit compared to the model without constraints. Therefore, it can be concluded that the equality constraints are untenable, and the magnitude of the relationship varies over time. In this case, the model without constraints was retained and used for further model comparisons. A non-significant chi-square test, on the other hand, suggests that the equality constraints are tenable, and the relationship is invariant across the study period. If the chi-square test was not significant, the model with equality constraints was selected and used for further model comparisons. The RI-CLPM with all tenable equality constraints is presented as the final model on the basis of parsimony.

Lastly, a multiple group analysis using the final RI-CLPM was run to test for gender differences in within-person cross-lagged relationships between racial discrimination and delinquent behavior. Multiple group analysis is an approach to testing moderation that involves fitting nested models in which paths are either free to vary across groups or constrained to be equal across groups (Wickrama et al., 1995; Mulder & Hamaker, 2021). First, an unconstrained model in which the cross-lagged paths were freely estimated across boys and girls was estimated. Then, one by one, each path was constrained to be equal for boys and girls. Chi-square difference tests between the constrained and unconstrained models were used to identify gender differences.

A significant chi-square test indicates a moderating effect of gender for the specified path whereas a non-significant test suggests there is no gender difference.

Model fit was evaluated using the chi-square test, comparative fit index (CFI), root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Non-significant chi-square test ($p > 0.05$), CFI values greater than 0.95, RMSEA values less than 0.05, and SRMR values less than 0.08 indicate good fit (Hu & Bentler, 1999). Missing data was handled using full-information maximum likelihood (FIML), which produces unbiased estimates of parameters and standard errors (Schafer and Graham, 2002). As previously discussed, attrition analyses demonstrated little evidence of selective attrition, although those who remained in the study at Wave 3 reported slightly more racial discrimination at Wave 1 compared to those who dropped out of the study. Additional analyses found that those with missing data on the racial discrimination or delinquent behavior measures (due to attrition or non-response) did not differ from those with complete data with respect to gender, age, primary caregiver education, or family income measured at Wave 1. Thus, FIML was used to handle missingness under the assumption that the data was missing at random.

CHAPTER 5:

RESULTS

Descriptive Statistics

Descriptive statistics and bivariate correlations for the study variables are presented in Table 1. The sample mean for racial discrimination was 1.63 at W1, 1.63 at W2, and 1.72 at W3, demonstrating that, on average, experiences of racial discrimination slightly increased during this period. The vast majority of youth reported experiencing at least one form of racial discrimination during the past year at each wave of data collection (90% at W1; 89% at W2; 92% at W3). Notably, the prevalence of racial discrimination was high even at Wave 1, when youth were only 10-12 years old. Participation in delinquent behavior, while relatively low across all three waves, also increased from late childhood to middle adolescence. Specifically, the average number of delinquent acts engaged in by the study participants was 0.36 at Wave 1, 0.65 at Wave 2, and 0.99 at Wave 3.

Turning to the bivariate correlations, both variables exhibited significant rank-order stability. There were positive and significant correlations between W1 and W2 discrimination ($r = .47$) and between W2 and W3 discrimination ($r = .48$). Likewise, there were significant correlations between W1 and W2 delinquency ($r = .17$) and between W2 and W3 delinquency ($r = .36$). Further, same-wave correlations between racial discrimination and delinquent behavior were positive and significant ($r = .24$ at W1; $r = .23$ at W2; $r = .21$ at W3). There were also several significant correlations across waves. Specifically, racial discrimination at W1 and W2 was positively correlated with delinquent behavior at W2 ($r = .21$) and W3 ($r = .17$), respectively.

The longitudinal correlations from delinquency to discrimination were smaller and less consistent. For instance, the correlation between delinquency at W1 and discrimination at W2 was only marginally significant (r = .07). However, delinquent behavior at W2 was positively and significantly correlated with racial discrimination at W3 (r = .12).

Table 1. Descriptive Statistics and Bivariate Correlations for Study Variables

	1	2	3	4	5	6
1. Racial Discrimination$_{W1}$	----					
2. Racial Discrimination$_{W2}$	.47**	----				
3. Racial Discrimination$_{W3}$	.30**	.48**	----			
4. Delinquent Behavior$_{W1}$	.24**	.07^{+}	.10*	----		
5. Delinquent Behavior$_{W2}$	.21**	.23**	.12**	.17**	----	
6. Delinquent Behavior$_{W3}$	.09*	.17**	.21**	.08^{+}	.36**	----
Mean	1.63	1.63	1.72	.36	.65	.99
Std. Dev.	.53	.56	.57	.97	1.21	1.62

Note: N=889. Descriptive statistics and correlations were analyzed prior to log-transforming delinquent behavior scores.
W1 Wave 1, *W2* Wave 2, *W3* Wave 3.
$^{+}p < .10$, $^{*}p < 0.05$, $^{**}p < 0.01$

Random Intercept Cross-lagged Panel Model

Table 2 presents model fit comparisons between the fully unconstrained baseline RI-CLPM and a series of nested models constraining the autoregressive, cross-lagged, and concurrent paths to be time-invariant. If imposing the specified equality constraints resulted in a

significantly worse model fit, indicating that the associations varied across the study period, the model without the equality constraints was retained for further comparisons. If constraining the paths to be equal over time did not show poorer model fit, which suggests associations were similar over time, the constrained model was used for further comparisons.

As shown in Table 2, constraining the autoregressive paths for racial discrimination showed no deterioration in model fit compared to the fully unconstrained baseline model (Model 2 vs. Model 1), which suggests the within-person carryover effects for racial discrimination did not differ across the study period. In contrast, the model with constrained autoregressive paths for delinquent behavior fit the data significantly worse compared to the model without those equality constraints (Model 3 vs. Model 2). Thus, the within-person carry-over effects for delinquent behavior appear to vary over time.

Of primary interest, however, is whether the cross-lagged relationships between discrimination and delinquency were similar or different from late childhood to early adolescence and from early adolescence to middle adolescence. According to the chi-square difference tests, constraining the lagged paths from discrimination to delinquency (Model 4 vs. Model 2) and the lagged paths from delinquency to discrimination (Model 5 vs. Model 4) did not result in worse model fit, indicating that these associations were invariant from late childhood to middle adolescence. Additionally, constraining the concurrent correlations between the residuals of the within-person components to be equal over time did not worsen model fit (Model 6 vs. Model 5). Therefore, the model with constrained autoregressive paths for racial discrimination, constrained cross-lagged paths, constrained concurrent correlations, and freely estimated autoregressive paths for delinquent behavior was selected as the final model (Model 6).

Table 2. Model Comparisons Examining Differences Across Time

Model	Model χ^2 (df)	Model Comparison	$\Delta\chi^2$ (Δdf)
1. Baseline Unconstrained Model	1.941 (1)		
2. Constrained Autoregressive Associations (Racial Discrimination)	1.941 (2)	2 v. 1	0.000 (1)
3. Constrained Autoregressive Associations (Delinquent Behavior)	13.595 (3)	3 v. 2	11.654 (1)**
4. Constrained Lagged Associations (Delinquent Behavior→Racial Discrimination)	3.633 (3)	4 v. 2	1.692 (1)
5. Constrained Lagged Associations (Racial Discrimination→Delinquent Behavior)	3.893 (4)	5 v. 4	0.260 (1)
6. Constrained Concurrent Associations (Correlated Residuals)	4.448 (5)	6 v. 5	0.555 (1)

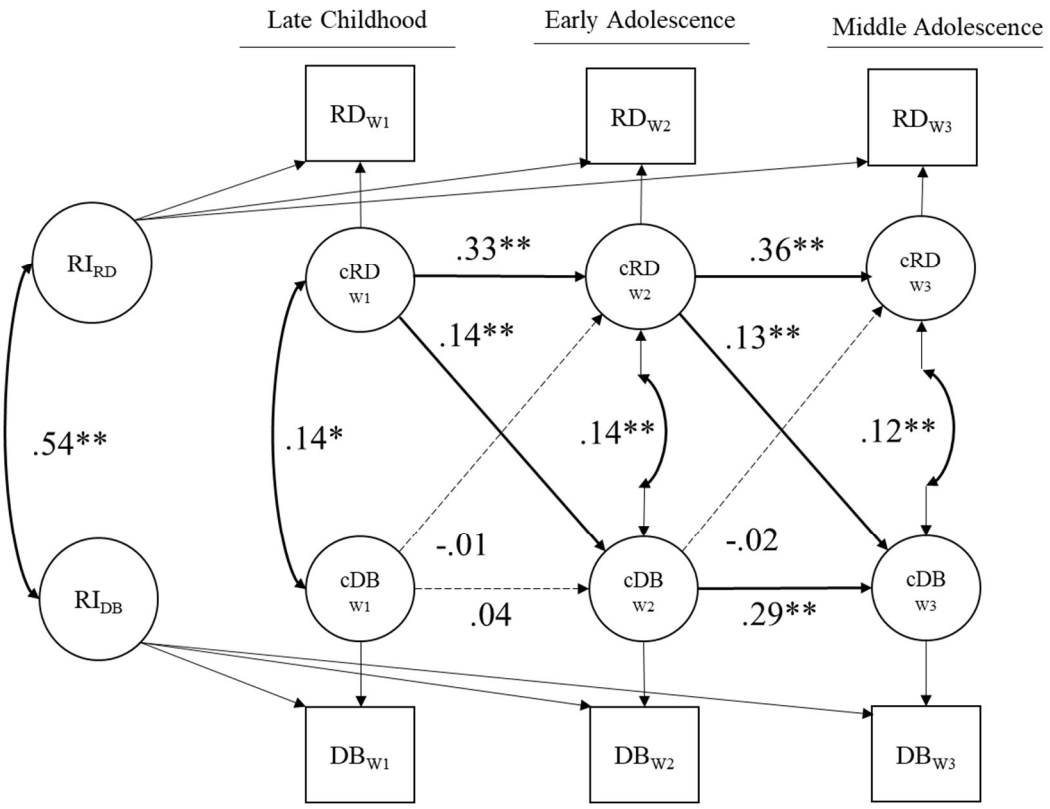
Note: ** p <.01

The final RI-CLPM is illustrated in Figure 2. The model showed excellent fit to the data on all indices ($\chi^2(5) = 4.448$, $p = .49$; RMSEA = 0.00; CFI = 1.00; SRMR = 0.02). The correlation between the random intercepts was positive and significant. Thus, youth who experienced more racial discrimination across the study period engaged in more delinquent behavior overall compared to those who experienced less discrimination. At the within-person level, all autoregressive associations for racial discrimination were significant and positive, which suggests that within-person increases in racial discrimination tended to carry over from one wave to the next. In other words, youth who reported more racial discrimination relative to their own average at one wave were likely to report higher-than-usual discrimination at the next wave. The autoregressive associations for delinquent behavior were more variable than those for racial discrimination. The autoregressive association for delinquency from W1 to W2 was not significant, indicating that within-person changes in delinquent behavior at W1 were not

associated with within-person changes in delinquent behavior at W2. However, the autoregressive association from W2 to W3 was positive and significant; youth who engaged in more delinquent behavior relative to their own average at W2 were likely to engage in more delinquent behavior relative to their own average at W3. Hence, there appears to be more within-person carry-over in delinquent behavior as youth age.

The within-person cross-lagged associations provide insight into the dynamic relationship between discriminatory experiences and delinquent behavior across adolescence. As depicted in Figure 2, the lagged associations from discrimination to delinquency were positive and significant. Thus, within-person increases in racial discrimination predicted later within-person increases in delinquent behavior, net of prior within-person changes in delinquency and time-stable confounders. However, there were no significant lagged associations from delinquency to discrimination. In other words, higher- or lower-than-usual participation in delinquent behavior was not related to later within-person changes in exposure to racial discrimination. Lastly, the concurrent correlations between discrimination and delinquency were significant and positive at each wave, indicating that adolescents tended to engage in more delinquent behavior relative to their own average at times when they reported more discriminatory experiences relative to their own average.

Figure 2. Final RI-CLPM



Note: N=889. Standardized coefficients are presented. Model fit: $\chi^2_{[5]} = 4.448$, $p = .49$; RMSEA = 0.00; CFI = 1.00; SRMR = 0.02. *RD* racial discrimination; *DB* delinquent behavior; *RI* random intercept; W1 Wave 1; W2 Wave 2; W3 Wave 3.
* $p < .05$; ** $p < .01$.

Gender Differences

A multiple group analysis using the final RI-CLPM was run to examine whether gender moderated the associations between racial discrimination and delinquent behavior. Although the focal objective was to determine whether the cross-lagged relationships differed for boys and girls, gender differences in the concurrent associations were also explored. An unconstrained model in which all paths were allowed to vary for boys and girls was compared with a series of models in which each lagged and concurrent path was constrained to be equal across groups. Chi-square difference tests between the unconstrained and constrained models indicated whether there were gender differences for a given path. Specifically, significant chi-square test results suggest evidence for gender moderation while non-significant results indicate that the relationship is the same for boys and girls. The results are presented in Table 3. There were no significant gender differences in the cross-lagged relationships. Thus, within-person increases in racial discrimination similarly predicted later within-person increases in delinquent behavior for both boys and girls. Turning to the concurrent associations, only one path varied significantly by gender: the correlation between racial discrimination and delinquent behavior at W1 was stronger for boys compared to girls ($\Delta\chi^2(1) = 5.296$, $p < .05$). This indicates that experiencing more discrimination relative to one's own average was more strongly correlated with greater participation in delinquent behavior than usual at W1 among boys than girls. There was no evidence for gender moderation for any other concurrent association.

Table 3. Multiple Group Analysis Testing Gender Differences

Model	Model $\chi^2(df)$	Model Comparison	$\Delta\ \chi^2$ (Δdf)
1. Unconstrained Model	2.555 (2)		
Constrained Lagged Associations			
2. Racial Discrimination$_{W1}$ → Delinquent Behavior$_{W2}$	2.573 (3)	2 v. 1	0.018 (1)
3. Racial Discrimination$_{W2}$ → Delinquent Behavior$_{W3}$	3.129 (3)	3 v. 1	0.574 (1)
4. Delinquent Behavior$_{W1}$ → Racial Discrimination$_{W2}$	5.251 (3)	4 v. 1	2.696 (1)
5. Delinquent Behavior$_{W2}$ → Racial Discrimination$_{W3}$	5.203 (3)	5 v. 1	2.648 (1)
Constrained Concurrent Associations			
6. Racial Discrimination$_{W1}$ ↔ Delinquent Behavior$_{W1}$	7.851 (3)	6 v. 1	5.296 (1)*
7. Racial Discrimination$_{W2}$ ↔ Delinquent Behavior$_{W2}$	2.630 (3)	7 v. 1	0.075 (1)
8. Racial Discrimination$_{W3}$ ↔ Delinquent Behavior$_{W3}$	5.488 (3)	8 v. 1	2.933 (1)

Note: N = 889 (411 boys, 478 girls).
* p <.05

Supplemental Analyses

Comparison to a Traditional Cross-lagged Panel Model

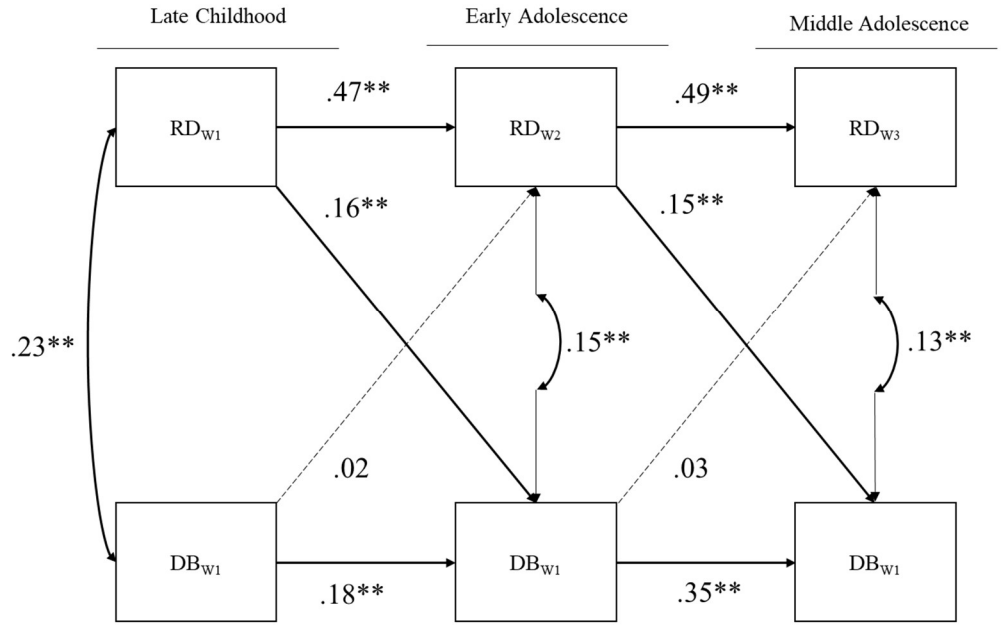
The RI-CLPM was compared to a traditional CLPM to understand how the disaggregation of between- and within-person associations among discrimination and delinquency influenced model fit and parameter estimates. The CLPM was obtained by constraining the variances and covariances of the random intercepts of the final RI-CLPM to 0. This yielded a model that was nested under the RI-CLPM and statistically equivalent to the traditional CLPM, allowing for model fit comparisons (Mulder & Hamaker, 2021). Note that the CLPM implicitly assumes there are no stable, between-person differences in exposure to racial discrimination or engagement in delinquent behavior, and therefore does not account for them (Hamaker et al., 2015).

The results from the CLPM are displayed in Figure 3. Although the CLPM demonstrated acceptable fit ($\chi^2(8) = 15.211$, $p = .06$; RMSEA = 0.03; CFI = 0.99; SRMR = 0.03), the chi-square difference test indicated that the model fit the data significantly worse than the RI-CLPM ($\chi^2\Delta(3) = 10.763$, $p < .05$). Thus, it can be concluded that disaggregating between-person differences and within-person processes through the inclusion of random intercepts provides a better fit to the data.

Turning to the parameter estimates, the pattern of results obtained from the CLPM were similar to that of the RI-CLPM. Specifically, racial discrimination was positively and significantly associated with later delinquent behavior while delinquent behavior had no significant impact on subsequent discriminatory experiences. Additionally, discrimination and delinquency were significantly and positively correlated at each wave. However, there were some important differences between the models. For instance, the autoregressive effect for

delinquency for W1 to W2 was significant in the CLPM while it was not significant in the RI-CLPM. Further, the other autoregressive effects in the CLPM were larger in size compared to the RI-CLPM. Hamaker (2018) noted that this is commonly observed when comparing the two models and is due to the fact that the traditional CLPM conflates between-person and within-person stability while the RI-CLPM disaggregates them. Similarly, the cross-lagged effects and concurrent correlations were slightly larger in the CLPM relative to RI-CLPM, which also likely stems from the CLPM's failure to account for the multilevel structure of the data.

Figure 3. Traditional CLPM



Note: N=889. Standardized coefficients are presented. Model fit: $\chi^2_{[8]} = 15.211$, $p = .06$; RMSEA = 0.03; CFI = 0.99; SRMR = 0.03.
RD racial discrimination; *DB* delinquent behavior; W1 Wave 1; W2 Wave 2; W3 Wave 3.
* $p < .05$; ** $p < .01$.

Adding Time-invariant and Time-varying Covariates

As previously discussed, because the RI-CLPM disaggregates between-person differences and within-person effects, it implicitly controls for the influence of unobserved time-stable confounders. The key assumption, however, is that the effects of the time-stable third variables are the same over time (Mund et al., 2021). The RI-CLPM does not account for the effects of such variables when this assumption is not met. Further, the RI-CLPM does not account for potential confounding by variables that change over time. Thus, the RI-CLPM was re-estimated with time-invariant and time-varying covariates to test the robustness of the previous findings regarding the within-person relationships between racial discrimination and delinquency.[1]

The time-invariant covariates (gender, age, family financial hardship) were regressed on the observed time-varying variables at each measurement occasion given the possibility that their effects may vary across time (Mulder and Hamaker, 2021). The time-varying covariates (quality of parenting, affiliation with deviant peers) were incorporated into the RI-CLPM in the same manner as racial discrimination and delinquency. As such, the time-varying covariates were decomposed into between-person components (i.e., random intercepts) and within-person components. Autoregressive, cross-lagged, and concurrent associations were modeled between all time-varying variables.

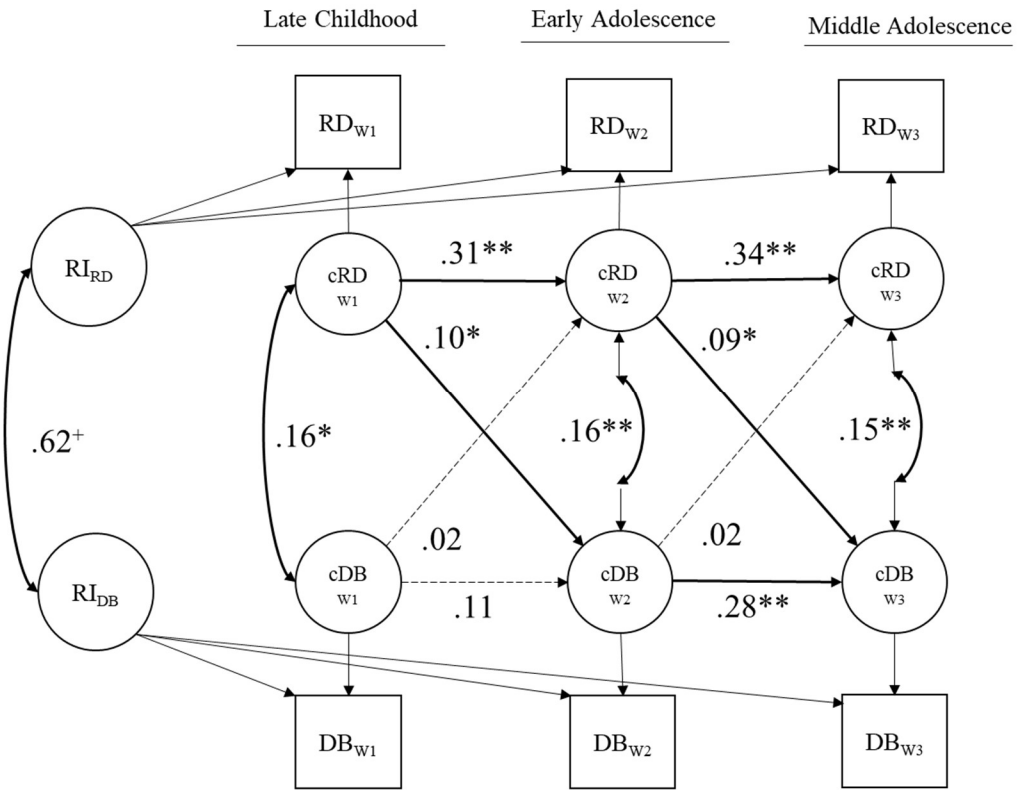
Following the same steps as described for the main analysis, a series of models were compared using chi-square difference tests to determine whether autoregressive, cross-lagged, and concurrent associations among the time-varying variables changed with age (see Appendix A). The chi-square difference tests indicated that all paths except the autoregressive paths for

[1] The sample size for this analysis (N=884) was slightly smaller than that of the main analysis (N=889) due to missing data on the exogenous time-invariant covariates.

delinquency, the autoregressive paths for quality of parenting, and the concurrent associations between delinquency and peer deviance were invariant across the study period. Thus, the model allowing these paths to be freely estimated while constraining all other autoregressive, cross-lagged, and concurrent associations to be equal over time was selected as the final model.

The model is depicted in Figure 4. For clarity, only the associations between racial discrimination and delinquent behavior are shown (for a full description of the results, see Appendix B). Overall, the pattern of findings remained the same with the inclusion of time-invariant and time-varying covariates. Focusing on the lagged effects, racial discrimination was significantly and positively associated with later delinquent behavior, although the standardized coefficients were smaller and only significant at $p < .05$. Thus, within-person increases in racial discrimination predicted subsequent within-person increases in delinquent behavior, even after accounting for the effects of prior within-person changes in delinquency, quality of parenting, and affiliation with deviant peers, as well as the impacts of gender, age, and financial hardship. Participation in delinquent behavior continued to have no significant impact on youth's later experiences with discrimination. The autoregressive and concurrent associations were also largely the same as those in the main analysis.

Figure 4. Final RI-CLPM with Time-invariant and Time-varying Covariates



Note: N=884. Standardized coefficients are presented. Quality of parenting and affiliation with deviant peers are included as time-varying covariates. Gender, age, and family economic pressure are included as time-invariant covariates. Model fit: $\chi^2_{[25]} = 23.319$, $p = .56$; RMSEA = 0.00; CFI = 1.00; SRMR = 0.02. *RD* racial discrimination; *DB* delinquent behavior; *RI* random intercept; W1 Wave 1; W2 Wave 2; W3 Wave 3.
$^{+}p < .10$; * $p < .05$; ** $p < .01$.

CHAPTER 5:

DISCUSSION

Scholars continue to document the persistence of racism in the U.S. and its adverse consequences for Black children and adolescents (Feagin, 2006; Bonilla-Silva, 2015; Umaña-Taylor, 2016; Seaton, 2020). A growing body of work has revealed that experiencing interpersonal racial discrimination is associated with an increased risk for delinquent behavior among Black youth and, thus, may contribute to racial disparities in offending (De Coster & Thompson, 2017; Burt et al., 2012; Unnever, Cullen, & Barnes, 2017). Although this work has highlighted the importance of examining Black youth's offending in relation to their unique lived experiences in a racially unequal society, important research gaps remain. Specifically, past research has rarely investigated whether changes in racial discrimination predict changes in delinquent behavior within individuals over time or the extent to which developmental timing influences youth's vulnerability to the criminogenic effects of racial discrimination. Guided by the life course perspective, the current study utilized three waves of longitudinal, prospective data from a community sample of Black youth to explore the dynamic, within-person impact of racial discrimination on delinquent behavior from late childhood to middle adolescence. This study also aimed to clarify the directionality of the association between racial discrimination and delinquency by explicitly modeling within-person reciprocal relations over time. Prior studies have relied on the traditional CLPM to establish causal order and address the possibility of reverse or reciprocal causality. However, scholars have recently criticized the CLPM because it

does not distinguish stable between-person differences from within-person processes and may produce biased estimates (Hamaker et al., 2015). Thus, I employed a RI-CLPM, a statistical approach that partials out stable between-person variance and models auto-regressive, concurrent, and cross-lagged associations between variables at the within-person level.

The results revealed a significant relationship between racial discrimination and delinquent behavior at the between-person level. That is, youth who experienced more racial discrimination across the study period reported more delinquent behavior than youth who experienced less racial discrimination. Further, *changes* in racial discrimination influenced later within-person *changes* in delinquent behavior, controlling for the effects of unmeasured time-invariant characteristics and prior within-person changes in delinquency. This finding is consistent with the life course perspective, which suggests that individuals' antisocial behavior evolves in response to on-going changes in life circumstances and exposure to criminogenic conditions (Elder, 1998; Sampson & Laub, 1993; Ousey & Wilcox, 2007). Specifically, youth who reported increased racial discrimination relative to their own typical levels reported heightened involvement in delinquent behavior concurrently and 2-3 years later. These within-person findings indicate that, to the extent that youth experience an increase in exposure to racial discrimination, this may prompt a subsequent increase in their delinquent behavior. The significant impact of racial discrimination remained even after adjusting for the influence of within-person changes in parenting and deviant peer associations, underscoring the need to account for Black youth's unique experiences with discrimination when examining developmental changes in delinquent behavior over time (Evans et al., 2016).

In contrast, within-person changes in delinquent behavior did not predict later within-person changes in racial discrimination, ruling out the alternative possibility that youth's

delinquent behavior precedes or increases their risk for experiencing or perceiving racial discrimination. This pattern of results is largely consistent with prior research that utilized the traditional CLPM to examine reciprocal relationships (e.g., Martin et al., 2011). Nonetheless, by disaggregating between-person and within-person variance, the current study provided a more rigorous test of the directionality of the discrimination-delinquency association, enhancing our confidence that racial discrimination predicts increased delinquent behavior and not vice versa. Indeed, the results from the supplemental analysis indicated that the RI-CLPM provided a better fit to the data compared to the CLPM, and while the pattern of results was similar across models, the estimates produced by the CLPM were slightly larger, which may be due to bias by stable between-person differences. This demonstrates the importance and utility of using analytical methods that disentangle between-person and within-person variance (Hamaker et al., 2015; Allison, 2009; Curran & Bauer, 2011).

Additionally, there was no evidence that the impact of racial discrimination on delinquent behavior varied over the study period. The within-person lagged association between racial discrimination and delinquent behavior from late childhood to early adolescence and from early adolescence to middle adolescence were similar in magnitude. These results differ from Gibbons et al.'s (2020) findings, in which discrimination assessed during late childhood was more strongly associated with illegal behavior, jail, and arrest in adulthood than discrimination assessed during adolescence. They asserted that late childhood may be a critical period during which the effects of discrimination are particularly damaging because youth at this age may not fully understand the negative treatment they experience and often lack the resources to effectively cope with stress and threats to their developing group and self-identity (see also: Benner at al., 2018). Thus, they suggest that high levels of discrimination during this period may

initiate a trajectory of offending among some children similar to the "life course-persistent" pattern described by Moffitt (1993). However, the current study found that youth's vulnerability to the criminogenic effects in late childhood did not differ from that in early adolescence; discrimination during both periods similarly predicted subsequent within-person increases in delinquent behavior. These contrasting results may stem from the fact that Gibbons et al. (2020) examined the long-term impacts of early discrimination and focused on between-person differences. The present study's results also run counter to Agnew's (1997) developmental general strain theory arguments, which suggest that strain may be more criminogenic during adolescence than childhood.

Finally, the current study examined whether gender moderated the within-person concurrent and lagged associations between racial discrimination and delinquent behavior. There was only one significant gender difference: the concurrent correlation between racial discrimination and delinquent behavior during late childhood was stronger for boys compared to girls. This finding indicates that a within-person increase in racial discrimination was more strongly correlated with a within-person increase in delinquency during late childhood for boys than girls. However, because the association is contemporaneous, causal direction cannot be determined. On the other hand, there were no gender differences in the cross-lagged relationships, which indicated that within-person increases in discrimination were associated with later within-person increases in delinquent behavior among boys and girls across the study period. While some theoretical perspectives (Unnever & Gabbidon, 2011) and prior research (Brody et al., 2006) suggest that boys may be more vulnerable to the criminogenic effects of racial discrimination, the results from the current study are more consistent with past research

that indicates racial discrimination has a similar impact on offending and antisocial behavior among both boys and girls (e.g., Caldwell et al., 2004; Martin et al., 2011).

This research makes several significant contributions to the literature. First, it advances research on the harmful effects of racial discrimination in general, and the criminogenic effects of racial discrimination in particular. Specifically, the present study utilized three waves of longitudinal, prospective data and focused on within-person change over time, thereby improving our understanding of how Black youth's delinquent behavior develops in response to their changing experiences of racial discrimination as they transition to adolescence. Additionally, this study applied a RI-CLPM, a sophisticated statistical model that enabled a stringent test of the impact of racial discrimination on delinquent behavior by accounting for potential reverse/reciprocal causality and controlling for unobserved time-stable variables that may confound the association between discrimination and delinquency. Thus, the findings offer rigorous evidence of the criminogenic effects of racial discrimination. Furthermore, by highlighting how changes in exposure to racial discrimination influence fluctuations in delinquency among Black youth over time, this research also significantly contributes to developmental and life course criminology, which has given relatively little attention to how racism and discriminatory experiences may shape the development of offending (Cullen et al., 2019).

Despite significant contributions and methodological strengths, the current study is not without limitations. First, the data come from a sample of Black American youth. Thus, the findings may not be generalizable to other marginalized racial/ethnic groups. Additionally, the data were collected between 1997 and 2002. Future research should replicate these findings with more recent data, given the socio-historical changes that have occurred over the past two decades

(e.g., the Black Lives Matter movement, vicarious exposure to racist and dehumanizing encounters via social media). Second, this study used self-reports of delinquent behavior, which may be vulnerable to social desirability bias. Further, the average reported involvement in delinquent behavior was somewhat low across the study. Replication with a high-risk sample may be beneficial. Third, this study utilized a composite measure of interpersonal racial discrimination. However, different sources or types of interpersonal discrimination may exert unique effects on offending and antisocial behavior (e.g., experiencing discrimination from police vs. peers) (Isom, 2016; Herda & McCarthy, 2018). More research is needed to explore this possibility.

Fourth, the time lags between waves were relatively long (~2 years), which may have attenuated the relationships between discrimination and delinquency. Some scholars assert that the impact of discrimination on offending is likely more pronounced in the short term than in the long term (Burt et al., 2012). Thus, future research should replicate the present study's findings using longitudinal data with shorter time lags between assessments. Fifth, although the RI-CLPM rules out potential confounding effects from time-stable third variables by isolating within-person processes, it does not guard against confounding by unobserved time-varying variables or time-stable variables whose effects may change over time. While the supplemental analysis indicated that the results were robust to the inclusion of several time-invariant and time-varying covariates, this study, like all observational studies, cannot definitively point to causal effects (Osgood, 2010).

A sixth limitation of the current study is its focus on a relatively small portion of the life course: late childhood to middle adolescence. While I was able to assess whether the impact of discrimination experienced during late childhood differed from that of discrimination

experienced during early adolescence, additional research using data collected across a longer period of time is needed to more fully assess whether the within-person effects of racial discrimination on delinquency and crime vary over the life course. Moreover, future research should explore the dynamic relationship between discrimination and offending during the transition to adulthood, as experiences with discrimination may impede the desistance process (Piquero et al., 2002). Lastly, there may be other factors that moderate the within-person impact of racial discrimination on delinquent behavior that this study did not examine. It is likely that for most youth, experiencing an increase in discrimination does not result in increased delinquent behavior. For instance, theory and prior research indicate that parents' racial socialization, particularly preparation for bias and cultural socialization, may protect against racial discrimination's criminogenic and otherwise damaging effects by strengthening youth's sense of racial identity and facilitating prosocial coping (Unnever & Gabbidon, 2011; Umaña-Taylor & Hill, 2020; Burt et al., 2017). Unfortunately, measures of racial socialization were not available in the FACHS dataset until Wave 3. Researchers should continue investigating how racial socialization in and outside the family influences the relationship between racial discrimination and delinquent behavior.

These limitations notwithstanding, the current study adds to the large and growing literature that demonstrates the pernicious effects of racial discrimination among Black youth and provides further support for theoretical perspectives that posit that interpersonal racial discrimination is criminogenic. Collectively, the findings from the present study and prior research illustrate the need for delinquency prevention and intervention strategies that address Black youth's experiences with racial discrimination. For instance, the Strong African American Families (SAAF) program, a family-centered, evidence-based prevention program developed in

partnership with African American families in rural Georgia, includes an explicit recognition of the adverse effects of racial discrimination and incorporates culturally specific protective strategies, such as racial socialization (Berkel et al., 2022). A recent evaluation of the SAAF program found that it was successful in indirectly promoting psychological functioning and reducing risk behaviors among Black youth through its positive impact on racial socialization and Black pride (Berkel et al., 2022). Yet, the evaluation also revealed that the program was unable to fully mitigate the detrimental effects of racial discrimination on youth outcomes. Indeed, while culturally informed, family-centered programs may help promote healthy development among Black youth in the face of discrimination, there is still an urgent need for large-scale and comprehensive efforts to eradicate racism and discrimination on institutional and interpersonal levels (Berkel et al., 2022; Feagin, 2010; Bonilla-Silva, 2021). Systemic and meaningful changes to laws, policies, and practices aimed at reducing racial discrimination are not only essential for creating a more just and equitable society but may also help prevent and reduce delinquent behavior among Black youth.

REFERENCES

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology, 30*, 47-87.

Agnew, R. (2001). Building on the foundation of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, *38*(4), 319-361.

Agnew, R. (2006). *Pressured into crime: An overview of general strain theory.* Oxford University Press.

Agnew, R. (1997). Stability and change over the life course: A strain theory explanation. In T. P. Thornberry (Eds.), *Developmental theories of crime and delinquency* (pp. 101-132). Transaction.

Akers R. L. (2009). *Social learning and social structure: A general theory of crime and deviance*. Transaction.

Alexander, M. (2010). *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. The New Press.

Alinor, M., Lei, M. K., & Simons, R. L. (2023). Racism over time: Experiences from a panel study of Black Americans. *Social Psychology Quarterly*, *86*(3), 379-398.

Allison, P. D. (2009). *Fixed effects regression models* (Vol. 160). Sage.

Anderson, E. (1999). *Code of the street: Decency, violence, and the moral life of the inner city*. W. W. Norton.

Anderson J. R., Holland E., Heldreth C., Johnson S. P. (2018). Revisiting the Jezebel stereotype: The impact of target race on sexual objectification. *Psychology of Women Quarterly*, *42*, 461-476.

Assari, S., Moazen-Zadeh, E., Caldwell, C. H., & Zimmerman, M. A. (2017). Racial discrimination during adolescence predicts mental health deterioration in adulthood: Gender differences among Blacks. *Frontiers in Public Health*, *5*, 104.

Bellair, P. E., & McNulty, T. L. (2005). Beyond the bell-curve: Community disadvantage and the explanation of black-white differences in adolescent violence. *Criminology*, *43*, 1135–1168

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

Benner, A. D., & Graham, S. (2013). The antecedents and consequences of racial/ethnic discrimination during adolescence: does the source of discrimination matter? *Developmental Psychology*, *49*(8), 1602–1613.

Berkel C., Murry V. M., Thomas N. A., Bekele B., Debreaux M. L., Gonzalez C., & Hanebutt, R. A. (2022). The strong African American families program: disrupting the negative consequences of racial discrimination through culturally tailored, family-based prevention. *Prevention Science*, 1–12.

Bernburg, J. G. (2019). Labeling theory. In M. D. Krohn, N. Hendrix, G. Penly Hall, & A. J. Lizotte (Eds.), *Handbook on crime and deviance* (pp. 179–196). Springer Nature Switzerland.

Berry, D., & Willoughby, M. T. (2017). On the practical interpretability of cross-lagged panel

models: Rethinking a developmental workhorse. *Child Development*, *88*, 1186 –1206.

Bhutta, N., Chang, A. C., Dettling, L. J., Hsu, J. W., & Hewitt, J. (2020, September 28). *Disparities in wealth by race and ethnicity in the 2019 survey of consumer finances*. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/econres/notes/feds-notes/disparities-in-wealth-by-race-and-ethnicity-in-the-2019-survey-of-consumer-finances-20200928.html

Blake, J. J., Butler, B. R., Lewis, C. W., & Darensbourg, A. (2011). Unmasking the inequitable discipline experiences of urban Black girls: Implications for urban educational stakeholders. *The Urban Review*, *43*(1), 90–106.

Bobo, L. D., Charles, C. Z., Krysan, M., Simmons, A. D., & Fredrickson, G. M. (2012). The real record on racial attitudes. In P. V. Marsden (Ed.), *Social trends in American life: Findings from the general social survey since 1972* (pp. 38–83). Princeton, NJ: Princeton University Press.

Bobo, L., Kluegel, J. & Smith, R. (1997). Laissez-Faire racism: The crystallization of a kinder, gentler, anti-Black ideology. in S. Touch & J. Martin (Eds), *Racial attitudes in the 1990s: Continuity and change* (pp. 15–42). Praeger.

Bonilla-Silva, E. (2015). The structure of racism in color-blind, "post-racial" America. *American Behavioral Scientist*, *59*(11), 1358-1376.

Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural interpretation. *American Sociological Review*, *62*, 465-480.

Bonilla-Silva, E. (2021). What makes systemic racism *systemic*? *Sociological Inquiry*, *91*(3), 513-533.

Brody, G. H., Chen, Y.-F., Murry, V. M., Ge, X., Simons, R. L., Gibbons, F. X., … Cutrona, C.

E. (2006). Perceived discrimination and the adjustment of African American youths: A five-year longitudinal analysis with contextual moderation effects. *Child Development, 77*, 1170 – 1189.

Brody, G. H., Beach, S. R. H., Chen, Y.-F., Obasi, E., Philibert, R. A., Kogan, S. M., & Simons, R. L. (2011). Perceived discrimination, serotonin transporter linked polymorphic region status, and the development of conduct problems. *Development and Psychopathology, 23*, 617–627.

Broidy, L. & Agnew, R. (1997). Gender and crime: A general strain theory perspective. *Journal of Research in Crime and Delinquency*, *34*, 275-306.

Brunson, R. K. and Miller, J. (2006). Young black men and urban policing in the United States. *British Journal of Criminology*, *46*(4), 613-640.

Burt, C. H., Simons, R. L., & Gibbons, F. X. (2012). Racial discrimination, ethnic-racial socialization, and crime: A micro-sociological model of risk and resilience. *American Sociological Review, 77*, 648-677.

Burt, C. H., & Simons, R. L. (2015). Interpersonal racial discrimination, ethnic-racial socialization, and offending: Risk and resilience among African American females. *Justice Quarterly, 32*, 532–570.

Burt, C. H., Lei, M. K., & Simons, R. L. (2017). Racial discrimination, racial socialization, and crime: Understanding mechanisms of resilience. *Social Problems, 64*, 414-438

Caldwell, R. M., Wiebe, R. P., & Cleveland, H. H. (2006). The influence of future certainty and contextual factors on delinquent behavior and school adjustment among African American adolescents. *Journal of Youth and Adolescence*, *35*, 591-602.

Caldwell, C. H., Kohn-Wood, L. P., Schmeelk-Cone, K. H., Chavous, T. M., & Zimmerman, M.

A. (2004). Racial discrimination and racial identity as risk or protective factors for violent behaviors in African American young adults. *American Journal of Community Psychology, 33*, 91-105.

Carter, S. E., Ong, M. L., Simons, R. L., Gibbons, F. X., Lei, M. K., & Beach, S. R. H. (2019). The effect of early discrimination on accelerated aging among African Americans. *Health Psychology*, *38*(11), 1010–1013.

Carter P. L., Skiba R., Arredondo M. I., Pollock M. (2017). You can't fix what you don't look at. *Urban Education*, *52*, 207–235.

Carter Andrews, D. J., Brown, T., Castro, E., & Id-Deen, E. (2019). The impossibility of being "perfect and white": Black girls' racialized and gendered schooling experiences. *American Educational Research Journal*, *56*(6), 2531–2572

Chavous, T. M., Rivas-Drake, D., Smalls, C., Griffin, T., & Cogburn, C. (2008). Gender matters, too: The influences of school racial discrimination and racial identity on academic engagement outcomes among African American adolescents. *Developmental Psychology*, *44*, 637-654.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biosocial model. *American Psychologist, 54*, 805-816.

Collins, P. H. (1990). *Black feminist thought*. Unwin Hyman.

Copp, J. E., Giordano, P. C., Longmore, M. A., & Manning, W. D. (2020). Desistance from crime during the transition to adulthood: The influence of parents, peers, and shifts in identity. *Journal of Research in Crime and Delinquency*, *57*(3), 294-332.

Cullen, F. T., Chouhy, C., Butler, L., & Lee, H. (2019). Beyond white criminology. In J. D.

Unnever, S. Gabbidon, & C. Chouhy (Eds.), *Building a Black criminology* (pp. 45-75). Routledge.

Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology*, *62*, 583–619.

Curran, P. J., & Hancock, G. R. (2021). The challenge of modeling co-developmental processes over time. *Child Development Perspectives, 15*, 67–75.

Curran, P. J., Howard, A. L., Bainter, S. A., Lane, S. T., & McGinley, J. S. (2014). The separation of between-person and within-person components of individual change over time: A latent curve model with structured residuals. *Journal of Consulting and Clinical Psychology*, *82*, 8–94.

Daigle, L. E., Cullen, F. T., & Wright, J. (2007). Gender differences in the predictors of juvenile delinquency: Assessing the generality-specificity debate. *Youth Violence and Juvenile Justice*, *5*, 254-286.

Dovidio, J. F., Gaertner, S. L., Kawakami, K., & Hodson, G. (2002). Why can't we all just get along? Interpersonal biases and interracial distrust. *Cultural Diversity and Ethnic Minority Psychology*, *8*, 88 –102.

Du Bois, W. E. B. (1899). *The Philadelphia Negro: A social study*. University of Pennsylvania Press.

DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., & Hardesty, J. L. (2002). Race and gender influences on adjustment in early adolescence: Investigation of an integrative model. *Child Development, 73*(5), 1573-1592.

Elder, G.H. (1998). The life course as developmental theory. *Child Development, 69*(1), 1-12.

Ely D., & Driscoll A. K. (2021). Infant mortality in the United States, 2019: data from the period Linked birth/infant death file. *National Vital Statistics Reports*, *70*(14), 1-18.

English, D., Lambert, S. F., Tynes, B. M., Bowleg, L., Zea, M. C., & Howard, L. C. (2020). Daily multidimensional racial discrimination among Black US American adolescents. *Journal of Applied Developmental Psychology, 66*, 101068.

English, D., Lambert, S. F., & Ialongo, N. S. (2016). Adding to the education debt: Depressive symptoms mediate the association between racial discrimination and academic performance in African American adolescents. *Journal of School Psychology*, *57*, 29-40.

Epstein, R., Blake, J. J., & González, T. (2017). *Girlhood interrupted: The erasure of Black girls'childhood.* Georgetown University Law Center on Poverty and Inequality.

Essed, P. (1991). *Understanding everyday racism: An interdisciplinary theory*. Sage Publications.

Evans, S. Z., Simons, L. G., and Simons, R. L. (2016). Factors that influence trajectories of delinquency throughout adolescence. *Journal of Youth and Adolescence*, *45*, 156-171.

Fader, J. J. & Sebastian León, K. (2023). *Code of the Street* 25 years later: Lasting legacies, empirical status, and future directions. *Annual Review of Criminology*, *7*(12), 1-20.

Farrington, D. P., Loeber, R., Yin, Y. & Anderson, S. (2002) Are within-individual causes of delinquency the same as between-individual causes? *Criminal Behavior and Mental Health, 12*, 53-68.

Feagin, J. R. (2010). *Racist America: Roots, current realities, and future reparations* (2nd ed.). Taylor & Francis.

Feagin, J. R. (1991). The continuing significance of race: Antiblack discrimination in public places. *American Sociological Review*, *56*, 101-16.

Feagin, J. R., & Bennefield, Z. (2014). Systemic racism and U.S. health care. *Social Science & Medicine*, *103*, 7–14.

Feagin J. R., & Sikes M.P. (1994). *Living with racism: The Black middle-class experience*. Beacon Press.

Feagin, J. R. (2006). *Systemic racism: A theory of oppression.* Routledge.

Feagin. J. R., & Eckberg. D. L. (1980). Discrimination: motivation, action. effects, and context. *Annual Review of Sociology*, *6*, 1-20.

Feagin, J. R., & McKinney, K. D. (2005). The many costs of racism. Rowman & Littlefield Publishers, Inc.

Felson, R. B., & Kreager, D. A. (2015). Group differences in delinquency: What is there to explain? *Race and Justice*, *5*, 58-87.

Forney, M., & Ward, J. T. (2019). Identity, peer resistance, and antisocial influence: Modeling direct and indirect causes of desistance. *Journal of Developmental and Life-Course Criminology*, *5*, 107-135.

Gabbidon, S. L. (2003). Racial profiling by store clerks and security personnel in retail establishments: An exploration of "shopping while Black." *Journal of Contemporary Criminal Justice*, *19*(3), 345-364.

Gabbidon, S. L., Higgins, G. E. and Potter, H. (2011). Race, gender, and the perception of recently experiencing unfair treatment by the police: exploratory results from an all-black sample. *Criminal Justice Review*, *36*, 5-21.

Gadson, C. A., & Lewis, J. A. (2021). Devalued, overdisciplined, and stereotyped: An exploration of gendered racial microaggressions among Black adolescent girls. *Journal of Counseling Psychology*, *69*, 14-26.

Gaylord-Harden, N. K., & Cunningham, J. A. (2009). The impact of racial discrimination and coping strategies on internalizing symptoms in African American youth. *Journal of Youth and Adolescence, 38*, 532-543.

Garcia-Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vasquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, *67*, 1891–1914.

Gibbons, F. X., Etcheverry, P. E., Stock, M. L., Gerrard, M., Weng, C. Y., Kiviniemi, M., & O'Hara, R. E. (2010). Exploring the link between racial discrimination and substance use: What mediates? What buffers? *Journal of Personality and Social Psychology*, *99*, 785-801.

Gibbons, F. X., O'Hara, R. E., Stock, M. L., Gerrard, M., Weng, C. Y., & Wills, T. A. (2012a). The erosive effects of racism: Reduced self-control mediates the relation between perceived racial discrimination and substance use in African American adolescents. *Journal of Personality and Social Psychology*, *102*, 1089-1104.

Gibbons, F. X., Fleischli, M. E., Gerrard, M., Simons, R. L., Weng, C. Y., & Gibson, L. P. (2020). The impact of early racial discrimination on illegal behavior, arrest, and incarceration among African Americans. *American Psychologist*, *75*(7), 952–968.

Goff, P. A., Jackson, M. C., Di Leone, B. A. L., Culotta, C. M., & DiTomasso, N. A. (2014). The essence of innocence: Consequences of dehumanizing black children. *Journal of Personality and Social Psychology*, *106*, 526–54

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford University Press.

Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, *20*(1), 102-116.

Harrell, S. P. (2000). A multidimensional conceptualization of racismrelated stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry*, *70*, 42–57

Harris-Britt, A., Valrie, C., Kurtz-Costes, B., & Rowley, S. (2007). Perceived racial discrimination and self-esteem in African American youth: Racial socialization as a protective factor. *Journal of Research on Adolescence, 17*(4), 669-682.

Harvey Wingfield, A. (2007). The modern mammy and the angry Black man: African American professionals' experiences with gendered racism in the workplace. *Race, Gender, and Class*, *14*(2), 196-212.

Herda, D., & McCarthy, B. (2018). No experience required: Violent crime and anticipated, vicarious, and experienced racial discrimination. *Social Science Research, 70*, 115–130.

Herda, D. (2016). The specter of discrimination: Fear of interpersonal racial discrimination among adolescents in Chicago. Social Science Research, 55, 48–62.

Hirschi, T. (1969). *Causes of Delinquency*. University of California Press.

Hoffman, J. P. & Cerbone, F. G. (1999). Stressful life events and delinquency escalation in early adolescence. *Criminology 37*, 343-374.

Hu, L. and Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Isom, D. (2016). Microaggressions, injustices, and racial identity: An empirical assessment of the theory of African American offending. *Journal of Contemporary Criminal Justice*, *32*(1), 27–59.

Jang, S. J. (1999). Age-varying effects of family, school, and peers on delinquency: A multilevel modeling test of interactional theory. *Criminology*, *37*, 643-686

Jennings, W. G., Maldonado-Molina, M., & Komro, K. A. (2010). Sex similarities/differences in trajectories of delinquency among urban Chicago youth: The role of delinquent peers. *American Journal of Criminal Justice, 35*, 56-75.

Jolliffe, D., Farrington, D. P., Brunton-Smith, I., Loeber, R., Ahonen, L., & Palacios, A. P. (2019). Depression, anxiety and delinquency: Results from the Pittsburgh youth study. *Journal of Criminal Justice*, *62*, 42-49.

Jones, J. M. (1997). *Prejudice and racism* (2nd ed.). McGraw-Hill.

Jones C. A. & Greene H. T. (2016). Race discrimination, racial socialization, and offending trends among African American college students: a test of the theory of African American offending. *Journal of Contemporary Criminal Justice*, *32*(1), 60–77.

Jones, S. C., & Neblett, E. W. (2017). Future directions in research on racism-related stress and racial-ethnic protective factors for black youth. *Journal of Clinical Child & Adolescent Psychology*, 46, 754–766.

Kang, H., and D. L. Burton. (2014). Effects of racial discrimination, childhood trauma, and trauma symptoms on juvenile delinquency in African American incarcerated youth. *Journal of Aggression, Maltreatment & Trauma, 23*(10), 1109-1125.

Kovera, M. (2019). Racial disparities in the criminal justice system: Prevalence, causes, and search for solutions. *Journal of Social Issues*, *75*, 1139-1164.

Korver-Glenn, E. (2018). Compounding inequalities: How racial stereotypes and discrimination accumulate across the stages of housing exchange. *American Sociological Review*, *83*(4), 627-656.

Kwon E., Metzger I., & Kogan S. M. (2022). Racial discrimination and conduct problems among

Black American youth: the moderating effect of ethnic racial socialization. *Journal of Adolescent Health*, *71*(4), 488-493.

Landers, M. D., Mitchell, O., & Coates, E. E. (2015). Teenage fatherhood as a potential turning point in the lives of delinquent youth. *Journal of Child and Family Studies*, *24*, 1685-1696.

Landrine, H., & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health Consequences. *Journal of Black Psychology*, *22*(2), 144-168.

Laub J. H. (2006). Edwin H. Sutherland and the Michael-Adler Report: Searching for the soul of criminology seventy years later. *Criminology*, *44*(2), 235-258.

Laub, J. H. & Sampson, R. J. (1993). Turning points in the life course: why change matters to the study of crime. *Criminology*, *31*, 301-325.

Lavner, J. A., Hart, A. R., Carter, S. E., & Beach, S. R. H. (2022). Longitudinal effects of racial discrimination on depressive symptoms among black youth: Between- and within-person effects. *Journal of the American Academy of Child & Adolescent Psychiatry, 61*(1), 56—65.

Lee, D. L., & Ahn, S. (2013). The relation of racial identity, ethnic identity, and racial socialization to discrimination-distress: A meta-analysis of Black Americans. *Journal Counseling Psychology*, *60*, 1–14

Lei, M. K., Lavner, J. A., Carter, S. E., Hart, A. R., & Beach, S. R. H. (2021). Protective parenting behavior buffers the impact of racial discrimination on depression among Black youth. *Journal of Family Psychology, 35*(4), 457–467.

Lei M. K., Berg M. T., Simons R. L., Beach S. R. H. (2022). Specifying the psychosocial

Pathways whereby child and adolescent adversity shape adult health outcomes. *Psychological Medicine*, 1–10.

Lewis, J. A., Mendenhall, R., Harwood, S. A., & Browne Huntt, M. (2016). "Ain't I a woman?": perceived gendered racial microaggressions experienced by Black women. *The Counseling Psychologist*, *44*(5), 758–780.

Loyd, A. B., Hotton, A. L., Walden, A. L., Kendall, A. D., Emerson, E., & Donenberg, G. R. (2019). Associations of ethnic/racial discrimination with internalizing symptoms and externalizing behaviors among juvenile justice-involved youth of color. *Journal of Adolescence, 75*, 138–150.

Martin, M. J., McCarthy, B., Conger, R. D., Gibbons, F. X., Simons, R. L., Cutrona, C. E., & Brody, G. H. (2011). The enduring significance of racism: Discrimination and delinquency among black American youth. *Journal of Research on Adolescence, 21*, 662-676.

McAdoo, H. P. (2002). African American parenting. In M. H. Bornstein (Ed.), *Handbook of Parenting: Vol. 4. Social Conditions and Applied Parenting* (2nd ed., pp. 47–58). Mahwah, NJ: Erlbaum.

McCartney, K., Bub, K. L., & Burchinal, M. R. (2006). Selection, detection, and reflection. In K. McCartney, M. R. Burchinal, & K. L. Bub (Eds.), *Best practices in quantitative methods for developmentalists. Monographs of the Society for Research in Child Development, Vol. 71, No. 3* (pp. 105–126). Blackwell.

McGloin, J. M., Sullivan, C. J., Piquero, A. R., Blokland, A. & Nieuwbeerta, P. (2011). Marriage and offending specialization: Expanding the impact of turning points and the process of desistance. *European Journal of Criminology*, *8*, 361-376.

McGloin, J. M. (2009). Delinquency balance: revisiting peer influence. *Criminology*, *47*(2), 439 477.

McNeil Smith, S., & Fincham, F. (2016). Racial discrimination experiences among Black youth: A person-centered approach. *Journal of Black Psychology*, *42*(4), 300–319.

Moffitt. T. E. (1993). Adolescence-limited and life-course persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, *100*, 674-701.

Mohai, P., Pellow, D., & Roberts, J. T. (2009). Environmental justice. *Annual Review of Environment and Resources*, *34*, 405-430.

Monroe, C. (2005). Why are "bad boys" always Black? Causes of disproportionality in school discipline and recommendations for change. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, *79*(1), 45–50.

Morris, E. W. (2007). "Ladies" or "loudies"? Perceptions and experiences of Black girls in classrooms. *Youth & Society*, *38*(4), 490– 515.

Morris, M. (2016). *Pushout: The criminalization of Black girls in schools*. The New Press.

Morris E. W., Perry B. L. (2017). Girls behaving badly? Race, gender, and subjective evaluation in the discipline of African American girls. *Sociology of Education*, 90, 127–148.

Mowen, T. J., Brent, J. J., & Boman IV, J. H. (2020). The effect of school discipline on offending across time. *Justice Quarterly*, *37*(4), 739-760.

Mowen, T. J., & Brent, J. J. (2016). School discipline as a turning point: The cumulative effect of suspension on arrest. *Journal of Research in Crime and Delinquency*, *53*(5), 628–653.

Mowen, T. J., Brent, J. J., & Bares, K. J. (2018). How arrest impacts delinquency over time between and within individuals. *Youth Violence and Juvenile Justice*, *16*(4), 358–377.

Mulder, J. D., & Hamaker, E. L. (2021). Three extensions of the random intercept cross-lagged

panel model. *Structural Equation Modeling*, *28*(4), 638–648.

Mund, M., Johnson, M.D., & Nestler, S. (2021). Changes in size and interpretation of parameter estimates in within-person models in the presence of time-invariant and time-varying covariates. *Frontiers in Psychology*, 12, 1-16.

Murray, J., Farrington, D.P. & Eisner, M. (2009). Drawing conclusions about causes from systematic reviews of risk factor: the Cambridge Quality Checklists. *Journal of Experimental Criminology*, *5*, 1-23.

Murry, V. M., Brown, P. A., Brody, G. H., Cutrona, C. E., & Simons, R. L. (2001). Racial discrimination as a moderator of the links among stress, maternal psychological functioning, and family relationships. *Journal of Marriage and Family*, *63*, 915-92

Muthén, L.K, & Muthén B.O. (2017). Mplus 8 (Computer Program). Version 8. Los Angeles, CA: Muthén & Muthén.

Na, C. (2017). The consequences of school dropout among serious adolescent offenders: More offending? More arrest? Both? *Journal of Research in Crime and Delinquency*, *54*(1), 78-110.

Neblett, E. W., Jr., Philip, C. L., Cogburn, C. D., & Sellers, R. M. (2006). African American adolescents' discrimination experiences and academic achievement: racial socialization as a cultural compensatory and protective factor. *Journal of Black Psychology*, *32*, 199-218.

Nyborg, V. M., & Curry, J. F. (2003). The impact of perceived racism on: Psychological symptoms among African American boys. *Journal of Clinical Child and Adolescent Psychology, 32*(2), 258-266.

Office of Juvenile Justice and Delinquency Prevention (2020a). *Juvenile Population*

Characteristics. Retrieved from: https://www.ojjdp.gov/ojstatbb/population/qa01104.asp#:~:text=Non%2DHispanic%20white%20youth%20accounted,one%2Dfourth%20(26%25).

Office of Juvenile Justice and Delinquency Prevention (2020b). *Demographic characteristics of juvenile arrests, 2020*. Retrieved from: https://www.ojjdp.gov/ojstatbb/crime/qa05104.asp?qaDate=2020

Office of Juvenile Justice and Delinquency Prevention (2020c). *Youth arrest rates by offense and race, 2020*. Retrieved from: https://www.ojjdp.gov/ojstatbb/special_topics/qa11501.asp?qaDate=2020&text=yes

Oliver, M. B. (2003). African American men as "criminal and dangerous": Implications of media portrayals of crime on the "criminalization" of African American men. *Journal of African American Studies*, *7*(2), 3-18.

Osgood W. D. (2010). Statistical models for life events and criminal behavior. In A. Piquero & D. Wesiburd (Eds), *Handbook of quantitative criminology* (pp. 375-396). Springer.

Ousey, G. C., and P. Wilcox. (2007). The interaction of antisocial propensity and life-course varying predictors of delinquent behavior: Differences by method of estimation and implications for theory. *Criminology, 45*, 313-354.

Pager, D., & Shepherd, H. (2008). The sociology of discrimination: Racial discrimination in employment, housing, credit, & consumer markets. *Annual Review of Sociology*, *34*, 181-209.

Paternoster, R. and Iovanni, L. (1989). The labeling perspective and delinquency: An elaboration of the theory and an assessment of the evidence. *Justice Quarterly, 6*, 359-394.

Peck, J. H. and Jennings, W. G. (2016) A critical examination of "being Black" in the juvenile

justice system. *Law and Human Behavior*, *40*(3), 219-232.

Petersen, E. E., Davis, N. L., Goodman, D., Cox, S., Syverson, C., Seed, K., Shapiro Mendoza, C., Callaghan, W. M., & Barfield, W. (2019). Racial/ ethnic disparities in pregnancy-related deaths—United States, 2007–2016. *Morbidity and Mortality Weekly Report*, *68*(35), 762-765.

Piquero, A. R. (2015). Understanding race/ethnicity differences in offending across the life course: Gaps and opportunities. *Journal of Developmental and Life-Course Criminology*, *1*, 21-32.

Puzzanchera, C., Sladky, T.J., and Kang, W. (2023). *Easy access to the census of juveniles in residential placement*. Retrieved from: https://www.ojjdp.gov/ojstatbb/ezacjrp/asp/national_graphs.asp?display_type=rate&export_file=&graphs=&printer_friendly=&status_var=v050&offense_var=v080

Puzzanchera, C. (2021). *Juvenile arrests, 2019*. Office of Juvenile Justice and Delinquency Prevention. Retrieved from: https://ojjdp.ojp.gov/publications/juvenile-arrests-2019.pdf

Pyrooz, D. C., McGloin, J. M., & Decker, S. H. (2017). Parenthood as a turning point in the life course for male and female gang members: A study of within-individual changes in gang membership and criminal behavior. *Criminology*, *55*(4), 869-899.

Quillian, L., Lee, J. J., & Honoré, B. (2020). Racial discrimination in the U.S. housing and mortgage lending markets: a quantitative review of trends, 1976–2016. *Race and Social Problems, 12*(1), 13–28.

Quillian, L., Pager, D., Hexel, O., & Midtbøen, A. H. (2017). Meta-analysis of field experiments shows no change in racial discrimination in hiring over time. *Proceedings of the National Academy of Sciences*, 114(41), 10870–10875.

Quillian L., Lee J. J., & Oliver M. (2020). Evidence from field experiments in hiring shows Substantial additional racial discrimination after the callback. *Social Forces*, *99*(2), 732-759.

Rios, V. 2011. *Punished: Policing the lives of Black and Latino boys*. University Press.

Roberts, M. E., Gibbons, F. X., Gerrard, M., Weng, C. Y., Murry, V. M., Simons, L. G., & Lorenz, F. O. (2012). From racial discrimination to risky sex: Prospective relations involving peers and parents. *Developmental Psychology*, *48*, 89-102.

Rodriguez, N. (2010) The cumulative effect of race and ethnicity in juvenile court outcomes and why pre-adjudication detention matters. *Journal of Research in Crime and Delinquency*, *47*, 391-413.

Rogers, L. O., Versey, S. H., & Ceilto, J. (under review). "They're always gonna notice my natural hair": Identity, intersectionality and resistance among Black girls. *Qualitative Psychology*, *9*(3), 211-231.

Rothstein, R. (2017). *The color of law*: *A forgotten history of how our government segregated America*. Liverlight Publishing.

Russell, K. K. (1992). Development of black criminology and the role of the black criminologist. *Justice Quarterly, 9*, 667-683.

Russell, K. K. (1998). *The color of crime: Racial hoaxes, white fear, Black protectionism, police harassment, and other macroaggressions.* NYU Press.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Harvard University Press.

Sampson, R. J. & Laub, J. H. (2005). A life-course view of the development of crime. The *ANNALS of the American Academy of Political and Social Science*, *602*, 12-45.

Sampson, R. J., & Laub, J. H. (1997). A life-course theory of cumulative disadvantage and the stability of delinquency. In T. P. Thornberry (Ed.), *Developmental theories of crime and delinquency: Advances in criminological theory* (Vol. 7, pp. 133–161). Transaction.

Sampson, R. J., Laub, J. H., & Wimer, C. (2006). Does marriage reduce crime? A counterfactual approach to within-individual causal effects. *Criminology*, *44*, 465-508.

Sampson, R. J., & Wilson, W. J. (1995). Toward a theory of race, crime, and urban inequality. In J. Hagan & R. Peterson (Eds.), *Crime and inequality* (pp. 37-54). Stanford University Press.

Sampson, R. J., Morenoff, J. D., & Raudenbush, S. (2005). Social anatomy of racial and ethnic disparities in violence. *American Journal of Public Health*, *95*(2), 224-232.

Sanders-Phillips, K., Settles-Reaves, B., Walker, D., & Brownlow, J. (2009). Social inequality and racial discrimination: Risk factors for health disparities in children of color. *Pediatrics*, 124 (Supplement 3), S176-S186.

Schafer, J.L., & Graham, J.W. (2002). Missing data: Our view of the state of the art. *Psychological Measurement*, *7*(2), 147-177.

Schmitt M. T., Branscombe N. R., Postmes T., & Garcia A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychology Bulletin, 140*, 921-948.

Schroeder, R. D., & Mowen, T. J. (2014). Parenting style transitions and delinquency. *Youth & Society*, *46*(2), 228–254.

Schuman, H., Charlotte, S., Larwrence, B., & Maria, K. (1997). *Racial attitudes in America: Trends and interpretations* (Revised ed.). Harvard University Press.

Seaton, E. K., Caldwell, C. H., Sellers, R. M., & Jackson, J. S. (2008). The prevalence of

perceived discrimination among African American and Caribbean Black youth. *Developmental Psychology*, *44*, 1288-1297.

Seaton E. K. (2020). A luta continua: Next steps for racism research among Black American youth. *Child Development Perspectives*, *14*(4), 244-250.

Sharkey, P. T. (2013). *Stuck in place: Urban neighborhoods and the end of progress toward racial equality*. University of Chicago Press.

Simons, R. L., Murry, V., McLoyd, V., Lin, K.-H., Cutrona, C., & Conger, R. D. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology*, *14*, 371-393.

Simons, R. L., Simons, L. G., Burt, C. H., Drummund, H., Stewart, E., Brody, G. H., Gibbons, F. X. & Cutrona, C. (2006) Supportive parenting moderates the effect of discrimination upon anger, hostile view of relationships, and violence among African American boys. *Journal of Health and Social Behavior*, *47*, 373-389.

Simons, L. G., Wickrama, K. A., Lee, T. K., Landers-Potts, M. , Cutrona, C. and Conger, R. D. (2016). Testing family stress and family investment explanations for conduct problems among African American adolescents. *Journal of Marriage and Family*, *78*, 498-515.

Simons, R. L., Chen, Y.-F., Stewart, E. A., & Brody, G. H. (2003). Incidents of discrimination and risk for delinquency: A longitudinal test of strain theory with an African American sample. *Justice Quarterly, 20*(4), 827-854.

Simons, R. L., & Burt, C. H. (2011). Learning to be bad: Adverse social conditions, social schemas, and crime. *Criminology, 49*, 553-598.

Skiba R. J., Michael R. S., Nardo A. C., Peterson R. L. (2002). The color of discipline: Sources

of racial and gender disproportionality in school punishment. *Urban Review*, *34*, 317-342.

Small, M. L., & Pager, D. (2020). Sociological perspectives on racial discrimination. *Journal of Economic Perspectives*, *34*(2), 49-67.

Smalls, C., White, R., Chavous, T., & Sellers, R. M. (2007). Racial ideological beliefs and racial discrimination experiences as predictors of academic engagement among African American adolescents. *Journal of Black Psychology*, *33*, 299-330

Smith, R. C. (1995). *Racism in the post-civil rights era: Now you see it, now you don't*. SUNY Press.

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

Steffensmeier, D., & Schwartz, J. (2009). Trends in girls' delinquency and the gender gap: Statistical assessment of diverse sources. In M. A. Zahn (Ed.), *The Delinquent Girl* (pp. 50–83). Philadelphia, PA: Temple University Press.

Steffensmeier, D., Schwartz, J., Slepika, J., & Zhong, H. (2023). Twenty-first century trends in girls' violence and the gender gap: Triangulated findings from official and unofficial longitudinal sources. *Journal of Interpersonal Violence*, 38(17-18), 9818-9844.

Stewart, E. A., & Simons, R. L. (2006). Structure and culture in African American adolescent violence: A partial test of the 'code of the street' thesis. *Justice Quarterly, 23*, 1-33.

Stock, M. L., Gibbons, F. X., Peterson, L. M., & Gerrard, M. (2013). The effects of racial discrimination on the HIV-risk cognitions and behaviors of Black adolescents and young adults. *Health Psychology*, *32*, 543-550.

Sweeten, G. (2012). Scaling criminal offending. *Journal of Quantitative Criminology, 28*, 533-557.

Thiem, K. C., Neel, R., Simpson, A. J., & Todd, A. R. (2019). Are Black women and girls associated with danger? Implicit racial bias at the intersection of target age and gender. *Personality and Social Psychology Bulletin*, *45*(10), 1427-1439.

Thornberry, T. P. (1987). Toward an interactional theory of delinquency. *Criminology*, 25, 863-892.

Tobler A. L., Maldonado-Molina M. M., Staras S. A., O'Mara R. J., Livingston M. D., Komro K. A. (2013). Perceived racial/ethnic discrimination, problem behaviors and mental health among minority urban youth. *Ethnicity & Health*, *18*, 337-349.

Uggen, C. (2000). Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. *American Sociological Review*, *65*(4), 529-546.

Umaña-Taylor, A. (2016). A post-racial society in which ethnic-racial discrimination still exists and has significant consequences for youth's adjustment. *Current Directions in Psychological Science*, *25*, 111–118.

Umaña-Taylor, A. J., & Hill, N. E. (2020). Ethnic-racial socialization in the family: A decade's advance on precursors and outcomes. *Journal of Marriage and Family*, *82*(1), 244-271.

Unnever, J. D., & Gabbidon, S. L. (2011). *A theory of African American offending*. New York, NY: Routledge.

Unnever, J. D., Cullen, F. T. and Barnes, J. C. (2017). Racial discrimination and pathways to delinquency. *Race and Justice, 7*(4), 350–73.

Unnever, J. D., Cullen, F. T., & Barnes, J. C. (2016). Racial discrimination, weakened school

bonds, and problematic behaviors: Testing a theory of African American offending. *Journal of Research in Crime and Delinquency, 53*, 139–164.

Unnever, J. D. (2014). A theory of African American offending: A test of core propositions.' *Race and Justice, 4*, 98-123.

Unnever, J. D. (2019). The racial invariance thesis. In J. D. Unnever, S. Gabbidon, & C. Chouhy (Eds.), *Building a Black Criminology* (Pp. 77–100). Routledge.

Usami, S., Murayama, K., & Hamaker, E. L. (2019). A unified framework of longitudinal models to examine reciprocal relations. *Psychological Methods, 24*(5), 637-657.

U.S. Bureau of Labor Statistics (2023). *Labor force statistics from the current population survey*. Retrieved from: https://www.bls.gov/web/empsit/cpsee_e16.htm

U.S. Census Bureau (2022). *People in poverty by selected characteristics: 2020 and 2021*. Retrieved from: https://www.census.gov/data/tables/2022/demo/income-poverty/p60-277.html

Varner, F., Holloway, K. R., & Scott, L. E. (2021). The Roles of Gender and Parenting in the relations between Racial Discrimination Experiences and Problem Behaviors among African American Adolescents. *Research in Human Development*, *18*(4), 256–273

Warr, M. (1998). Age, peers, and delinquency. *Criminology*, *31*, 11-13.

Warr, M. (1993). Life course transitions and desistance from crime. *Criminology*, *36*(2), 183 216.

Welch, K. (2007). Black criminal stereotypes and racial profiling. *Journal of Contemporary Criminal Justice*, *23*, 276-288.

Wickrama, K. A. S., Lorenz, F. O., Conger, R. D., & Matthew, L. (1995). Role identity, role satisfaction, and perceived physical health. *Social Psychology Quarterly*, *58*, 270-283.

Williams, D. R. (2012). Miles to go before we sleep: Racial inequities in health. *Journal of Health and Social Behavior*, *53*(3), 279-295.

Wittrup, A. R., Hussain, S. B., Albright, J. N., Hurd, N. M., Varner, F. A., & Mattis, J. S. (2016). Natural mentors, racial pride, and academic engagement among Black adolescents: A study of resilience in the context of perceived discrimination. *Youth and Society*, *51*(4), 1-21.

Zane, S. N., Welsh, B. C., & Drakulich, K. M. (2016). Assessing the impact of race on the juvenile waiver decision: A systematic review and meta-analysis. *Journal of Criminal Justice*, *46*, 106–117

Zeiders, K. H., Umana-Taylor, A. J., Carbajal, S., & Pech, A. (2021). Police discrimination among Black, Latina/x/o, and White adolescents: Examining frequency and relations to academic functioning. *Journal of Adolescence*, *90*, 91–99.

APPENDIX A.

Model Comparisons Examining Differences Across Time for RI-CLPM with Time-invariant and Time-varying Covariates

Model	Model χ^2 (df)	Model Comparison	$\Delta\chi^2$ (Δdf)
1. Baseline Unconstrained Model	6.854 (6)		
Constrained Autoregressive Associations			
2. Racial Discrimination	6.982 (7)	2 v. 1	0.128 (1)
3. Delinquent Behavior	12.411 (8)	3 v. 2	5.429 (1)*
4. Parenting	11.593 (8)	4 v. 2	4.611 (1)*
5. Deviant Peers	6.984 (8)	5 v. 2	0.002 (1)
Constrained Lagged Associations			
6. Delinquent Behavior→Racial Discrimination	7.906 (9)	6 v. 5	0.922 (1)
7. Parenting→Racial Discrimination	8.406 (10)	7 v. 6	0.500 (1)
8. Deviant Peers→Racial Discrimination	12.181 (11)	8 v. 7	3.775 (1)
9. Racial Discrimination → Delinquent Behavior	12.493 (12)	9 v. 8	0.312 (1)
10. Parenting→ Delinquent Behavior	12.574 (13)	10 v. 9	0.081 (1)
11. Deviant Peers→ Delinquent Behavior	16.303 (14)	11 v. 10	3.792 (1)
12. Racial Discrimination → Parenting	17.251 (15)	12 v. 11	0.948 (1)
13. Delinquent Behavior → Parenting	17.583 (16)	13 v. 12	0.332 (1)
14. Deviant Peers → Parenting	17.906 (17)	14 v. 13	0.323 (1)
15. Racial Discrimination → Deviant Peers	19.100 (18)	15 v. 14	1.194 (1)
16. Delinquent Behavior → Deviant Peers	19.336 (19)	16 v. 15	0.236 (1)
17. Parenting → Deviant Peers	19.371 (20)	17 v. 16	0.035 (1)
Constrained Concurrent Associations (Correlated Residuals)			
18. Racial Discrimination ↔ Delinquent Behavior	19.542 (21)	18 v. 17	0.171 (1)
19. Racial Discrimination ↔ Parenting	19.959 (22)	19 v. 18	0.417 (1)
20. Racial Discrimination ↔ Deviant Peers	20.328 (23)	20 v. 19	0.369 (1)
21. Delinquent Behavior ↔ Parenting	23.285 (24)	21 v. 20	2.957 (1)
22. Delinquent Behavior ↔ Deviant Peers	35.562 (25)	22 v. 21	12.277 (1) **
23. Parenting ↔ Deviant Peers	23.319 (26)	23 v. 21	0.034 (1)

Note: * $p<.05$ ** $p<.01$

APPENDIX B.

Final RI-CLPM with Time-invariant and Time-varying Covariates

Estimated Paths	β
Within-person	
Autoregressive Associations	
Racial Discrimination$_{W1}$ → Racial Discrimination $_{W2}$	.31**
Racial Discrimination$_{W2}$ → Racial Discrimination $_{W3}$	.34**
Delinquent Behavior $_{W1}$ → Delinquent Behavior $_{W2}$	.11
Delinquent Behavior $_{W2}$ → Delinquent Behavior $_{W3}$	.28**
Parenting $_{W1}$ → Parenting $_{W2}$	.25**
Parenting $_{W2}$ → Parenting $_{W3}$	.38**
Deviant Peers $_{W1}$ → Deviant Peers $_{W2}$	.14**
Deviant Peers $_{W2}$ → Deviant Peers $_{W3}$	.14**
Lagged Associations	
Racial Discrimination$_{W1}$ → Delinquent Behavior$_{W2}$	.10*
Racial Discrimination$_{W2}$ → Delinquent Behavior$_{W3}$	.09*
Racial Discrimination$_{W1}$ → Parenting$_{W2}$	.02
Racial Discrimination$_{W2}$ → Parenting$_{W3}$	.02
Racial Discrimination $_{W1}$ → Deviant Peers $_{W2}$	.03
Racial Discrimination$_{W2}$ → Deviant Peers $_{W3}$	.03
Delinquent Behavior$_{W1}$ → Racial Discrimination$_{W2}$	.02
Delinquent Behavior$_{W2}$ → Racial Discrimination$_{W3}$	.02
Delinquent Behavior $_{W1}$ → Parenting $_{W2}$	-.06
Delinquent Behavior$_{W2}$ → Parenting $_{W3}$	-.06
Delinquent Behavior $_{W1}$ → Deviant Peers $_{W2}$	.15**
Delinquent Behavior$_{W2}$ → Deviant Peers $_{W3}$	.19**
Parenting $_{W1}$ → Racial Discrimination $_{W2}$	.01
Parenting$_{W2}$ → Racial Discrimination $_{W3}$	.01
Parenting $_{W1}$ → Delinquent Behavior $_{W2}$	-.12**
Parenting $_{W2}$ → Delinquent Behavior $_{W3}$	-.12**
Parenting $_{W1}$ → Deviant Peers $_{W2}$	-.12**
Parenting $_{W2}$ → Deviant Peers $_{W3}$	-.14**

Deviant Peers $_{W1}$ → Racial Discrimination$_{W2}$	-.08^{+}
Deviant Peers$_{W2}$ → Racial Discrimination $_{W3}$	-.08^{+}
Deviant Peers $_{W1}$ → Delinquent Behavior$_{W2}$	.04
Deviant Peers$_{W2}$ → Delinquent Behavior $_{W3}$	.03
Deviant Peers $_{W1}$ → Parenting$_{W2}$	-.01
Deviant Peers $_{W2}$ → Parenting $_{W3}$	-.01
Concurrent Associations	
Racial Discrimination$_{W1}$ ↔ Delinquent Behavior$_{W1}$	.16*
Racial Discrimination$_{W2}$ ↔ Delinquent Behavior$_{W2}$	.16**
Racial Discrimination $_{W3}$ ↔ Delinquent Behavior $_{W3}$	.15**
Racial Discrimination $_{W1}$ ↔ Parenting $_{W1}$	-.26**
Racial Discrimination $_{W2}$ ↔ Parenting $_{W2}$	-.12**
Racial Discrimination $_{W3}$ ↔ Parenting $_{W3}$	-.11**
Racial Discrimination $_{W1}$ ↔ Deviant Peers $_{W1}$	.33**
Racial Discrimination$_{W2}$ ↔ Deviant Peers $_{W2}$	.24**
Racial Discrimination $_{W3}$ ↔ Deviant Peers $_{W3}$	.23**
Delinquent Behavior $_{W1}$ ↔ Parenting $_{W1}$	-.15*
Delinquent Behavior $_{W2}$ ↔ Parenting $_{W2}$	-.32**
Delinquent Behavior $_{W3}$ ↔ Parenting $_{W3}$	-.27**
Delinquent Behavior $_{W1}$ ↔ Deviant Peers $_{W1}$	.24**
Delinquent Behavior $_{W2}$ ↔ Deviant Peers $_{W2}$	.28**
Delinquent Behavior $_{W3}$ ↔ Deviant Peers $_{W3}$	.43**
Parenting $_{W1}$ ↔ Deviant Peers $_{W1}$	-.34**
Parenting $_{W2}$ ↔ Deviant Peers $_{W2}$	-.27**
Parenting $_{W3}$ ↔ Deviant Peers $_{W3}$	-.23**
Between-Person	
Random Intercept Associations	
Racial Discrimination ↔ Delinquent Behavior	.62^{+}
Racial Discrimination ↔ Parenting	-.13
Racial Discrimination ↔ Deviant Peers	.74**
Delinquent Behavior ↔ Parenting	-.60*
Delinquent Behavior ↔ Deviant Peers	.46
Parenting ↔ Deviant Peers	-.35*
Time-Invariant Covariates	
Gender → Racial Discrimination$_{W1}$	.05
Gender → Racial Discrimination $_{W2}$	.06
Gender → Racial Discrimination$_{W3}$	.02
Gender → Delinquent Behavior $_{W1}$	-.13**
Gender → Delinquent Behavior $_{W2}$	.02
Gender → Delinquent Behavior$_{W3}$	-.04
Gender → Parenting $_{W1}$	.06^{+}
Gender → Parenting $_{W2}$	.04
Gender → Parenting $_{W3}$	.01

Gender → Deviant Peers $_{W1}$	-.08*
Gender → Deviant Peers $_{W2}$	-.07*
Gender → Deviant Peers $_{W3}$	.00
Age → Racial Discrimination $_{W1}$	.10**
Age → Racial Discrimination $_{W2}$	.09*
Age → Racial Discrimination $_{W3}$	.09*
Age → Delinquent Behavior $_{W1}$	.07*
Age → Delinquent Behavior $_{W2}$	.09*
Age → Delinquent Behavior $_{W3}$	.10**
Age → Parenting $_{W1}$	-.01
Age → Parenting $_{W2}$	-.02
Age → Parenting $_{W3}$	-.07*
Age → Deviant Peers $_{W1}$	.03
Age → Deviant Peers $_{W2}$	.07*
Age → Deviant Peers $_{W3}$	.07*
Family Economic Pressure → Racial Discrimination $_{W1}$	.13**
Family Economic Pressure → Racial Discrimination $_{W2}$	.12**
Family Economic Pressure → Racial Discrimination $_{W3}$	.06^{+}
Family Economic Pressure → Delinquent Behavior $_{W1}$	.06^{+}
Family Economic Pressure → Delinquent Behavior $_{W2}$	.05
Family Economic Pressure → Delinquent Behavior $_{W3}$	.07^{+}
Family Economic Pressure → Parenting $_{W1}$	-.04
Family Economic Pressure → Parenting $_{W2}$	-.08*
Family Economic Pressure → Parenting $_{W3}$	-.03
Family Economic Pressure → Deviant Peers $_{W1}$	.05
Family Economic Pressure → Deviant Peers $_{W2}$	.07*
Family Economic Pressure → Deviant Peers $_{W3}$	.07^{+}

Note: N = 884. Model fit: $\chi^2_{[25]} = 23.319$, $p = .56$; RMSEA = 0.00; CFI = 1.00; SRMR = 0.02.
W1 Wave 1; W2 Wave 2; W3 Wave 3.
* $p < .05$; ** $p < .01$.

APPENDIX C

Measure Items for Racial Discrimination

Racial Discrimination (Waves 1-3)
Target report – 13 items Response Categories: (1) never (2) once or twice (3) a few times (4) frequently
• How often has someone said something insulting to you just because of your race or ethnic background? • How often has a store-owner, sales clerk, or person working at a place of business treated you in a disrespectful way just because of your race or ethnic background? • How often have the police hassled you just because of your race or ethnic background? • How often has someone ignored you or excluded you from some activity just because of your race or ethnic background? • How often has someone suspected you of doing something wrong just because of your race or ethnic background? • How often has someone yelled a racial slur or racial insult at you just because of your race or ethnic background? • How often has someone threatened to harm you physically just because of your race or ethnic background? • How often have you encountered people who are surprised that you, given your race or ethnic background, did something really well? • How often have you been treated unfairly just because of your race or ethnic background? • How often have you encountered people who didn't expect you to do well just because of your race or ethnic background? • How often has someone discouraged you from trying to achieve an important goal just because of your race or ethnic background? • How often have your close friends been treated unfairly just because of their race or ethnic background? • How often have members of your family been treated unfairly just because of their race or ethnic background?

APPENDIX D

Measure Items for Delinquent Behavior

Delinquent Behavior (Waves 1-3)
Target report – 19 items
Conduct Problems (Response categories (0) no (1) yes)[a] • In the last year, have you secretly stolen money or other things from your family or from other people you live with; shoplifted; stolen from anyone else when they weren't around or weren't looking; or faked someone's name on a check or used someone's credit card without permission? • In the last year, have you snatched someone's purse or jewelry; held someone up or attacked somebody to steal from them; or threatened someone in order to steal from them? • Have you gotten into trouble because you stayed out [at night more than two hours past the time you were supposed to be home] in the last year? • Have you run away overnight in the last year? • Have you lied to get something you wanted or to get out of something in the last year? • Have you skipped school or work in the last year? • Have you broken into a house, a building, or a car in the last year? • Have you broken something or messed up some place on purpose, like breaking windows, writing on a building, or slashing tires, in the last year? • Have you broken or damaged somebody else's things on purpose in the last year? • Have you started a fire to hurt someone or cause damage in the last year? • Have you been physically cruel to an animal and hurt it on purpose in the last year? • In the last year, have you forced someone to do something sexual with you? • Now I want to ask you about bullying - you know, hitting or threatening or scaring someone who is younger or smaller than you or somebody who won't fight back… Have you bullied someone like this in the last year? • Have you threatened someone or frightened someone on purpose in the last year? • Have you been in a physical fight [in which someone was hurt or could have been hurt] in the last year? • Were you physically cruel to someone you when you weren't in a fight in the last year? • Have you hurt someone with a weapon in the last year?
Illicit Drug Use (Response categories: (0) no (1) yes)[b] • Have you used stimulants or amphetamines in the last year? • Have you used sedatives in the last year? • Have you used cocaine or crack in the last year? • Have you used heroin in the last year?

• Have you used opiates in the last year? • Have you used PCP or angel dust in the last year? • Have you used hallucinogens in the last year? • Have you used inhalents in the last year? • Have you used marijuana in the last year?
Binge Drinking (Response categories: (1) never (2) 1-2 times (3) about 3-11 times (4) a few times per month (5) about 1-2 times per week (6) several times per week)[c] • During the past 12 months, how often have you had a lot to drink, that is 3 or more drinks at one time?

[a] Youth were first asked if they had ever engaged in a given behavior (or set of behaviors), followed by a question about their involvement in that behavior (or set of behaviors) during the last year.

[b] Illicit drug use items were condensed down to a single item coded as 0 = *did not use any illicit drug*, 1 = *used an illicit drug*

[c] Binge drinking item recoded dichotomously as 0 = *did not engage in binge drinking*, 1 = *engaged in binge drinking*