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Examining multiple dimensions of father involvement as predictors of risk-taking intentions among black adolescent females

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ABSTRACT

Although scholars have highlighted the differential impacts of father involvement on the outcomes of sons and daughters, less attention has been given to the impact of father involvement on Black adolescent females. This line of inquiry is important given the unique risks Black females face, such as increased likelihood of early unintended pregnancy, increasing rates of delinquency and increased interaction with law enforcement. Given its potential impact, it is important to explore the ways in which father involvement matters to female adolescents' intentions to engage in risky behaviors. The current study utilized a national, cross-sectional sample of 287 adolescent females from the Black Families Project. Participants ranged in age from 13 to 17 years old (M = 15.4 years; SD = 1.25) and completed the study survey via Qualtrics Panels. ANOVA results suggest that adolescent perceptions of father involvement differ by father residence type. A three-step hierarchical regression analysis was conducted to understand which dimensions of father involvement matter to a daughter's intent to engage in risky behaviors. Results indicate that among Black female adolescents with biological resident and non-resident father-figures, significant predictors of their intent to engage in risky behaviors included father-daughter closeness and engagement in activities. These dimensions of father involvement were not significant for adolescents living in households with a social father. Implications for practice are discussed.

1. Introduction

Father involvement scholars assert the importance of a father's involvement to the social development of the child (Amato & Gilbreth, 1999; Amato & Sobolewski, 2001; Carlson, 2006; Lamb & Tamis-Lemonda, 2004; Marsiglio, Amato, Day, & Lamb, 2000). According to (Lamb, Pleck, Charnov, & Levine, 1985) father involvement is described by the degree to which a father is engaged, accessible and responsive to the child's needs and well-being. The literature offers a range of evidence regarding the impacts of father involvement during early childhood (McLeod & Kaiser, 2004), adolescence (Carlson, 2006) and young adulthood (Allgood, Beckert, & Peterson, 2012). Although scholars have highlighted the differential impacts of father involvement on the outcomes of sons and daughters (Alleyne-Green, Grinnell-Davis, Clark, & Cryer-Coupet, 2015; Salem, Zimmerman, & Notaro, 1998), less attention has been given to the impact of father involvement on the outcomes of Black adolescent females (Alleyne-Green, Grinnell-Davis, Clark, Quinn, & Cryer-Coupet, 2016). This line of inquiry is imperative considering the unique risks Black adolescent females face, such as increased likelihood of early unintended pregnancy (Finer & Zolna, 2016; Sedgh, Finer, Bankole, Eilers, & Singh, 2015), increasing rates of delinquency (Griffin, Botvin, Scheier, Diaz, & Miller, 2000) increased interaction with law enforcement (Epstein, Blake, & Gonzalez, 2017), and lack of attention given to internal assets and strengths (Smith-Evans, George, Graves, Kaufmann, & Frohlich, 2014; Stevens, 1998). Given its potential impact, it is important to explore the ways in which father involvement may be associated with female adolescents' intentions to engage in risky behaviors.

Informed by the Phenomenological Variant of Ecological Systems Theory (PVEST) (Spencer, Dupree, & Hartmann, 1997; Spencer, Fegley, & Harpalani, 2003), this study examines Black adolescent females' experiences with father involvement, how those experiences differ by father-figure residence type, and how father involvement impacts their intentions to engage in risky behaviors. By examining these relationships, fatherhood scholars and youth service practitioners may benefit from a nuanced investigation of father involvement that underscores

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Table 1
Youth risk behaviors among U.S. female high school students by race (2017).

	All Female High School Students	Asian Female High School Students	Black Female High School Students	Hispanic Female High School Students	White Female High School Students
Carried a Weapon (such as a gun, knife, or club)	7.4% (n = 5,984)	1.6% (n = 291)	6.1% (n = 1,036)	6.9% (n = 1,562)	8% (n = 2,612)
Carried a Gun	1.9% (n = 7,258)	1.4% (n = 331)	3.0% (n = 1,406)	2.5% (n = 1,731)	1.3% (n = 3,187)
Were in a Physical Fight	17.2% (n = 6,149)	4.8 (n = 308)	29.1% (n = 1,051)	21.1% (n = 1,645)	13.5% (n = 2,638)
Were in a Physical Fight on School Property	5.6% (n = 7,383)	0.7% (n = 315)	13.7 (n = 1,416)	7.0% (n = 1,798)	3.1% (n = 3,227)
Ever Used Marijuana	35.9% (n = 7,350)	9.4% (n = 335)	44.9% (n = 1,369)	42.7% (n = 1,816)	32.1% (n = 3,207)
Currently Use Marijuana	19.6% (n = 7,396)	3.7% (n = 336)	25% (n = 1,393)	23.8% (n = 1,825)	17.2% (n = 3,220)
Currently Drink Alcohol	31.8% (n = 6,708)	10.3% (n = 324)	24.3% (n = 1,249)	35.9% (n = 1,610)	33.2% (n = 2,973)
Currently Sexually Active	28.8% (n = 6,844)	12.4% (n = 298)	28.4% (n = 1,273)	28.2% (n = 1,682)	30% (n = 3,016)
Did You Use Any Method To Prevent Pregnancy During Last Sexual Intercourse	16.7% (n = 1,866)	N/A	25.5% (n = 370)	22.0% (n = 445)	11.8% (n = 871)

the unique role fathers play in the social development of their Black adolescent daughters, specifically as it relates to their intentions to engagement in risk behaviors. The concept of intentions has been defined in the theoretical literature as "the extent to which plans have been formulated to perform a behavior" (Sheppard, Hartwick, & Warshaw, 1988; as cited in Gibbons, Gerrard, Blanton, & Russell, 1998, p. 1166). This study adds a unique contribution to the scholarship in this area given its emphasis on intentions, rather than volitional behaviors, which has been the primary outcome studied in the majority of the existing literature related to adolescent health and development.

1.1. Adolescents and intentions to engage in risk-taking behaviors

Few studies have examined risk taking intentions among adolescents, despite the predictive role they often play in the actualization of subsequent behaviors. Within the theoretical literature, behavioral intentions have been postulated as the strongest and most proximal predictor of volitional behaviors (Godin & Kok, 1996; Hale, Householder, & Greene, 2002; Madden, Ellen, & Ajzen, 1992). Specifically, theorists suggest that behaviors are directly influenced by intentions, which are a function of attitudes, subjective norms, perceived behavioral control, self-identity, moral obligations, and prior behavior (Godin & Kok, 1996; Hale et al., 2002; Madden et al., 1992). Given the abundance of support put forth in the theoretical literature for the construct of intentions as a valuable focus of investigation, scholars have also sought to develop models that include the construct as an independent predictor of adolescent health risk (Gibbons et al., 1998).

Furthermore, in the empirical literature, the link between behavioral intentions and behavioral performance has been examined extensively through direct tests of the Theory of Reasoned Action and the Theory of Planned Behavior, both of which seek to explain the affective, cognitive, and behavioral processes that underlie the linkage between intentions and behavior. These studies have yielded considerable evidence to suggest that behavioral intentions have a direct effect on the performance of risky behaviors among adolescents. For example, researchers have found that engagement in sexual intercourse was associated with intentions to engage in sex among a heterogeneous sample of high school students (Gillmore et al., 2002) and a Spanish-dominant group of Latino youth (Villarruel, Jemmott, Jemmott, & Ronis, 2004). Additionally, in their review of 69 studies, published in 38 different journals across a variety of disciplines, Buhi and Goodson (2007) found that intentions emerged as a stable predictor of adolescent sexual behavior outcomes. Taken together, fatherhood scholars and youth development practitioners may benefit from the results of the current investigation, as it provides insight into the behavioral intentions of Black female adolescents and how their perceptions of their fathers can shape such intentions. This knowledge can serve as the basis for the development of interventions designed to target and prevent engagement in risky behaviors.

1.2. Black female adolescents and risk-taking behaviors

Black adolescent females face unique developmental challenges that may influence long term outcomes. For example, they are twice as likely to give birth before the age of 20, compared to their White or Asian counterparts (Kann et al., 2017); and more likely than other ethnic groups to give birth to a second child before reaching adulthood (Jekielek, Brown, & Trends, 2005). While Manlove, Ryan, Wildsmith, and Franzetta (2010) assert that growing up in a traditional two-parent household may contribute to lower odds of experiencing an early birth, 55% of Black children grew up in a home without a resident father (United States Census Bureau, 2018). Additionally, Epstein, Blake & Gonzalez report in "*Girlhood Interrupted: The Erasure of Black Girlhood*" (2016), that black adolescent females were more likely than white adolescent females to be petitioned to the court, referred to law enforcement and legally detained. Furthermore, according to data from the 2017 National Youth Risk Behavior Survey, Black female high school students reported higher prevalence rates on a number of risky behaviors, in comparison to their racial/ethnic counterparts, such as carrying a gun, being in a physical fight, using marijuana, and abstaining from methods to prevent pregnancy during sexual intercourse (see Table 1).

Such behaviors place Black female adolescents at greater risk of long-term consequences that can impede upon their individual and socioeconomic progress (Aguilar, Carter, Snead, & Kourtis, 2013). Though few studies have examined risk-taking intentions among Black female adolescents, Aronowitz, Rennells, and Todd (2005) found that intentions to stay safe were negatively associated with reported participation in potentially risky situations among early adolescent African American girls. Thus, exploring the construct of intentions and understanding the protective role that father involvement can play in shaping the risk-taking intentions of their daughters can expand our understanding of developmental and parenting processes that are unique to Black adolescent females and their families.

1.3. Parenting practices and adolescent risky behavior

Traditionally, it is understood that family structure and process yield important implications for adolescent development (Griffin et al., 2000; Salem et al., 1998). In a study examining parenting practices for 228 urban, youth, where 88% identified as Black, Griffin et al. (2000) found a significant association between increased parental monitoring and lower levels of delinquency. Among females in the sample, they found that having family-style dinners was related to decreased reports of delinquency. Conversely, among a sample of 158, majority Black adolescent females, Bettinger et al. (2004) found decreased parental

supervision to be predictive of adolescent risky sexual behavior. In other studies, higher levels of parent-adolescent communication have been found to act as a buffer against adolescent risky behaviors (Bettinger et al., 2004; Forehand et al., 2007; Wight, Williamson, & Henderson, 2006). Although parental communication, monitoring and supervision have been found to buffer the effects of adolescent risk taking behaviors, oftentimes, risky behaviors occur beyond the direct supervision of a parent, and in contexts where parental intervention is less likely (i.e., in school or a community setting).

Causing further concern, Epstein et al. (2017) report that Black adolescent females were more likely than White adolescent females to be petitioned to the court, referred to law enforcement and legally detained in school settings. Furthermore, as noted in Table 1, data from the Youth Risk Behavior Survey suggests that, in 2017, 29.1% of Black female high school students were in a physical fight on school property, in comparison to 4.8% of Asian female high school students, 21.1% of Hispanic female high school students, and 13.5% of white female high school students. While it is expected that direct parental supervision will not occur within the school environment, the prevalence of delinquent behavior within these contexts, such as physical fighting among adolescent females, has garnered a great deal of attention.

A growing body of literature asserts the important role parents play in adolescent females' engagement in risky, delinquent behavior, such as physical fighting (Chen, Flores, & Shetgiri, 2016; Ford et al., 2018; Resko et al., 2016). Other studies also indicate racial differences in how parents deal with physical fighting (Chen et al., 2016; Resko et al., 2016). Among participants in a qualitative study exploring 72 adolescent females' motivations for fighting, several Black female respondents reported maternal approval of physical fighting (Resko et al., 2016). In many instances, mothers encouraged fighting in cases where daughters felt threatened. Additionally, the authors noted that some participants highlighted race-based differences with regard to parents' reactions to their daughters' experiences with physical fighting. For example, one participant expressed that in some Black neighborhoods, the idea of "walking away" from a fight, a common directive given by some White parents to their daughters, was not a realistic option for Black daughters living in low-income neighborhoods (Resko et al., 2016).

These findings not only imply potential racial differences in parental reactions to adolescent risk-taking behaviors, but also suggests a need for attention to how parenting practices influence Black females adolescents' engagement in delinquent behavior. Differences in how maternal and paternal parenting practices may influence a daughter's engagement in risk taking behaviors have also been noted in the literature (Chen et al., 2016; Daspe, Arbel, Ramos, Shapiro, & Margolin, 2018; Guilamo-Ramos et al., 2012). For example, in a structured literature review, Guilamo-Ramos et al. (2012) identified key differences in how mothers and fathers respond to risky sexual behaviors during adolescence. While fathers' parenting practices differentially influenced risky sexual behavior, the authors assert additional research is needed to explore various facets of paternal influence related to adolescent risk taking (Guilamo-Ramos et al., 2012).

1.4. Paternal involvement, contextual factors and adolescent risky behaviors

Contemporary father involvement is defined as fathering that includes nurturance, responsibility and quality time spent between father and the child (Adamsons & Johnson, 2013; Lamb, Pleck, Charnov, & Levine, 2011). Since a higher prevalence of Black children grow up in single female-headed households (United States Census Bureau, 2016), considerable attention has been given to promoting father involvement among Black children growing up in single mother households (Choi & Jackson, 2011). This discussion has become more nuanced, as scholars have highlighted higher levels of involvement among non-resident Black fathers than were previously acknowledged; in some instances these levels of involvement are higher than among other racial/ethnic groups of non-resident fathers (Johnson, 2001; Jones & Mosher, 2013).

To further illustrate the role of father involvement in the lives of daughters, Ellis and colleagues conducted an 8-year study with 173 females to test past assertions about the influence of familial relationships on female development (Ellis, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1999). They concluded that a father's involvement, including emotional closeness, influenced the delay of a daughter's sexual debut (Ellis et al., 1999). In articulating their theory of paternal investment, Draper and Harpending (1988) suggest that when a daughter experiences nurturing and supportive involvement from a father, the potential for bonding and closeness between the father and daughter increases, which can in turn serve as a buffer against engagement in risky behaviors. Although Draper and Harpending (1988) tested this theory with middle-class, white families, it is important to consider how this relationship may play out across different racial/ethnic groups and family compositions (i.e., biological resident fathers, biological non-resident fathers, and social father figures).

More recent studies have also examined the effects of perceived father closeness on a variety of behavioral outcomes among adolescents (Alleyne-Green et al., 2016; Goncy & van Dulmen, 2010; Grossman, Black, Richer, & Lynch, 2019). The findings of these studies suggest that paternal closeness is associated with a lower probability of early sexual debut (Grossman et al., 2019) and alcohol use and alcohol related problems (Goncy & van Dulmen, 2010). Few studies have examined this association among Black female adolescents and their fathers, however, one study found perceived father closeness to be associated with an increased likelihood of contraception use (Alleyne-Green et al., 2015) and another found the quality of the father-daughter relationship to be predictive of drug refusal self-efficacy (Boyd, Ashcraft, & Belgrave, 2006).

Furthermore, father involvement has also been shown to offer an important contribution to female psychological (Coley, 2003) and academic development (Hawkins, Amato, & King, 2007). For example, Baker (2018) found, among a sample of mostly nonresident fathers and their children, that father's participation in school activities was associated with higher reading and math scores, after controlling for the mother's school involvement, home learning environment and demographics. They assert that father-school involvement offers nonresident fathers the opportunity to be more actively engaged in their child's education despite not sharing a primary residence (Baker, 2018). Bulanda and Majumdar (2009) found that a father's communication of care and concern was related to increases in adolescent self-esteem. Specifically the relationship quality between a resident father and a child was positively associated with self-esteem. Similarly, in a retrospective study with a sample of 99 females ages 18–21, Allgood et al. (2012) found paternal involvement of resident fathers to be a significant predictor of a daughter's self-esteem.

In addition to psychological and academic impacts, scholars have found links between father involvement and adolescent behavioral outcomes. By examining associations between father involvement, by resident type, and internalizing problems, externalizing problems and academic achievement for a sample of 3394 adolescents and parents, Hawkins et al. (2007) found adolescent externalizing behaviors were comparable among adolescents with resident and nonresident fathers. However, child effects were reported as more prevalent with adolescents who lived with their fathers. In other words, paternal involvement by resident fathers was largely dependent upon adolescent's externalizing behavior. These authors also reported adolescents' externalizing behaviors reduced feelings of closeness to their father, which also impacted father's involvement. Subsequent research using the same data found that among adolescents with resident and nonresident fathers, the quality of the father-child relationship was the most significant predictor of adolescent outcomes across residence type (Booth, Scott, & King, 2010).

Emerging research findings offer additional support for understanding associations between father involvement by father type (i.e.,

biological fathers and father figures) and risky adolescent behaviors. For instance, Alleyne-Green et al. (2015) found among a sample of 422 Black adolescents ages 13–21, that perceived closeness with a father or father figure resulted in lower sexual risk behaviors for females. Similarly, with a sample of 499 pre-adolescents aged 12, Yoon, Bellamy, Kim, and Yoon (2018) found that pre-adolescents with higher quality father involvement by resident fathers or father figures also had lower levels of externalizing behaviors. Such positive relationship between adolescent outcomes and father-involvement, have also been found when adolescents have resident social fathers (Bzostek, 2008).

Scholars have found that environmental determinants such as the neighborhood context also impact adolescents' behavioral outcomes and social development (Aguilar et al., 2013). While poorer, low income communities, may present precarious situations for adolescent females to navigate (i.e., drug activity, criminal behavior and negative peer influences), literature exploring whether father involvement moderates female adolescent delinquency amidst such circumstances is scant. One study conducted by Daspe et al. (2018) measured the effect of paternal warmth on adolescent deviant behaviors. Across time, they found that father's warmth shown through involvement was protective of females engaging in risky behaviors and interacting with deviant peers. Therefore, understanding which types of father involvement most promote adolescents' disengagement from risky behaviors is important for understanding Black adolescent female development. Research findings suggest that additional contextual factors such as age, adolescent employment status and household income are important covariates when examining adolescent risk behaviors (Ellis, Schlomer, Tilley, & Butler, 2012; Johnson, 2004; Staff, Osgood, Schulenberg, Bachman, & Messersmith, 2010).

2. Theoretical framework

2.1. Phenomenological Variant of Ecological Systems Theory (PVEST)

Spencer et al. (2003) offer a theoretical framework referred to as the Phenomenological Variant of Ecological Systems Theory (PVEST). PVEST is a perspective that builds upon Bronfenbrenner's (1979) Ecological Systems Theory and incorporates concepts most relevant to youth who face risks related to the intersection of race, identity and adverse contextual factors. At its core, Ecological Systems Theory considers the impact of interconnected systems on child development (Bronfenbrenner, 1986). Bronfrenbrenner posits that the interconnectedness of systems differentially effects how children develop, directly and indirectly (1994). More specifically, the microsystem and complex proximal processes that occur between the child and the family environment provide the context in which the most enduring developmental traits and characteristics are formed (Bronfenbrenner, 1994; Pleck, 2007).

Absent from Bronfrenbrenner's Ecological Systems model is acknowledgment of key contextual factors associated with race and racism, such as discrimination, oppression, marginalization, and other environmental processes often experienced by youth of color. Spencer et al.'s (1997) theoretical model considers the developmental circumstances of minority youth who may disproportionately face a range of environmental risks, including issues of identity development and coping strategies, which are critical considerations for adolescent development. Furthermore, PVEST explains how exposure to environmental risks may be offset by protective factors, such as paternal involvement, among urban, minority youth (Spencer et al., 2003). In a 3-year longitudinal study of Black adolescent youth, Spencer et al. (1997) examined facets of adolescent identity, finding that youth's interactions with their environment influenced perceptions of their world (Spencer et al., 1997). The current study centers on the perceptions of Black adolescent females from urban communities.

In this study, the five core components of PVEST are used to contextualize the developmental experiences of Black adolescent females. The major components of the theory include: *risks contributors; net stress management; reactive coping methods; emergent identity development; and life-stage specific coping outcomes* (Spencer et al., 2003). Each concept within the model offers useful insight into probable processes underlying risk taking intentions among Black female adolescents and the role that paternal involvement can play in mitigating such risks. *Risk contributors* are identified as any factor that might predispose youth to adverse outcomes, such as race or socioeconomic status. With the current study, Black adolescent females and their fathers, predisposed to race-related and socioeconomic-related environmental conditions, may offer context for the range of residence-types, and engagement types that might matter in some way to the development of risky adolescent behaviors. The experience of *stress management* with adverse experiences can result in various forms of coping, both maladaptive and adaptive. Since both maladaptive and adaptive forms of coping can produce corrective problem-solving strategies, Black parents and adolescent females might identify unique approaches to resolving problems that are most befitting to their environment (Resko et al., 2016). These strategies may differ among Black mothers and fathers.

In addition to parent driven approaches to problem solving, Black adolescent females may engage strategies to solve or mitigate immediate problems. These are considered *reactive coping methods*. Multiple dimensions of paternal engagement may function as protective factors against reactive coping methods. Delinquent behaviors, such as physical fighting, for example, may actually represent coping strategies for a range of environmental risks, specifically used to mitigate perceived problems. Further, as adolescents establish coping strategies appropriate for managing environmental risks, experiences that challenge a youth's psychosocial identity and well-being on a day-to-day basis are defined as *net stress management* which may include an adolescent's perception of the role of supportive adults (2003). Such perceptions of paternal closeness and engagement in social activities, for example, may function as a stress management tool and potentially divert risky behaviors. Equivalent to adverse outcomes, risk-taking behaviors such as physical fighting or risky sexual activity may also represent methods of stress management, and thereby benefit from positive, paternal involvement.

Furthermore, Spencer et al. (1997) posit that recurring experiences of negative feedback and stress can cause adaptation to various environmental conditions, shaping personality structures most relevant to identity development (1997). In environments where Black adolescent females experience more negative feedback or lower expectations than their White peers (Epstein et al., 2017), a negative self-perception may represent an emergent identity development process, which may result in defensive, delinquent behaviors. As Black adolescent females develop, they experience unavoidable, stage-specific, observational experiences that may lead to negative attitudes, (Spencer et al., 2003), which subsequently may result in various risk behaviors. In response to these *life-stage specific coping outcomes*, parents, particularly those who live in urban settings, may engage parenting strategies that target risky adolescent behaviors (see, Chen et al., 2016; Roche, Ensminger, & Cherlin, 2007).

2.2. The current study

Spencer et al. (2003) purport developmental processes to be different for Black youth that live at the intersections of race and adverse environmental circumstances. Considering the aforementioned tenets of the PVEST model, particularly how adolescents' risk-taking behavior may be impacted by the protective nature of paternal residence-type and the context of adverse environmental conditions, the current study builds upon the father involvement literature by exploring the impact of Black fathers on daughters' risk taking intentions from the daughter's perspective, by father resident type, to establish a broader understanding of the breadth of assets offered through the Black-father-daughter relationship. Understanding the aspects of paternal

involvement that prevent Black adolescent females' engagement in risk taking behavior may expand our understanding of protective factors that promote the most optimal development for Black females. This study aims to answer the following research questions and posits the corresponding hypotheses:

(1) How do black female adolescent's perceptions of father involvement differ by father residence type? The authors hypothesize that a daughter's perception of father involvement will vary according to her father-figure's residential status.
(2a) What is the association between perceptions of father involvement and intent to engage in risky behaviors? It is hypothesized that perceptions of greater father involvement will be associated with a decrease in risk-taking intentions.
(2b) How does this relationship differ by father residence type? It is hypothesized that risk-taking intentions will differ according to the father-figure's residential status.

3. Methods

3.1. Procedure

The current study is based on data from the Black Families Project (BFP)–a dyadic survey of Black adolescents and their primary caregivers from across the United States. The BFP was designed to understand the psychological, physical, economic, and political indicators of wellbeing among of Black caregivers and their adolescent children (aged 13–17), with a focus on family socialization, communication, and relationships. For the parent study, caregiver-adolescent dyads were recruited through Qualtrics Panels. Qualtrics Panels is an online survey delivery service that researchers can use to recruit participants into their research studies (see Brandon, Long, Loraas, Mueller-Phillips, & Vansant, 2014 for a detailed description). The survey topics included issues related to community, politics, criminal justice, discrimination, identity, parenting, physical health, and mental health. Potential respondents were sent an email invitation from Qualtrics Panels to participate in the research study, including the expected duration of the study, and incentives available for participation.

To reduce self-selection bias, the survey invitation did not include specific details about the content of the survey (i.e., perceptions of parent-child relationships and adolescent risk behaviors). Participants in the current study were recruited via the initial email to their caregiver and participated with caregiver consent. Participants received an incentive based on the length of the survey, their specific panelist profile, and target acquisition difficulty (i.e., how difficult it was to recruit someone with their profile). The specific incentive varied by participant, but included options for cash, airline miles, gift cards, redeemable points, sweepstakes entrance, and vouchers. As such, respondents did not receive a standard dollar amount for participation. Study protocols were approved by the IRB at the host university.

3.2. Participants

Participants included 287 self-identified Black adolescent females, ages 13 to 17 years old (M = 15.4 years; SD = 1.25). The majority of the sample identified as African American (79%). Other ethnic backgrounds represented include African (12%), Caribbean/West Indian (6%), Afro-Latina (2%) and self-described as multiethnic (3%). Participants were located across the United States, with representation from 37 states and the District of Columbia. Most participants were from the South (54.4%), while 25.3% were from the Midwest, 13.3% from the Northeast, and 7% from the Western region of the country. Seven percent of adolescents identified as LGBTQ.

Forty-one percent of adolescents lived in a home with a primary caregiver who had earned a 4-year college degree or higher. The majority (56%) of participants' had a primary caregiver who reported an annual household income of less than $55k per year. Sixty-five percent of adolescents had caregivers who reported being employed full-time, while 17.4% of the adolescents reported being employed at least part-time. Seven percent of adolescents reported having been stopped by the police in their lifetime. Forty-five percent of adolescents in the sample reported living in the home with their biological father, 22% lived with a social father (i.e., stepfather, grandfather, uncle), and 33% lived in a home with no father figure present.

4. Measures

Father Involvement was measured as a multi-dimensional construct, using items from the National Longitudinal Study of Adolescent to Adult Health (Harris, Halpern, Whitsel, Hussey, Tabor, Entzel, & Udry, 2009). Adolescents' perceptions of father-child closeness was measured with a single item (e.g., *How close do you feel to your father figure*?). Adolescents responded using a 5-point Likert scale, which ranged from 1 = "Not Close at All" to 5 = "Extremely Close".

Perceptions of fathers' engagement in activities with adolescents was measured with a five-item scale that assessed which activities the adolescent and her father-figure engaged in over the past month (e.g., *Gone shopping; Played a sport; Gone to a religious service or church-related event; Gone to a movie, play, museum, concert or sports event; Worked on a project for school*). Respondents answered "No" = 0 or "Yes" = 1 to each item. These responses were summed to achieve a total summary score between 0 and 5, with higher scores indicating engagement in more activities. This scale yielded a moderate internal consistency reliability score (α = 0.74).

Perceptions of communication between adolescents and their father-figures were measured with a four-item scale that assessed topics that were discussed by the adolescent and her father-figure over the past month (e.g., *Talked about someone you're dating or a party you went to; Had a talk about a personal problem you were having; Talked about your school work or grades; Talked about other things you're doing in school*). Respondents answered "No" = 0 or "Yes" = 1 to each item. These responses were summed to achieve a total score with a range of 0–4, with higher scores indicating more engagement in father-child communication. This scale also yielded a moderate internal consistency reliability score (α = 0.76).

Intention to Engage in Risky Behaviors were assessed using the 9-item Likelihood of Violence and Delinquency scale (Flewelling, Pashcall, & Ringwalt, 1993). This scale measures adolescents' intent to engage in risky behaviors within the next month (i.e., *Within the next month, how likely is it that you will get into a physical fight; carry a gun; carry a knife; get injured in a fight; injure someone else in a fight; drink an alcoholic beverage; get drunk; get high on drugs; have sexual intercourse*). Adolescents responded using a 4-point Likert scale that ranged from 1 = "Not at All Likely" to 4 = "Very Likely." Responses on the scale were summed to create an intention to engage in risky behavior score for each adolescent participant. The scale yielded a strong internal consistency reliability score (α = 0.89).

Covariates. Adolescents' age, adolescents' employment status and caregiver report of annual household income were collected during the demographic assessment and were included in the current study as covariates. Adolescents' report of closeness with mother and communication with mother were also included in the study as covariates. Adolescent employment status was coded as 0 = "Not Employed" to 3 = "Employed Full-Time." Income was reported on a 9-point scale from 1 = "under $25,000" to 9 = "over $100,000." Adolescents' perceptions of mother–child closeness was measured with a single item (e.g., *How close do you feel to your mother figure*?). Adolescents responded using a 5-point Likert scale, ranging from 1 = "Not Close at All" to 5 = "Extremely Close." Perceptions of communication between adolescents and their mother-figures were measured using a four-item Likert scale that assessed topics that were discussed by the adolescent and her mother-figure over the past month (e.g., *Talked about someone*

you're dating or a party you went to; Had a talk about a personal problem you were having). Respondents answered "No" = 0 or "Yes" = 1 to each item. These responses were summed to achieve a total score. This scale yielded a moderate internal consistency reliability score (α = 0.57).

4.1. Data analytic strategy

All data were analyzed using *SPSS Version 25*. The Qualtrics survey was designed for participants to answer each question before moving to the next (see Smyth, Dillman, Christian, & Stern, 2006 for background on the forced choice approach in web-based surveys). If a participant did not provide an answer to a question, they were unable to complete the survey. There were no skip patterns built into the survey. As a result, there was no missingness on any variable examined in the current study. Preliminary analyses were conducted to evaluate means, standard deviations, frequencies and bivariate correlations for all study variables. To examine our first research question, we conducted One-way ANOVA analyses to investigate mean group differences in perceptions of father involvement by father-figure residence type. To examine our second research question, we conducted hierarchical regression analyses across father-figure residence type, predicting adolescents' intent to engage in risky behaviors. The models accounted for adolescents' age, adolescent's employment status, annual household income, adolescents' perceived closeness to mother and communication with mother, and multiple dimensions of father involvement. In Step 1, we regressed the control variables onto adolescent risky behaviors. In Step 2, we added adolescents' perceived closeness to mother and communication with mother. In Step 3, we added adolescents' perceived closeness to father-figure, communication with father-figure, and engagement in activities with father-figure.

5. Results

5.1. Preliminary analysis

Sample characteristics are reported in Table 2. Bivariate correlations for all study variables are reported in Table 3. We examined mean group differences in father involvement by father-figure residence type. One-way ANOVAs revealed mean group differences in perceived closeness to biological fathers and father-figures, communication with biological fathers and father-figures and engagement in activities with biological fathers and father-figures. Specifically, participants who had non-resident father-figures reported the lowest levels of closeness ($M = 2.77$, $SD = 1.48$), in comparison to participants who had resident social fathers ($M = 3.44$, $SD = 1.36$) and resident biological fathers ($M = 4.15$, $SD = 0.96$), $F(2, 284) = 14.70$, $p < .001$. Participants who had non-resident father-figures also reported the lowest levels of communication ($M = 1.39$, $SD = 1.48$), in comparison to participants who had resident social fathers ($M = 2.19$, $SD = 1.46$) and resident biological fathers ($M = 2.62$, $SD = 1.18$), $F(2, 284) = 21.26$ $p < .001$. Finally, participants who had non-resident father-figures also reported the lowest levels of activity engagement ($M = 1.22$, $SD = 1.47$), in comparison to participants who had resident social fathers ($M = 2.01$, $SD = 1.70$) and resident biological fathers ($M = 2.43$, $SD = 1.66$), $F(2, 284) = 31.34$ $p < .001$.

5.2. Primary analysis

In step 1 of each hierarchical regression model, we entered the control variables, adolescents' age, adolescent's employment status, and annual household income. This model was not significant for adolescents with resident biological fathers, resident social fathers or non-resident father-figures (see Table 4). In Step 2 of each model, we added adolescents' perceived closeness with mother and adolescents' communication with mother. This model was not significant for adolescents with resident biological fathers, resident social fathers or non-resident father-figures.

In Step 3 of each model, we entered adolescents' perceived closeness with father or father-figure, communication with father or father-figure, and engagement in activities with father or father-figure. In the resident biological father model, perceived closeness to father was negatively related to intent to engage in risky behaviors (β = −0.75, $p = .02$) and engagement in activities with father was positively related to intent to engage in risky behaviors (β = 0.40, $p = .03$). However, the overall model was not significant. A similar pattern was observed in the non-resident father-figure model. In this model, perceived closeness to father was negatively related to intent to engage in risky behaviors (β = −0.60, $p = .05$) and engagement in activities with father was positively related to intent to engage in risky behaviors (β = 0.98, $p = .001$). This model was significant, $F(8, 85) = 2.43$, $p < .05$ and accounted for 19% of the variance in adolescents' intent to engage in risky behaviors.

6. Discussion

An abundance of literature exists highlighting the importance of fathers in the lives of their sons (Harris & Morgan, 1991; Lundberg, McLanahan, & Rose, 2007; McLeod, Johnson, Cryer-Coupet, & Mincy, 2019; Zimmerman, Salem, & Maton, 1995). However, the research on the importance of fathers in the lives of adolescent females is limited in scope and quantity. This study extends the scholarship in this area by exploring Black female adolescents' perceptions of paternal involvement, offering important insights into the ways in which such perceptions can influence motivational processes, in particular, intentions to

Table 2
Sample characteristics.

	Full Sample (N = 287)		Resident Bio. Father (n = 116)		Resident Social Father (n = 77)		Non-Resident Father (n = 94)	
	Mean or %	S.D.	Mean or %	S.D.	Mean or %	S.D.	Mean or %	S.D.
Covariates								
Age	15.4	1.25	15.3	1.26	15.5	1.32	15.5	1.17
Household Income (less than $55,000 per year)	55.7							
Adolescent's Employment Status (unemployed)	82.6							
Closeness to Mother	4.45	0.78	4.48	0.79	4.45	0.75	4.41	0.80
Communication with Mother	3.42	0.87	3.51	0.82	3.48	0.80	3.28	0.98
Independent Variables								
Closeness to Father	3.51	1.39	4.15	0.96	3.44	1.36	2.77	1.48
Communication with Father	2.10	1.46	2.62	1.18	2.19	1.46	1.39	1.48
Activities with Father	1.92	1.70	2.43	1.66	2.01	1.70	1.22	1.47
Dependent Variable								
Risky Behaviors	10.32	3.09	10.02	2.72	10.40	3.14	10.62	3.45

Table 3
Bivariate correlations of study variables (n = 287).

	1	2	3	4	5	6	7	8
1. Age	–							
2. Household Income	−0.010	–						
3. Employment Status	0.362**	0.143*	–					
4. Communication with Mother	0.080	0.170**	−0.005	–				
5. Closeness to Mother	0.010	0.019	−0.074	0.184**	–			
6. Communication with Father	0.019	0.130*	−0.046	0.267**	0.156**	–		
7. Closeness with Father	−0.006	0.135*	0.006	0.047	0.150*	0.599**	–	
8. Activities with Father	−0.053	0.099	−0.030	0.077	0.157**	0.540**	0.535**	–

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 4
Hierarchical regression predicting risky behavior.

	Resident Bio. Father (*N* = 116)			Resident Social Father (*N* = 77)			Non-Resident Father (*N* = 94)		
Variable	B	(SE)	β	B	(SE)	β	B	(SE)	β
Step 1									
Age	0.13	0.22	0.06	0.13	0.29	0.06	0.35	0.34	0.12
Income	0.04	0.10	0.04	0.07	0.13	0.07	−0.20	0.16	−0.13
Employment Status	−0.05	0.34	−0.02	0.66	0.45	0.19	0.10	0.44	0.03
R^2	0.01			0.06			0.03		
Step 2									
Closeness with Mother	−0.66	0.35	−0.19	−0.33	0.50	−0.08	−0.06	0.46	−0.01
Communication with Mother	0.32	0.34	0.10	−0.12	0.47	−0.03	−0.35	0.38	−0.10
R^2	0.04			0.07			0.04		
Δ R^2	0.03			0.01			0.01		
Step 3									
Closeness with Father	−0.75	0.32	−0.27*	−0.39	0.36	−0.17	−0.60	0.30	−0.26*
Communication with Father	0.03	0.29	0.01	−0.37	0.30	−0.17	0.17	0.32	0.07
Activities with Father	0.40	0.19	0.25*	0.43	0.26	0.24	0.98	0.28	0.42***
R^2	0.11			0.13			0.19		
Δ R^2	0.07			0.06			0.15		

*$p < .05$, **$p < .01$, ***$p < .001$.

engage in risky behaviors. Specifically, this study examined: (1) how Black female adolescents' perceptions of father involvement differed by father residence type, (2) the association between perceptions of father involvement and intent to engage in risky behaviors, and (3) how these associations differed by father residence type.

Overall, study results suggest that experiences of father involvement do differ by father residence type. Specifically, closeness, communication and engagement in activities was highest when Black female adolescents shared a home with their biological father. These findings underscore the impact of family structure and living arrangements on Black female adolescents' perceptions of father involvement and are consistent with previous studies that have also found adolescents to report a greater sense of perceived closeness to resident biological fathers and stepfathers, in comparison to non-resident fathers (Booth et al., 2010; King, 2006). Consistent with the underlying assumptions of PVEST, these findings underscore the notion that Black female adolescents' perceptions of paternal involvement are driven by the context in which they develop and interact with their fathers. Furthermore, we also found that closeness and engagement in activities with resident biological fathers and nonresident father-figures, influenced a daughter's intent to engage in some form of risky behavior. Specifically, in the resident biological father and non-resident father-figure models, a significant inverse relationship was found between perceived closeness with father and intent to engage in risky behaviors. This is consistent with other studies that also found a significant negative relationship between father-adolescent closeness and intent to engage in risky behaviors (Alleyne-Green et al., 2015; Alleyne-Green et al., 2016; Yoon et al., 2018). This finding is also consistent with the concept of *risk contributors* as articulated in PVEST. In particular, being a Black female adolescent in an urban context is associated with a number of contextual risk factors. However, a perceived sense of closeness to one's father can serve as a protective buffer against the vicissitudes of life in challenging circumstances.

Conversely, we observed a significant positive relationship between engagement in activities with resident biological fathers and non-resident father-figures, and adolescent's intent to engage in risky behaviors. In other words, higher levels of engagement in activities with one's father were associated with an increased intent to engage in risky behaviors among Black female adolescents. Although this finding occurred in an unexpected direction, it is in agreement with previous literature that also found greater quantities of father-adolescent activities to be associated with externalizing behaviors (Yoon et al., 2018). Some scholars have suggested that parents facing various risks associated with living in urban communities may sometimes model aggression in their interactions with their adolescent children (Chen et al., 2016). This may result in mixed-messaging, providing a potential explanation for this unexpected finding. It is also important to consider the quality of the relationship between fathers and daughters and how this may have influenced Black female adolescents' intentions to engage in risky behaviors. Applying PVEST's concepts of *net stress management and reactive coping methods,* the quality of father-daughter activity engagement may be highly important for encouraging the management of stress and the development of healthy coping methods that can be employed for solving problems, and avoiding adaptation to environmental conditions that lead to poor decision making. It is often from parents that children learn strategies, whether adaptive or maladaptive, for managing stress and coping. Thus, in activities with fathers, modeling healthy strategies may be important for reducing intentions to

engage in risky behaviors. This relationship may not be significant within the resident social father-adolescent relationship, as the social father may not have the same level of responsibility for socialization practices or intervening in discipline related to risk-taking behaviors or intentions.

Finally, mother-adolescent relationship factors were examined in this study given the precedent established in previous literature (DiClemente et al., 2001), which noted the importance of considering these variables when assessing the impact of father involvement on adolescents' behavioral outcomes. However, in the current study, mother-adolescent closeness nor communication were found to be significant predictors in any of the models examined. In other words, adolescents' perceived closeness and communication with their mothers were not related to intent to engage in risky behaviors, regardless of father residence type. In line with these findings, Daspe et al. (2018) also found that mother communication was not predictive of lower engagement in risky behaviors among female adolescents. However, previous research has found mother involvement to be a significant covariate when measuring the relationship between father involvement and adolescent outcomes (Yoon et al., 2018). This finding suggests that it is important to consider the unique role of each parent in the reduction of risk taking intentions among Black female adolescents as research suggests that father involvement can have unique predictive power of adolescent behaviors above and beyond mother involvement (Goncy & van Dulmen, 2010).

6.1. Strengths and limitations

The findings of this study should be noted in light of its limitations. First, we observed differences in the reliability coefficients for mother communication ($\alpha = 0.57$) and engagement in activities ($\alpha = 0.57$), in comparison to father communication ($\alpha = 0.76$) and engagement in activities ($\alpha = 0.74$), which suggested the presence of measurement error. Generally, the reliability coefficients yielded for mother scales were moderate at best, which is important to consider in the specification of the models examined in this study. Second, the design of this study is cross-sectional in nature and does not meet the criteria for establishing causality. Specifically, although we were able to establish a correlation between key study variables, we were unable to discern the time sequencing of events (i.e., whether events occurred prior to data collection that could potentially explain the observations made, particularly those findings that were unexpected). Future research is needed that investigates the influence of fathers in the lives of daughters longitudinally in order to examine the context and developmental trajectory of the father-adolescent daughter relationships over time. This cross-sectional, self-reported data was also collected using a web-based survey method. Thus, the adolescent and their primary caregiver could have been in close proximity to one another during survey administration, which increases the chances of social desirability bias being present in survey responses.

Third, this study only examines the direct effect of perceptions of father involvement on their adolescent daughters' intentions to engage in risky behavior. However, additional studies are needed that examine the transactional nature of these relationships and emphasize the importance of the bi-directional influence of fathers on children and children on fathers (Hawkins et al., 2007). Furthermore, studies are needed that examine the variability of these transactions by race/ethnicity and father residence type as studies have shown that patterns of non-resident African American father involvement tend to be dissimilar to their racial/ethnic counterparts (Coley & Medeiros, 2007; Marsiglio et al., 2000; Zimmerman et al., 1995). Such differences may produce variations in the bi-directional relationship, and in turn, unique developmental outcomes for Black female adolescents.

Furthermore, the BFP data included in this study did not allow for consideration of contextually linked control variables, such as association with deviant peers, racial discrimination, neighborhood context, and school climate, each of which could impact Black adolescent females' intentions to engage in risky behaviors. In addition, the difficulties around measuring the concept of intentions should also be noted. Specifically, because intentions are subject to change, viewpoints expressed in survey responses may have been provisional or hypothetical in nature. Finally, some of the observed relationships between variables in this study, particularly those that yielded insignificant findings, could have been impacted my measurement error.

The unique contributions of this study and the importance of this work should also be highlighted in light of these limitations. This study contributes to the literature on adolescent development by providing a unique focus on the father-daughter relationship in Black families, which is an understudied group. This study also provides a nuanced view of the father-daughter relationship across three different types of family structures, underscoring the importance of recognizing the diversity among Black families and the varied experiences of the children that are reared in these contexts. Lastly, this study adds a unique contribution to the scholarship in this area given its emphasis on intentions, rather than volitional behaviors, which has been the primary outcome studied in the majority of the existing literature related to adolescent health and development. Placing an emphasis on intentions encourages prevention and provides a unique window into the underlying cognitive processes that often precede engagement in risky behaviors that can result in long-term negative consequences.

6.2. Implications for future research and practice

Although Black adolescent females reported high mean scores for closeness and communication with mother ($M = 4.45$), these variables were not significant predictors of intent to engage in risky behaviors. Given the low reliability coefficients for the mother involvement scales, perhaps different results may have been observed with scales that yielded higher reliability coefficients. Although the content of the items were the same for both mothers and fathers, these scales seemed to function very differently among Black female adolescents. Further qualitative research is needed to better understand the meaning of perceived parental communication and activity engagement among Black female adolescents, and how these interactions may differ between mothers and fathers. This work can help to develop culturally nuanced, and in turn, stronger and more reliable measures that can be utilized in future quantitative studies with this population. Developing a clearer understanding of these relationships also has implications for the development of practice models geared towards addressing the needs of Black adolescent females living in various family structures. As such, intervention models seeking to disrupt risk-taking intentions may benefit from differential approaches based on father-figure residence type and level of father-daughter closeness.

This study was conducted from the perspective of Black adolescent females. Future studies should engage parent-child dyads that include direct reports from fathers on their own perceptions of their involvement and the extent to which they may differ from their adolescent daughters and co-parents. Further research is also needed to disaggregate the construct of risky behaviors into violent and non-violent types in order to contribute to a more nuanced understanding of the specific risky behaviors that are most influenced by perceptions of father involvement. As such, it will be important to understand how various types of fathers are able to align their parenting practices in ways that are most beneficial to the behavioral outcomes of Black adolescent females. Furthermore, our findings, which revealed differences in perceived father involvement by father residence type, suggest the need for interventions that are designed for various types of fathers and father-child relationships as there are significant variations across typologies (Gryczkowski, Jordan, & Mercer, 2010). Special attention should be given, in research and the development of interventions, to girls living in the home with no biological father present as they comprised 33% of the sample and they also reported the lowest levels of

father communication, closeness, and engagement in activities. Future research should seek to further explore the nature of the father-daughter relationship in non-resident father households and the role non-resident fathers play in influencing the risk taking intentions of Black female adolescents. Given the importance of perceived closeness, interventions should also seek to support this aspect of the father-daughter relationship as it is significantly related to lower levels of intentions to engage in risky behavior, and in turn, more positive developmental outcomes for Black female adolescents. Additional work is also needed to better understand the roles and nature of relationships between Black adolescent females and their resident social fathers, as the results of the current study found no significant impact of any dimension of father involvement on the risk intentions of Black adolescent females living in this family structure.

7. Conclusion

This work extends the current literature on perceived father involvement and risky behaviors by focusing on Black female adolescents and examining differences in this relationship by father residence type. Communication, closeness, and engagement in activities were lowest among Black female adolescents who reported having a non-resident father-figure. In addition, perceived closeness and engagement in activities held as significant predictors of risky-taking intentions across models for those with resident biological fathers and non-resident father-figures. Given the current study's findings, researchers, practitioners, and policymakers should consider, generally, the ways in which the critical role of fathers can be maximized in reducing risky behaviors among Black female adolescents. In particular, emphasis should be placed on non-resident fathers and the best ways in which paternal involvement can be supported in these family structures in order to achieve the most optimal adolescent developmental outcomes. Attention should also be given to achieving a better understanding of the specific aspects of the paternal role that mechanize the relationship between intention to engage in risky behaviors among Black female adolescents, and father-child closeness and engagement in activities.

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Declaration of Competing Interest

None.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.childyouth.2019.104604.

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