

THE INFLUENCE OF PERCEIVED RACIAL DISCRIMINATION ON THE RISKY SEXUAL
BEHAVIORS OF RURAL AFRICAN AMERICAN ADOLESCENT MEN

by

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(Under the Direction of Steven M. Kogan)

ABSTRACT

African American youth, males in particular, report disproportionate rates of risky sexual behavior, which increases their vulnerability to sexually transmitted infections and unplanned pregnancies. This prospective study tested predictions regarding the association of perceived racial discrimination with adolescent sexual risk behavior (multiple partners, unprotected intercourse, and substance use prior to sex). I also hypothesized that attitudes toward antisocial behavior would mediate the associations between discrimination and sexual risk behaviors and that racial socialization and involved-vigilant parenting would moderate the link between discrimination and attitudes toward antisocial behavior. Hypotheses were tested using linear and logistic regressions with data from 202 rural African American males. Results indicated discrimination at age 16 predicted multiple partners at age 18, and was mediated by attitudes toward antisocial behavior. Neither racial socialization nor involved-vigilant parenting interacted with discrimination to attenuate its effect on attitudes toward antisocial behavior. Theoretical and policy implications of the findings are discussed.

INDEX WORDS: Sexual risk behaviors, Adolescents, African American, Men,
Racial discrimination, Parenting, Racial socialization

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CHAPTER 1

Introduction

This Master's thesis will address the public health need to investigate the antecedents of African American adolescent men's risky sexual behaviors. African American youth in general, and males in particular, are disproportionately affected by risky sexual behaviors. Compared to youth of other races/ethnicities, African American adolescents have higher rates of sexually transmitted infections (STIs) and one of the highest rates of teenage pregnancies (Centers for Disease Control and Prevention [CDC], 2009). The present study focuses on a unique subgroup: African American males living in resource-poor rural environments; little research has been conducted in the past on these youth despite comparable levels of risk to youth in urban areas (Milhausen et al., 2003). In this chapter, I outline the importance of studying rural African American males and their sexual behavior. The theoretical and empirical underpinnings of specific study hypotheses, as well as the hypothesized conceptual model, will be presented in the second chapter. Topics covered in this introductory chapter are organized as follows: a) African American youth and risky sexual behavior, b) a focus on rural African American males, c) racial discrimination as a predictor of risky sexual behavior, and d) purpose of the present study.

African American Youth and Risky Sexual Behavior

The present research addresses the need for identifying the processes that predict sexual risk behaviors, which increase African American youths' vulnerability to STIs and unintended pregnancies. STIs and unplanned pregnancies disproportionately affect African American youth. For example, compared to youth of other races/ethnicities, African American youth have the

overall highest rate of STIs, including Gonorrhea, Chlamydia, Syphilis, and HIV/AIDS; they also have the second highest rate of unintended pregnancies among 15 to 19 year-olds, a rate twice that of their Caucasian peers (CDC, 2009). The acquisition of STIs can lead to a number of negative health outcomes if left untreated, including infertility, cervical cancer, chronic pain, and even death (DiClemente, Salazar, & Crosby, 2007). Costs related to the detection and treatment of STIs place a heavy economic burden on society as well, with an estimated annual total of \$6.5 billion (Chesson, Blandford, Gift, Tao, & Irwin, 2004).

Key health risk behaviors for STIs and unintended pregnancy that will be examined in this study include multiple sexual partnerships, unprotected sexual intercourse, and substance use prior to sexual intercourse (DiClemente & Crosby, 2003). Having multiple sexual partners is a consistent and robust predictor of STIs and unintended pregnancy in multi-ethnic samples (Adimora & Schoenbach, 2005; Adimora, Schoenbach, & Doherty, 2007a). The more partners an individual has, the more likely it is that he or she will be exposed to an STI. Furthermore, people with multiple partners tend to choose partners who have also had multiple partners (Lauman & Youm, 1999; Aral, 1999), which geometrically increases an individual's risk of exposure to infectious pathogens. African American youth, particularly males, are more likely to report higher numbers of sexual partners than are youth of other races/ethnicities (CDC, 2009). In the CDC's most recent surveillance report, 28.6% of African American high school students reported having sexual intercourse with four or more people in their lifetimes compared to 14.2% of Latino youth and 10.5% of Caucasian youth; 39.4% of African American males in particular reported four or more partners (CDC, 2009).

Unprotected sexual intercourse, defined as having sex without a condom, is a second risk behavior for STI transmission and unintended pregnancy. Latex condoms, when used correctly

and consistently, are highly effective in preventing transmission of STIs and sexually transmitted HIV (CDC, 2009). Among sexually active African American youth surveyed in 2008, 37.6% did not use a condom the last time they had sex (CDC, 2009). Condom use during adolescence is especially important because it may be a predictor of later patterns of use. Miller, Levin, and colleagues (1998) found that condom use during adolescence is associated with a 20-fold increase in regular condom use. Condom use also changes across time within partnerships, as adolescents and adults may use condoms initially and then use alternative forms of contraception as they engage in more frequent sex (Jemmott & Jemmott, 2000) or become involved in more established and committed relationships (Fortenberry, Tu, Harezlak, Katz, & Orr, 2002).

A third sexual risk behavior is substance use prior to engagement in sexual activity. Alcohol and marijuana use in particular are common correlates of risky sexual behavior (Tapert, Aarons, Sedlar, & Brown, 2001). Empirical research suggests that substance use may compromise protected sexual activity by impairing judgment, reducing sexual inhibitions, and affecting expectancies about how alcohol or drugs may influence partner attractions and sexual experiences (Kaiser Family Foundation, 2002). Recent data indicate that 20.8% of African American male adolescents reported having drunk alcohol or used drugs before their last episode of sexual intercourse (CDC, 2009). Substance use also covaries extensively with other sexual risk factors, including an increased number of sexual partners and an increased risk of transmitting HIV and other STIs (Fullilove et al., 1990; Fullilove et al., 1993).

A Focus on Rural African American Males

The present research focuses on a unique and understudied subgroup of African American youth. Investigations of rural African American males are needed for several reasons. First, although an extensive literature has emerged on the predictors of risky sex among adult and

adolescent African American women (McNair & Prather, 2004), far less research has focused on men. This is problematic, considering that men have elevated rates of STIs (CDC, 2009) and contribute significantly to decisions regarding whether or not to engage in protected or unprotected intercourse (Wingood & DiClemente, 1998).

Studies also reveal that risk processes that predict STIs may be different for adolescent men and women. For example, Kogan et al. (2010) found that out of 12 predictors of older adolescents' condom use, six were moderated by gender. In their study, leaving the parental home predicted unprotected sexual intercourse for men but not for women, while factors in peer and family relationships influenced young women more strongly than men. Propensity for risk was a more powerful predictor for men than women, while negative relationships with parents and affiliations with risky peers were significant risk factors for women only. Studies (Kogan et al., 2010; Ramirez-Valles, Zimmerman, & Juarez, 2002) also indicate that males may be differentially affected by community disadvantage. Ramirez-Valles and colleagues (2002) reported that men's sexual behavior was more strongly affected by community stressors, and Kogan et al. (2010) found that perceived discrimination predicted more unprotected sex for men but was not a significant predictor for women. These studies underscore the important differences that exist in the predictors of risky sex based on gender. In the present study, an exclusive focus on males will facilitate the identification of predictors that are important for African American male adolescents.

The present research focuses on an understudied subgroup of African American male adolescents; those who live in resource-poor, rural environments. Recent data indicate that sexual health risk problems are as extensive in rural communities as they are in urban ones (Adimora, Schoenbach, & Doherty, 2007b). However, far less research addresses African

Americans living outside of urban settings than studies of youth in inner cities. The rural context is unique in that it may facilitate the spreading of sexual infections, due to the presence of densely interconnected social networks and limited dating pools (Adimora et al., 2001). Additionally, in rural areas there generally are fewer opportunities for supervised or formal activities and there may also be better access to transportation, thus greater freedom to engage in unmonitored and potentially risky activities (Oetting, Edwards, Kelly, & Beauvais, 1997). This study addresses the need to investigate rural African American men to ensure that prevention and policy efforts are relevant to their needs.

Racial Discrimination as a Predictor of Risky Sexual Behavior

To date, studies have identified a number of processes that predict sexual risk-taking, including family (Kogan et al., 2011; Wills, Gibbons, Gerrard, Murry, & Brody, 2003), peer (Capaldi, Stoolmiller, Clark, & Owen, 2002), intrapersonal (Raffaelli & Crockett, 2003), and community factors (Cubbin, Hadden, & Winkleby, 2001). These processes are reviewed in more detail in Chapter 2. Few of these studies, however, focus on individual differences among African American youth in general, and males in particular. Importantly, few studies have examined stressors that are unique to minority adolescents. Such minority stressors may shed light on the disproportionate rates of risky sexual behavior and lead to culturally, ecologically, and possibly even gender-specific interventions for African American male adolescents.

Recent studies (Kogan et al., 2010; Roberts et al., 2012; see also Chapter 2 for detailed review) suggest that racial discrimination is a minority stressor that may influence sexual risk. Perceived racial discrimination is known to have negative effects on multiple domains of adolescent development, including substance use (Gibbons et al., 2007; Guthrie, Young, Williams, Boyd, & Kintner, 2002), delinquency (Prelow, Danoff-Burg, Swenson, & Pulgiano,

2004; Simons, Chen, Stewart, & Brody, 2003), mental health (Cooper, McLoyd, Wood, & Hardaway, 2008; Greene, Way, & Pahl, 2006), and academic performance (Eccles, Wong, & Peck, 2006; O'Hara, Gibbons, Weng, Gerrard, & Simons, 2011). Far less research has been conducted, however, on the effects of racial discrimination on risky sexual activity. I am aware of no prior research that uses a prospective design to investigate predictors of sexual behavior among a sample comprised of African American adolescent males. A longitudinal examination of men's risky sexual behaviors will inform efforts to prevent STIs and unintended pregnancies among African American youth.

Purpose of the Present Study

Multiple sexual partnerships, unprotected sexual intercourse, and substance use prior to sexual intercourse have been established as key predictors of STIs and unintended pregnancies, which are especially prevalent among African American youth. Residence in isolated rural communities increases youths' vulnerability to these health risk outcomes by facilitating the spread of STIs. The present study seeks to focus on the understudied predictor of perceived racial discrimination as a promising avenue by which to further understand the experience of African American adolescent males. It will also attempt to identify potential mediating and moderating factors in order to better understand the impact that racial discrimination has on the lives of minority youth. This study will also have important implications for prevention and educational programming, and may be able to address the unique experience of African American men, which represents a major gap in the existing literature. The second chapter will present a review of the relevant literature, followed by a presentation of the conceptual model guiding this research, as well as the underlying theoretical perspectives and specific hypotheses.

CHAPTER 2

Review of the Literature

This chapter will present a review of the literature that informs study hypotheses. It is organized as follows: (a) predictors of adolescent risky sexual behavior, (b) racial discrimination during adolescence, and (c) discrimination and African American men's risky sexual behavior. These sections are followed by a presentation of the study's conceptual model, a description of the potential mediator and moderators in the link between discrimination and risky sexual behavior, and the theoretical perspectives and specific study hypotheses.

Predictors of Adolescent Risky Sexual Behavior

A substantial body of research has emerged on various predictors of adolescent risky sexual behavior. Antecedents have been identified across a number of domains that comprise different aspects of adolescents' ecological and developmental context. In this section, I review key findings from existing literature in order to place the purpose and goals of the present study in proper perspective and to highlight gaps that need addressing.

Demographic and Community Factors. Demographic factors linked to adolescent risky sexual behavior include family structure, maternal education, and socioeconomic status (SES). Being raised by a single parent is linked to inconsistent condom use (Blum et al., 2000; Cooksey, Rindfuss, & Guilkey, 1996; Crockett, Bingham, Chopak, & Vicary, 1996; Devine, Long, & Forehand, 1993); conversely, being raised by two parents is linked to fewer sexual partners among adolescents (Bakken & Winter, 2002). Adolescents living with relatives instead of one or both parents also reported more sexual partners (Crosby et al., 2001). Further, there are even

higher rates of adolescent STIs in communities where divorce rates are high (Brewster, Billy, & Grady, 1993). Lower parental education, especially the mother's, is linked to higher rates of unprotected sexual intercourse (Ramirez-Valles, Zimmerman, & Juarez, 2002; Scott-James & White, 1998). Community factors such as crime, poverty, and neighborhood conditions are also linked to rates of adolescent risky sexual behavior. Areas of higher crime and poverty levels, as well as disorganized or dangerous neighborhoods predict unprotected sexual intercourse and STIs among youth (Cubbin, Hadden, & Winkleby, 2001). Adolescents growing up in neighborhoods that are disorganized, have high poverty and high crime may have lower goals for their future and lower perceived efficacy of attaining them (Aronowitz, 2005). Having fewer goals and lower expectations may inhibit an individual's planning and self-regulation that precede safe sexual activity (Raffaelli & Crockett, 2003).

Family Factors. There is increasing evidence that family of origin factors influence adolescent sexual risk behaviors. Family processes related to risk behavior include parent-child relationship quality, parental authority and monitoring, internalization of parental norms, sex education, and communication about risk (Hutchinson et al., 2003; Perrino, Gonzalez-Soldevilla, Pantin, & Szapocznik, 2000). Higher parent-child relationship quality strongly predicts fewer numbers of sexual partners and more consistent use of contraception among adolescents (Jaccard, Dittus, & Gordon, 1996). Parental monitoring and supervision are also important, as less supervision provides more opportunities for teens to engage in risky sexual behavior (Li, Feigelman, & Stanton, 2000). Parental supervision of dating activities (Hogan & Kitagawa, 1985) and monitoring (Luster & Small, 1994) are associated with teens having fewer sexual partners. Parent-child communication about sexual behavior is associated with less sexual risk behavior among adolescents as well (DiClemente et al., 2001; Miller, Forehand, & Kotchick,

2000). Adolescents whose parents establish clear norms that discourage risky behavior are less likely to engage in substance use and risky sex (Kogan et al., in press). Families also promote conventional norms and attitudes (Kogan et al., 2011), the development of self-regulation (Wills, Gibbons, Gerrard, Murry, & Brody, 2003), and limit affiliations with risk-taking peers (Simons, Chao, Conger, & Elder, 2001; Simons-Morton et al., 2004).

Peer Factors. Affiliations with risk-taking peers represent a proximal and robust influence on adolescent risky sexual behavior. Risk-taking peers provide opportunities for adolescents to engage in risky behavior, as well as social reinforcement of those behaviors (Capaldi, Stoolmiller, Clark, & Owen, 2002). Peer norms are especially important during adolescence, as studies show that teens tend to form peer groups that endorse the same risk behavior as the individual does, including sexual risk behavior (Boyer et al., 2000; Perkins, Luster, Villarruel, & Small, 1998). Another study of African American adolescents found that peer norms influenced their own sexual attitudes and behavior (Wallace, Miller, & Forehand, 2008).

Individual Factors. Individual-level factors related to adolescents' risky sexual behavior include self-regulation, negative emotionality, and risk-taking tendencies. Youth with poor self-control and who are high in impulsivity have difficulty engaging in the planful and deliberate behaviors required to implement sexual precautions such as condom use (Feldman & Brown, 1993; Rafaelli & Crockett, 2003). Negative emotions, such as depression, have been found to relate to risky sex among adolescents, though more strongly for women (Kowaleski-Jones & Mott, 1998). Anger and hostility are other negative emotions associated with risky sex (Kogan et al., 2010; Crepaz & Marks, 2001); such emotions may increase youths' willingness to engage in risk in general and undermine the planful behavior required for safer sex (Bachanas et al., 2002).

A person's proneness toward risk or sensation-seeking is also related to the likelihood of engaging in risky behavior. More sensation-seeking adults (Zuckerman, 1991) and youth (Crockett, Raffaelli, & Shen, 2006) have more sexual partners than lower sensation-seekers, and these adults also report more permissive sexual attitudes (Zuckerman, 1991).

Racial Discrimination during Adolescence

Although studies have identified predictors of risky sexual behaviors across multiple ecological domains implicated in STIs and unintended pregnancies, few of these studies focus on individual differences among African American youth in general and males in particular. Importantly, there is little information regarding risk processes that are unique to minority adolescents. Such unique factors among minority youth may shed light on the disproportionate rates of risky sexual behavior among African American males.

What Is Perceived Racial Discrimination? Racial discrimination generally refers to unfair treatment due to minority status, by any individual or group of individuals from a dominant group (Feagin & Eckberg, 1980). *Perceived* racial discrimination is the subjective experience of prejudice and discriminatory events; it is not necessary for others to interpret an event as racist. Harrell (2000) describes a type of racism-related stress involving microstressors, which are daily occurrences of racism that include being ignored, overlooked, or mistreated in various public contexts, leading to feeling demoralized, dehumanized, or objectified. These experiences are often minimized or not considered serious enough to address, but the accumulation of such frequent encounters has stressful consequences. These frequent, often daily, perceptions of racial discrimination affect both mental and physical health (Brody et al., 2006; Clark, Coleman, & Novack, 2004; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Williams, Neighbors, & Jackson, 2003).

Most research on perceived racial discrimination focuses on its effects on adults (Neblett, Shelton, & Sellers, 2004; Sellers & Shelton, 2003; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Williams, Brown, Sellers, & Forman, 1999) and on physical health outcomes such as cardiovascular functioning (Anderson, Kiecolt-Glaser, & Glaser, 1994; Cacioppo, 1994; Cohen & Herbert, 1996; Herd, 1991), and other chronic health problems (Williams, Yu, Jackson, & Anderson, 1997). Less is known about the influence of discrimination on the development of African American youth in general and the effects of discrimination on sexual risk-taking in particular. This is true despite the large proportion of African American youth who report experiencing racial discrimination on a frequent basis (Fisher, Wallace, & Fenton, 2000).

Discrimination experiences tend to increase and intensify during adolescence (Brody et al., 2006). During these years, youth are spending more time outside of the home and more time in contexts where they are more likely to become targets of prejudicial treatment and racial discrimination (Fisher, Wallace, & Fenton, 2000). Discrimination is present in numerous contexts in which adolescents spend their time, such as school, where African American adolescents report experiencing racist comments, exclusion from resources, and other subtle messages (Phelan, Yu, & Davidson, 1994).

African American youth are more likely to report perceived racial discrimination than members of other minority groups (Landrine et al., 2006; Fisher, Wallace, & Fenton, 2000; Romero & Roberts, 1998), and may even come to routinely anticipate future discriminatory experiences, which creates stress and tension (Mickelson, 1991; Franklin, 1993; Taylor, Wright, & Porter, 1993). Longitudinal research has found that the degree of distress resulting from racial discrimination is dependent on the frequency of discrimination perceptions (Sellers & Shelton,

2003). Thus, racial discrimination appears to be occurring early on in adolescence, in many different contexts, and can be a frequent and stressful experience.

Research with minority children and adolescents has demonstrated the deleterious consequences of racial discrimination on their development and adjustment (Garcia Coll et al., 1996). Most studies assessing the effects of racial discrimination have focused on internalizing symptoms (Fisher, Wallace, & Fenton, 2000; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Rumbaut, 1994; Simons et al., 2002; Szalacha et al., 2003; Wong, Eccles, & Sameroff, 2003) and on externalizing behaviors (DuBois, Braxton-Burk, Swenson, Tevendale, & Hardesty, 2002; Simons, Chen, Stewart, & Brody, 2003; Szalacha et al., 2003). Internalizing symptoms linked with discrimination include depression and anxiety, and lower general wellbeing (Brown, Ojeda, Wyn, & Levan., 2000; Williams, Yu, Jackson, & Anderson, 1997). Externalizing behaviors predicted by racial discrimination include substance use (Gibbons et al., 2004; 2007) and conduct problems (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; DuBois et al., 2002). Since substance use and other externalizing problems tend to co-vary with risky sexual behavior (Feldstein & Miller, 2006; Shrier, Emans, Woods, & DuRant, 1997), it is plausible to expect that perceptions of racial discrimination may also have an influence on the risky sexual behavior of adolescents.

Discrimination and African American Men's Risky Sexual Behavior

Although the research outlined above has contributed to an understanding of how discrimination affects youth in general, the influence of discrimination on African American adolescent males' risky sex remains unclear. To date, only three studies have examined whether perceived racial discrimination is associated with risky sexual behavior among African American youth. Stevens-Watkins, Brown-Wright, and Tyler (2010) found that African American youth

experiencing more racial discrimination also reported more sexual partners. A number of limitations, however, are apparent in this study. The study was cross-sectional and thus it is particularly difficult to make inferences regarding causality. In addition, the study did not focus on African American males specifically. Roberts et al. (2012) found a prospective association between racial discrimination and a risky sex index among African American youth. Their study, however, controlled for gender, precluding evaluation of within-group differences among young men. Kogan et al. (2010) found that more perceptions of racial discrimination predicted more unprotected intercourse among older African American adolescents in a rural context; however, the study was limited by cross-sectionality as well. The current study will extend the emerging literature through a prospective examination of the influence of perceived racial discrimination on rural African American adolescent males.

Conceptual Model

Study hypotheses regarding perceived racial discrimination and risky sexual behavior are illustrated in the conceptual model shown in Figure 1. These hypotheses are informed by minority stress and social control theories, as well as existing empirical evidence. Specifically, I hypothesize that perceived racial discrimination will predict risky sexual behavior (multiple partners, unprotected intercourse, and substance use prior to intercourse), that attitudes toward antisocial behavior will mediate the association between discrimination and risky sexual behavior, and that two protective family factors, racial socialization and involved-vigilant parenting, will moderate the association between discrimination and attitudes toward antisocial behavior. I will first describe the theoretical perspectives that informed this conceptual model, followed by a discussion of how theoretical and empirical research informed each hypothesis outlined in Figure 1.

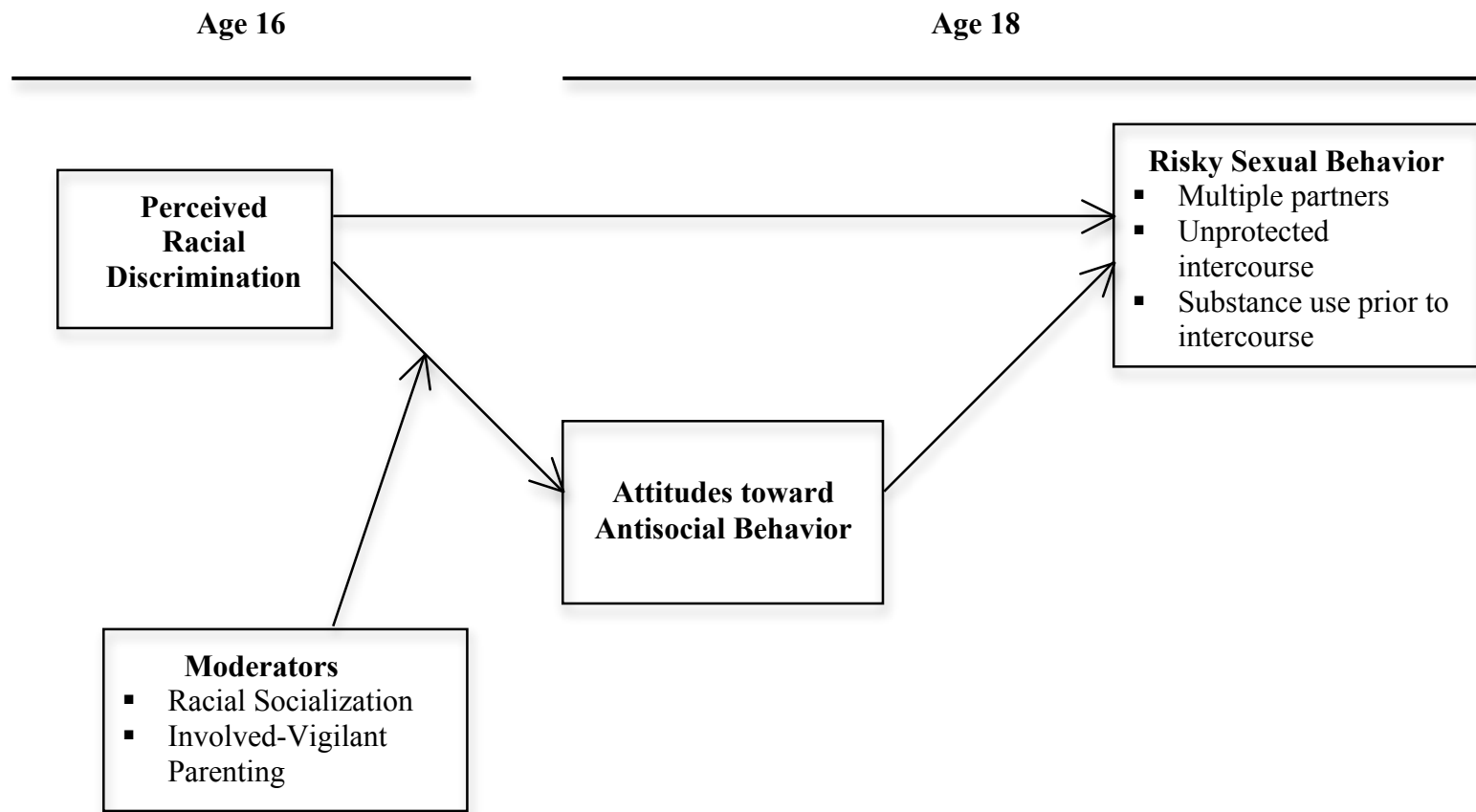


Figure 1. Conceptual model of the link between perceived racial discrimination and risky sexual behavior.

Theoretical Perspectives

Minority stress theory (Brooks, 1981; Meyer, 1995) is adapted from social stress theories and informed by sociological and psychosocial theories that emphasize the role of social conditions on individuals and groups (Allport, 1954; Crocker, Major, & Steele, 1998; Goffman, 1963; Jones et al., 1984; Link & Phelan, 2001). Underlying assumptions of minority stress models are that minority stress is unique, chronic, and socially based. Minority stress also emphasizes how minorities may come to feel alienated and isolated from mainstream social structures, institutions and norms. Perceptions of being treated unfairly on account of being a minority create feelings of exclusion that influence attitudes and beliefs about the self, others, and society. Studies informed by minority stress have established that minorities are exposed to more difficult social situations that create unique stress. One of the most commonly identified minority stressors is discrimination (Clark, Anderson, Clark, & Williams, 1999), and a growing body of research has found minority stress in general, and perceived discrimination in particular, is associated with negative health outcomes for adults and youth. A limitation of the minority stress perspective is a lack of discussion regarding the pathways through which minority stressors may affect individuals, and explanations for individual differences in reactions to minority stress. An additional theoretical perspective, social control, helps to address this limitation and suggests a mechanism by which minority stress influences behavior.

Social control theory seeks to identify social factors that reduce the likelihood of social deviance (Kornhauser, 1978), and is based on the idea that individuals have values, norms, and beliefs that serve this purpose (Hirschi, 1969). Attachments to prosocial people and conventional institutions decrease the probability of deviancy because engaging in antisocial behaviors would threaten that social bond the individual has developed, and jeopardize those relationships and

activities in the future. Rejecting mainstream values is unappealing if an individual is a part of and feels included in society, and he or she will want to abide by the same conventions it upholds in order to feel connected. Socialization processes through conventional institutions lead to individuals internalizing the values, norms, and beliefs that discourage engagement in antisocial behaviors. If an individual has internalized socially constructed moral codes, and feels included in the social community, he or she will not want to do things that defy those values and norms.

Considering the intersection of minority stress and social control theories, the alienation from conventional institutions that discrimination induces is expected to result in antisocial attitudes which lead to increased risk-taking in general, risky sexual behavior included. The influence of discrimination will vary, however, depending on a young person's attachment to other conventional institutions, two of which may be found in the family context- racial socialization and involved-vigilant parenting. Specific hypotheses are outlined below, along with theoretical and empirical support.

Hypothesis 1: The Direct Effect of Perceived Racial Discrimination on Risky Sexual Behavior

The first hypothesis posits that perceived racial discrimination experienced by adolescent males at age 16 will predict risky sexual behavior (multiple partners, unprotected intercourse, and substance use prior to intercourse) at age 18. This prediction is supported empirically by research linking discrimination to other risk behaviors such as substance use and externalizing problems, which covary with risky sex (Feldstein & Miller, 2006; Shrier, Emans, Woods, & DuRant, 1997). Three recent studies addressing this topic have linked perceived racial discrimination to risky sexual behavior including inconsistent condom use (Kogan et al, 2010), multiple sexual partners (Stevens-Watkins, Brown-Wright, & Tyler, 2010), and a risky sex

composite comprised of multiple sexual partners, inconsistent condom use, and substance use before sex (Roberts et al., 2012).

These findings are consistent with minority stress theory, which proposes that ethnic minorities face unique stressors that have a negative effect on their health-risk behaviors. This perspective advances a “social causation” wherein discrimination may explain health disparities but does not provide clear pathways for understanding how discrimination affects young people. The next two hypotheses relate to mediational and moderational influences based on a social control perspective and empirical evidence.

Hypothesis 2: Mediator of the Link between Perceived Racial Discrimination and Risky Sexual Behavior

The second hypothesis posits that perceived racial discrimination among adolescent males at age 16 will predict risky sexual behavior at age 18, indirectly through attitudes toward antisocial behavior. That is, youths’ reported attitudes toward antisocial behavior will at least partially mediate the direct link between perceived racial discrimination and risky sexual behavior. Minority stress and social control theories converge to suggest that stress resulting from discrimination influences adolescents' attitudes toward antisocial behavior. Minority stress theory indicates that more frequent perceptions of discriminatory treatment create significant stress that affects individuals' thinking, changing the way they feel about themselves, society and its values. Social control theory proposes that adolescents' discriminatory experiences result in feelings of rejection that affect the internalization of mainstream values. Since discrimination may lead individuals to feel devalued and no longer part of or welcome in society's "in group" (Crocker, Major, & Steele, 1998), feeling excluded and devalued results in placing less value on the norms and traditions of society. Discriminatory treatment conveys the message that

behavioral norms are meaningless and not everybody follows society's rules. Adolescents are more apt to conclude that behavior norms and standards are inconsequential when their environment does not emphasize the importance of following norms as well. If those standards are valued by a society that does not value the individual, then the individual is not motivated to conform to them.

Empirical evidence supports these theoretical conjectures. Gibbons et al. (2004) found that perceived discrimination was associated with risk cognitions, which include more favorable attitudes toward deviant, antisocial behaviors. Roberts et al. (2012) found perceived racial discrimination to predict more risky attitudes about sexual behavior, and that risk attitudes mediated the direct association between discrimination and risky sex. Since there is strong evidence that adolescents' attitudes related to sex are robust proximal predictors of subsequent risky sex behavior (Diiorio et al., 2001; Kinsman, Romer, Furstenberg, & Schwartz, 1998; O'Donnell, Myint-U, O'Donnell, & Stueve, 2003), then it follows that attitudes toward antisocial behavior will mediate the link between perceived discrimination and risky sexual behavior.

Hypothesis 3: Moderators of the Link between Perceived Racial Discrimination and Attitudes toward Antisocial Behavior

Studies consistently reveal that even when a risk process has a main effect on sexual risk behavior, there are considerable within-group differences in this association. Moderating, or protective processes, help to account for varying levels of influence a risk factor demonstrates on an outcome. Two protective family factors suggested by the literature are racial socialization and involved-vigilant parenting.

Racial Socialization. Racial socialization refers to the ways in which parents educate their children about the value and meaning of race, as well as preparation for functioning in a

society that may not place the same value on it (Coard, Wallace, Stevenson, & Brotman, 2004). African American families play a crucial role in influencing how children understand the meaning of race and their role as minorities (Bowman & Howard, 1985; Boykin & Toms, 1985; Hughes et al., 2006), and racial socialization is a major component of parenting practices used specifically by African American mothers and fathers (Hughes & Chen, 1997). Socialization provided by caregivers portrays implicit and explicit racial messages that are believed to help African American youth develop a positive racial identity particularly when faced with adversity (Demo & Hughes, 1990; Sanders Thompson, 1994; Stevenson, 1995).

Clark et al. (1999) suggest that the impact of discrimination on the individual depends on contextual supports that provide protective capabilities. Socialization messages may assist adolescents in rejecting stereotypical images about their group, and are linked to self-esteem and racial identity (Constantine & Blackmon, 2002), which are shown to protect youth from engaging in risky sexual behavior (Beadnell et al., 2003). Cross-sectional studies have found that parents' racial socialization is capable of mitigating the negative effect of discrimination (Garcia Coll et al., 1996; Phinney et al., 1998; Spencer et al., 2003; Szalacha et al., 2003) and that if individuals are able to attribute that treatment to another person's prejudice, then they are better able to deem discrimination as less harmful to themselves (Ruggiero & Taylor, 1995).

Extrapolating from these findings, I hypothesize that racial socialization will attenuate the influence of racial discrimination on attitudes toward antisocial behavior.

Involved-Vigilant Parenting. Several parenting practices in particular have been found to play an important role in adolescents' sexual risk-taking (Clawson & Reese-Weber, 2003; Li et al., 2000), especially those incorporating high levels of nurturing/warmth, monitoring, inductive reasoning, and consistent discipline. Parental nurturing and support are associated with

adolescents' stress appraisals (Schmeelk-Cone & Zimmerman, 2003) and attitudes related to racial/ethnic identity (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002). Parental monitoring is linked to fewer conduct problems (Simons et al., 2006; Stanton & Feigleman, 2000), and studies have also linked monitoring and supervision to adolescent sexual behavior (French & Dishion, 2003; Resnick et al., 1997; Small & Luster, 1994). Inductive reasoning and consistent discipline were found to reduce risk behaviors among adolescents (Blueston & Tamis-LeMonda, 1999; Palmer & Hollin, 2001; Simons, Johnson, Conger, & Elder, 1998), and parents who use consistent discipline tend to have high behavioral standards and enforce rules, both of which are associated with positive behavioral outcomes for adolescents (Gray & Steinberg, 1999; Simons & Conger, 2007).

Parents using high levels of these particular practices tend to promote and encourage conventional values, and adolescents whose parents are warm and supportive are more likely to adopt their parents' same values (Brody & Flor, 1998). A family environment in which parents are supportive and provide clear expectations and reasoning behind them helps encourage adolescents to internalize their parents' values and norms, and avoid risky behaviors (Brody, Ge, Katz, & Arias, 2000). Supportive parenting can also be associated with rejection of deviant norms (Simons, Simons, Chen, Brody, & Lin, 2007) and less positive risk images (Cleveland, Gibbons, Gerrard, Pomery, & Brody, 2005), which are both related to attitudes toward risk and deviance. Youth who do not report protective family processes tend to be less conventional in general, and less invested in prosocial behaviors (Crosnoe, 2001; Hill & Craft, 2003).

Reviews of extant research indicate that involved-vigilant parenting is one of the most robust predictors of resilience among children and adolescents in the face of risk and adversity, and has been found to promote a positive sense of self when adolescents are faced with stressors

(Luthar, 2006). In African American families, parenting that incorporates nurturing and support, involvement, and communicating about areas of concern fosters better coping with daily hassles and stressors (Luthar, Cicchetti, & Becker, 2000) and protects African American youth from dangerous surroundings, hazardous experiences, and involvement in antisocial activity (Brody, Dorsey, Forehand, & Armistead, 2002; Brody, Murry, Kim, & Brown, 2002; Ge, Brody, Conger, Simons, & Murry, 2002; Brody et al., 2004; Lamborn, Dornbusch, & Steinberg, 1996; Simons et al., 2003). Other studies indicate that in African American families, parents who evince high levels of nurturing/warmth, monitoring, inductive reasoning, and consistent discipline can influence children's attitudes toward risky behavior (Hutchinson et al., 2003; Murry, Berkel, Brody, Gerard, & Gibbons, 2007). Thus, I hypothesize that involved-vigilant parenting will attenuate the influence of perceived racial discrimination on attitudes toward antisocial behavior.

Summary

A thorough review of the literature indicates that perceived racial discrimination is a unique minority stressor, but it is not yet understood how it influences sexual risk among African American male youth specifically. The current study will extend the existing knowledge base by identifying and testing additional factors outlined above that may play a role in the effect that perceived discrimination has on health risk behaviors. There is strong theoretical and empirical support for potential mediation by attitudes toward antisocial behavior and for moderation by protective family factors, racial socialization and involved-vigilant parenting. The next chapter will outline the methods used for the present study, including a description of the sample, recruitment, and procedures, followed by each of the measures used to test study hypotheses, and concluding with the analytic strategy.

CHAPTER 3

Methods

Study hypotheses were tested prospectively using data from male participants in the Strong African American Families- Teen (SAAF-T) project, a prevention trial testing a family-centered preventive intervention. Because the present study did not pertain to the efficacy of the programs involved, I controlled for intervention assignment in all analyses. The project includes four waves of data, two of which were used to test study hypotheses. I refer to these data collections as Time 1 (T1) and Time 2 (T2) for clarity.

Sample

At T1, the project's baseline assessment, participants were about 16 years old ($M = 16.00$; $SD = .60$), and at T2, 22 months later, youth were about 18 years old ($M = 17.56$; $SD = .57$). Of the 638 families deemed eligible to participate, a total of 502 (79%) agreed to take part in the project. Data were collected from the target adolescent (51% were girls, 49% were boys) and a primary caregiver (in most cases the biological mother). Of the families who provided data at T1, 478 (95%) provided data again 22 months later at follow-up, and there were no demographic differences due to attrition (see Table 1 in Results section). Among the total number of families who provided data, data from 202 (42%) male adolescents were used to test study hypotheses.

Families' mean household monthly gross income was \$1482.50. Approximately 68% of the families lived below federal poverty thresholds and an additional 18% were living within 150% of the threshold. In 55.5% of the families, the target youth was female, in 44.5% the target was male; families had an average of 2.5 children. Of the families, 55.5% were headed by single

mothers, 33.3% by married parents, 5% by separated mothers, and 6.2% by cohabiting partners. A majority of the primary caregivers, 74.6%, had completed high school or earned a GED; 25.4% did not complete high school. These families are representative of the rural Georgia counties in which they live (Boatright, 2008), and can best be described as working poor (Dalaker, 2001). Their poverty status reflects the dominance of low-wage, resource-intensive industries in those areas (Brody, Kogan, & Grange, 2012).

Recruitment. Participants for the project were recruited from 6 rural Georgia counties. Within the targeted counties, public schools provided lists of 10th-grade students from which participants were randomly selected. Eligible youth were those identifying as African American, in the 10th grade, and between the ages of 15 and 17 years old. Research staff initially contacted families via a letter introducing the study. Families were recruited by African American community liaisons residing in the same counties as the families. Liaisons were chosen based on their reputation within their communities and on their social network and contacts. Liaisons received training in the goals of the project and were able to provide credibility and establish trust with the families. Liaisons were provided with the contact information of eligible families, and first contacted them by telephone and then through in-person home visits if requested, and enrolled those who wanted to participate.

Procedures

Trained African American college students and community members served as field researchers to collect data from participating families. Researchers made one visit to families in their homes for each assessment; visits lasted two hours. The average span of time between T1 and T2 data collections was approximately 22 months. At each visit, self-report questionnaires were administered to participants on laptop computers via audio computer-assisted self-interview

(ACASI) technology. The ACASI technique is especially useful because the privacy allows participants to be more honest and forthcoming about sensitive topics (Macalino, Calentano, Latkin, Strathdee, & Vlahoy, 2002). At all data collection points, caregivers consented to their own and to youths' participation, and youth assented to their own participation. At T1, caregivers received \$100 and youth received \$50 for completing each assessment. At T2, caregivers received \$100, and youths received \$75. Study protocols were approved by the University of Georgia Institutional Review Board.

Measures

Risky Sexual Behavior. The sexual behavior interview used items validated in previous research (Diclemente & Wingood, 1995; DiClemente et al., 2001; DiClemente et al., 2004). Adolescents reported on their numbers of sexual partnerships at T2 by answering the question "In the past 3 months, how many people have you had sex with?" This variable ($M = 2.15$, $SD = 8.47$) demonstrated a considerable right skew of 9.85 ($SE = .17$) and thus was recoded (if a person had five or more partners they received a score of "5," if a person had four partners they received a score of "4," if a person had three partners they received a score of "3," and so on) to better approximate normality. The resulting variable ($M = 1.28$, $SD = 1.44$, $Range = 5.00$) approximates a normal distribution with an acceptable skew of 1.13 ($SE = .17$).

Adolescents reported on their use of condoms during sexual intercourse within the past 3 months using two items: "In the past 3 months, how many times have you had sex?" and "Out of the [*Response from previous question*] times you've had sex, how many times did you use a condom?" A frequency of unprotected intercourse was subsequently calculated. Youth not engaging in sexual activity in the past 3 months were assigned a "0" for unprotected intercourse. Only 23.9% percent of the sample reported unprotected intercourse ($M = 1.52$, $SD = 5.69$). Thus,

this variable was recoded into a dichotomous variable where "0" indicated no instances of unprotected intercourse and "1" indicated one or more instances of unprotected intercourse.

Adolescents also provided information on substance use prior to sexual intercourse within the past 3 months. Adolescents answered the item "In the past 3 months, out of the [*Response from previous question*] times you've had sex, how many times did you have sex while high on alcohol or drugs?" Due to the low base rate of youth engaging in substance use prior to sex (12.20 %), this variable ($M = 2.46$, $SD = 19.59$) was also recoded into a dichotomous variable, such that "0" indicated no instances of substance use and "1" indicated one or more instances of substance use.

Perceived Racial Discrimination. Adolescents reported on their experiences of perceived racial discrimination at T1 with a 7-item measure. This measure, based on Williams, Yan, Jackson, & Anderson's (1997) research on African Americans' experience of everyday racism, was adapted with the assistance of focus groups of rural African Americans (Brody et al., 2006). Focus group members identified the most common forms of discrimination they experienced and suggested adaptations to the language to make the items clearer (Murry & Brody, 2004). Example items include "How often have you been ignored, overlooked, or not given service because of your race?" and "How often have your ideas or opinions been put down, ignored, or belittled because of your race?" Response options were 1 (*Never*), 2 (*Once or twice*), 3 (*A few times*), or 4 (*Frequently*). Cronbach's alpha in this study was .90.

Attitudes toward Antisocial Behavior. At T1 and T2, adolescents completed the Tolerance for Deviant Behavior scale (Jessor, Graves, Hanson, & Jessor, 1968), which assesses the acceptability of youth engaging in behaviors such as cheating, damaging property, stealing, using drugs or alcohol, and lying. The 19-item measure included the following example items:

"How often is it okay for someone your age to use alcohol?", "How often is it okay for someone your age to smoke marijuana?", and "How often is it okay for someone your age to ruin or damage something on purpose?" Items relating to risky sex that were developed for this project were "How often is it okay for someone your age to have sex?", "How often is it okay for someone your age to have sex with someone you do not know well?", and "How often is it okay for someone your age to have sex without a condom?" Response options were 1 (*Never*), 2 (*Hardly ever*), 3 (*Sometimes*), 4 (*Most of the time*), or 5 (*Always*). Cronbach's alpha in this study was .95.

Racial Socialization. At T1, youth reported on racial socialization practices within the family in the past month, using the 15-item Scale of Racial Socialization (Hughes & Chen, 1997). This scale is comprised of two types of racial socialization practices: activities related to knowledge of and pride in one's racial group's history and accomplishments and parenting practices related to preparing youth for discriminatory treatment. Items followed the stem "In the past month, how often has your caregiver..." Example items include "Talked to you about discrimination or prejudice against your racial group?" and "Talked to you about important people or events in the history of your racial group?" Response options were 1 (*Never*), 2 (*One or two times*), or 3 (*Three to five times*). Cronbach's alpha was .87 for youth in this study.

Involved-Vigilant Parenting. At T1, youth reported on caregivers' involved-vigilant parenting practices on a 19-item scale developed by Brody et al. (2004). Involved-vigilant parenting includes items pertaining to parental nurturing (e.g., "When you have done something your caregiver likes or approves of, how often does she/he let you know she/he is pleased about it?"), parental monitoring (e.g., "In the course of a day, how often does your caregiver know where you are?"), inductive reasoning practices (e.g., "When you don't know why your caregiver

makes certain rules, how often does she/he explain the reason?"), and use of consistent discipline (e.g., "How often does your caregiver punish you for something at one time, and then at other times, not punish you for the same thing?"). Response options were 1 (*Never*), 2 (*Sometimes*), 3 (*Often*), and 4 (*Always*). Brody et al. (2004) argued that these parenting practices are strongly correlated in rural African American families and comprise a unidimensional construct. A Cronbach's alpha of .81 for youth in this sample supports this assertion of unidimensionality.

Socioeconomic Disadvantage. A socioeconomic risk index was formed from the combination of six dichotomous variables based on parents' report of household demographic information and experience of economic hardship at T1 (Brody et al., 2012). If the disadvantage was present, a "1" was assigned for that factor; otherwise, a "0" was assigned. Variables included family poverty based on federal guidelines, caregiver unemployment, receipt of Temporary Assistance for Needy Families, caregiver single parent status, caregiver education level less than high school graduation, and caregiver-reported inadequacy of family income. The index was formed by summing the scores from all of the variables, resulting in an index ranging from 0 to 6 risk factors ($M = 2.56$, $SD = 1.57$).

Analytic Strategy

Independent samples t-tests were conducted in order to test for any potential effects of attrition. Hypothesis 1 was tested using linear and logistic regressions depending on the distribution of the outcome variable. Specifically, linear regressions were used for the categorical risky sex variable, and binary logistic regressions were used for the dichotomous risky sex variables. Hypothesis 2 was tested using hierarchical regressions, as well as a Sobel test for the significance of indirect effects. Moderation analyses testing Hypothesis 3 were conducted using hierarchical regressions for analyzing interaction terms.

CHAPTER 4

Results

Preliminary Analysis

The potential influence of attrition was investigated with a series of t-tests. Participation at Time 2 was coded dichotomously (0= participated in T2, 1= did not participate in T2) and used as a factor to compare means in Time 1 variables. Table 1 presents these findings.

Participation status at Time 2 was not significantly associated with any Time 1 study variables.

Sample Characteristics

Descriptive statistics for all study variables are provided in Table 2. Table 3 presents frequencies for each of the risky sex outcomes. Among male youth, 60.5% were sexually active within the past 3 months; 9.8% reported having had three partners, 2.9% had four partners, and 5.9% had five or more. In addition, among those who were sexually active, 23.9% reported having had at least one episode of unprotected intercourse, and 12.2% reported having had sexual intercourse while they were under the influence of alcohol or drugs.

Table 1

T-tests Illustrating Examination of Potential Attrition Effects

Study variables at T1	t	df	p
Intervention condition	1.5	219	.14
SES index	-.67	218	.50
Sexual partners	.02	219	.99
Unprotected sexual intercourse	-.28	219	.78
Substance use prior to sexual intercourse	.56	219	.58
Perceived racial discrimination	.16	219	.87
Attitudes toward antisocial behavior	-.88	219	.38
Racial socialization	.68	219	.50
Involved-vigilant parenting	-1.14	219	.26

Table 2

Descriptive Statistics for All Study Variables (N = 202)

Variable	<i>M</i>	<i>SD</i>	Range
Intervention condition	1.49	.50	1.00- 2.00
SES index	2.56	1.57	0.00- 6.00
Sexual partners T1	.63	1.07	0.00- 5.00
Sexual partners T2	1.28	1.44	0.00- 5.00
Unprotected sexual intercourse T1	.10	.31	0.00- 1.00
Unprotected sexual intercourse T2	.24	.43	0.00- 1.00
Substance use prior to sexual intercourse T1	.02	.13	0.00- 1.00
Substance use prior to sexual intercourse T2	.12	.33	0.00- 1.00
Perceived racial discrimination T1	1.47	.60	1.00- 4.00
Attitudes toward antisocial behavior T1	30.96	13.71	19.00- 95.00
Attitudes toward antisocial behavior T2	32.59	15.97	19.00- 95.00
Racial socialization T1	23.45	5.41	15.00- 45.00
Involved-vigilant parenting T1	56.31	8.24	34.00- 75.00

Table 3

Frequencies for Risky Sex Outcomes (N = 202)

	0	1	2	3	4	5 or more
Outcome	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Number of sexual partners within the past 3 months						
	81 (39.5)	54 (26.3)	32 (15.6)	20 (9.8)	6 (2.9)	12 (5.9)
Frequency of unprotected sexual intercourse within the past 3 months						
	156 (76.1)	49 (23.9)				
Substance use prior to sexual intercourse within the past 3 months						
	180 (87.8)	25 (12.2)				

Note. Unprotected intercourse and substance use prior to intercourse are dichotomous variables, so here they are presented to illustrate episodes of 0 (none) compared to 1 (one or more).

Hypothesis 1: Racial Discrimination and Risky Sexual Behavior

Tables 4, 5, and 6 present the results of separate linear and logistic regression analyses examining the influence of perceived racial discrimination on multiple sexual partners (Table 4), frequency of unprotected sexual intercourse (Table 5), and substance use prior to sexual intercourse (Table 6). SES and intervention condition were controlled in each analysis.

Perceived racial discrimination had a significant, positive effect on multiple sexual partners ($\beta = .18, p < .01$), net of the influence of baseline levels, intervention condition, and SES. Perceived racial discrimination had no significant effect on either frequency of unprotected sexual intercourse or substance use prior to sexual intercourse (Tables 5 and 6). Because the associations between discrimination and unprotected intercourse and discrimination and substance use prior to intercourse were nonsignificant, no additional analyses investigated those two outcomes.

Table 4

Linear Regression of the Influence of Perceived Racial Discrimination on Multiple Sexual Partners

Predictor	B	SD	β	p
Intervention condition	.30	.18	.10	.10
SES index	.11	.06	.11	.08
Sexual partners T1	.51	.08	.39	.00
Perceived racial discrimination T1	.43	.15	.18	.01

Table 5

Logistic Regression of the Influence of Perceived Racial Discrimination on Frequency of Unprotected Intercourse

Predictor	B	SD	OR	95 % C. I.	p
Intervention condition	.23	.34	1.25	[.65, 2.43]	.50
SES index	-.06	.11	.95	[.76, 1.17]	.61
Frequency of unprotected intercourse T1	.95	.48	2.59	[1.01, 6.65]	.05
Perceived racial discrimination T1	.22	.27	1.24	[.74, 2.09]	.42

Note. OR = odds ratio. CI = confidence interval.

Table 6

Logistic Regression of the Influence of Perceived Racial Discrimination on Substance Use Prior to Sexual Intercourse

Predictor	B	SD	OR	95 % C. I.	p
Intervention condition	.27	.46	1.30	[.53, 3.18]	.56
SES index	.13	.15	1.14	[.85, 1.52]	.38
Substance use prior to sexual intercourse T1	3.33	1.21	28.02	[2.63, 298.62]	.01
Perceived racial discrimination T1	-.09	.39	.92	[.43, 1.96]	.82

Note. OR = odds ratio. CI = confidence interval.

Hypothesis 2: Mediation

Because there was no independent effect of perceived racial discrimination on the risky sex outcomes of unprotected intercourse or substance use prior to intercourse, tests of mediation were only conducted on the outcome of multiple sexual partners. First, perceived racial discrimination at T1 was regressed on attitudes toward antisocial behavior at T2, controlling for baseline levels. Perceived racial discrimination was positively associated with attitudes toward antisocial behavior ($\beta = .13, p < .05$). I then examined if attitudes toward antisocial behavior was associated with multiple sexual partners, controlling for baseline levels. Attitudes toward antisocial behavior were a significant and positive predictor of multiple sexual partners ($\beta = .21, p < .01$). Table 7 presents the hierarchical regression demonstrating the effect of including the mediator.

As demonstrated in Table 7, when the mediator was entered into the model, the direct effect between perceived racial discrimination and multiple sexual partners was attenuated ($\beta = .18, p < .01$ to $\beta = .13, p < .05$). A Sobel test revealed that the indirect effect was significant ($t = 2.48, SE = .06, p < .05$). A direct effect still remained between perceived racial discrimination and multiple sexual partners, thus attitudes toward antisocial behavior may be considered a partial mediator.

Table 7

Hierarchical Regression Analysis of the Influence of Perceived Racial Discrimination on Multiple Sexual Partners

Predictor	Model 1				Model 2			
	B	SD	β	<i>p</i>	B	SD	β	<i>p</i>
Intervention condition	.30	.18	.10	.10	.26	.18	.09	.14
SES index	.11	.06	.11	.08	.09	.06	.10	.11
Sexual partners T1	.51	.08	.39	.00	.46	.08	.35	.00
Perceived racial discrimination T1	.43	.15	.18	.01	.32	.15	.13	.03
Attitudes toward antisocial behavior T2					.02	.01	.24	.00

Hypothesis 3: Moderation

The third hypothesis involved the prediction that two protective family factors, racial socialization and involved-vigilant parenting, would moderate the effect of perceived racial discrimination on attitudes toward antisocial behavior. Table 8 summarizes the results of moderation analyses. Neither of the interaction effects tested were significant predictors of sexual partners.

Table 8

Hierarchical Regressions of Moderation Analyses Predicting Attitudes toward Antisocial Behavior

Predictor	Model 1			Model 2		
	B	SD	<i>p</i>	B	SD	<i>p</i>
Intervention condition	-2.22	1.88	.24	-2.31	1.89	.22
SES index	.56	.63	.37	.41	.61	.51
Sexual partners T1	1.48	.89	.10	1.24	.88	.16
Attitudes toward antisocial behavior T1	.56	.07	.00	.56	.07	.00
Perceived racial discrimination T1	2.71	1.63	.10	3.16	1.60	.05
Racial socialization T1	.24	.18	.19			
Perceived racial discrimination T1 x Racial socialization T1	-.76	.85	.37			
Involved-vigilant parenting T1				-.07	.11	.55
Perceived racial discrimination T1 x Involved-vigilant parenting T1				1.40	.86	.10

CHAPTER 5

Discussion

This study examined the role of perceived racial discrimination on risky sexual behaviors among rural African American adolescent men. I predicted that perceived racial discrimination would be associated with increases in risky sexual behavior, that attitudes toward antisocial behavior would mediate the effects of discrimination on risky sex, and that racial socialization and involved-vigilant parenting would moderate the effect of discrimination on attitudes toward antisocial behavior. Results provide partial support for the hypothesis that perceived racial discrimination is a significant predictor of African American adolescent males' risky sexual behavior. I found an effect of discrimination on numbers of sexual partners in the past 3 months but not for unprotected intercourse or for substance use prior to sexual activity. Analyses of models predicting sexual partners revealed that youths' attitudes toward antisocial behavior mediated the influence of discrimination on sexual partners. Finally, neither racial socialization nor involved-vigilant parenting moderated the influence of discrimination on attitudes toward antisocial behavior. In the next section, I discuss the implications of each of these findings and then conclude with a discussion of the limitations of the present study as well as suggestions for future research.

Perceived Racial Discrimination and Risky Sexual Behavior

Consistent with minority stress theory, perceived racial discrimination directly and significantly predicted one component of risky sexual behavior, multiple partners. Minority stress theory proposes that discrimination is a stressor that has detrimental effects on the health

risk behaviors of minorities, and consistent with that prediction, adolescent males reporting high levels of perceived racial discrimination at age 16 reported more sexual partners two years later. Combined with findings indicating that African American male youth report higher numbers of sexual partners compared to Caucasian males (CDC, 2009), this suggests that perceived racial discrimination may play a role in the disparity. It is also consistent with previous cross-sectional research finding a link between discrimination and multiple partners among African American youth (Stevens-Watkins, Brown-Wright, & Tyler, 2010) and a prospective study with a risky sex index in which multiple partners was a component (Roberts et al., 2012).

Contrary to hypotheses and minority stress theory, perceived racial discrimination did not predict unprotected intercourse or substance use prior to sex. This may be the result of low base rates of these behaviors in this sample (see Table 3). Low base rates of these behaviors are consistent with epidemiological findings. The Centers for Disease Control and Prevention (2009) report that African American male adolescents use condoms more frequently than other ethnic groups and also report the lowest rates of substance use prior to sex relative to other races/ethnicities. These low base rates may have resulted in insufficient power to detect effects.

A second explanation for the nonsignificant effect on unprotected intercourse is that having multiple partnerships is more indicative of a nonconventional pattern of behavior than is condom use. Condoms are used more often in casual encounters or in the early stages of sexual relationships, and are used less often in established, committed relationships (Fortenberry et al., 2002). Long term, established relationships may signal that an individual tends to be more conventional and less inclined to risk-taking in general. Thus, not using condoms in committed relationships is not perceived as risky or non-conventional. Given that I hypothesized that discrimination would increase alienation from conventional sources of socialization and

unprotected intercourse can occur as part of a rather conventional pattern of behavior (committed romantic relationships), it makes sense that discrimination would not predict unprotected intercourse. In contrast, having multiple sexual partners may be more indicative of a risky pattern of behavior, and of an individual who is less concerned with conventional norms.

Finding an effect only for multiple partners may be explained by a recent study from Giordano, Longmore, Manning, and Northcutt (2009). According to this research, having multiple partners is a way for young men to increase individual self-esteem in the absence of other avenues by which to do so. In the context of economic disadvantage and racial discrimination, young African American males may seek multiple sexual partners and form a "player" identity to gain peer approval and social status that is otherwise unattainable by more conventional means.

Mediation by Attitudes toward Antisocial Behavior

Consistent with social control theory and existing empirical evidence, attitudes toward antisocial behavior partially mediated the association between perceived racial discrimination and multiple sexual partners. Social control theory emphasizes individuals' bonds to society and social norms, and the influence of these bonds on fostering conventional, nondeviant behavior. Perceptions of discrimination that alienate individuals from society are hypothesized to threaten their bond to conventional norms and values, and in turn, increase their attitudes toward antisocial, or at least non-conventional, behaviors such as multiple sexual partnerships.

This finding is consistent with empirical evidence linking perceived racial discrimination with risk cognitions, which include more favorable attitudes toward deviance (Gibbons et al., 2004) and linking perceived racial discrimination to attitudes about sexual behavior which, in turn, forecast risky sexual behavior (Roberts et al., 2012). The mediational finding in the current

study contributes to existing literature indicating that attitudes and cognitions are susceptible to community stressors like discrimination, which in turn carry forward to influence involvement with multiple sexual partners.

Protective Family Factors

I hypothesized that male youths' vulnerability to the formation of antisocial attitudes as a consequence of perceived discrimination would be moderated by parents' racial socialization and involved-vigilant parenting. Results indicate that the longitudinal link between perceived discrimination and youths' attitudes toward antisocial behavior was not attenuated among youth who reported high levels of involved-vigilant parenting. This result is inconsistent with past studies that found that parenting that incorporates nurturing, monitoring, inductive reasoning, and consistent discipline buffers rural African American adolescents from discrimination effects on externalizing and internalizing problems (Brody et al., 2006) and from effects on favorable risk images, including more favorable attitudes toward deviant, antisocial behaviors (Gibbons et al., 2004). It is also inconsistent with social control theory, which predicts that protective parenting processes represent a conventional institution by which adolescents internalize conventional norms and values that inhibit formation of antisocial attitudes.

There are two possible explanations for the lack of parental moderation effects in the present study. First, the moderation analyses in the present study tested for an interaction between parenting and discrimination on the mediating variable, attitudes toward antisocial behavior, while Brody et al. (2006) tested for interaction effects between parenting and discrimination on outcome variables. It may be that the protective capacity of involved-vigilant parenting is seen in how it influences the risky behavioral outcomes rather than on attitudinal mediators. A second reason may be that parenting is a protective factor against this particular

risk factor in earlier adolescence. Both Brody et al. (2006) and Murry et al. (2007) used samples with considerably younger adolescents. It may be the case that parenting is more protective against discrimination during early adolescence.

In addition, findings from a recent study suggest that parenting factors may be less protective of male adolescents against risky sexual behavior when compared to females (Landor et al., 2011). Landor and colleagues argue that parents of adolescent daughters may use higher levels of monitoring and vigilance than they do with sons. This may reflect a "double standard" based on parents having more concern for daughters due to the potential risk of pregnancy, which is thought to carry higher costs for the families of daughters than for the families of sons. Due to what are seen as differential consequences, it may be that parents of girls incorporate more vigilance in their parenting than do parents of boys. It could be that a restricted range of protective parenting behavior resulted in nonsignificant findings in the present study.

In contrast to social control theory and a number of studies, racial socialization did not moderate the effect of perceived racial discrimination on attitudes toward antisocial behavior. Garcia Coll et al. (1996) found that racial socialization processes reduced the effects of racial discrimination on African American children and Murry et al. (2007) found adaptive racial socialization messages to be an important component of protective parenting that buffered youth against risky sexual behaviors. Social control theory identifies processes like racial socialization to be protective buffers for adolescents against developing favorable attitudes toward risky and antisocial behaviors, as a result of positive relationships with parents who promote conventional norms and values. A key difference in the current results compared to previous studies is an older sample. Murry et al. (2007) emphasized the importance of exposing children to racial socialization prior to transitioning to adolescence, when children were as young as 11 years old.

It may be the case that racial socialization is particularly important in childhood or early adolescence.

Studies have found that youth may misinterpret some, fail to receive others, or even reject messages of socialization that their parents attempt to communicate to them (Pelegrina et al., 2003; Guilamo-Ramos et al., 2007). This may be particularly true among older adolescents. In addition, it may be that racial socialization received during adolescence is simply not adequate to alone mitigate the negative effect of discrimination on formation of attitudes toward antisocial behavior. Although studies suggest that racial socialization can provide individuals the ability to attribute discriminatory treatment to the flaws of others and not themselves (Ruggiero & Taylor, 1997), they also indicate that this ability is lessened if discrimination perceptions are continually encountered over time (Szalacha et al., 2003). If adolescents perceive frequent and continued discriminatory treatment in multiple contexts, racial socialization may not be as effective as it would be at other points in development when prejudice is experienced less often.

Limitations and Directions for Future Research

Strengths of this study include its prospective design, sophisticated protocols for recruiting and assessing participants, and a unique sample. A number of limitations, however, are noteworthy. First, the results are generalizable only to similar populations of rural, African American male youth. It is not known if these findings would replicate among urban youth. Second, there may be additional variables that mediate the association between discrimination and risky sex, and other potential moderating variables that could be protective. In particular, future research may benefit from examining the relative efficacy of parenting at different phases of adolescence. Future studies should investigate additional variables in order to fully understand risk and protective factors that may be related to the impact of racial discrimination on African

American males. For instance, future research could identify additional cognitive and emotional factors that mediate between discrimination and risky sexual behavior. Other aspects of the parent-child relationship may also be worth examining, such as communication and family structure. Third, the use of self-report measures is subject to method inflation (Bank, Dishion, Skinner, & Patterson, 1990) and sexual outcomes may be affected by recall bias. In addition, the low base rates of some risky sexual behavior outcomes may have limited the ability to examine these outcomes with sufficient power.

Conclusions and Implications

Perceptions of discrimination have a significant, negative impact on African American youth. The current study provides support for the role of discrimination as an important predictor of multiple sexual partnerships among rural African American adolescent males. Perceived racial discrimination is a stressor affecting minority youth that may account for disparities in sexual partners noted in the epidemiological literature. These results have important implications for intervention development to address risky sexual behavior. First, it must be acknowledged that discrimination is a relatively prevalent and important experience for rural African American males. Second, designing interventions to mitigate the influence of discrimination is warranted. Third, because attitudes toward antisocial behavior partially mediated the effect of discrimination on sexual partners, it suggests that attitudes and cognitions would be a viable focus for intervention efforts. Studies reveal that such attitudes are malleable through intervention programming (see Murry et al., 2007 for an example). The present study does not necessarily support the inclusion of parenting components in interventions for African American males. Other research, however, has shown that involving parents in risk-reduction programs is an important and effective way of preventing later risk behavior (Murry et al., 2007; Kogan et al., in

press). Given the evidence in support of family involvement, however, it seems prudent to clarify the present findings with additional research prior to making recommendations regarding family involvement. The lack of a finding for protective parenting in the present study may be due to the explanations offered above, and not necessarily because parents are not influential.

The current findings underscore the importance of understanding individual differences within rural African American male youth. Most studies investigating the effects of perceived discrimination on African American youth have focused on those living in urban areas, even though African Americans are growing up in diverse communities. The present study focused on African Americans living in less densely populated and rural areas, as racial discrimination is just as likely to occur in these smaller communities as it is in larger, urban ones. To my knowledge, this is the first study to examine perceived racial discrimination as a predictor of risky sex among rural African American male youth specifically. The present findings make an important contribution to the literature by documenting a link between racial discrimination and risky sex among rural African American males during adolescence.

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APPENDIX A: CORRELATION MATRIX OF ALL STUDY VARIABLES

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Intervention condition	--												
2. SES index	-.113	--											
3. Sexual partners T1	.046	-.007	--										
4. Sexual partners T2	.116	.106	.418**	--									
5. Unprotected sexual intercourse T1	-.010	.001	.519**	.226**	--								
6. Unprotected sexual intercourse T2	.049	-.041	.170*	.417**	.150*	--							
7. Substance use prior to sexual intercourse T1	-.066	-.005	.174**	.120	.398**	.086	--						
8. Substance use prior to sexual intercourse T2	.009	.054	.318**	.416**	.366**	.350**	.271**	--					
9. Perceived racial discrimination T1	.054	-.017	.114	.213**	.094	.069	.088	.009	--				
10. Attitudes toward antisocial behavior T1	-.045	.034	.189**	.307**	.140*	.156*	.147*	.210**	.136*	--			
11. Attitudes toward antisocial behavior T2	.064	.055	.205**	.352**	.072	.192**	.086	.286**	.199**	.518**	--		
12. Racial socialization T1	-.027	-.210**	-.091	-.072	-.089	-.121	-.099	-.041	.159*	.025	.089	--	
13. Involved-vigilant parenting T1	-.051	-.023	.006	.070	-.088	.105	.007	.025	.019	.051	-.004	.080	--

** $p \leq .01$. * $p \leq .05$. (two-tailed tests)

APPENDIX B: RISKY SEXUAL BEHAVIOR QUESTIONS

The next few questions ask you about your sex life. Please keep in mind that your answers are **COMPLETELY CONFIDENTIAL**.

H15.	<u>In the past 3 months</u>, how many times have you had sex? --- zero <i>Skip to H20</i> Refuse to Answer
H16.	<u>In the past 3 months</u>, how many people have you had sex with? --- zero <i>Skip to H20</i> Refuse to Answer
	<i>If H16 is greater than H14 then the number of people you've had sex with in the past 3 months is greater than the number of people you've had sex with in your lifetime. Please review the numbers you entered. Thanks! skip to H15.</i>
H17.	Out of the [Response to H15] times you've had sex, in the past 3 months, how many times did you use a condom? --- Refuse to Answer
	<i>If H17 is greater than H15 then The number of times you used a condom during sex <u>in the past 3 months</u> is greater than the number of times you had sex <u>in the past 3 months</u>. Please review the numbers you entered. Thanks! skip to H15.</i>
H18.	In the past 3 months, out of the [Response to H15] times you've had sex, how many times did you have sex while high on alcohol or drugs? --- Refuse to Answer

APPENDIX C: PERCEIVED RACIAL DISCRIMINATION QUESTIONS

Please tell me how often these things have happened to you in the past 12 months.

Response options (Choose one):

1. Never
2. Once or twice
3. A few times
4. Frequently
8. Refuse to Answer

JJ1.	How often have you been ignored, overlooked, or not given service because of your race?
JJ3.	How often have you been blamed for something or treated suspiciously, (as if you have done something or will do something wrong), because of your race?
JJ4.	How often did others respond to you as if they were afraid, because of your race?
JJ5.	How often have you been watched or followed while in public, because of your race?
JJ6.	How often have you been treated as if you were "stupid", or been "talked to like you were slow", because of your race?
JJ7.	How often have your ideas or opinions been put down, ignored, or belittled because of your race?
JJ9.	How often have you been called a name or harassed because of your race?

APPENDIX D: ATTITUDES TOWARD ANTISOCIAL BEHAVIOR QUESTIONS

For the next set of questions, please think about how okay you think it is for you, or someone your age, to do each of the following things.

Response options (Choose one):

1. Never
2. Hardly ever
3. Sometimes
4. Most of the time
5. Always
8. Refuse to Answer

X1.	How often is it okay for someone your age to: Cheat on school tests?
X2.	How often is it okay for someone your age to: Ruin or damage something on purpose?
X3.	How often is it okay for someone your age to: Smoke marijuana?
X4.	How often is it okay for someone your age to: Steal something worth less than \$5?
X5.	How often is it okay for someone your age to: Use alcohol?
X6.	How often is it okay for someone your age to: Use cocaine?
X7.	How often is it okay for someone your age to: Break into someplace like a car or building?
X8.	How often is it okay for someone your age to: Get drunk once in awhile?
X9.	How often is it okay for someone your age to: Take prescription drugs to get high?
X10.	How often is it okay for someone your age to: Give or sell alcohol to other kids?
X11.	How often is it okay for someone your age to: Sneak into movies or sporting events without paying?
X12.	How often is it okay for someone your age to: Hit someone with the idea of hurting them?
X13.	How often is it okay for someone your age to: Take a car or motorcycle for a ride without the owner's permission?
X14.	How often is it okay for someone your age to: Skip school without an excuse?
X15.	How often is it okay for someone your age to: Lie to teachers?

X16.	How often is it okay for someone your age to: Lie to parents?
X17.	How often is it okay for someone your age to: "Have sex"?
X18.	How often is it okay for someone your age to: Have sex with someone you do not know well?
X19.	How often is it okay for someone your age to: Have sex without a condom?

APPENDIX E: RACIAL SOCIALIZATION QUESTIONS

The following questions are about lessons or messages that you may have gotten from your caregiver.

Response options (Choose one):

1. Never
2. Sometimes
3. Often
4. Always
5. Refuse to Answer

How often in the past month has your caregiver.....

N1.	Told you that people might keep you from doing well because of your race?
N2.	Talked with you about the possibility that some people might treat you badly or unfairly because of your race?
N3.	Told you that you must be better than White kids, to get the same rewards because of your race?
N4.	Talked to you about discrimination (being treated unfairly because of your race) or prejudice against your racial group?
N5.	Explained to you something you saw on TV that showed poor treatment of your racial group?
N6.	Talked to someone else about discrimination (being treated unfairly because of your race) or prejudice against your racial group when you were around and could hear?
N7.	Celebrated cultural holidays of your racial group? (like M L K, or Kwanza)
N8.	Talked to you about important people or events in the history of your racial group?
N9.	Taken you to places or events that reflect your racial heritage?
N10.	Encouraged you to read books concerning the history or traditions of your racial group?
N11.	Done or said things to encourage you to do other things to learn about the history or traditions of your racial group?
N12.	Told you not to trust kids from other racial or ethnic groups?
N13.	Encouraged you to keep distance from kids of a different race or ethnicity than yours?
N14.	Warned you to be careful around kids or adults of a different race or

	ethnicity than yours?
N15.	Said negative (bad) things about people of other races to you?

APPENDIX F: INVOLVED-VIGILANT PARENTING QUESTIONS

These next questions are about your relationship with your caregiver.

Response options (Choose one):

1. Never
2. Sometimes
3. Often
4. Always
5. Refuse to Answer

D1.	In the course of a day, how often does your caregiver know where you are?
D2.	How often does your caregiver know who you are with when you are away from home?
D3.	How often does your caregiver give up when she/he asks you to do something and you don't do it?
D4.	Once a punishment has been decided, how often can you get out of it?
D5.	How often does your caregiver punish you for something at one time, and then at other times, not punish you for the same thing?
D6.	When your caregiver punishes you, how often does the kind of punishment she/he uses depend on his/her mood?
D7.	How often does your caregiver know when you do something really well at school or someplace else away from home?
D8.	How often does your caregiver know when you get in trouble at school or someplace else away from home?
D13.	How often does your caregiver ask you to consider how others will feel if you misbehave?
D14.	How often does your caregiver know when you do not do the things she/he asked you to do?
D15.	When you and your caregiver have a problem, how often can the two of you figure out how to deal with it?
D16.	How often do you talk to your caregiver about things that bother you?
D17.	How often does your caregiver ask you what you think, before deciding on family matters that involve you?
D18.	How often does your caregiver give reasons to you for his/her decisions?
D19.	How often does your caregiver ask you what you think, before making decisions that affect you?

D20.	When you don't know why your caregiver makes certain rules, how often does she/he explain the reason?
D21.	How often does your caregiver punish you by reasoning, explaining, or talking to you?
D22.	When you have done something your caregiver likes or approves of, how often does she/he let you know she/he is pleased about it?
D23.	How often does your caregiver give you a reward, like money or something else you would like, when you get good grades, do chores, or something like that?